

Sir Bernard Jenkin MP: Response to Norwich to Tilbury Consultation. July 15th 2024.

The Harwich and North Essex constituency is characterised by its rural nature and historical significance, combining agricultural and coastal communities. It is renowned for its natural beauty and distinctive character, offering a blend of unspoiled picturesque landscapes, historical sites, and charming rural villages. Much of the constituency is dominated by agricultural land, with farming playing a significant role in the local economy.

Three areas in particular are recognised as being of great natural beauty: **The Dedham Vale** often referred to as "Constable Country" is celebrated for its unspoiled natural beauty and tranquillity and enjoys protected National Landscape status. **The Stour Valley Project Area** where rich cultural and historical heritage includes listed buildings, archaeological sites, and landscapes that have inspired artists like John Constable and Thomas Gainsborough. Work is under way to combine the Stour Valley with the Dedham Vale to form an expanded National Landscape and National Grid has accepted the need to treat the area as if the protection is in place. **The Colne Valley and tributaries** adds a unique dimension to the area with its picturesque landscapes, rich wildlife, and cultural heritage. Centred around the River Colne, which winds its way through lush meadows, woodland, and farmland the Colne Valley is a haven for wildlife, including a variety of bird species, mammals, and aquatic life. Though not currently protected, the area shares similar natural beauty, history and heritage value to the National Landscape and deserves equal protection.

Should the Norwich to Tilbury project go ahead as planned the damage within the constituency and wider region would be severe. Irrevocable harm would be caused to the Dedham Vale and large areas of farmland across the constituency would be unworkable for extended periods. The village of Ardleigh would be encircled in pylons which would also abut a nearby Scheduled Monument. The agricultural setting and character of numerous grade I, II* and II Listed Buildings would be destroyed. The southern approach to the Dedham Vale would see an archway of pylons across substantially all access routes, a mere 60 seconds outside of the protected landscape when travelling by car at the posted speed limits.

The consultation process is deficient. National Grid have failed to offer real alternatives, failed to set out sufficient detail, failed appropriately to consider alternative less damaging technologies and failed to take account of feedback expressed in response to previous consultations. Many of these concerns are highlighted in three legal opinions issued by Lord Banner KC, to which National Grid have issued no response. Nor have National Grid in their current documents taken account of changes to National Policy Statement EN5 which came into force in January 2024 and which contains specific wording designed to put beyond doubt the question of whether cables adjacent to a National Landscape should be underground. Instead National Grid have resorted to quoting partial extracts out of context in a manner presumably designed to obfuscate the reality of their obligations. The plans are also contrary to local plan policies in Colchester and Babergh and Mid Suffolk,

The present consultation is premature. Documents repeatedly refer to work which National Grid intends to conduct in respect of landscape, ecology or heritage, but has not yet. The public cannot be expected to understand or form a reasoned opinion in the circumstance that the work has not even been completed, let alone presented to them.

Fundamental flaws exist in the design and needs-case for the components of the Norwich to Tilbury project in this constituency.

National Grid have repeatedly stated that the Norwich to Tilbury project would follow a different path without the East Anglia Connection Node. In turn the need for the East Anglia Connection Node is driven by two windfarms, both of which have offered to connect offshore, together with the Tarchon Interconnector. The Tarchon Interconnector is a commercial venture for the good of its shareholders which, per Arup and ESO does nothing to contribute to UK Energy Security whilst destabilising the domestic network and increasing bills for UK consumers by approximately £5bn. The Tarchon project drives unnecessary infrastructure that impacts the Dedham Vale National Landscape without adequately addressing existing network limitations.

As Member of Parliament for Harwich & North Essex, I strenuously object to the inclusion of the EACN within your proposals and the resulting damage caused. North Falls and Five Estuaries must connect offshore under the Offshore Coordination Support Scheme and Tarchon should be discontinued as against the National Interest, contributing as it does to a greater problem, not a solution.

Although they have not consulted on these, National Grid have identified alternative routes to those proposed in the Norwich to Tilbury project in their Strategic Options Lookback Review. One of these, EAS1, provides a solution in the event that the EACN is removed and is said to be approximately £140 million cheaper than Norwich to Tilbury. In reality this is likely to be an underestimate of the saving as it does not take account of offshore coordination and hence underground cable tracts to bring both windfarms into connection which would not be required. Alternatively, ESO identified Alternative 5b which, modified to remove the EACN, provides another alternative said to be deliverable at comparable cost but dramatically lower impact.

National Grid have repeatedly acknowledged that their existing plans risk significant harm to the Dedham Vale and have offered an inadequate section of undergrounding in mitigation. Despite this, damage to the landscape and setting of the Dedham Vale will continue to be severe. National Grid highlights that up to 60 pylons will be visible from single locations within parts of the National Landscape and that across wide sections of the Dedham Vale full pylon structures will be visible. This analysis is faulty because of artificial 'cut-offs' employed. Studies which correct for these shortfalls demonstrate that reality will be far worse.

If despite the existence of less damaging alternatives plans are not modified, then National Policy sets out clearly that even residual impact to a National Landscape is unacceptable in planning terms. NPS-EN5 now dictates that the entire line of pylons from TB1 at Ardleigh to TB41/42 beyond Little Horkesley **must** be removed and the cables undergrounded, save for a small section near to Ardleigh where National Grid argue engineering infeasibility.

This infeasibility may be true, but is caused solely by a very poor choice of site for the East Anglia Connection Node (EACN) and the problem is one of National Grid's own making. This site is unsuitable and the EACN must be removed or an alternative site must be found. The Sealing End Compound west of Little Horkesley is similarly affected and must be moved further south to a location from which it and associated pylons are not visible from within the Dedham Vale. Since January 2024 National Policy makes it clear that re-siting and re-routing are required even if this causes a longer run of cable and, that being in the context of the Dedham Vale National Landscape, cost is not an appropriate consideration.

The Norwich to Tilbury proposals also represent a real threat to the Colne Valley and its tributaries where irreparable harm would be caused, not least to the setting of the valley at Fordham where unspoiled countryside is guarded by Grade II Listed Farmhouses atop each ridge, and another nestled at the valley floor, the views from which have been unchanged in up to 500 years. Further down the Valley the Grade I listed Church of All Saints lies on one side and the similarly Grade I Listed St Mary's Church lies on the other, immediately adjacent to Hillhouse Woods (Bluebell Woods) at West Bergholt which, along with The Essex Way at the foot of the valley are greatly enjoyed by walkers.

Given the extant National Policy Statement EN5 and the significant impacts on the Dedham Vale and its setting, National Grid risks facing Judicial Review if they fail to avoid even residual impact on the Dedham Vale. National Grid must therefore modify their proposals in three key regards: (1) identifying an alternative site for the East Anglia Connection Node (EACN) substation that minimises harm to sensitive areas; (2) removing all pylons visible from or obstructing views into the Dedham Vale after changing the EACN location, making use of underground cable throughout the section to at least TB41/42 instead; (3) remove the Sealing End Compounds to locations which do not impact view in to or out from the Dedham Vale and also provide adequate screening to / from settlements and Listed Buildings.

Significant mitigations and changes in working practice will be required to mitigate damage to farming.

Yet all of this can all be avoided.

As Chair of the parliamentary Offshore Electricity Transmission Group, I firmly believe that there should be much greater offshore coordination of electricity transmission infrastructure reducing the need for onshore infrastructure. This is likely to be the solution in the best long-term interests of the country.

The current proposals seek to manage a need expected in 2030-2035, it is a reality that the required offshore capacity by 2050 will, at a level in excess of 125 Gigawatts, be almost three times the scale of the problem for which Norwich to Tilbury is proposed as a partial stopgap. As a country we must strategically manage towards the eventual target, not make the mistake of going in the wrong direction by using stepping stones which do not head towards or contribute to the eventual solution.

Alternatively, or where onshore routes are essential, an undergrounded HVDC connection provides significant advantages along the entire route, including reduced visual impact and minimal disturbance to wildlife habitats and agricultural land, not least within protected National Landscapes. (Although it is currently proposed to use underground cables in the Dedham Vale these are AC cables. Underground DC cables would occupy approximately one third of the footprint and greatly reduce harm). The Offshore Coordination Support Scheme (OCSS) supports the economic viability of this approach, and connecting North Falls and Five Estuaries via a sea link could further enhance the cost-effectiveness of onshore underground HVDC transmission. Underground HVDC technology should be employed in place of pylons.

As part of the East Anglia Review, ESO have produced Alternative 8 as an alternative to National Grid's Norwich to Tilbury proposals and this is said to be deliverable at a cost which is only slightly higher. Whereas the Norwich to Tilbury proposals are hugely unpopular and likely to face significant delay due to legal challenge and Judicial Review, the underground HVDC solution outlined in ESO Alternative 8 carries broad community support and may well be delivered early. The cost of delay / benefit of early delivery has been estimated by ESO at approximately £1Bn per year, meaning that ESO Alternative 8 is likely to prove cheaper than the Norwich to Tilbury proposals.

Despite viable alternatives and National Grid's conduct, it is crucial that constituents engage with the current proposals. I encourage constituents to actively participate in the ongoing consultation process, voice their concerns, and request necessary mitigation measures to minimise the project's environmental impact on the constituency. A united community voice is essential in influencing the project's design and implementation to better protect local interests and values.

1. The constituency of Harwich & North Essex combines rich history and charm, reflecting a quintessentially English rural area which contains landscapes unspoiled for generations and rich in heritage, culturally important on a national scale

The Harwich and North Essex constituency is characterised by its rural nature, historical significance, combining agricultural and coastal communities. It is renowned for its natural beauty and distinctive character, offering a blend of unspoiled picturesque landscapes, historical sites, and charming rural villages.

1.1 Rural Character

- 1.1.1 **Agricultural Landscape:** Much of the constituency is dominated by agricultural land, with farming playing a significant role in the local economy. The landscape features arable fields, pastures, and woodlands, reflecting traditional English countryside scenes.
- 1.1.2 **Villages and Small Towns:** The constituency includes numerous villages and small towns, each with their own distinct identities. Communities such as Dedham, known for its picturesque setting in the Dedham Vale (an Area of Outstanding Natural Beauty), and the historic market town of Manningtree highlight the rural charm of the area.
- 1.1.3 **Coastal Areas:** Harwich, a significant town within the constituency, is situated on the coast. It is a notable port town with a rich maritime history. The coastal landscape contributes to the constituency's diversity, combining rural inland areas with the dynamic coastline.

1.2 Natural Beauty

Three areas in particular are recognised as being of great natural beauty:

- 1.2.1 **The Dedham Vale.** Often referred to as "Constable Country" after the famous landscape painter John Constable who painted numerous pieces here, the Dedham Vale features rolling hills, lush meadows, and the meandering River Stour. This area is celebrated for its unspoiled natural beauty and tranquillity and is a protected National Landscape.
- 1.2.2 **The Stour Valley Project Area.** Located to the North and West of the Dedham Vale the Stour Valley Project is an extension of the Dedham Vale to incorporate more of the Stour Valley. The aims of the project are to protect and enhance landscape, ensuring that its natural and cultural features are preserved for future generations. The project emphasizes the importance of preserving the unspoiled natural landscapes of the Stour Valley. This includes safeguarding the river, woodlands, meadows, and rolling countryside from inappropriate development. Protecting habitats and promoting biodiversity is a key goal.

The extension would support conservation efforts for various plant and animal species native to the valley. The rich cultural and historical heritage of the Stour Valley includes historical buildings, archaeological sites, and landscapes that have inspired artists like John Constable and Thomas Gainsborough. National Grid have recognised the need to treat the Stour Valley Project Area as if it was protected (See East Anglia GREEN – Corridor and preliminary routeing and siting study (CPRSS) 2022)

- 1.2.3 **The Colne Valley and tributaries.** This is a region of significant natural beauty and historical importance. It adds a unique dimension to the area with its picturesque landscapes, rich wildlife, and cultural heritage. Centred around the River Colne, which winds its way through

lush meadows, woodland, and farmland the Colne Valley is a haven for wildlife, including a variety of bird species, mammals, and aquatic life.

The river's gentle flow and clear waters provide a serene backdrop to the area. The undulating landscape of the Colne Valley features rolling hills and verdant fields, creating stunning vistas and idyllic countryside scenes. Ancient woodlands and hedgerows are scattered throughout the valley, adding to the natural charm and providing important habitats for local wildlife.

The Woodland Trust has acquired land at Fordham characterised by a mix of native broadleaf trees, creating a diverse habitat that supports a variety of wildlife. Species commonly found here include oak, ash, and hornbeam. The woodlands provide a habitat for numerous plant and animal species. Common woodland flora includes bluebells, wild garlic, and various ferns, while the fauna may include deer, foxes, and a wide range of bird species, such as woodpeckers and songbirds. The Woodland Trust is actively involved in maintaining and enhancing the biodiversity of Fordham Woods. This includes planting native trees, managing invasive species, and protecting the natural environment from human disturbance.

Closer to West Bergholt, Hillhouse Woods (known as 'Bluebell Woods' by locals) is a beautiful and ecologically significant woodland. Bluebell Woods are particularly famous for their spectacular displays in the spring. From late April to early May, the woodland floor is carpeted with vibrant blue flowers, creating a breathtaking and iconic scene. The bluebell bloom attracts photographers and nature enthusiasts who come to capture the picturesque landscapes and enjoy the tranquil beauty of the area alongside Grade I Listed St Mary's Church.

Given its rural setting, the Colne Valley and its tributaries are heavily used for walking, cycling, and outdoor activities. The rich biodiversity makes the Colne Valley a popular spot for nature enthusiasts and bird watchers. The area has been the site of various archaeological discoveries, including Roman pottery, tools, and medieval relics. These findings provide insights into the valley's long history of human settlement and activity. Like Dedham Vale, parts of the Colne Valley inspired the famous painter, John Constable. His works capturing the rural beauty of the area are celebrated and attract art enthusiasts to the region. The valley continues to inspire contemporary artists, who capture its landscapes and village scenes, contributing to the cultural tapestry of the area.

The Colne Valley does not currently enjoy protected status although would form a natural extension to the Dedham Vale / Stour Valley Project. Both regions share similar natural beauty, characterised by rolling hills, meandering rivers, and picturesque woodlands. Their complementary character enhances the overall landscape, providing seamless, scenic continuity.

The Colne Valley should be treated by National Grid as if protected for the purposes of this project.

1.3 History

1.3.1 Historical Significance: The area has a deep historical background, with settlements dating back to Roman times. Colchester, though just outside the current constituency boundaries, is Britain's oldest recorded town and has greatly influenced the surrounding countryside. The area contains remnants of Roman roads that connected Colchester with other parts of Roman Britain. These roads facilitated military movements and trade, contributing to the area's historical importance. Archaeological excavations in the wider region have uncovered remains of Roman villas and settlements. These sites often include:

- Structural Remains: Foundations, walls, and floors of Roman buildings.

- Domestic Artefacts: Items such as pottery, tools, and personal items used by inhabitants.

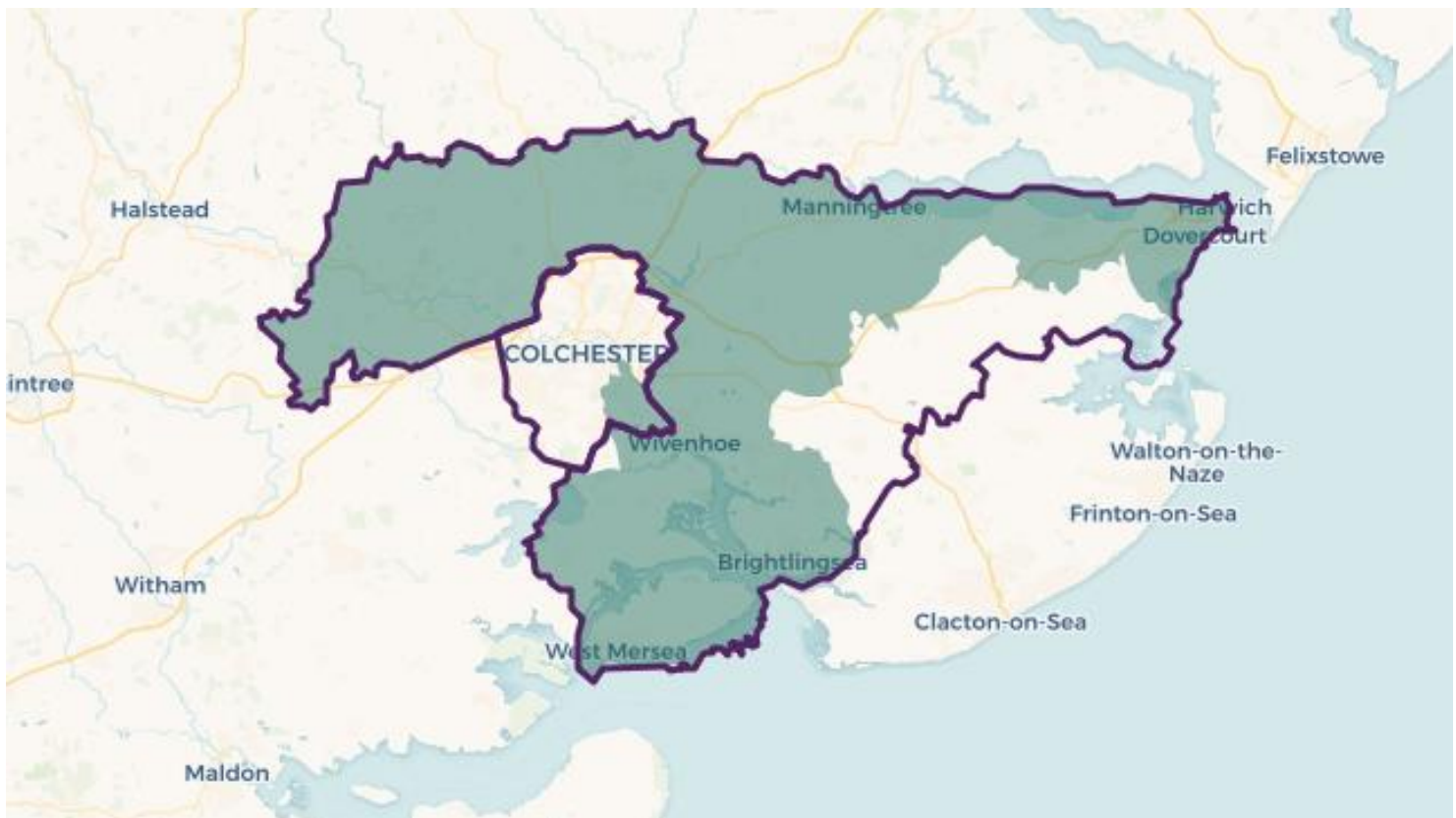
As highlighted above the constituency's rural character is defined by its agricultural heritage. Traditional farmhouses, barns, and agricultural structures dot the countryside, reflecting centuries of farming practices. From medieval churches and Tudor farmhouses and cottages to grand Georgian mansions, these structures contribute to the area's rural character and cultural heritage. Views from and of these buildings across unspoiled open countryside are historic and typically contribute to Grade I, I* or II Listed Status.

1.3.2 Agricultural Development: Historically, the rural parts of the constituency have been heavily influenced by agriculture. Traditional farming practices have shaped the landscape, with many historic farms and agricultural buildings still in use or repurposed.

1.3.3 Cultural Heritage: The area is part of "Constable Country," named after the famous painter John Constable, who depicted many local scenes in his artwork. The Dedham Vale and the surrounding countryside are celebrated for their beauty and historical landscapes.

In summary, the Harwich and North Essex constituency is a region that combines rich history, rural charm, and a significant maritime legacy, reflecting a quintessentially English rural area with a unique coastal dimension.

The map below illustrates the constituency as at present (green shaded area) and at the time the Norwich to Tilbury proposals were announced (purple line, excluding Colchester).



2. Norwich to Tilbury proposals, as drafted, will do irrevocable harm to the constituency as a whole.

The Norwich to Tilbury proposals within the constituency can be considered in four distinct sections. Should the project go ahead as planned the damage within each section would be severe. Collectively the impact would cause significant harm to the constituency and wider region as a whole:

2.1 Within the Dedham Vale: N2T proposes to employ trenched cables beneath the Dedham Vale.

Whilst visually less impactful than pylons the choice of AC underground cables will result in a tract of up to 200m wide in which land is damaged. Recovery times will stretch into years, with the possibility that land does not recover at all. Historic landscapes will be destroyed.

- 2.1.1 Close to 200 acres of farmland will be directly impacted, hundreds of acres more will be indirectly impacted (segments of fields not employed for trenching but nevertheless cut off and difficult to farm).
- 2.1.2 Over 1km of hedging will be lost including at the sites near to Church Farm and St Marys Church in Langham and at Glebe Farm, the very sites painted often by Constable and where versions now hang at Tate Britain.
- 2.1.3 Damage to the wetlands, ponds, lakes and flood plains either side of the river where a split route will encircle ponds and lakes and likely drive wildlife away. Wildlife typical in the area includes protected species such as otter, water vole, bats, newts, snakes, and numerous species of bird including red kite and owl.
- 2.1.4 Severe damage will occur to the Langham Hall Estate, the Hall itself being Grade II* and ancillary / associated buildings being Grade II. Although farming is a major usage of the acreage a significant amount of the income is from other ventures including Livery and holiday lets which rely on historic setting within the Dedham Vale and historic views. The planned works will impact the whole estate carving it in half, wiping out 6 horse paddocks, the gallops, ability to rent any of the properties, of holiday lets, access to the river for fishing. It will also impact two historic public footpaths: The Stour Valley Path and The Essex Way.
- 2.1.5 Protected historic views (i) within the Dedham Vale, (ii) outward from the Dedham Vale into surrounding countryside; and (iii) into the Dedham Vale from surrounding countryside will be severely impacted by works conducted along its southern boundary and at Ardleigh. Lines of pylons along and near to the ridge will be clearly visible from both sides of the valley, over a far greater area than highlighted by National Grid due to an error in the method of construction of their view fall maps which is described in more detail below. (In addition National Grid employ a 'cutoff' in their visual renderings at 1.5km giving a similarly reduced – and false – impression of the damage). These will irrevocably damage the character of the Dedham Vale and are further described here below.
- 2.1.6 All major southerly access routes to the Dedham Vale will fall beneath pylons which will therefore frame the Vale, providing an industrial 'gateway' and irrevocably harming its setting.

2.2 In Ardleigh: National Grid proposes to construct the East Anglia Connection Node (EACN) in the centre of the constituency at Ardleigh.

The site of the EACN is poorly chosen with heritage and landscape features resulting in an extremely constrained site:

- 2.2.1 The Grade II Listed Bounds Farmhouse lies immediately adjacent to the EACN, the setting of which will be irrevocable damaged.
- 2.2.2 A cluster of Grade II listed buildings at Hungerdowns Farm and Badliss Hall immediately to the North prevent a northern route for cables. These setting of these buildings will nevertheless be significantly harmed through close proximity.

- 2.2.3 Polytunnels and a large pond immediately north of Little Bromley Road present physical constraint and force the route of cables towards and directly up against a large Scheduled Monument which lies a few hundred meters to the southwest of the proposed EACN.
- 2.2.4 Whilst National Grid admits that damage to Ardleigh will be overwhelming and has therefore already elected to use underground cables to enter the EACN, the resulting 'gap' between these constraints identified as a cable route is too narrow to accommodate underground cables in both directions, resulting in the need to employ pylons to exit the EACN along the same route. The rural village of Ardleigh itself will therefore become significantly industrialised, being closely surrounded on three sides by a line of 50m tall pylons in addition to acting as host for the EACN. Sixteen Listed Buildings (Grade II) lie within the village of Ardleigh and will be harmed by the project.
- 2.2.5 The village itself lies on the A137 which is the most easterly access road to the Dedham Vale.

This site is overly constrained resulting in overwhelming damage and is, simply, inappropriate.

Farming in this area will be particularly impacted due to the confluence of National Grid's works with those intended by North Falls and Five Estuaries if the Offshore Coordination Support Scheme does not proceed, and later works by Tarchon.

At present these schemes - although entirely interdependent - are not coordinated resulting in disruptions which would commence with the earliest project and end with the latest. This will prove particularly damaging to farmers and may threaten long-term viability. Lack of coordination also results in consequences which none of the schemes have considered: for example, a 40m wide strip of land falls between the sites included in the various schemes and is included in negotiations for none of them. It will remain unfarmable throughout.

2.3 **Along the Southern Boundary of the Dedham Vale.** Construction of pylons (together with a short underground section) running from Ardleigh to Aldham and beyond in the East

- 2.3.1 An estimated 500 acres of farmland will be directly impacted, hundreds of acres more will be indirectly impacted (segments of fields not employed for trenching or haul roads but nevertheless cut off and difficult to farm).
- 2.3.2 An estimated 10km of hedging will be lost along with hundreds of trees and field trees.
- 2.3.3 The setting of numerous Listed Buildings between Ardleigh and the Sealing End Compound east of Great Horkesley will be harmed, the flat open countryside presenting nothing in the way of terrain or screening to prevent views of pylons over long distances
- 2.3.4 The site selected for the eastern Sealing End Compound itself is poorly selected, lying at an altitude of 50m, just a few metres below the local peak (55m at Redhouse Farm) and given the flat open nature of the surrounding countryside unshielded from the nearby cluster of Grade II* and Grade II Listed Buildings at Great Horkesley.
- 2.3.5 The route employed for the underground section at Great Horkesley bisects numerous fields and, given the extended width of the working area required for underground AC cables, will make the commercial operation of some farms in the area particularly difficult. Operations at Vinesse Farm in particular will be challenging.
- 2.3.6 The selected site for the Sealing End Compound at Little Horkesley together with associated pylon sites fails Horlock Rule (2) and Holford Rule (1) in that they are also in close proximity to and readily visible from Listed Buildings and / or curtilage of Listed Buildings at each of:

- The Grove, a 16th and 18th century timber framed house likely the same residential site associated with Roman archaeology nearby.
- Cockerells Farmhouse, the 15th Century Gladwins Farm, Holts, Maltings Farmhouse and Upper Dairy Farm, each of which being grade II or II* listed farmhouses where uninterrupted views across open countryside including in to and out from the Dedham Vale have been enjoyed for 500 or more years and are integral to the cultural and heritage value of the region, setting and property. In all cases the agricultural setting away from modern infrastructure is of cultural importance.

Significant harm would result to these Listed Buildings and to their settings from the currently proposed site. The planning history of these buildings indicates occasions on which residents have been required to modify proposals in order to ensure that views of the buildings across the landscape are protected and preserved, indicating their importance and the importance of views to/from these buildings.

- 2.3.7 The Sealing End Compound and associated pylons at Little Horkesley is also poorly sited in that it lies atop the ridge of the Great Horkesley Plateau overlooking the Dedham Vale. Existing pylons at Assington (on the other side of the Dedham Vale) are readily visible from this location. This raises the likelihood that pylons will be simultaneously visible on **both sides** of the Dedham Vale.

In addition to impact within this area north of Colchester and south of the Dedham Vale, the proposed infrastructure between Ardleigh and Fordham will have significant impact upon the protected National Landscape of the Dedham Vale itself:

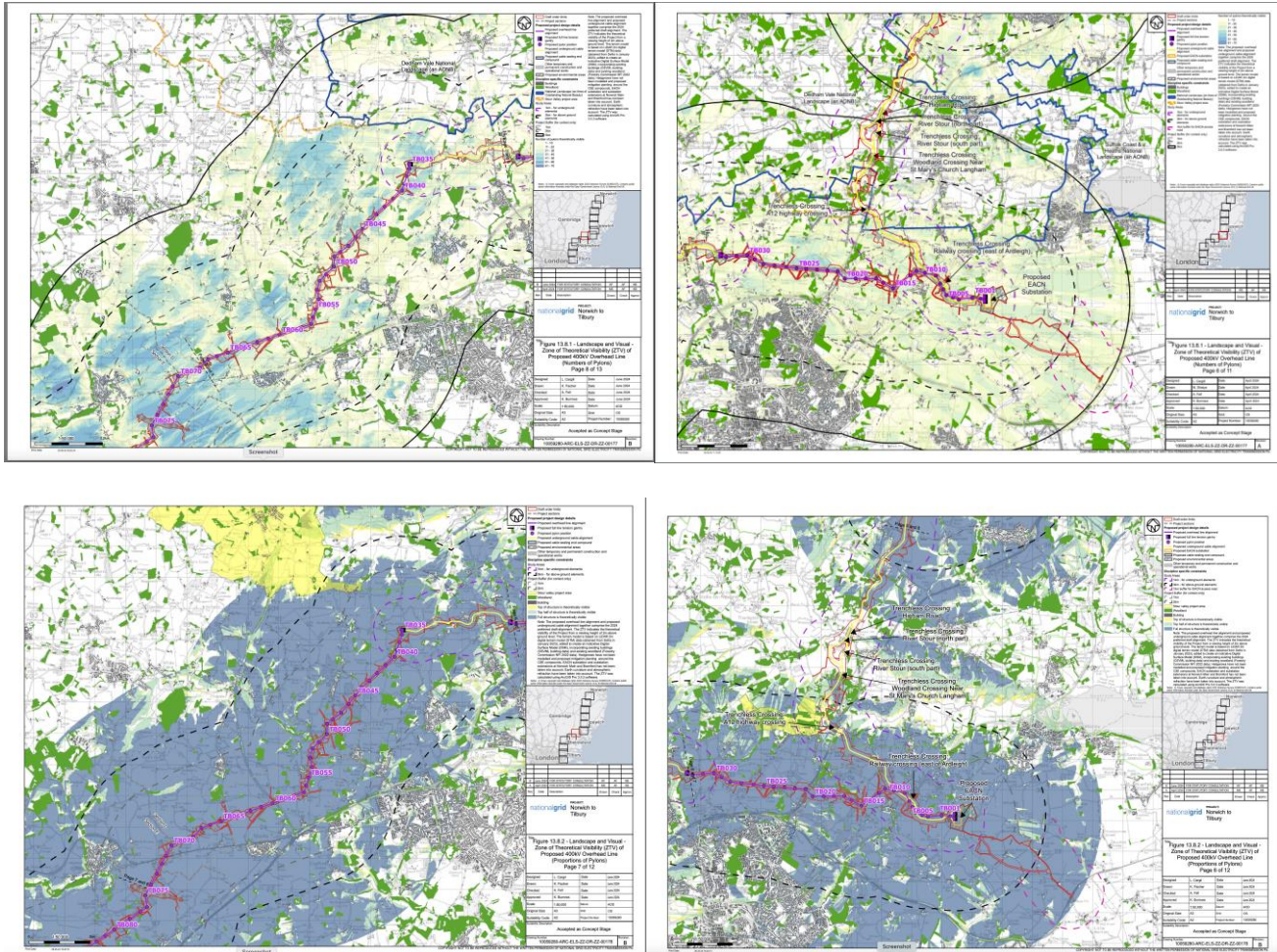
- 2.3.8 National Grid's own work, presented in the Corridor and Preliminary Routeing and Siting Study Report (CPRSS) of the first non-statutory consultation, repeatedly highlighted in chapters 5 and 7 the risk of **significant** damage to the National Landscape resulting from the use of overhead lines in this area (5.1.4; 5.5.5; 5.5.24; 7.5.15; 7.5.16; Appendix B30). The report stated that mitigation in the form of alternate routes (5.1.4; 5.5.5), alternative pylon design (5.5.18; Appendix B30), or more likely, significant sections underground (1.3.40; 3.1.9; 5.5.8; 5.5.9; Appendix B30) would be required. This need for mitigation is reiterated in the 2024 response to non-statutory consultation feedback (2023 Non-Statutory Consultation Feedback Report, p. 196-198)
- 2.3.9 Extensive mention is made of damage to the National Landscape in the Preliminary Environmental Information Report published as part of this consultation (section 13.3, Preliminary Environmental Information Report Volume III – Technical Appendices – 4 of 4). National Grid details in Table 13.1.10 damage along a number of axes of their choosing, acknowledging that negative effects / damage will occur in short, medium and long term but repeatedly making a subjective assessment that they deem it to be 'negative but not significant'.

In some cases National Grid conclude that impact to the National Landscape will be 'negative and potentially significant' such as in regard to apparent and buried archaeology, where they conclude that "construction of the Project would remove some / all of the recorded assets within the cable swathe' when speaking about 'apparent and buried archaeology which is identified as a special quality'.

- 2.3.10 In the present, 2024 Statutory Consultation, National Grid have conducted a view fall analysis in order to determine theoretical zones of visibility within the Dedham Vale National Landscape. Results of this study are contained within the document 'Preliminary Environmental Information Report - Volume II art 10 of 27" and specifically within figures 13.8.1 'Landscape and Visual Zone of Theoretical Visibility (ZTV) of Proposed 400kV

Overhead Line (Numbers of Pylons)' and 13.8.2 'Landscape and Visual Zone of Theoretical Visibility (ZTV) of Proposed 400kV Overhead Line (Proportions of Pylons)'

2.3.11 Copies of these figures are reproduced below for the avoidance of doubt

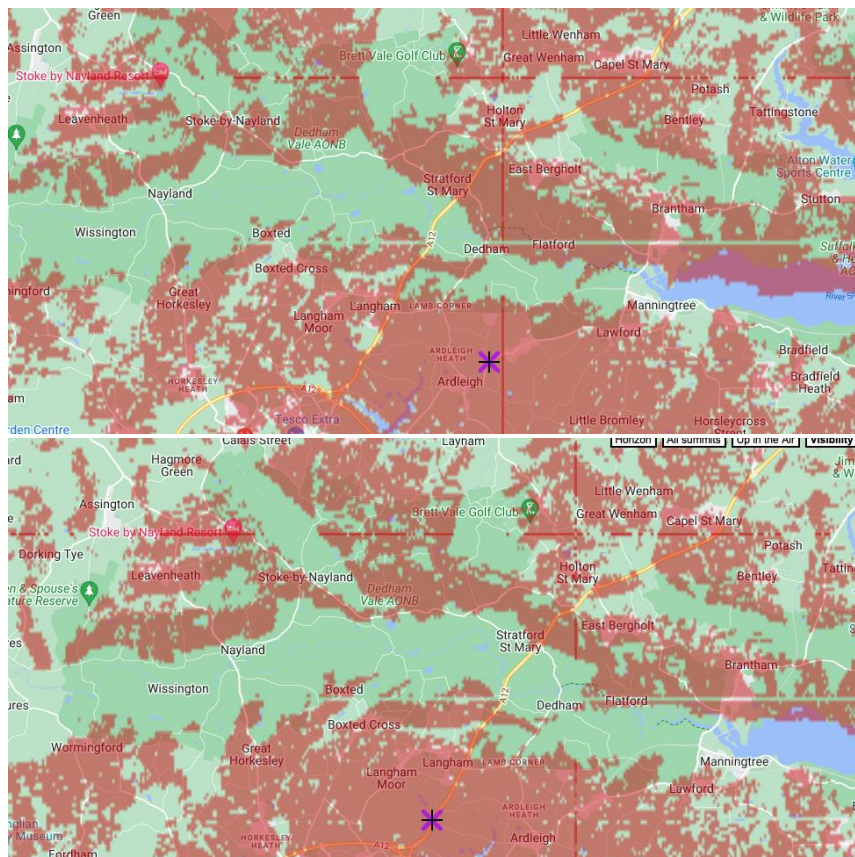


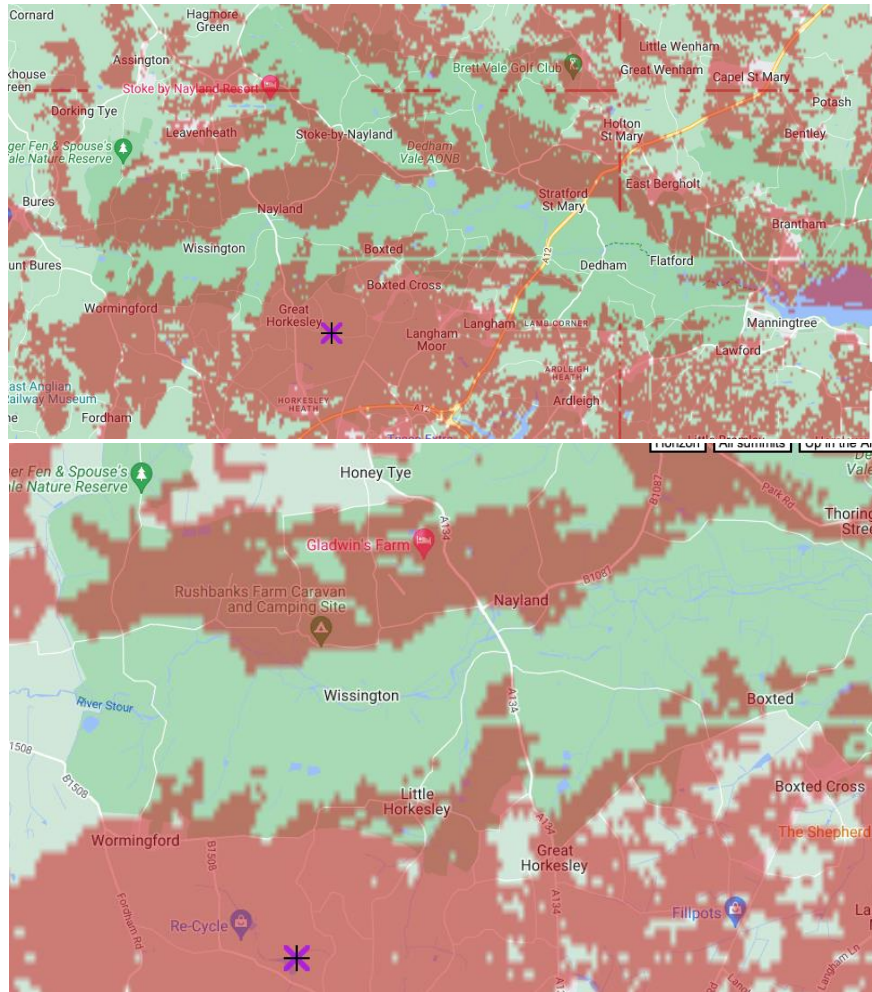
2.3.12 Figure 13.8.1 illustrates that, in the determination of National Grid, “some” pylons will be visible across a large proportion of the Dedham Vale, there are many locations within it from which between 11 and 30 pylons will be visible, and some sites at which between 50 and 60 pylons will be visible.

2.3.13 Figure 13.8.2 illustrates that, in the determination of National Grid, the full structure of pylons will be visible across large portions of the Dedham Vale. These facts taken together suggest that damage will be very significant.

2.3.14 The methodology employed in the construction of these figures is set out at 13.5.4 of the document “Preliminary Environmental Information Report – Volume I – Main Text”, which states: ‘The emphasis of this preliminary assessment is based on landscape and visual receptors within 3km of the operational overground elements of the Project and 1km of the operational underground cable route where it is considered that significant landscape and visual effects are most likely to occur’ and at 13.5.5 which states that ‘More distant viewpoints up to 5km from the Project are considered where there is the potential for significant visual effects to arise beyond the 3km study area, for example where there are particularly sensitive visual receptors and where topography allows more far-reaching views’

- 2.3.15 It is inarguable that a protected National Landscape is a ‘particularly sensitive visual receptor’, it is also inarguable that the pylons and sealing end compounds proposed to the south of the Dedham Vale follow the ridge and lie above the valley in positions from which they are likely to be widely visible. Whilst it is impossible to know which segments of the diagrams include data at 5km as opposed to 3km, the inclusion of some impact at 5km within both figures confirms National Grid’s assessment that the impact within the Dedham Vale arising from infrastructure outside of it along the southern boundary is ‘significant’
- 2.3.16 Given the uncertainty in National Grid’s methodology we have repeated their analysis, using a methodology that considers the visibility of a subset sample of 50m pylons, with no limit on the distance. This assessment under-represents the visual impact as only a subset of pylons are considered but nevertheless clearly demonstrates the inadequacy of National Grid’s assessment clearly showing that the visual impact of pylons TB1-TB34 extends far beyond and much more widely than that set out by National Grid, affecting a significant portion of the National Landscape. This was to be expected: much of the proposed infrastructure lies along a ridge at an altitude of approximately 50m above sea level, placing it slightly above the majority of the Dedham Vale, although only a narrow tract of the Dedham Vale immediately adjacent to the River Stour falls away quickly enough to provide shielding (explaining the ‘central gaps’ in the view fall diagrams below),
- 2.3.17 The results of an analysis conducted in respect of a single 50m pylon using *heywhatsthat* on June 5th 2024 are depicted here below. In each case the purple star indicates the location of a ‘test tower’ of 50m in height. The visibility indicated is in respect of a single tower at that location. Cumulative impact would be of course far greater.





- 2.3.18 In each case the Dedham Vale is highlighted in dark green and the impact to the Dedham Vale in red. It is immediately clear that the impact is far more widespread than suggested by National Grid.
- 2.3.19 Both Sealing End Compounds are similarly visible, as is the line of pylons exiting the Western Sealing End Compound at Little Horkesley. The siting of the sealing end compound at the junction of the B1508 and Crabtree Lane necessitates multiple gantries and pylons in a small area near to the Dedham Vale National Landscape. Contrary to what is written in the 2023 Design Development Report the siting here is not within a valley. The maximum difference in elevation between the ridge and site is 8m to 10m beneath the surrounding landscape and only one end of the gantries would be located at that elevation with the other being much closer to the ridge and thereby higher. Given the size and required orientation of the compound, and the height of gantries and pylons, no significant screening will be afforded to the National Landscape.
- 2.3.20 Furthermore, the negative impact on vehicular approaches and the overall setting of the Dedham Vale cannot be ignored, even where pylons are not directly visible. Pylons and gantries TB1-TB34 provide a backdrop to all vehicular access to the centre and east of the Dedham Vale. Visitors to the Dedham Vale will pass between 'arches of pylons' situated left and right of the roads and will be beneath dual-circuit 400kV cables as they drive in. This will materially impact the setting of the Dedham Vale, even in those places where pylons are not visible, undermining the natural beauty and tranquillity that the National Landscape designation seeks to protect.

2.3.21 National Grid admit at page 177 of the "Preliminary Environmental Information Report Volume III – Technical Appendices – 4 of 4 that "The Project has the potential to affect the '*Surprisingly long-distance views from higher ground*' identified as a special quality. As noted in the Allison Farmer study, woodland on the surrounding plateau defines the vale, and this woodland along with other field boundary and roadside vegetation would help to screen and filter outward views towards the Project. Where visible, the Project would be seen at a distance of over 2 km to the north and over 1.3 km to the south, further reducing the perceptibility of the Project. The Project would typically be seen at a lower elevation than the viewpoint and would not affect the appreciation of '*large skies*'."

The acknowledgement here is correct. However, the conclusion is entirely wrong. The distances quoted assume that the views in questions are those obtained by standing at the edge of the Dedham Vale and looking outwards. This is wrong. It is the views OF the Dedham Vale which are protected. There are many locations on the plateau where the viewer would be within much shorter distances of the Project and the Project would interfere with the view OF the Dedham Vale. One such example is the corner of Crabtree Lane where the western Sealing End Compound and associated Pylons will be within 100 metres and impede otherwise unobstructed views into the Dedham Vale at Little Horkesley. A short distance away Gladwins Farm is a Grade II Listed Building where views into the Dedham Vale have been uninterrupted since the 15th century but the same infrastructure at Crabtree Lane will now dominate the view. The conclusion that 'large skies' will be unimpacted is wrong due to proximity. The expectation that the project will be screened due to trees is similarly wrong as these are lower on the ridge and behind the project.

Language in respect of wireline visualisation is misleading and highly selective viewpoints have been chosen. There are many locations from which the conclusion is untrue.

Farming in this area will be severely impacted due to the length of construction tract, wider in the areas intended for underground cable, and the manner in which it crosses numerous fields. Requirements in this regard are set out in a separate chapter below.

2.1 In the Colne Valley and Tributaries. The proposed western Sealing End Compound at Little Horkesley lies immediately atop the valley of a tributary to the Colne.

- 2.1.1 Substantially all buildings at the entry to the valley are Grade II listed farmhouses, including Highfields Farm to the north and a cluster comprising Pond Farmhouse, the Cartlodge to Pond Farmhouse, The Sprawls and Kinkhams Farm immediately to the south of the proposed line. These buildings are much as they have been since the 16th / 17th century, there is no modern infrastructure nearby and the setting of all will be severely compromised.
- 2.1.2 The area immediately to the West of the B1508 Colchester Road through which pylons will pass has been identified as an archaeological site with remains dating to Roman times suspected to comprise a Kiln with the potential for other as yet unidentified buildings nearby.
- 2.1.3 The 50m tall pylons will thread between these entering the valley close to Highfield Farm before proceeding towards the Grade II Listed 16th century Kings Farmhouse which nestles at the bottom of the valley, where an angle tower will be placed immediately opposite the driveway to the house in a ridge and furrow field. The positioning of this pylon could hardly be more devastating.
- 2.1.4 The pylons are then proposed to climb the western valley wall, running along the ridge immediately east of Fordham. This route will afford little shielding or cover and once more most of the buildings nearby are agricultural in nature, perched high on the valley sides and importantly are Grade II Listed, including Fordham Place, Coney Byes Farm, Rams Farm and

Idols Cottage. These will each look over the pylons in close proximity. Immediately opposite are the Hillhouse Woods celebrated for their Bluebells together with Grade I listed St Mary's Church of West Bergholt.

- 2.1.5 The pylons will then pass within a few hundred meters of an important cluster of listed buildings at Fordham including the also Grade I listed Church of All Saints. At this point the pylons will be constructed at an elevation of approximately 40m and will tower over both the valley, the woods, and the Church irrevocably damaging its setting.
- 2.1.6 The Essex Way passes immediately to the south, providing an extremely popular walking route for those seeking access to the tranquil countryside from Colchester and beyond, alongside the route of pylons. There are numerous walking access routes from Hillhouse Woods and West Bergholt.
- 2.1.7 The B1508 itself forms the access to the Stour Valley Project area at Wormingford. The choice to place pylons on both sides of the road is particularly poor given that it will once more frame the access and that an alternate much lower site at TB40 had been previously suggested by National Grid which would not be visible from either the Stour Valley Project or from the Dedham Vale, and may have offered partial mitigation to at least the northern section of the Colne tributary.

The installation of a line of 50-meter tall pylons would drastically alter and damage the cultural and visual appeal of this landscape. These towering structures would dominate the skyline, creating an industrial intrusion in a predominantly rural and natural setting. The presence of such large pylons would disrupt the visual harmony and tranquillity of the valley, reducing its attractiveness for both residents and visitors who cherish its unspoiled vistas in an area which is – as described above – not substantially different in character or nature to the Dedham Vale itself.

In addition to the foregoing, there is a working airfield at Wormingford immediately to the north of the proposed route. As highlighted in NPS-EN1 "It is essential that new energy infrastructure is developed collaboratively alongside aerodromes,, so that safety, operations and capabilities are not adversely affected by new energy infrastructure". CAA regulatory guidance CAP 738 places specific requirements on developers close to aerodromes. The distance threshold in respect of vertical structures (such as pylons) is 10 nautical miles. Specific requirements exist in respect of structures above 45m tall within 2500m (non-instrument) and 4000m (instrument) as well as the establishment of "obstacle free zones". The distance from the runway to the proposed pylons is approximately 1km and hence significantly within the thresholds set out. Undergrounding beyond Fordham is likely to be required to mitigate risks to the airfield and its users and, in particular, to maintain capabilities. In this case it is necessary to ensure that use by aircraft types other than the gliders currently homed at Wormingford remains viable given that the lease of the existing club will expire prior to the scheduled commencement of construction works for Norwich to Tilbury.

3. Overhead lines are destructive and unpopular. Alternative technologies are available, demonstrated and viable. If an onshore route is required then underground HVDC cables would result in significantly less damage whilst delivering on a comparable timescale and cost, even along the currently proposed route.

- 3.1. National Grid's proposed use of overhead lines (OHL) is the wrong solution.
- 3.2. This century-old technology may have been appropriate to a transmission network built three-quarters of a century ago to move power in a narrow corridor down the backbone of the country, but it

is the wrong solution today when the design case has changed. We now need to move power from around our shores to inland population centres.

- 3.3. If implemented using overhead lines this new challenge would result in a spaghetti of pylons throughout previously unspoiled countryside across the whole region damaging National Landscapes, Heritage Assets, ecology and tourism. This lacks community support, has resulted in large and vocal protest groups and very significant opposition across the region.
- 3.4. The Strategic Options Backcheck and Review highlights the availability of onshore HVDC technology but fails to propose alternatives which make use of it. Instead National Grid state (15.3.1) that “there is limited experience of... onshore HVDC for the connection distances considered”.
- 3.5. This is manifestly untrue. Many examples exist in operation globally. The Changji-Guaquan UHVDC link commissioned in 2019 transmits 12GW of power at 1100kV over a distance of 3000 kilometres. That is double the capacity, at a 50% higher voltage, over almost 20 times the required length of N2T.
- 3.6. Multiple other projects are in design and build across North-America and elsewhere. Nor is the technology new: the first onshore HVDC lines operated from 1954 onwards and in 1992 the Quebec-New England Transmission Project capacity was extended to 2GW. At 172km in length this project is comparable to the N2T requirements and is over 30 years old.
- 3.7. Substantially all major transmission engineering companies express expertise in and are involved with onshore HVDC projects including Siemens, Hitachi and Fujitsu. Hitachi is currently engaged in construction of the Suedlink onshore HVDC cable in Germany which will carry 2GW from the northern centre of windpower to industrial areas in the south of the country.
- 3.8. During the East Anglia Review ESO concluded that an ‘Integrated Offshore Grid’ was not feasible in replacement of the Norwich to Tilbury proposals. However, ESO detailed HVDC alternatives said to be deliverable at comparable timescale and cost proposing Alternative 8, an onshore underground HVDC alternative, concluding it to be deliverable.
- 3.9. With respect to cost ESO identified that Alternative 8 would cost approximately £1Bn more than the status-quo Norwich to Tilbury proposals. This comparison was based upon the underground HVDC alternative being delivered in 2034 compared to an assumed on-time delivery of 2030 for Norwich to Tilbury.
- 3.10. However, delivery of the current N2T plans is subject to significant risk of delay: the project has no community support, is opposed by large and active campaign groups, is highly likely to face judicial review given the deficiencies outlined by Lord Banner KC and is likely to face challenges in achieving consent given the damage caused to protected National Landscapes together with the lack of mitigation included. National Grid have set out that the cost of delay would be in the order of £1Bn per annum resulting from constraint payments if electricity from offshore windfarms cannot be carried. Given seasonality, a delay of less than a year to Norwich to Tilbury (to 2031) would see the current proposals cost more than the underground HVDC solution proposed by ESO. It is implausible that Norwich to Tilbury will not face delays, and these are likely to be of at least a year.
- 3.11. By contrast there is no reason that an underground HVDC route should take until 2034 to construct:
 - 3.11.1. This alternative enjoys dramatically greater support from community and campaign groups, is unlikely to face judicial review. In terms of impact it would be more akin to the current Anglia Water project to install a new main from Bury St Edmunds to a reservoir near to Layer de la Haye, south of Colchester. This project is proceeding with virtually no objections and is uncontroversial.

3.11.2. Given the significantly reduced impact on landscape, ecology and heritage assets it will be much easier to consent and require far less mitigation. Impact within the Dedham Vale, should this route still be required, will be dramatically lower facilitating approval within the National Landscape.

3.12. This final point is important: ESO Alternative 8 it would dramatically reduce harm along the entire route from Norwich to Tilbury. HVDC systems require fewer cables than AC systems for the same power capacity. As a result, HVDC systems need fewer, narrower cable trenches and dramatically reduced working areas during the construction phase. This in turn leads to a reduction in the amount of land that needs to be disturbed and correspondingly smaller impact on land, ecology and visual receptors. In operation electrical losses from HVDC cables are lower than those from AC systems, leading to lower heating of surrounding soil and hence reduced impact to agriculture and ecology. Whilst these effects would be particularly important within the National Landscape of the Dedham Vale, representing the alternative with lowest possible impact save for avoiding the area altogether, it would be of great benefit everywhere along the route.

3.13. Given that windfarms can and (inter-)connectors do deliver DC power to shore, the use of HVDC technology for onshore transmission offers the added benefit of removing converter stations from the coastal sites which host connection points, hence dramatically reducing impact there too.

Instead, the same converter stations would be located at the opposite end of the cable close to the place of demand. There is typically much higher availability of brownfield sites at such locations but, whether brownfield sites are available or not, co-location near to the point of consumption is much more equitable a solution than locating converter stations in greenfield sites adjacent to coastal communities which receive no benefit from the power at all.

3.14. Given the lack of case for the EACN described below, a modified alternative 8 excluding the EACN would avoid the National Landscape entirely as required by NPS-EN5, would be shorter, cheaper and faster to implement.

Proposals involving Pylons are likely to be delayed, frustrated, and much more expensive than currently thought. By contrast there is enormous support for the use of Offshore and / or underground technologies.

Given the opportunities to remove the EACN and greater support for underground HVDC technology, it is highly likely that an underground HVDC solution could be delivered early and at a lower cost.

If onshore routes are unavoidable then the preferred methodology should be underground HVDC cables in a design similar to the Alternative 8 proposed by ESO but excluding the EACN. This would represent a much more equitable solution, minimize harm along the entire route, and be just as cost effective. The underground HVDC alternative presents much less financial and delivery risk and represents better value for the future.

Underground HVDC transmission should be the favoured solution.

If National Grid insists upon continuation of the N2T proposals as currently set out, then my comments are below.

4. Consultation to date has been deficient, failing to offer real alternatives and instead reinforcing pre-conceived proposals whilst failing to identify cumulative impact together with associated projects.

The present consultation is premature, too often referring to work which ‘will’, but has not yet, been conducted and thereby failing to provide the public with facts that they need to appropriately respond.

National Grid have failed to undertake an appropriate open-minded analysis of alternatives, focusing instead on reinforcing their pre-conceived proposals.

- 4.1. They have not presented alternative routes for consideration, have not open-mindedly considered alternative technologies and have not listened to the concerns of residents or campaign groups.
- 4.2. National Grid have ignored and not responded to opinions published by the leading Barrister Lord Banner KC who has expressed concern as to the nature of consultation and material presented (see: [First Opinion 10 June 2022](#), [Second Opinion 10 May 2023](#), [Third Opinion](#)).
- 4.3. Independent work by the Electricity Supply operator (ESO) has highlighted that use of onshore underground HVDC cables would be dramatically less damaging. The EACN is not, as claimed, necessary. National Grid’s own document Library now highlights that alternative onshore routes making use of overhead line would be both cheaper and less damaging than those proposed. National Grid have not modified their proposals to take account of these facts.
- 4.4. Documents provided by National Grid in respect of the current consultation contain misleadingly narrow extracts from National Policy Statement EN5, the requirements of which have been wrongly interpreted and applied in the area immediately to the south of the Dedham Vale. National Grid have ignored careful and deliberate changes made by Government to NPS-EN5 designed to put beyond question the fact that cables must be undergrounded near to National Landscapes and that even residual impacts there are unacceptable.
- 4.5. The East Anglia Connection Node or EACN is said by National Grid to be required solely due to contracted connections by North Falls and Five Estuaries windfarms and the Tarchon Interconnector. Three problems arise here:

Firstly, neither Norwich to Tilbury, nor any of those connections has received Development Consent creating a circular argument, relied upon by National Grid to force through their current proposals.

Secondly, the two windfarms have engaged cooperatively with the Sealink project and the Offshore Coordination Support Scheme and have stated that they are prepared to make offshore connections. The Tarchon Interconnector is an opportunistic commercial project which, per ESO and Arup, will result in increases in charges to UK billpayers by some £5bn and destabilise the UK Grid resulting in significant constrain costs to maintain stability. It is against the national interest and should not proceed ([Tarchon consultation draft 2 \(bernardjenkin.com\)](#)). As set out in further detail below, without these connections the EACN is not required.

Thirdly, despite their expressed inter-reliance the consenting processes for Norwich to Tilbury and the associated connections for North Falls, Five Estuaries and Tarchon are being proceeded separately. This is highly inappropriate as the cumulative impact will be far greater than the impact of the projects

seen separately, not least due to lack of coordination between them. These projects are intrinsically linked and must be seen together, the combined impact and damage must be considered during the consenting process. Development must not proceed in respect of any of the projects until and unless all of the projects are consented. National Grid must assume overarching responsibility to ensure that residents, landowners and farmers do not suffer as a result of gaps between the projects.

4.6. This consultation is premature. Documents provided in the course of this consultation make repeated reference to work which National Grid “will”, but has not yet, conducted. This occurs widely throughout the material but is especially true in respect of heritage, landscape, amenity, environmental and ecological matters which are of great importance to and have already been subject to comments by constituents. Examples contained between pages 230 and 241 of the 2023 Non-Statutory Consultation Feedback Report include:

- “If potential impacts on the historic environment are identified, we will explore a range of mitigation measures such as careful siting of pylons and screening (both new and existing) to reduce potential impacts where practicable. This will be presented within the Historic Environment Assessment which will be written up and will form part of the Environmental Impact Assessment (EIA) for the Project. We will continue to engage with Historic England and relevant Local Planning Authorities (LPAs) on aspects relating to heritage, including appropriate mitigation measures and techniques and will take their views into account as the Project continues to develop.” (4.5.115)
- “Effects on PRow will be mitigated where possible, maintaining access where practicable, with closures as a last resort. We will continue to engage with relevant stakeholders on the PRow network to enable feedback and input to be considered as the Project develops. A PRow Management Strategy will be prepared as part of the Outline Code of Construction Practice (CoCP) and submitted with the Development Consent Order (DCO) application.” (4.5.118)
- “National Grid will be writing up its Landscape and Visual Impact Assessment (LVIA) that will, in addition to other topic specific assessments, form the latter part of the EIA for the Project. This will include a write-up of an assessment on both landscape character and visual amenity. Where likely significant effects are anticipated the LVIA will consider and identify areas where it may be necessary and appropriate to put forward potential mitigation such as screen planting and softening as part of an iterative design and assessment process.” (4.5.128)
- “Detailed otter surveys are currently underway and will continue into 2024. The presence of otters will be considered as part of the route design and, where practicable, will seek to reduce potential impacts on areas of high value for otters, through avoidance or mitigation. The Environmental Impact Assessment (EIA) for the Project will assess the effects on otters and where necessary will detail mitigation requirements.” (4.5.132)
- “will continue to be undertaken throughout 2024 including along river corridors. The EIA for the Project will assess the effects on biodiversity” (4.5.137)
- The Environmental Impact Assessment (EIA) for the Project will assess the impact and subsequent effects on biodiversity and if necessary, the mitigation requirements(4.5.138)
- “Bats are being assessed in the biodiversity assessment as part of the Environmental Impact Assessment (EIA) and have been identified as an important ecological feature. Detailed bat activity surveys are underway and will continue into 2024 to identify key foraging and commuting routes for bats” (4.5.140)
- “Detailed bat activity surveys are underway and will continue into 2024 to identify key foraging and commuting routes for bats including around St Mary’s Church, Langham and the crossing of black brook. Habitat (including hedgerows) found to support a wide range of bat species (including barbastelle (*Barbastella barbastellus*)) will be avoided where practicable within detailed routing and where impact is unavoidable appropriate mitigation will be implemented” (4.5.142)

These examples lay bare the fact that National Grid has not itself determined the impact of its proposed project upon any of the matters on which it is required in law and purporting to consult the public.

It is also noteworthy that National Grid place deliberate constraint upon those they undertake to consult. For example, in references to Heritage assets above they undertake to consult with Historic

England and with Local Planning Authorities but do not undertake to consult or consider the views of custodians and owners of those assets. Such blatant disregard for the views of those with most detailed knowledge of – for example – homes which are listed buildings further highlights the deficiencies of the consultation.

The work outlined, in many cases requested by the public, must as a minimum be completed and presented to the public during a repeated Statutory Consultation ahead of any application to the Planning Inspectorate. The public must be shown the detail to have been appropriately consulted. This principle is well established in law.

This situation is wholly unacceptable in the presence of significant harm which will be caused by this project. The country deserves, and National Grid must deliver, better.

5. **Fundamental flaws exist in the needs-case for the current project: the East Anglia Connection Node (EACN) is not required, meaning that a significant section of cable in and around the Dedham Vale is not required either.**

- 5.1. National Grid has repeatedly stated in meetings and in documents that the need for the East Anglia Connection Node (EACN) is driven by three connection agreements for that location: (1) the North Falls Windfarm, (2) the Five Estuaries Windfarm, and (3) the Tarchon Interconnector.
- 5.2. National Grid have also stated that need for cables beneath the Dedham Vale, a protected National Landscape, as well as through the constituency skirting the Dedham Vale in North Colchester, is driven solely by the location of the EACN.
- 5.3. North Falls and Five Estuaries have agreed voluntarily to connect offshore to the Sealink cable and preliminary work has been conducted supported by the Offshore Coordination Support Scheme (OCSS). The OCSS has demonstrated such connection to be feasible.
- 5.4. My response to the Tarchon Cap and Floor Consultation highlights that the Tarchon Interconnector is hugely damaging to the National Interest: when located at the EACN it would **increase** constraint costs in the UK (constraints caused elsewhere in the network are larger than those removed in East Anglia), **increase** bills for UK consumers by approximately £5Bn, **increase** UK carbon emissions, and in the opinion of Arup do **nothing** for UK Energy Security.
- 5.5. These statements are not a matter of my opinion, they are evidenced in detailed work produced by independent studies by the globally renowned Arup engineering firm as well as by ESO for Ofgem.
- 5.6. ESO went so far as to conclude that no interconnector in the South of the UK would satisfy these basic requirements. Tarchon is manifestly in the wrong solution in the wrong place and should not proceed as proposed.

OCSS must proceed. North Falls and Five Estuaries Windfarms have offered to, and should, connect offshore under OCSS. The Tarchon Interconnector should be removed entirely.

The EACN is not required to secure transmission of electricity or ensure network stability. It should not proceed at all, least of all in the currently proposed position. Absent the EACN, cables beneath the Dedham Vale and through the constituency North Colchester are not required either.

National Grid proposals must be modified to exclude the EACN. This would significantly shorten the route, eliminate the section in which the highest damage occurs to a protected National Landscape, and remove the most expensive section of the project. A solution without the EACN could be delivered more cheaply and potentially more quickly.

6. National Grid have already identified equally viable alternatives which would be significantly less damaging and per their own figures cost less. National Grid's work demonstrates that savings of approximately £140m could be made by utilising EAS1 in place of EAS2. This would avoid the Dedham Vale entirely, as required in National Policy Statements. ESO have produced other alternatives which would achieve the same and be even less damaging.

Real onshore alternatives to the route proposed exist:

- 6.1. National Grid's own Strategic Options Backcheck and Review contained in the document library for this consultation highlights four northern alternatives in Norfolk and three southern alternatives in Suffolk / Essex stating that any northern option in combination with any southern option would work.
- 6.2. In the southern section National Grid conclude that EAS1 would be the ***best and cheapest*** alternative save for the desire to build a sub-station near to the coast to accept North Falls and Five Estuaries.
- 6.3. The only negatives mentioned are the need to rethink a substation at Twinstead for which National Grid are currently seeking, but have not received, development consent together with an increase in land required there.
- 6.4. The statement that the substation at Twinstead would need to be redesigned rests upon an assumption that North Falls and Five Estuaries would make landfall and connect to the network there. This would of course not be necessary if they connected to Sealink offshore under OCSS. It is more likely that existing plans for Twinstead would be unaffected.
- 6.5. National Policy Statement EN-5 (hereafter "NPS-EN5") is clear at 2.9.19 that National Grid must "seek to avoid altogether internationally and nationally designated areas of the highest amenity, cultural or scientific value by the overall planning of the system connections".
- 6.6. NPS-EN5 continues to set expectation with respect to protected landscapes such as the Dedham Vale that the first consideration should be to re-route in order to avoid impact, at 2.9.21 stating that "...natural beauty of these areas ***cannot feasibly be avoided*** by rerouting overhead lines..." (emphasis added)
- 6.7. Finally, NPS-EN5 sets the standard for acceptable impact to such landscapes at 2.9.12 stating that "***even residual impacts*** may well make an overhead line proposal unacceptable in planning terms" (emphasis added). National Grid documents repeatedly acknowledge that the Dedham Vale will be harmed by the Norwich to Tilbury proposals. Impacts go way beyond residual.

The Dedham Vale is a protected National Landscape, the designation highlighting the importance and national significance of this area. The route EAS1 proposed by National Grid would avoid the Dedham Vale entirely. The selected route, EAS2, does not. National Grid have not sought to 'avoid altogether' the Dedham Vale. National Grid have not sought to re-route although they have demonstrated that an alternative is available (and cheaper).

National Grid are required by NPS-EN5 to adopt alternative routes where they exist but have chosen not to do so.

EAS1 is just one such alternative. Others also exist. The East Anglia Study conducted by ESO has demonstrated that further and more innovative alternatives to the current designs are available. An option similar to ESO Alternative 5b, but excluding Tarchon, would succeed in delivering electricity to where it is

needed at a similar cost to the N2T proposals but without damage to the Dedham Vale or surrounding area or the need to re-plan other substations. The ESO alternative could be further enhanced by using underground HVDC technology, although likely the EAS1 route could not.

If an onshore route is absolutely required, then an alternative to the current proposal must be employed and should employ underground HVDC technology.

It may be inconvenient to National Grid to reconsider at this stage, but inconvenience is absolutely no reason to consume equally large tracts of land within and in close proximity to the Dedham Vale National Landscape to build substations, AC cable trenches and pylons, thereby inflicting enormous damage upon it. The Dedham Vale is designated as being of the highest importance and of national significance hence is legally protected. Alternative routes and sites are cheaper, would inflict dramatically less damage and are of lower cultural value hence not protected. Whatever the route underground HVDC technology would be dramatically less damaging.

7. National Grid has wrongly interpreted the requirements of the National Policy Statement and set out misleadingly narrow criteria. NPS-EN5 requires use of underground cable near to the Dedham Vale, making it clear that even residual impacts are unacceptable, and precludes arguments based on cost to avoid undergrounding near to a protected National Landscape.

- 7.1 NPS EN-5 at section 2.9.12 sets a very strong threshold for acceptable damage stating that “in nationally designated landscapes (for instance, National Parks, The Broads and Areas of Outstanding Natural Beauty) ***even residual impacts may well make an overhead line proposal unacceptable in planning terms.*** (See Section 2.9.20 below for guidance on this case.)” (emphasis added).
- 7.2 NPS EN-5 at section 2.9.20 details the requirements ***within*** the National Landscape, stating that “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).”
- 7.3 NPS EN-5 Section 2.9.21 extends this requirement to infrastructure outside of the National Landscape which nevertheless impact the National Landscape: “In these areas, ***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 the relevant section of the line.” (emphasis added).

Importantly this standard applies not only “in these areas” but also “***AND*** where harm to ... these areas... cannot feasibly be avoided by re-routing overhead lines” (emphasis added).

It cannot be argued that the ‘and’ is intended to be restrictive for two reasons: Firstly, if it was restrictive then there would be a redundant repetition of the same presumption. Secondly, the policy is clear that it is the beauty ***OF*** the area, which is important, not merely the area itself.

This is further emphasised by the clear reference to the residual impacts of OHL cited in NPS-EN5 2.9.12 which must be outside of the National Landscape given that pursuant to NPS-EN5 2.9.20 they cannot possibly be within the Dedham Vale. The beauty of the area can manifestly be impacted by infrastructure without the area as well as that within it.

National grid have already accepted this (i) in their repeated acceptances that damage will be caused to the National Landscape and will be difficult if not impossible to mitigate (ii) in their existing proposals

to underground in the Great Horkeley area which would have been contrary even to the preceding NPS otherwise.

- 7.4 NPS-EN5 Section 2.9.22 details the exemptions to the presumption to undergrounding which applies in NPS-EN5 2.9.20 and 2.9.21. There are only two exemptions: (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”.
- 7.5 “Engineering infeasibility” is self-explanatory. In the context of 2.9.22 the “harm” exemption refers to harm in the wider sense to landscape, cultural heritage, ecology, amenity and so forth. To rely on this exemption National Grid would be required to demonstrate that damage caused by underground cables outside of the designated landscape was greater than the benefit to landscape, visual amenity and natural beauty within the designated landscape. This is likely to be almost impossible in practice given the reasons for designation of a National Landscape.
- 7.6 Importantly, **COST** considerations are **NOT** referenced in relation to National Landscapes and their setting. **COST** per NPS-EN5 is **ONLY** considered in respect of mitigating factors in the context of additional cases where “no part of the proposed development crosses a designated landscape” (National Policy Statement for Electricity Networks Infrastructure, 2.9.23). **Only** in such cases, the Secretary of State must “weigh the feasibility, cost, and any harm of the undergrounding or subsea option against the adverse implications of the overhead line proposal” (National Policy Statement for Electricity Networks Infrastructure, 2.9.24).
- 7.7 It should be noted that these requirements are different from those in force at the time at which the Norwich to Tilbury project was designed and represent a careful and deliberate tightening of Policy by Government over and above the previous draft dated September 2021.

Whereas the September 2021 draft of NPS-EN5 contained wording at 2.11.13 setting out a presumption to underground within an Area of Outstanding Natural Beauty (AONB) it was defined in the opposite sense outside of such, then provided exemption to the presumption to use of pylons at 2.11.14 stating that “additionally, cases will arise where – though no part of the proposed development crosses a designated landscape – a high potential for widespread and significant adverse landscape and / or visual impacts along certain sections of its route might nonetheless recommend undergrounding” and **did** require the Secretary of State to have regard to cost implications of such.

This wording led to debate between developers and community as to the intention of Government in areas abutting a designated landscape where use of pylons situated outside of the designated landscape could nevertheless cause damage to the landscapes within.

It was the position of National Grid that such lines **could not** be undergrounded due to NPS-EN5, it was the position of campaigners that because damage would be caused within the AONB they **should be** undergrounded and that such was **allowed** pursuant to 2.11.13.

Public consultation held in 2023 highlighted this matter to Government, which subsequently clarified intentions providing the unambiguous wording which came into force in January 2024, with the effect that undergrounding in such circumstances is now **required**, even **residual** impacts are **unacceptable**, and cost is **not** a relevant factor.

Despite the deliberate change in wording National Grid has made no further amendments to its proposals despite the repeated acknowledgements of the damage to the designated landscape which will be caused.

- 7.8 National Grid has not considered, or has wrongly interpreted, the requirements of the January 2024 National Policy Statement EN5 now in force and either deliberately or negligently has set out misleadingly narrow criteria.
- 7.9 At section 5.3.6 and 5.3.7 of the Design Development Report National Grid cite NPS-EN5 2.9.7 and NPS-EN5 2.9.20. However, they fail to highlight the prohibition on residual impact, fail to highlight the fact that NPS-EN5 2.9.20 is only the opening paragraph of a much greater section which details presumptions underground and, specifically, National Grid makes no mention of NPS-EN5 2.9.21 which expands the criteria to cover areas surrounding protected landscapes. Nor is mention made of the fact that the cost of undergrounding set out in NPS-EN5 2.9.24 is an exemption **only** in respect of routes which do **not** cross any part of a protected landscape.
- 7.10 Worse, at section 5.3.9 of the Design Development Report National Grid claim to have deployed underground cable where the draft alignment is in very close proximity to the Dedham Vale when in fact, they have done so in only a very short section preferring instead – but not making mention of – Pylons through the majority of the surrounding area despite the close proximity.
- 7.11 Instead, National Grid wrongly state at 5.4.121 of the Design Development Report that the sections near to the National Landscape are not subject to the presumption to undergrounding.
- 7.12 Firstly, National Grid's own work, presented in the Corridor and Preliminary Routeing and Siting Study Report (CPRSS) for last year's consultation, repeatedly highlighted in chapters 5 and 7 the risk of **significant** damage to the National Landscape resulting from the use of overhead lines in this area (5.1.4; 5.5.5; 5.5.24; 7.5.15; 7.5.16; Appendix B30). The report stated that mitigation in the form of alternate routes (5.1.4; 5.5.5), alternative pylon design (5.5.18; Appendix B30), or more likely, significant sections underground (1.3.40; 3.1.9; 5.5.8; 5.5.9; Appendix B30) would be required. This need for mitigation is reiterated in the 2024 response to non-statutory consultation feedback (2023 Non-Statutory Consultation Feedback Report, p. 196-198)

As set out above, extensive mention is made of damage to the National Landscape in the Preliminary Environmental Information Report published as part of this consultation (section 13.3, Preliminary Environmental Information Report Volume III – Technical Appendices – 4 of 4). National Grid details In Table 13.1.10 damage along a number of axes of their choosing, acknowledging that negative effects / damage will occur in short, medium and long term but repeatedly making a subjective assessment that they deem it to be 'negative but not significant'.

In some cases National Grid conclude that impact to the National Landscape will be 'negative and potentially significant' such as in regard to apparent and buried archaeology, where they conclude that "construction of the Project would remove some / all of the recorded assets within the cable swathe" when speaking about 'apparent and buried archaeology which is identified as a special quality'.

Figures produced by National Grid as part of this 2024 consultation demonstrate that even after partial undergrounding in the area of Great Horkesley, Pylons and other infrastructure are widely visible from within the National Landscape. Moreover, the intended route of pylons crosses all roads and arteries - both major and minor - into the National Landscape from the South save for the A134 (which is nevertheless still close to infrastructure and from which infrastructure will clearly be visible).

As also set out above, National Grid wrongly conclude at p177 of the Preliminary Environmental Information Report Volume III – Technical Appendices – 4 of 4 that project infrastructure is at a minimum distance of 1.3km of impacted views of the Dedham Vale and select an artificially narrow series of viewpoints stating that views are not impacted. In reality the infrastructure may be immediately in front of an impacted view of the Dedham Vale and it is trivial to demonstrate that there are many locations including those from Listed Buildings which are severely impacted.

These proposals, if executed, would frame the entire setting of the National Landscape and the impacts upon the National Landscape go far beyond the merely “**residual**”. To reiterate NPS EN-5 2.9.12, “**even residual impacts**” would make the present proposals unacceptable in planning terms.

- 7.13 Secondly, it is wrong to claim that the presumption to undergrounding does not apply: the entire section of line from Ardleigh to Fordham **is** subject to the presumption to undergrounding **because** the line crosses the National Landscape and as set out above the impact to the National Landscape from pylons and sealing end compounds in this area is significantly **more** than ‘residual’.
- 7.14 Thirdly, in response to feedback from non-statutory consultation requesting additional undergrounding in the setting of the Dedham Vale, National Grid repeatedly cites **cost** as the determining factor against. For example, in response to the request for additional undergrounding from the EACN to Great Horkesley, they state: "However, whilst potentially visible from locations within the AONB, it is not considered that this would lead to effects that would justify, in policy terms, the very substantial additional **costs** and environmental effects arising from the installation of underground cable" (Design Development Report, 5.4.121, emphasis added).
- 7.15 National Grid make similar arguments regarding the request to extend undergrounding to the south of Great Horkesley, stating: "National Grid also considers that any effects on the AONB or on other receptors in terms established in NPS EN-5 Section 2.9 do not occur at a level that would be considered to meet a threshold justifying the effects and additional **cost** of a further 1.5 km of underground cable" (Design Development Report, 5.4.133, emphasis added).
- 7.16 National Grid repeat the argument in respect of the western sealing end compound near to Great Horkesley writing at 5.4.134 of the Design Development Report: “Respondents providing feedback requested moving the location of the western CSE compound further to the south.... and to reduce effects on the AONB. Whilst acknowledging the reduction in effects from such a change, it is noted that the change would transfer such effects to other residential properties. It is also considered that any effects on the AONB in terms established in NPS EN-5 section 2.9 do not occur at a level that would be considered to meet a threshold justifying the effects and additional **cost** of additional 800m of underground cable”.
- 7.17 As highlighted, NPS-EN5 2.9.12 states that “**even residual impacts** may well make an overhead line proposal unacceptable in planning terms” and NPS-EN5 2.9.23 sets out the basis on which pylons might be used in the proximity of the National Landscape and cost is not amongst those reasons.

National Grid have detailed throughout the course of three consultations in numerous documents that re-routing the stretch which commences at Ardleigh and ends just beyond Little Horkesley is impossible. This is contradicted by the work in the ‘Strategic Options Backcheck and Review’.

National Grid have repeatedly accepted that their proposals will cause significant damage to the Dedham Vale National Landscape. National Grid have proposed to underground only a short section in Great Horkesley, wrongly arguing that the remaining sections are not subject to the undergrounding provisions of NPS-EN5 and inappropriately citing cost considerations in respect of the decision to employ OHL near to the Dedham Vale.

National Grid has failed to comply with the requirements set out in NPS-EN5 in this regard. The entire section of line from Ardleigh to Fordham **is** subject to the presumption to undergrounding, even **residual impacts are unacceptable** and in sections which cross and impact a National Landscape they **cannot argue cost as a reason not to underground**.

The Norwich to Tilbury proposals require significant in order to bring them into line with the requirements of National Policy. Pylons and Sealing End Compounds cannot be situated in any position which causes even residual impact to the Dedham Vale.

8. Proper application of NPS EN-5 precludes the use of OHL near to the Dedham Vale and requires cables to be underground throughout the section from Ardleigh to Fordham to protect the Dedham Vale and Stour valley Project.

- 8.1 The proposed site for the EACN is immediately adjacent to a Scheduled Monument at a location that is highly constrained, dictating the path of cables between listed buildings, a lake, and a reservoir. These constraints dictate a path that tightly encloses the village of Ardleigh.
- 8.2 National Grid has already proposed to underground the route from the Dedham Vale into the EACN. However, it appears that the reason they have not proposed to underground the outward cable from the EACN towards Great Horkeley is due to the physical constraints around the Dedham Vale including polytunnels, "water forms to the north", and the "Crop mark site S of Ardleigh" Scheduled Monument (List Entry Number: 1002146) to the south.
- 8.3 National Grid are entitled to argue pursuant to NPS-EN5 2.9.22 that pylons can be used in respect of cables emergent from the EACN due to it being 'infeasible in engineering terms' to underground. This might apply to the section in which it is required to route Pylons for emergent cable over the same course as the underground incoming cables. However, (i) this situation arises only because of the choice of location made for the EACN; and (ii) the exemption is in any event limited to the section which is infeasible in engineering terms and does not extend beyond it.
- 8.4 National Grid considered alternative sites for the EACN substation in their Design Development Report 2023, including a site immediately north of Ardleigh and the former RAF Boxted site. These alternatives were limited in scope and insufficient to address the significant impacts on the Dedham Vale. The site north of Ardleigh is not large enough to accommodate all the combined substation elements, while the former RAF Boxted site would require an increased extent of underground cables through the Dedham Vale, resulting in greater environmental effects and construction risks.
- 8.5 Given the constraints and the significant impacts on the Dedham Vale, National Grid should look further afield than they did in the Design Development Report 2023 to find an alternative location for the EACN substation that would minimise harm to these sensitive areas by allowing use of undergrounding for both incoming **and** emergent cable. For example, in their Strategic Options Back Check and Review, National Grid considered an expanded substation at Twinstead. They examined two options for the Southern route of Norwich to Tilbury: EAS1 Twinstead to Tilbury, and EAS2 Bramford to Twinstead (Strategic Options Back Check and Review, Chapter 15).
- 8.6 In any event, any engineering constraints close to Ardleigh would not prevent undergrounding the section from TB8 onwards which would dramatically reduce harm to the Dedham Vale in the vicinity of Ardleigh, as well as along the whole southern edge through removal of pylons and the Sealing End Compound east of Great Horkeley. This, of course, in addition to the benefits to community, landscape, and heritage in the areas of Ardleigh and Great Horkeley.
- 8.7 Turning to the western Sealing End Compound at Little Horkeley, this together with the pylons between TB35 and TB40 will be greatly visible across the Dedham Vale and Stour Valley Project, acting as a 'Gateway of Steel' to both as visitors using the B1508 for access will be required to pass beneath, in addition to causing damage to landscape and heritage assets in the immediate vicinity.
- 8.8 National Grid argue at Table 2 ref 4.5.23 of the "2023 Non-Statutory Consultation Feedback Report" that "The TB route is approximately 1.5 to 2.5km away from the AONB. People travelling along roads under the Project would therefore be travelling for those range of distances and past other features before entering the AONB", attempting to argue that the need for those visiting the Dedham Vale to pass beneath pylons immediately to the south regardless of route taken will somehow not impact the value or amenity of the National Landscape. In fact, the proposed line of pylons approaches as close

as 1.3km to the Dedham Vale and travelling such distance by car at the posted speed limits would take just 52 seconds. A cyclist would cover the distance in under 2 minutes and a runner in 5 minutes. To argue separation and that the Dedham Vale is not impacted is ridiculous. Certainly, it falls well short of the required threshold ('residual' effects are unlikely to be acceptable) and the proposed line of pylons to the south of the Dedham Vale will certainly frame the setting to visitors to its great detriment.

- 8.9 In the course of the 2023 consultation National Grid had themselves suggested an alternate site for the western Sealing End Compound near to TB40 (now closer to TB41/TB42) instead of the currently planned location atop the ridge of the Great Horkesley Plateau. Community responses argued that such location would be much better (i) eliminating impact upon the Dedham Vale due to topology – the site is some 16m below the ridge and offers potential through small adjustments to select a site more than 30m beneath the ridge, (ii) eliminating the 'gateway' effect across the B1508, (iii) eliminating impact to the cluster of Listed Buildings impacted by the proposed site. Community responses also highlighted that underground cables would allow a more direct shorter route, which would have been impossible with pylons, removing some 700m from the path.
- 8.10 National Grid responded that: "we concluded that the effects reported to drive a request for change did not, in the context of national policy of National Grid's statutory duties, justify the higher cost of additional underground cables to bill paying consumers" (Table 2.2 Ref 4.5.45 Non-Statutory Consultation Feedback Report) and "... Moving the location of the western CSE compound further to the south to reduce residential amenity effect to a number of residential properties and to reduce effects on the AONB. Whilst acknowledging the reduction in effects from such a change, it is noted that the change would transfer effects to other residential properties. It is also considered that any effects on the AONB in the terms established in NPS EN-5 section 2.9 do not occur at a level that would be considered to meet a threshold justifying the effects and additional cost of additional 800m of underground cable." (5.4.134 Design Development Report)
- 8.11 There are four significant problems with this response: (i) whereas National Grid acknowledges impacts to the Dedham Vale and that rerouting would eliminate these it determines that the impacts are acceptable. NPS-EN5 however makes it clear that even **residual impacts** to the National Landscape **are unacceptable** and that **rerouting should occur** in order to avoid impact or else **undergrounding** must be used to eliminate (ii) whereas National Grid argues **cost** as a reason to accept the damage, in the terms of NPS-EN5 section 2.9 the **cost is not a relevant argument when considering reduction of impact to the National Landscape** (iii) National Grid wrongly states that the increase in cable length would be in the order of 800m and presumably base their cost arguments on this, ignoring the potential to reduce length of cable by approximately 700m through use of a more direct underground route, any estimate of cost is therefore wrong (iv) whereas National Grid argues that impact would be transferred to other residential properties this is untrue: those properties are already impacted by a similar angle-tower in the current designs and the proposed change would represent a significant reduction in impact to Listed Buildings.

If National Grid do not remove the EACN from their proposals, then they are required to build in accordance with extant National Policy Statements.

NPS-EN5 requires that underground cables are employed in any area where use of Pylons would impact upon the Dedham Vale national Landscape and instructs that even residual impacts are unacceptable in planning terms. Two conditions only allow the use of Pylons in such location (i) engineering infeasibility (ii) where damage would be greater than benefit. Cost is not a stated consideration in NPS-EN5 in these circumstances.

Save for the section between TB1 and TB7 none of the stated considerations for exemption apply and therefore the entire section from the EACN to the western Sealing End Compound must be constructed using underground cable and the position of the western Sealing End Compound must in policy terms be relocated to the area between TB41 and TB42.

Undergrounding is technical infeasibility between TB1 and TB7 only due to an exceedingly poor choice of location for the EACN. An alternate location must be sought to remove this constraint and this section also undergrounded.

In the terms of NPS-EN5 the changes outlined here are **required** and National Grid are **precluded from arguing increased cost** as a reason to construct pylons between TB1 and TB41.

Even absent this requirement, there would be an extremely strong case for further undergrounding in the vicinity of Ardleigh, for extension of the underground section at Great Horkesley both to the East and West, nevertheless. Such changes will dramatically reduce harm to Ardleigh and to the clusters of historic Listed Buildings near to both Sealing End Compounds without increasing harm elsewhere. In respect of the western Sealing End Compound, National Grid has wrongly computed the additional length of underground cable necessitated and, as a result, even on a cost-benefit basis its determination would be wrong.

9. Application of Holford and Horlock rules places further restrictions on the siting of EACN and both Sealing End Compounds in proximity to the Dedham Vale and also dictates expansion of the underground section, a move to the south of the western Sealing End Compound and significant screening measures around all three.

9.1 In addition to the requirements of NPS-EN5 set out above, the siting of Sealing End Compounds is subject to Holford Rule (1) and Horlock Rule (2). These state:

- **Holford Rule (1):** “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.”
- **Horlock Rule (2):** sealing end compounds should “as far as reasonably practicable seek to avoid altogether international and nationally designated areas....”.

9.2 As in the case of NPS-EN5 these make it clear that in the proximity of a protected landscape such as the Dedham Vale the priority is to re-route and to prevent harm.

9.3 Although the gantries at the EACN and Sealing End Compounds are lower in height than pylons they are accompanied by a significant accumulation of infrastructure and wirescape which collectively has a greater impact. Moreover, the pylon towers immediately adjacent are typically structurally heavier as required to take increased lateral strain and thereby are more impactful in nature.

9.4 The sites currently identified are in broad open countryside and do not benefit from significant screening by terrain or landscape. They are at, or about, the level of the peak of ridge above the valley of the Stour. National Grid have repeatedly argued that they are not significantly visible from within the Dedham Vale and / or admitted impact but attempted to argue that it is not significant (although such arguments now stand against the admissions and concerns expressed in the 2022 Corridor and Preliminary Routeing and Siting Survey).

9.5 As was the case in NPS-EN5 with the statement that ‘residual impact’ is ‘unacceptable in planning terms’, the question of ‘significant’ does not arise in Holford or Horlock. Both Holford 1 and Horlock 2 speak of “avoid altogether”. Holford 1 requires an alternative route further away in order to avoid the impact. Horlock 2 requires avoidance if reasonably practicable. Whilst NPS EN-5 2024 is arguably a stronger constraint it is important to recognize that it does not stand alone. The three sets of requirements are consistent and set beyond doubt what is required. National Grid is repeatedly wrong in its application of these rules.

9.6 As demonstrated earlier, the National Grid position that these sites are either not visible or that they cause only a minor impact on the Dedham Vale is untrue. View fall maps show that whilst they might not be seen from the floor at the bottom of the valley, they together with the corresponding pylons immediately adjacent to them **would** be widely visible within the National Landscape from both sides of the valley. The corresponding assessment by National Grid is curtailed and therefore impact underestimated. Once more, existing pylons at Assington are already readily visible from Little Horkeley across the full width of the Dedham Vale, the new infrastructure if built will be perceived as a fence of steel surrounding the National Landscape.

9.7 It is not only views within or out from the National Landscape which are required to be protected. Views of and in towards the National Landscape are **also** protected. Many such views including those from listed buildings in the proximity of the proposed locations would look across the EACN or Sealing End Compounds and adjacent Pylons into the National Landscape. These views are historic and also protected. The impact of what is proposed would go well beyond trivial residual impact and is therefore contrary to the requirements of Holford, Horlock and NPS EN-5.

Against this backdrop, much more must be done by National Grid. NPS EN-5 2.2.9 details the requirements for use of topography and the need to provide screening, stating: "In particular, the applicant should consider such characteristics as the local topography, the possibilities for screening of the infrastructure and/or other options to mitigate any impacts".

Through their choice of sites and failure to propose screening measures National Grid have failed in both regards with respect to the Sealing End Compounds. The site at Ardleigh is associated with significant infrastructure imposed by the EACN and will have overbearing presence on the village.

Both Sealing End Compounds in the Great Horkeley stretch have been located at or near to the peak of the ridge and afford little screening from the surrounding area, let alone from the Dedham Vale or Stour Valley project Areas.

As highlighted above, the western Sealing End Compound could be straightforwardly moved further south into a valley in order to take much better advantage of topography and existing screening. It and associated pylons may also be located against existing woodland, pockets of which are prevalent across this landscape, in order to screen and break up impact.

If they continue to form part of the plans, the EACN and eastern Sealing End Compound are unable to take advantage of topography.

Regardless of the location of the EACN and any Sealing End Compounds, it is imperative that National Grid thoroughly screen these sites employing fast-growing tall native tree species on all sides to prevent views across what is very open landscape. This will need to take place around the site boundaries themselves as well as at strategic locations in between the sites and any protected landscapes, listed buildings, other heritage assets or important receptors as required in NPS-EN5 2.10.6.

This must be conducted in each case to a standard defined by and agreed with the local community to ensure support. A company in the business of building industrial infrastructure is hardly best qualified to determine what constitutes 'acceptable' in this regard.

10. Norwich to Tilbury proposals are contrary to the requirements of the Colchester and the Babergh and Mid Suffolk Joint Local Plan in respect of the Dedham Vale.

National Grid sets out the relevant Local Plans at p164 & p165 of the Norwich to Tilbury – Preliminary Environmental Information Report – Volume 3 – Technical Appendices – Part 4 of 4.

- 10.1. The Babergh and Mid Suffolk Joint Local Plan states that “Proposals for major development within the AONBs will be refused other than in exceptional circumstances, and where it can be demonstrated that the development is in the public interest”.
- 10.2. National Grid have highlighted the existence of alternative routes in the Strategic Options Backcheck and Review including that of EAS1. ESO have further identified alternatives during their East Anglia Review. These alternatives would avoid damage to the Dedham Vale National Landscapes, cost would be comparable or less, and they would fulfil the same electrical requirements. It cannot therefore be that the current proposals are in the public interest.
- 10.3. The Colchester local plan goes further, setting out that: “Development will only be supported in or on land within the setting of the Dedham Vale Area of Outstanding Natural Beauty (AONB) that:
 - i. Makes a positive contribution to the natural beauty and special qualities of the AONB, including tranquillity and the AONB’s good quality night/dark skies; and,
 - ii. Does not adversely affect the character, quality views, into and out of the AONB and distinctiveness of the AONB or threaten public enjoyment of these areas, including by increased motorised vehicle movement; and,
 - iii. That there are no adverse impacts on the setting of the AONB which cannot reasonably be mitigated against and,
 - iv. Supports the wider environmental, social and economic objectives as set out in the Dedham Vale AONB and Stour Valley Management Plan.

Applications for major development within or near to the boundary of the Dedham Vale AONB will be refused unless in exceptional circumstances it can be demonstrated that the development is in the public interest, and this outweighs other material considerations.

- 10.4. The Colchester local plan correctly recognises that development within the setting of the Dedham Vale can adversely impact the National Landscape and that view *into* and *out of* the AONB are also to be protected.
- 10.5. This is contrary to the position seemingly adopted by National Grid. In terms of Norwich to Tilbury, the wording of the Colchester Local Plan reinforces the concerns already set out above in respect of the impact on views *into* and *out from* the Dedham Vale, as well as the concern in respect of damage to the setting of the Dedham Vale caused by lines of pylons over substantially all road access routes. Finally, it further highlights the deficiencies in the arguments set out at p177 of the Preliminary Environmental Information Report Volume III – Technical Appendices – 4 of 4 and throughout National Grid’s material.
- 10.6. National Grid trivialises the damage that AC undergrounding will do to the Dedham Vale Special Landscape Area. Destruction caused by constructing trench corridors of on average 120 metres wide, sitting in construction areas which in places are much wider will not be limited to the removal of trees from our National Landscape. As stated in the Preliminary Environmental Information Report Volume III – Technical Appendices – 4 of 4 13.1.10, the trees will not be replanted and accompanied by a loss of hedging and mature hedgerows, wetlands, wildlife, rare protected species including bats, otter and water voles as well as the tourist letting businesses, not least of all Langham Hall Estate (see 2.1.2). The removal of buried archaeology within the cable swathe has been identified by National Grid as damaging (explained in point 7.12). To comply with requirements of NPS-EN5 and local policies within the Dedham Vale, the area should be avoided altogether OR the use of HVDC cables MUST be made.

11. The Colne Valley and its Tributaries are similar in nature, history, and quality to the National Landscape of the Dedham Vale, deserving of protection themselves and in the wider context.

The qualities of the Colne Valley and its tributaries, together with the harm which will be caused to them by the proposals contained in the Norwich to Tilbury project, are set out above.

- 11.1. This area is of similar nature, history and quality to the nearby designated landscape of the Dedham Vale National Landscape.
- 11.2. It is contiguous with the Stour Valley Project and thereby with the protected designated area, forming a single continuous landscape, of equal heritage and cultural value.
- 11.3. Damage to the area and to cultural assets within the area, including Listed Buildings, will be significant.
- 11.4. The A1124 represents a significant access route to the Stour Valley and Dedham Vale which is popular with visitors within the area and tourists alike due to the setting of the Colne Valley together with the Viaduct at Chapel and the Railway Museum at White Colne. Whilst the A1124 does not represent a direct access route like the B1508, it nevertheless bounds the eastern edge of the Stour Valley and Dedham Vale providing numerous access points via minor roads. As such it clearly frames the Dedham Vale and pylons crossing the A1124 would negatively impact the character of the area including the Dedham Vale.
- 11.5. Undergrounding within the Colne Valley and Tributaries is not incompatible with NPS-EN5, 2.9.23 which states that “Additionally, cases will arise where a high potential for widespread adverse landscape and / or visual impacts along certain sections of its route may result in recommendations to use undergrounding.”
- 11.6. As set out in the 2022 CPRSS, National Grid have already determined that the Stour Valley Project is deserving of protection, but working from a now outdated version of NPS-EN5 in force at that time, had not considered whether the Colne Valley deserved the same.
- 11.7. It is perfectly reasonable to propose undergrounding here and doing so will provide significant protection.
- 11.8. Even if determined that the relationship of this valley to the Dedham Vale is such that impacts here do not also affect the National Landscape, meaning that cost might be relevant, it is made clear at section 2.9.24 of NPS-EN5 that it is for the Secretary of State to weigh the cost-benefit of undergrounding, not for National Grid to do so.
- 11.9. The statement by National Grid at ref 4.5.7 of Table 2 in the 2023 Non Statutory Feedback Report that it has “appointed an independent aviation consultancy which has engaged (with National Grid present) with Wormingford Airfield” following which “it has been determined, with the Project as currently proposed, that the airfield can continue to operate” falls some way short of the requirements set out by the Civil Aviation Authority. Proposed Pylons fall significantly within the boundaries set out in CAP 738, pursuant to which it is only the aerodrome operation which is the competent authority to determine safety. Absent a definitive statement by the airfield itself, undergrounding is likely required here just as it was at Raydon.

Notwithstanding my view that undergrounding **must** be extended to at least TB41/42, it is my firm view that undergrounding **should** be extended throughout the Colne Valley and its tributaries.

12. The Norwich to Tilbury project will severely impact farming, putting out of use many hundreds of acres of prime agricultural land during the construction phase. Without careful thought and mitigation it will permanently damage land access, drainage, soil and yields. Landowners and farmers must be appropriately compensated for all economic loss.

- 11.1 **Timing and Construction Period:** in order to minimize impact to farming operations it is essential that National Grid carefully time commencement of works in any particular field ensuring that they are able to work appropriately with the weather and minimizing absolutely the duration of time in which they take possession of each parcel of land and conduct works in each area, returning land to economic use as quickly as is possible. 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.
- 11.2 **Pylon Location:** under the Sustainable Farming Initiative the majority of fields in the constituency have a 6m unfarmed margin in order to protect ditches and hedges. Typical machinery employed for fertilization of soil has a 36m span, in newer machines this rises to 48m. Pylons will be best located right against the field boundary within the 6m margin. Alternatively, if pylons **must** be situated within open fields it is imperative that they allow a minimum of 54m clearance to field boundaries to allow for passage of newer machines. National Grid must engage with landowners and farmers to agree specific locations on a pylon by pylon basis.
- 11.3 **Haul Roads and Construction Vehicles:** National Grid's plans call for construction of haul roads alongside pylon 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.
- 11.4 **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.
- 11.5 **Land Access:** in many locations the construction swathe bisects fields, resulting in locked off areas of land which, being small, are difficult to farm with modern machinery and very often cut off from existing access points. National Grid must engage with landowners and farmers, modify proposals to minimize such areas, where unavoidable working with landowners and farmers to ensure continued access ideally through or across the construction swathe to avoid further damage to hedge rows.
- 11.6 **Land Security:** Farmland is dangerous, both during farming operations due to the presence of machinery and at other times due to presence of animals, uneven terrain and hidden obstacles which are often beyond the knowledge of the public. Theft from farms is an increasing issue recognised within the farming and policing community. Hedges around fields provide strong physical and psychological barriers to entry, ensuring that the public do not enter fields except where appropriate via rights of way which are maintained for safety and security. National Grid plans to remove very significant sections of hedgerow at crossing points over local roads. The number and width of such crossing points must be minimised in order to maintain physical security. Where crossing points occur, the resulting gap must be fenced, and suitable lockable gates put in place ensuring that access around or over the gates is not possible.

11.7 Animals: Construction activities may cause distress to animals resulting in danger to them and to workers and the public alike. National Grid must maintain suitable margins between fields occupied by animals and any construction work, putting in place physical security measures to prevent entry. The timing of operations within land adjacent to animals must be agreed with landowners and farmers in order to minimize potential harm to animal welfare.

11.8 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:

11.8.1 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.

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

11.8.3 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 in order 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.

11.9 Removal of Soil: depth of topsoil ranges between 6" and 24" in the constituency, 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:

11.9.1 Ensure professional supervision during assessment, removal and storage of topsoil.

11.9.2 Determine and agree the appropriate depth of soil to be removed with landowners and farmers

11.9.3 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.

11.9.4 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.

11.9.5 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.

11.10 Drainage: National Grid must consider drainage during and after construction, setting out plans for agreement by landowners and farmers prior to construction. 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. 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.

11.11 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.

11.12 Reinstatement of Soil: In principle National Grid must ensure that land is reinstated to a standard able to sustain crop to the same yield as the rest of each field. Following completion of construction in any given field haul roads must be carefully removed, clay reinstated and compacted allowing a period for settlement after which topsoil should be reinstated. Land drains must be reinstated as specified above. National Grid must fertilize reinstated land ensuring that nutrient values are reinstated and remain equal to those in the rest of each field.

11.13 Economic Damage: National Grid must recognize that economic damage will occur prior to construction, during construction, and after reinstatement.

Economic damage will occur not only in the areas reserved for construction but also in immediately adjacent land especially if access is restricted or size / shape of remaining land does not allow for efficient access, drainage, irrigation, growing and extraction of crops.

Fields may be put out of economic use early depending on the proposed construction schedule, chemicals already sprayed may be wasted, reinstated land may require significant work to restore to previous yields incurring direct costs in labour and materials as well as indirect cost in the form of reduced yields.

Economic Impact will extend beyond factors such as direct costs and yield, including for example associated losses in cases where farms are unable to fulfil Countryside Stewardship Agreements or similar schemes and thereby become liable for resulting fines and penalties.

Other reductions in revenue may occur as a result of constraints or compromises in choice of crops.

National Grid must provide appropriate financial compensation throughout and beyond the planning and construction phase for the total of all costs, losses or reductions in revenue ensuring that neither landowners nor farmers suffer direct, indirect or associated economic loss.

CONCLUSION

Offshore windfarms form an essential and welcome part of the future net zero energy supplies for the UK. The east coast will, and indeed should, host this offshore infrastructure given that it represents one of the most efficient areas in Europe for the extraction of electricity from wind. It is a reality, however, that there is no requirement for the vast majority of the power which will be produced in this area, or indeed in East Anglia as a region.

Current plans to install 50GW offshore wind capacity will be dwarfed by eventual need, ESO having estimated that more than 125GW of capacity will likely be required to sustain the UK through the net-zero transition. Onshore windfarms are unlikely to provide any significant part of our future total need due to much lower efficiency (approx. 35% mean output / 50% peak onshore compared to 50% mean output / 66% peak output offshore).

Power must be transmitted from source to place of need. However, this can and must be achieved with the consent and support of the public. This will not be achieved using a steam-roller approach attempting to force through poor quality solutions such as those proposed by National Grid in the Norwich to Tilbury project.

An underground HVDC solution excluding the EACN would offer maximum advantage to the Country, would enjoy significant community support, eliminate the majority of damage, and has been shown by ESO to be deliverable. It would have the further benefit of aligning infrastructure with demand. Indeed, such is the community support it could be accelerated and achieved at a reduced cost.

To contrast, the Norwich to Tilbury plans as currently set out are hugely damaging and will do irrevocable harm to rural communities, ecology, farming, cultural heritage and landscapes including our protected National Landscapes. The consultation process is deeply flawed and Norwich to Tilbury proposals enormously unpopular. They are likely to face repeated challenge in the Courts, to face long delays in consenting and to be delivered late at increased cost.

Similar concerns in Germany led to legislation in 2015 giving priority to underground technologies for transmission cables to secure public consent.

National Grid should quickly retract their proposals and bring forward an underground HVDC solution.

Failing this, the existing proposals require significant modification within this constituency:

- North Falls and Five Estuaries should connect offshore via Sealink. Tarchon is against the National Interest and should be removed entirely. The EACN is not required.
- Absent the EACN the route of pylons must, in accordance with National Policy, be moved away from the Dedham Vale National Landscape to one of the alternative routes already identified by National Grid and ESO. (Given the savings highlighted by National Grid, they should consider doing this regardless).
- If the EACN is retained, then it must be relocated to allow undergrounding along the entire southern border of the Dedham Vale, to at least TB 41/42 as required in National Policy.
- Ideally this undergrounding will be extended further, recognising the value of the Colne Valley and its tributaries.
- Sealing End Compounds must be relocated and screened from view.
- Significant mitigations in working practices together with financial undertakings as described in this document are required and must be implemented to protect the farming community.

In any event the public MUST be appropriately consulted. The issues raised by respondents to previous consultations and the weaknesses identified by Lord Banner KC **must** be addressed and the consultation process restarted. Our journey to net-zero can only be successful if it carries national public consent.

Sir Bernard Jenkin
Member of Parliament for Harwich and North Essex

July 17th 2024