



**Norwich to Tilbury
Statutory Consultation
10 April – 26 July 2024
Comments of Suffolk County Council**

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1. Introduction

- 1.1 The following comments from Suffolk County Council (SCC) are in response to the statutory consultation held between the 10 April and 26 July 2024 by National Grid Electricity Transmission (NGET) upon the Norwich to Tilbury proposals to build a new 400kV electricity transmission line between Norwich and Tilbury.
- 1.2 The entire proposal is 183 kilometres (114 miles) in length and crosses parts of Norfolk, Suffolk, and Essex. The Suffolk section is 53 kilometres (33 miles in length) and crosses parts of Babergh and Mid Suffolk District Councils. The scheme also crosses the Dedham Vale National Landscape the border with Essex.
- 1.3 The SCC electoral divisions affected potentially include the following:
- a) Hartesmere
 - b) Thedwastre North
 - c) Upper Gipping
 - d) Stowmarket North and Stowupland
 - e) Thredling
 - f) Bosmere
 - g) Cosford
 - h) Gipping Valley
 - i) Belstead Brook
 - j) Samford
- 1.4 This representation sets out in the first section the SCC's key issues, with the second part (in Appendix A) providing detailed technical comments. Given the extent and nature of the matters of concern to SCC, it was not practical for them to be expressed using the format of NGET's consultation feedback form.

SCC Energy and Climate Adaptive Infrastructure Policy

- 1.5 At its Cabinet meeting on 16 May 2023, the SCC updated its adopted Energy Infrastructure Policy, indicating its overall stance on projects required to deliver the UK's Net Zero ambitions (see Sources of Further Information section). The policy states:

“Suffolk County Council has declared a Climate Emergency and is therefore predisposed to supporting projects that are necessary to deliver Net-Zero Carbon for the UK. However, projects will not be supported unless the harms of the project alone, as well as cumulatively and in combination with other

projects, are adequately recognised, assessed, appropriately mitigated, and, if necessary, compensated for.”¹

Cabinet Resolution

1.6 At its Cabinet meeting of the 21 May, SCC resolved to:

- a) In accordance with the Council’s Energy and Climate Adaptive Infrastructure Policy, recognise the importance of the Norwich to Tilbury proposals as part of the required infrastructure to connect low carbon energy generation developments that will deliver energy security and contribute to UK government targets, but;
- b) Set out the Council’s clear preference for alternative options, as published by the Electricity System Operator, in particular, for High Voltage Direct Current Undergrounding, or, if practicable and deliverable, an offshore solution, being mindful of potential impacts in East Suffolk;
- c) To formally and strongly request National Grid (NGET), (and Ofgem recognising the applicant’s licence obligations) to pause the Norwich to Tilbury proposals, to enable the effective consideration of these alternatives;
- d) To lodge an objection to the scheme, as currently presented, because;
 - i) Of the need for additional undergrounding, of both the proposed 400Kv Line and of UK Power Networks Infrastructure;
 - ii) The proposals do not adequately address significant issues, and that the Council expects, in the highlighted areas, clearer assessments, outcomes, and mitigations, to be included in the application that will be submitted to the Planning Inspectorate;
 - iii) Of the need for much greater clarity regarding the relationship between the proposed project and proposed solar projects, including the assessment and management of cumulative effects;
- e) Set out the Council’s clear preference that this project should, in coordination with other infrastructure promoters and owners, resolve local supply and connectivity issues in the Stowmarket area for, and around, the Freeport at Gateway 14, and;
- f) To recognise the beneficial changes that have been made to the scheme alignment, and the addition of further undergrounding, for both the proposed 400Kv line, and the existing 132 KV UK Power Networks pylons.²

¹ [https://committeeminutes.suffolk.gov.uk/DocSetPage.aspx?MeetingTitle=\(16-05-2023\),%20The%20Cabinet](https://committeeminutes.suffolk.gov.uk/DocSetPage.aspx?MeetingTitle=(16-05-2023),%20The%20Cabinet)

² [https://committeeminutes.suffolk.gov.uk/DocSetPage.aspx?MeetingTitle=\(21-05-2024\),%20The%20Cabinet](https://committeeminutes.suffolk.gov.uk/DocSetPage.aspx?MeetingTitle=(21-05-2024),%20The%20Cabinet)

2. Key issues

The Need Case Presented by National Grid

- 2.1 With the Government's target of having up to 50GW of installed wind power in place by 2030, NGET's strategy is to establish a series of connections along the east coast of the UK, all the way from Scotland to the south of England. NGET has previously stated:
- 2.2 *"East Anglia's 400,000-volt (400 kV) electricity transmission network was built in the 1960s to supply regional demand, centred around Norwich and Ipswich. With the growth in new energy generation from offshore wind, nuclear power and interconnection with other countries, there will be more electricity connected in East Anglia than the network can currently accommodate. The existing network in East Anglia currently carries around 4,500 MW of electricity generation. By 2031 we expect between 14,000 MW and 18,500 MW of new generation and interconnection to connect in the region.*
- 2.3 *Our existing power lines do not have sufficient capacity to accommodate this new generation. We are already carrying out work to upgrade the existing transmission network in East Anglia, however even with these upgrades the network will not be sufficient. Norwich to Tilbury is a key part of our wider investment programme to upgrade our electricity transmission network in East Anglia to ensure we meet this future energy transmission demand. In the next few years, new connections are expected to feed into substations at Necton, Norwich Main, Bramford, Friston and Sizewell.*
- 2.4 *In addition, two offshore wind farm projects and one interconnector have agreements in place to connect into the new EACN [East Anglia Connection Node] substation [in Tendring, Essex]. The two offshore wind farms – Five Estuaries and North Falls - and Tarchon Interconnector are currently in development. If they are consented, they are expected to be operational by the end of the decade."*³

Alternatives

- 2.5 The County Council's believes credible alternatives such as an offshore centred approach or High Voltage Direct Current undergrounding, delivered at pace, to minimise onshore infrastructure in Suffolk should be explored fully. If this approach can deliver an alternative to Norwich to Tilbury in a timely manner, without risking wider Net Zero, renewable generation, and decarbonisation targets, it would be welcomed by the Council and the communities it represents.
- 2.6 On behalf of all local authorities along the Norwich to Tilbury route, Essex County Council commissioned consultant Andy Hiorns to produce a Report into the need for the Norwich to Tilbury proposals. The report concluded that the proposals were premature and would not be needed until the mid-2030's. This is disputed by NGET. However, the Report also concluded that alternative offshore alternatives would be much more expensive.⁴

³ <https://www.nationalgrid.com/electricity-transmission/network-and-infrastructure/infrastructure-projects/norwich-to-tilbury>

⁴ <https://www.suffolk.gov.uk/asset-library/n2t-the-hiorns-report.pdf>

- 2.7 The National Grid Electricity Systems Operator (NGESO) have also published a report into the various alternatives to grid reinforcement in their East Anglia Study. This included ten different network options including a primarily offshore option. It also concluded that alternative offshore alternatives or a HVDC Norwich to Tilbury underground link would be more expensive and procurement of the cables would delay implementation.⁵ NGET concurs with these conclusions.
- 2.8 Considering the above the County Council calls for a pause of the proposals to enable the full assessment of the potential alternative coordinated offshore solutions or alternatively onshore high voltage direct current undergrounding, as prepared the Electricity System Operator (ESO) to be made.

Undergrounding in the Waveney Valley

- 2.9 The proposals include overhead lines crossing close to the west of Diss in attempt to avoid other constraints. This raises significant concerns and should be avoided unless there is a clear case that undergrounding is not achievable.
- 2.10 The Council considers there to be a robust case for undergrounding where the line crosses the Waveney valley, as this is supported by National Planning policy, noting that the routing and method of this will need to avoid harm to Wortham Ling SSSI. This belief is also supported by the Waveney Valley Valued Landscape Report.⁶
- 2.11 The alternative underground routing put forward as part of this consultation goes some way in lessening the impacts of the proposals. However, the proposed undergrounding needs to be extended further into Norfolk and Suffolk in order not to undermine the benefit of undergrounding. With the current Waveney Alternative, the lines would still be clearly visible from the valley and from Wortham Ling. By extending undergrounding further north, to the north of Snow Street, impacts upon the Waveney Valley would be reduced significantly. By extending undergrounding further south, impacts on the Waveney Valley and Wortham Ling would be mitigated. In addition, to the south of the valley, realignment of the route to replace an an existing 132Kv line would eliminate impacts on an airstrip (see Appendix B, Inset Map A Diss).
- 2.12 In addition, making this change would also create an opportunity to bury the 132Kv line all the way north to the River Waveney, offsetting to a degree the impacts of the new 400kV line proposals in this area.

Change requests around Gislingham

- 2.13 Re-alignment of the proposal north of Gislingham would balance the needs of public amenity and heritage more appropriately and proposed works accesses can be modified to reduce the impacts on visual amenity and landscape features in this area (see Appendix B, Inset Map B Mendlesham).

⁵ <https://www.nationalgrideso.com/future-energy/projects/offshore-coordination-project/east-anglia-study>

⁶ <http://suffolklandscape.org.uk/wp-content/uploads/2024/04/Waveney-Valley-Valued-Landscape-Final-Report-17-April-2024.pdf>

Opportunity for restoration of the historic landscape and for Biodiversity Net Gain (BNG) at the poplar plantation west of Wickham Skeith

- 2.14 SCC notes that the alignment of the overhead 400kV line passes through part of the poplar plantation south of Eastlands Farm. SCC considers that there may be an opportunity to deliver significant historic landscape and biodiversity gains as part of the proposals, subject to an assessment of the condition of the trees, and the wishes of the landowner. This species has a limited life expectancy, and prone to disease. There will also be a significant risk of wind throw, in a high-risk location, adjacent to a highway and right of way, following partial clearance of the plantation. Therefore, it may be appropriate for the scheme to include removal of the poplar plantation as whole, and the restoration of historic river valley pasture, and enhancement of the public rights of way network. Safeguarding of the existing oak pollards would be a priority (see Appendix B, Inset Map B Mendlesham).

Undergrounding in the Gipping Valley

- 2.15 Where the proposed lines cross the rural environment of the Gipping Valley, the Council seeks realignment/undergrounding between proposed lattice towers RG160 and RG167 to mitigate lasting detrimental impacts upon parts of the former Special Landscape Area, which still displays characteristics of the valley landscape. By moving the alignment to the west of Creeting Hall (Grade II* Listed Building), SCC considers the adverse impacts on the setting of Creeting Hall could also be reduced.
- 2.16 The Council further seeks undergrounding of sections of the existing 132kV and 33kV networks especially to the south of the Stowmarket Substation. This would result in a reduction of harm to the assemblage of listed buildings around St Mary's Church, Badley (see Appendix B, Inset Map C Bramford) and partially offset the adverse impacts of the new 400KV line in this area.

Undergrounding in the Dedham Vale National Landscape

- 2.17 The Council welcomes the proposals to underground the section which runs through the Dedham Vale National Landscape and the siting of the Cable End Sealing compounds so that they avoid significant harm to the Dedham Vale National Landscape and Raydon Airfield. Although in order to avoid a conflict with Raydon Airfield, moving the Cable End Sealing Compounds further north to Lattice Tower JC026 in the vicinity of Wenham Thicks would be beneficial (see Appendix B, Inset Map D Raydon). It would also lessen the impacts upon the Grade II Listed Buildings at Wenham Grange and Vauxhall.

Undergrounding to the North of Lawford Substation

- 2.18 Although within Essex, the Council fully supports the undergrounding of the lines as they leave Suffolk and the Dedham Vale National Landscape and approach the Lawford substation because of the potential impact upon the National Landscape and the local residents close to the proposed substations who would potentially have been boxed in by overhead lines travelling both to and from Lawford substation (see Appendix B, Inset Map E Ardleigh).

Undergrounding to the South of Lawford Substation and the Dedham Vale National Landscape

- 2.19 Although within Essex, the Council fully supports the undergrounding of the lines as they leave Lawford substation because of the potential impact otherwise on the Dedham Vale National Landscape and the residents close to the proposed Lawford substation. Additional undergrounding in this area would also remove the potential to stop flying activities at the historic Boxted Airfield (see Appendix B, Inset Map F Boxted).

Bramford Substation

- 2.20 The substation provides a means of connection for multiple energy projects including from within the local area and from much further afield. The Norwich to Tilbury proposals must seek to minimise the impact upon the local residents and the environment as a whole. Proposals must take in to account the cumulative impacts from the other projects both in respect of construction and operation.
- 2.21 The Council considers that a full design review in the Bramford area is now essential, involving both this project and the Bramford to Twinstead Reinforcement (BTNO) as well as the UKPN 132kV network in this area. This is necessary to identify further options for mitigation and infrastructure reduction, to minimise adverse impacts on the host communities. The Council recognises, and expects, that this will require effective collaboration between NGET, UKPN, and Ofgem (see Appendix B, Inset Map C Bramford).

Electricity Distribution System

- 2.22 The Council considers that there are opportunities for the NT project to facilitate the removal of 132kV pylon lines operated by UK Power Networks, to rationalise and improve the network resilience overall, whilst reducing the cumulative visual impact of energy infrastructure, and compensating for the additional visual impact of the new NT 400kV power lines. Such an approach appears to be consistent with the British Energy Security Strategy. It appears there may be opportunities for rationalisation of this 132kV network, between Diss and Stowmarket, around Stowmarket and Needham Market, as well as, for example, for the existing 132kV line between Bramford and Lawford substations, highlighted in the UKPN Network Infrastructure and Usage Map in the Sources of Further Information Section.
- 2.23 Therefore, a Distribution System Options Report, should be produced for this project, to ensure that all the potential environmental and electricity system and economic benefits of this project are fully realised as per the example shown in the Sources of Further Information Section. This should aim to resolve local supply and connectivity issues in the Stowmarket area for, and around, the Freeport at Gateway 14.
- 2.24 The Council recognises, and expects, that this will require effective collaboration between NGET, UKPN and Ofgem

Cable Sealing End Compounds

- 2.25 SCC considers that the required Cable Sealing End compounds will need to be carefully sited and mitigated. The Council would welcome further proposals to avoid and reduce the potential landscape impacts but expects that further

detailed proposals for mitigation will be required, for example in respect of the establishment and management of planting designed for landscape mitigation around CSE compounds.

Climate Change

- 2.26 In accordance with the Council's Energy and Climate Adaptive Infrastructure Policy (2023), the landscaping and planting across the project should be designed, planted and maintained in such a way that it is responsive to local conditions and adaptable to the impacts of climate change.

Traffic and Transport (including Public Rights of Way)

- 2.27 The Council is concerned to ensure these impacts are fully assessed and mitigated, especially regarding construction traffic impacts on SCC's rural road network and the limited options for suitable HGV and AIL routes once the route alignment has been chosen. Removal of temporary haul roads and decommissioning also needs careful consideration.
- 2.28 Construction traffic; planning must consider the potential for significant adverse environmental impacts, including cumulative impacts, the Traffic and Transport proposals should include a statement around requiring more extensive monitoring, controls and enforcement for construction traffic, as it is almost absent from the documents, as well as further information on the assessment method. The transport impacts of the pre-commencement operations including the creation of temporary site accesses and construction compounds are also not referred to. Accesses and haul routes should minimise impacts on ecological and landscape features and minimise impacts on the efficient and effective operation of agricultural land and businesses.
- 2.29 Public Rights of Way (PRoW); given the significance of PRoW for access to the countryside, for wellbeing and within national planning policy, the Council is disappointed that Public Rights of Way are not treated as a separate topic, as requested during consultation, but split up over a number of disciplines that makes it difficult to see the full picture. Effective mitigation is needed for the impacts on recreational users of the PROW network, especially during the construction period.

The Avoidance of Airfields

- 2.30 The proposals as currently continue to have potentially serious implications for a number of airfields including the following:
- Tibbenham
 - Priory Farm, Tibbenham
 - Brook Farm, Burgate
 - Wattisham
 - Elmsett
 - Raydon
 - Boxted
 - West Horndon
 - Thurrock
- 2.31 In the interests of the amenity of users of these facilities, national defence and the general aviation industry in the area, the proposals should allow for their

continued and safe use and if necessary proposals should be amended further (see Appendix B, Inset Maps A Diss, B Mendlesham, C Bramford, D Raydon, E Ardleigh, F Boxted, G Norfolk Airfields, and H Essex Airfields).

Economic Development and Skills

- 2.32 The Council consider that there are significant positive opportunities that the project alone will bring to the county and the wider region, and where there is synergy alongside further transmission, distribution and generation projects. We expect National Grid to coordinate their projects in Suffolk and actively engage with the Council via a Memorandum of Understanding, with regard to Norwich to Tilbury, Sealink and Bramford to Twinstead, to secure benefits for and investment in local businesses and employment networks. Critical national infrastructure must not only deliver the Government's energy objectives but also deliver sustainable societal and economic impacts in the regions that are hosting them and as set out in SCC's Energy and Climate Adaptive Infrastructure Policy. National Grid as a responsible corporate entity should actively engage with the Council and its partners to identify and deliver inclusive growth, social value and additional wider benefits.
- 2.33 In terms of skills the Council is seeking for NGET to foster the local skills base in energy related industries within an area which is destined to host numerous energy related infrastructure projects. Therefore, financial measures in respect of relevant skills training within the local area should be agreed. There must also be adequate assessment of the likely origins of the labour force (both local and non-local), especially in the context of other energy projects with potentially overlapping construction periods, including for example East Suffolk.

Tourism Mitigation

- 2.34 The Council anticipates that the proposed development, given its location which is located across the Dedham Vale National Landscape and other rural areas of Suffolk fully consider tourism impact. It could have significant impacts upon visitor accommodation (in the construction phase), visitor perception, and ultimately visitor numbers, both during construction and during operation, hence financial support to offset the detrimental impact of construction upon, in particular, tourism in the Dedham Vale National Landscape and other areas should be agreed.

Community Benefits

- 2.35 Secondary mitigation would be in addition to any potential community benefits from the development, including any emerging requirements in the anticipated community benefit guidance as outlined in the recent consultation focussed on community benefits for Electricity Transmission Network Infrastructure. We would encourage the project promoter to also consider such community benefit options, as well as explore opportunities to coordinate community benefits with other National Grid projects in the region to exploit synergies. The Council would be happy to discuss further options suitable for the locality. The Council also seeks project promoters to consider legacy opportunities of all elements of their development.

3. Other Issues

Cumulative Impacts

- 3.1 This is an important issue given the numbers of infrastructure and other developments proposed across Suffolk, and there is a need for a full assessment of environmental and socio-economic impacts of the cumulative effects of the Norwich to Tilbury in conjunction with those other projects (see Appendix B, Overview Suffolk NISPs Map).

Mitigation Measures

- 3.2 SCC considers that, notwithstanding embedded mitigation and potential modifications to the scheme as proposed above, it will be unavoidable for the development to result in residual impacts on the community and locality, including on amenity, loss/reduced quality of recreational opportunity for the community, culture and heritage, and health and wellbeing. SCC expects appropriate and robust mitigation and/or compensatory offsetting for residual impacts, which could, for example, include funding for landscape restoration projects, alternative outdoor recreational offers, access and amenity improvements, cultural and heritage enhancements.

Post Consent Controls

- 3.3 SCC requests that all activities during and after construction be controlled by robust management plans, drawn up in accordance with outline plans approved by the Secretary of State and in consultation with the main contractor and approved under a requirement of the Development Consent Order.
- 3.4 The suggested working hours should also be amended to avoid construction on Saturday afternoons, Sundays or on Bank and Public Holidays.

The Avoidance of Heritage Assets

- 3.5 SCC supports the refined routing to reduce impacts upon Mellis Conservation Area and Thornham Park, however the area is rich in heritage assets and further mitigation will be required.

Biodiversity

- 3.6 Biodiversity Net Gain; whilst the principle of Net Gain within the Order Limits is strongly supported, the Council considers more detailed information will be required within the relevant management plans so that Biodiversity Net Gain will be delivered.

Historic Environment

- 3.7 Impacts upon the setting of listed buildings in the vicinity of the route requires careful consideration particularly alignment and of assessment of landscape impacts. Difficulties in locating specific assets within the survey information supplied needs to be addressed.

Archaeological mitigation requirements

- 3.8 SCC would want to see further proposals to secure the archaeological work appropriately. SCC understands there is a degree of flexibility in the scope of the project, particularly within the over-head sections. However, there needs to be an understanding of the heritage assets as a starting point for determining

mitigation/flexibility in the scheme. For archaeology this will require an appropriate level of archaeological evaluation, both non-intrusive and intrusive evaluation, to assess the appropriate mitigation/flexibility.

Retention of Construction Bridges and tracks

- 3.9 Proposals for the retention of bridges and tracks required for construction to improve public access to the area should be included, which could provide a legacy benefit for the local community. If the NGET proposals include the use of a construction bridge over the River Gipping, this might for example offer potential legacy benefits as access for public rights of way are constrained in this area.

Water Environment Impacts of construction

- 3.10 SCC seeks reassurance that adequate catchment is made available for surface water run-off during construction.

Geology and Hydrology

- 3.11 In terms of Minerals Resources Safeguarding, SCC acknowledges that there are no detrimental impacts upon existing minerals and waste facilities. In terms of the potential impact upon the underlying sand and gravel resources, the national significance of the proposals outweighs the potential sterilisation of what would be at most regionally important sand and gravel resources.

Agriculture and Soils

- 3.12 In respect of the Best and Most Versatile Agricultural (BMV) Land, SCC acknowledges the limited negative upon BMV land so long as appropriate soil handling techniques are guaranteed.

Air Quality

- 3.13 Regarding Fugitive dust emissions, SCC supports proposals to use best practice measures to avoid fugitive dust emissions so long as the appropriate methodology can be guaranteed.

Noise and Vibration

- 3.14 In terms of proposed working hours, the SCC will object to proposals to allow any construction on Saturday afternoons, Sundays and Bank Holidays and outside of core construction times.

Public Health

- 3.15 SCC has been reassured that all recognised standards in respect of Electric and Magnetic Forces will be adhered to.

4. Appendix A – Detailed Technical Comments

5. SCC Archaeology

Archaeological mitigation requirements

- 5.1 The Council would want to see further proposal to secure the archaeological work appropriately.

SCC Archaeology

Overview

- 5.2 The proposed scheme is for 180km of electricity infrastructure between Norwich and Tilbury. Currently, the proposal is for overhead lines and steel-lattice pylons for most of the route, with underground cables through the Dedham Vale Area of Outstanding Natural Beauty (AONB).
- 5.3 SCC Archaeological Service (SCCAS)'s primary role in relation to the scheme is to advise on below-ground archaeological remains in Suffolk, although SCCAS offer some comment on other aspects of the historic environment. With regard to designated heritage assets, built environment and landscape, SCCAS advise that opinions are sought from Historic England, Local Authority Conservation and Design Teams, and relevant Landscape Advisors.
- 5.4 SCCAS set out here high-level advice on specific areas of sensitivity in the preferred corridor, drawing on information in the County Historic Environment Record (HER). SCCAS also set out the further work that is required to ensure that siting/routing decisions and an application are based on an appropriate understanding of the impacts of the scheme on below-ground archaeological remains. SCCAS set out some areas where early assessment would be beneficial for siting/routing, and also set out expectations for work to inform an EIA, also including early upfront work.
- 5.5 As set out above, the SCC has identified additional areas for potential undergrounding, in accordance with draft EN-5 paragraph 11.2.20. These are in the Waveney Valley, Gipping Valley, the area north of Bramford, Flowton and the area north of the AONB towards Raydon. River valleys and the slopes above them generally have high potential for archaeological remains. Given the size and scale of the impact of undergrounding - spanning areas equivalent to that of multi-lane highways – SCC recommends that additional areas of proposed buried cabling would involve a corresponding need for early and thorough evaluation, both non-intrusive and intrusive, to characterise remains, assess the impacts of the scheme and to inform mitigation strategies.

Impacts of the scheme

The impacts of the scheme vary along its length, but aspects with groundworks that have the potential to destroy or damage archaeological remains include:

- a) Undergrounding in the Dedham Vale AONB, 65-100m corridor for up to 18 cables, with jointing bays and associated potential widening of the easement corridor (the most significant in scale aspect of the scheme).
- b) Waveney Valley Alternative
- c) Potential undergrounding to pass under the Bramford to Twinstead Lines.

- d) Potential undergrounding in additional areas identified by SCC
- e) Cable sealing end compounds (30x80m), haul roads and access tracks
- f) Construction compounds and other temporary land-take for construction (including HDD sites and offsite transport enhancement)
- g) Biodiversity offsetting areas and other offsite mitigation.
- h) Works around Bramford substation
- i) Pylons

Siting and routing methodology

- 5.6 The PEIR needs to acknowledge the potential for archaeological remains of demonstrably equivalent significance to scheduled monuments, which are currently unknown to exist within the proposed route, as required by EN-1 5.9.5 and 5.9.6. There needs to be sufficient archaeological work, both non-intrusive and intrusive to assess the archaeological potential of the route.
- 5.7 SCCAS highlight below some known non-designated sites within and within close proximity to the route corridor which could present constraints to routing options within it, particularly if preservation in situ of remains is appropriate (for example, if they are of significance equivalent to designated sites of national importance, as per EN-1 paragraph 5.9.5 and 5.9.6). Targeted further assessment should therefore be brought forward to an early stage, to inform refinements.
- 5.8 For the area of undergrounding in the AONB, the promoters of the scheme note additionally that there is likely to be a significant requirement for survey to support consenting, and post-consent mitigation. SCCAS agrees and offers further comment below. Both the underground crossing of the Stour and the Waveney Valley Alternative are in areas of known high archaeological sensitivity.
- 5.9 Further, cost has been assessed as a differentiating factor, but at this stage, prior to detailed assessment, the costs of archaeological work can only be estimated. There is potential for costs to be relatively high.

Specific considerations for routing

- 5.10 The area of the proposed Order Limits has, in most parts, not been subject to systematic archaeological investigation, and therefore the character, extent and significance of surviving above and below-ground heritage assets across the scheme has yet to be defined. With a project of this scale, there is a very high potential for additional, as yet unidentified, significant heritage assets to survive across much of the project corridor. Some of these may be of national significance and worthy of preservation *in situ*. As such, without further assessment to fully characterise the heritage resource, the impacts of the development upon above and below-ground heritage assets cannot be fully understood. Archaeological evaluation, both non-intrusive and intrusive, should provide sufficient baseline information to enable decisions to be made for EIA and on design/planning decisions.
- 5.11 Existing data regarding known heritage assets within Suffolk is recorded within the Suffolk Historic Environment Record (HER), this information on designated and non-designated heritage assets has been presented within **11.1 Historic**

Environment Baseline Report. However, this information has only been used to provide an assessment of the heritage asset value and has not been used to provide an understanding of the archaeological potential of the proposed route and impacts of the proposal on the significance of those potential heritage assets, which are yet to be identified.

- 5.12 It needs to be highlighted that the information generated by systematic archaeological investigation has the potential to enhance our understanding of known heritage assets, therefore the heritage asset values provided within the Historic Environment Baseline Report cannot be fully understood without full archaeological assessment.
- 5.13 There are numerous sites and finds recorded in the HER for the corridor and in the landscape around it and there is high potential for additional and as yet unknown heritage assets to be encountered. As a result, further consideration needs to be given to archaeology and, as a minimum, using the information provided within the Historic Environment Baseline Report, provide a critical review of archaeological potential as part of baseline data gathering to further inform siting, routing and archaeological investigations.
- 5.14 Within the corridor for the currently proposed overhead lines, there are several sites where SCC would, on the basis of current information, advise that avoidance is appropriate. Further assessment should be undertaken to ensure that this is possible within the parameters of routing decisions. The nature of the sites listed below means that even small levels of disturbance could have a large impact on the significance of the heritage assets. Therefore, we recommend careful assessment for the siting of infrastructure:
- a) Complexes of prehistoric funerary monuments at Cotton, Mendlesham, Creting St Peter and Badley (COT 016, MDS 078, MDS 121 and MDS 122, CRP 008, BAD 005, BAD 006, BAD 007)
 - b) prehistoric enclosures at Creting St Peter (CRP 002)
 - c) areas of prehistoric occupation at Wortham and Mellis (WTM 010, MLS 007)
 - d) an area of Iron Age and Roman settlement at Stowupland (SUP 009)
 - e) Roman lead coffins may indicate a wider cemetery at Great Wenham (WMM 002)
 - f) a Roman site at Wickham/Finningham, which is of sufficient size and scale that it may create a pinch point (WKS 013, WKS 003), situated on a south facing slope overlooking the River Dove, west of the Roman Road at Wickham Street – the extent and potential sensitivity of this site may present a constraint to micro-siting.
 - g) A large scatter of finds indicating a Roman site at Barking (BRK 117), also associated with a Roman Road line (RGL 006)
 - h) Iron Age/Roman/Saxon occupation at Badley (BAD 016 and BAD 020)
 - i) finds scatters indicative of a Roman and Anglo-Saxon cemetery in the parishes of Palgrave and Wortham.
 - j) Areas of Saxon occupation at Wortham (WTM 010)

- k) a possible church site at Wortham (WTM 036) and sites around the church at Creting St Peter (CRP 004),
 - l) moated sites at Creting St Peter, which the author note may be a possible Adulterine Castle (CRP 001)
- 5.15 SCCAS notes several Scheduled Monuments near the corridor, which include Offton Castle (OFF 002), Wenham Castle (WMP 001) and Site discovered by Aerial photography S of King's Wood (SSM 011). Historic England will advise on impacts on the Scheduled Monuments and their settings.
- 5.16 For proposed undergrounding, there is high potential for impact on archaeological remains and palaeoenvironmentally significant layers, deposits and sediments (e.g peat). In particular, where the route crosses River Valleys which are areas of high archaeological complexity and sensitivity.
- 5.17 It is likely that other/discounted options for crossing points in this archaeologically sensitive landscape would also have implications, but for the favoured route:
- a) The Waveney River and River Valley is of high archaeological potential, comprising widespread scatters of work flints dating from the Palaeolithic, Mesolithic Neolithic and Bronze Ages (PAL 009, PAL 025, WTM 038, WTM 040 and WTM 043), early Neolithic pottery (WTM 042), Beaker pottery (WTM 038) and early Iron Age pottery (WTM 040 and WTM 042).
 - b) A possible Neolithic Longbarrow (WTM 013) and a possible small roundbarrow (WTM 039).
 - c) Scatters of Roman metalwork and pottery (PAL 021, PAL 025 and PAL 043).
 - d) Scatters of Roman and Anglo-Saxon artefacts (WTM 050)
 - e) The Stour River and River Valley is of high archaeological potential, the county HER records a complex of sites on the northern valley side of the Stour that requires further assessment. This comprises an extensive cropmark complex of rectangular and curvilinear enclosures and ring ditches of unknown date and significance, which likely represents early, multiperiod occupation (HGM 001, HGM 005 – HGM 013, HGM 017), and which spans the width of the corridor. The Grade II* Church of St Mary is also in this area (HGH 014).
- 5.18 Early archaeological evaluation may inform design options for HDD and the location of drill sites to minimise disturbance to archaeological remains. SCCAS therefore advises early geo-archaeological and palaeoenvironmental assessment, along with geophysical survey and trenched archaeological evaluation of the whole undergrounding section, to inform siting decisions, design and to inform on mitigation measures. **SCCAS strongly advises early trenched archaeological evaluation to ground truth the results of the geophysical survey along with palaeoenvironmental and geoarchaeological assessment of the river valley.**
- 5.19 Finally, for any additional areas of undergrounding within River Valleys sites, there is potential for well-preserved stratified sites in and on the valley sides, and for wet deposits that contain significant organic archaeological remains, as well as complex sites in areas that are topographically favourable. The

Waveney Valley has very high potential for archaeological sites for all periods, and high potential for preserved organic remains in the deep peat soils. There is also very high archaeological potential around the Gipping Valley, where there are high numbers of complexes of cropmarks. The cropmark complex at Creting St Peter highlighted above is at a confluence of several tributaries of the Gipping. There is also particular sensitivity as the route approaches the lighter soils and contours of the tributary valleys of the Stour, which may be impacted by undergrounding further towards Raydon. Historic water meadows may also be a consideration. Early archaeological evaluation, paleoenvironmental and geoarchaeological assessment should be undertaken in all these areas.

Decommissioning and undergrounding of the 132kV line

- 5.20 Within the corridor there are several sections of the current 132kV line which are going to be decommissioned and undergrounded. SCCAS would advise that the impacts of the proposed undergrounding of the 132kV cannot be assessed until full archaeological evaluation, both non-intrusive and intrusive has been undertaken. The results of this work will enable an accurate review of the nature, quality and extent of the archaeological resource. The results of this work should be presented as part of the EIA.
- 5.21 Areas where existing 132kV pylons are to be decommissioned, including Haul roads, compounds/storage areas will need archaeological evaluation, both non-intrusive and intrusive in order to quantify the archaeological resource and determine appropriate mitigation.

Expectations for EIA

- 5.22 In accordance with National Policy Statements for Energy, EN-1 and EN5, SCCAS expect an Environmental Impact Assessment to be informed by a suite of evaluation techniques – including geoarchaeological and palaeoenvironmental assessment, geophysical survey and trenched archaeological evaluation, - so that it fully assesses the character, extent and significance of the heritage resource and allows the impacts of development to be comprehensively understood and mitigation proposed. There is high potential for additional and to date unknown heritage assets to survive across much of this area. **Some of these may be of national significance and worthy of preservation *in situ*.**
- 5.23 In advance of EIA, we advise that it should include the following:
- a) **Desk-based assessment**, which is inclusive of the information provided within the Historic Environment Baseline Report and draws on landscape, soil type, historic landscape character and topography to provide critical assessment of the archaeological potential for the areas impacted by the project for both known sites and potential to encounter as yet unknown archaeology. The DBA should draw on the HER's supporting archives and should include a historic map regression (including tithe and estate maps), a study of aerial photography (including historical imagery) and any other multi-spectral data, an assessment of LIDAR data and information on historic hedgerows and protected lanes. Datasets held by the County Records office and other archive sources should also be consulted where features merit more detailed research. SCCAS would be happy to discuss in more detail.

- b) **Landscape** should be considered for assessment as an aspect of the historic environment and to set the archaeological resource into context. Assessment of the impact of the proposals upon historic hedgerows, boundaries, protected lanes, historic water meadows and other historic landscape elements such as moats, tracks, woodlands, routes and settlements should also be considered.
- c) Specialist modelling and **assessment for impacts on Palaeolithic/Mesolithic sites.**
- d) **Deposit modelling and paleoenvironmental work** to provide further information on likely waterlogged sites with correspondingly good organic preservation, particularly in river valleys. This would also identify whether there are likely to be sensitive sites in the vicinity of the scheme where the potential impact of changes in water-level should be considered.
- e) **Earthwork survey and building assessment** should be undertaken of upstanding remains, so that extant earthwork sites can be avoided - the significance of any earthworks should be assessed, alongside the impacts of proposals on them.
- f) **Geophysical survey** (a combination of magnetometry, earth resistance and ground penetrating radar as appropriate), across areas of major impact and other areas, subject to sensitivity – including survey of a widely buffered area to allow consideration of options.
- g) **Fieldwalking and metal detecting surveys** of key sites.
- h) SCCAS advise that it is best practice for all sites which will be impacted on by any element of the works should be subject to a **full programme of trenched archaeological evaluation**, at EIA stage. This will inform design, project programming and risk management, avoiding unexpected costs and delays post-consent that would arise from a poor understanding of the impact on below ground archaeological remains. It will also inform timescales and reveal any implications for other EIA topic areas. Overall, SCCAS would expect trial trenches equivalent to 5% by area survey of the area of ground impacts, although would consider the results of non-intrusive survey to finalise advice on the scope and timing of trial trenching, where appropriate. There may be different assessment requirements for overhead lines and undergrounding. Large areas, fixed elements, river crossings and other hotspots and pinch points are all of high priority. Sites considered to be of local importance would also require mitigation.
- i) **Proposals for mitigation.** Detailed evaluation may enhance our understanding of known heritage assets or reveal as-yet-unknown sites of local, regional and national significance. Mitigation may include avoidance, preservation *in situ* (including archaeological management plans, and subject to periodic monitoring throughout the lifetime of the project to ensure preservation *in situ* is being maintained), or excavation, recording and publication of the results to allow for the enhancement of public understanding of heritage assets to be impacted by development.
- j) **Open area excavation** will likely form the most appropriate methods for mitigation. SCCAS would expect an EIA to demonstrate clearly that archaeological work has been factored in to project programmes, with

sufficient time allowed to enable fieldwork to be completed and avoid delays to the project timetable.

- k) **Consideration of interactions** with other topic areas. SCCAS would expect cross linking in the EIA between archaeology and other subject areas (e.g. Construction Management Plans, Hydrology, Ecology, Soil and Dust Management).
 - l) **Proposal for outreach**, potentially linking up with other projects in the area.
 - m) **Archiving**, A project of this size will generate a considerable amount of digital information, early engagement with an appropriate digital archive repository is strongly advised to ensure that costs for the archiving of digital data can be factored into the project. Early engagement with each of the county archaeological archive stores is advised to secure deposition of the physical archives and to ensure costs can be factored into the project. Detailed proposals for archiving should be set out in the OWSI for deposition of the digital and physical archives. SCCAS expect that the physical archive will be deposited in its entirety and therefore agreements with landowners should be sought at an early stage to achieve this.
 - n) This project will generate significant amounts of archaeological information which will need to be incorporated into County Historic Environment Records, the EIA should detail **proposals for Historic Environment Record enhancement**.
- 5.24 All elements of the scheme have the potential to damage or destroy any surviving archaeological remains. Therefore, SCCAS would expect sufficient geophysical survey and trenching upfront to inform on impacts, and to ensure that a robust programme and timetable for mitigation is proposed for any DCO application.

Comments on next steps

- 5.25 SCCAS advises that alongside the archaeological consultant an archaeological clerk of works is appointed to the project at an early stage to ensure the smooth delivery of the archaeological requirements for the project alongside other elements of the scheme.
- 5.26 As has been shown by other Nationally Significant Infrastructure Projects in the region time will be a critical factor. Archaeological and heritage assessments and mitigation phases should be programmed into the project at the earliest opportunity, with sufficient time allowed to enable evaluations to be undertaken prior to decisions (e.g. taking into account agricultural cycles and ecological windows and landowner consent).
- 5.27 SCCAS will monitor all stages of the work on behalf of the LPAs/discharging authority for conditions and will produce briefs for all stages of work and review and agree detailed Written Schemes of Investigations.
- 5.28 Provision of GIS data at all stages of projects is very useful.
- 5.29 Several large projects in the area at a given time may put pressure on available archaeological work forces.
- 5.30 In due course, SCCAS would expect to agree condition wording, and the means by which work is secured through a DCO – SCCAS encourages the use of Outline WSIs, which sets out the high-level parameters for a framework for the

archaeological work on the scheme as a whole. Which will inform the development of Site-Specific WSI's which will detail the site-specific methodologies for archaeological evaluation and mitigation.

- 5.31 SCCAS welcomes the creation and use of Historic Environment/Landscape Stakeholder group, which is being used to facilitate cross-county and cross-administrative area working, and to ensure integrated discussion on holistic approaches to the Historic Environment, particularly where there are considerations and balances between below-ground and landscape impacts.
 - 5.32 SCCAS reiterates that increases in the amount of undergrounding for the scheme (for open cut or drill sites for HDD) would mean a proportionally higher impact on archaeological remains and on the amount of assessment, mitigation and intrusive work required.
 - 5.33 Directional drilling to preserve archaeology *in situ* – need evaluation to assess the archaeology and determine the appropriate depth of drilling, there would also need to be suitable methodologies in place to allow for preservation in situ of important archaeological remains should there be an outbreak of drilling muds, including bentonite (i.e. no scraping of soil within preservation *in situ* areas to create bunds).
 - 5.34 SCCAS would be happy to discuss the scope of required work at an early stage.
- General note*
- 5.35 *No archaeological work shall commence without a Written Scheme of Investigation approved by the relevant archaeological advisor to the Local Planning Authority.*

Document specific comments.

PEIR Volume I – Main Text	
Paragraph	SCCAS comment
11.1.2	Interrelationships and impacts between the Historic Environment and: 6. Agriculture and Soils – particularly in relation to soil management during archaeological evaluation and mitigation. 8. Ecology – ecological mitigation/enhancement often has significant impact on buried archaeology.
11.2	Need to take account of all the relevant guidance. EN-1 and EN-5 shouldn't be looked at separately. Needs to include NPPF
11.2.6	In accordance to the Planning Act 2008 and EN-1 this section needs to reference the NPPF
11.2.7	This needs to include the Babergh Mid Suffolk Joint Local Plan (2023)
11.2.8	This paragraph should reference regional guidance for undertaking archaeological works in specific counties.

	Historic England planning guidance note 2?
11.5.26	Non intrusive and intrusive archaeological works will need to be agreed with the Archaeological advisors to the local planning authorities. Methodology for archaeological investigation will need to be approved in a WSI for archaeological evaluation.
11.6	<p>This section, in conjunction with Appendix 11.1. Historic Environment Baseline Report, assesses designated and non-designated heritage assets. However, this needs to highlight that this information on archaeology is based off of information which has the potential to change with the results of systematic archaeological investigation. Therefore, it must be noted that with regards to archaeological heritage assets, the heritage asset value cannot be accurately attributed without full archaeological assessment and full understanding of the archaeological resource. The information of which would be provided in the ES with the DCO application.</p> <p>This section also needs to address the high potential for encountering, as yet, unknown heritage assets that have the potential to be discovered during ongoing archaeological evaluation, both non-intrusive and intrusive.</p>
11.7	<p>Following from full archaeological evaluation of the undergrounding area/s, archaeology and preservation in situ could be a consideration in the location and extent of HDD.</p> <p>There will need to be suitable methodology in place to allow for preservation in situ of important archaeological remains should there be an outbreak of drilling muds, including bentonite (i.e. no scraping of soil within a preservation <i>in situ</i> area to create bunds). Paragraph 12.8.11 references the potential for drilling mud outbreaks.</p>
11.7.5	See SCCAS comments on appendix 4.1: Draft Outline CoCP
11.8	Same as comment 11.6
11.9	SCCAS understand there is a degree of flexibility in the scope of the project, particularly within the over-head sections. However, there needs to be an understanding of the heritage assets as a starting point for determining mitigation/flexibility in the scheme. For archaeology this will require an appropriate level of archaeological evaluation, both non-intrusive and intrusive evaluation, to assess the appropriate mitigation/flexibility.

4.1 Draft Outline Code of Construction Practices	
Paragraph	SCCAS comment
2.2	It would be beneficial for the project to appoint an archaeological clerk of works, who will be the point of contact between the different sectors of the project, prior to and during construction.
Ref	SCCAS comment
H02	<p><i>“Where a previously unknown heritage asset has been discovered, or a known heritage asset has proven to be more significant than foreseen at the time of application, the Project will inform the Local Planning Authority and discuss a solution that protects the significance of the new discovery, so far as is practicable within the Project construction requirements.”</i></p> <p>The project will need to be informed by the appropriate level of archaeological evaluation, both non-intrusive and intrusive.</p> <p>Where the protection of below-ground heritage assets cannot be achieved by preservation <i>in situ</i>, an appropriate level of archaeological mitigation, agreed with the Local Authority Archaeological Advisor, will be required.</p>
H04	<p><i>“Archaeological mitigation in the form of excavation and recording. This will be specified through draft Heritage Mitigation Strategy and Outline WSI to be submitted with the DCO application.”</i></p> <p>It would be worth clarifying here that the OWSI would be specific for Archaeological work.</p> <p>For archaeology, the OWSI can only define the methodology for archaeological investigation and mitigation. Therefore the OWSI should only be process document, leaving any areas for archaeological mitigation to be defined in subsequent site specific WSIs.</p>

11.1 Historic Environment Baseline Report	
Paragraph	SCCAS comment
General comments	<ol style="list-style-type: none"> 1. This document should state that with a project of this size and scale, there is a high potential for encountering, as yet, unknown heritage assets that have the potential to be discovered during the archaeological works. The archaeological potential throughout this document has been disregarded. 2. If for example there is good reason to suspect that a bare field which has never been investigated contains important remains, the task of managing it would be different. (Historic England 2 para. 16)

3. The purpose of this document is to establish the archaeological potential, as indicated by known heritage assets, landscapes and geology. However, this has not been done.
4. The required assessment of archaeological potential should be presented within the Historic Environment Baseline Report as this will form part of the baseline of Historic Environment data submitted as part of the EIA. The information presented within is report should be used in the production of the Outline Written Scheme of Investigation (OWSI) or Site Specific WSIs.
5. The areas discussed within the document are based on local authority boundaries and not on the sections of the development. The Historic Environment Baseline Report needs to reflect the sections of development (i.e undergrounding in the Waveney and Stour) as proposed, to provide an initial understanding of construction impacts and the archaeological potential of those sections of the proposal.
6. There appears to be some inconsistency with attributing heritage asset values for assets with information present on the HER and when providing heritage asset values for the same information within the PAS data.
7. When looking at groups of artefacts, the heritage asset value is, in places, being determined based on the individual artefact and the group value is not always considered. SCCAS consider this subtracts from the significance of the heritage asset and when groups of artefacts are discussed the heritage asset value should be provided for the group asset not the individual artefact.
8. **The value of finds archaeologically is what the information indicates about the nature of remaining below-ground heritage assets. This has not been done.**
9. Where sites have been excavated the archaeology has been fully recorded, the asset value of the information provided from the excavation should not be determined to be low, rather this should be reflective of the information the archaeological works provides towards regional/national research frameworks.
10. When an assessment of harm towards the heritage asset is being determined, the harm with regards to the heritage assets that have been subject to archaeological excavation/mitigation, the level of harm could be considered to be low.

	<p>11. However, the archaeological interest of an asset can remain even after apparent through investigation. As techniques and the understanding of our past improve, a previously investigated asset may be revisited to see what further can be learned (see Historic England no.2)</p> <p>12. Where discussing designated heritage assets, the asset value should also include any archaeology which could be associated with the designated heritage asset.</p>
3.3.69	Individual PAS finds have been attributed a low heritage asset value, however, the combination of these heritage assets and location within a River Valley indicates significant activity within this area, and is indicative of occupation within this setting, particularly when the PAS finds are considered in relation to other heritage assets in the vicinity. Therefore, a higher heritage asset value is appropriate.
3.3.83	This needs assess the group value of the finds rather than assess the heritage asset value of the individual finds. The purpose of this is to provide an assessment of the likely buried archaeological remains, indicated by the finds group.
3.3.102	This needs assess the group value of the finds rather than assess the heritage asset value of the individual finds. The purpose of this is to provide an assessment of the likely buried archaeological remains, indicated by the finds group.
3.3.104	The individual PAS finds have been considered individually, however, when the information from the PAS database is combined the concentration and types of finds present are indicative of Late Iron Age/Early Roman occupation. Therefore, a higher heritage asset value is appropriate.
3.3.107	This needs assess the group value of the finds rather than assess the heritage asset value of the individual finds. The purpose of this is to provide an assessment of the likely buried archaeological remains, indicated by the finds group.
3.3.113	<p>This needs assess the group value of the finds rather than assess the heritage asset value of the individual finds. The purpose of this is to provide an assessment of the likely buried archaeological remains, indicated by the finds group.</p> <p>These lithic scatters when combined with other heritage assets in the immediate area show a landscape of prehistoric activity along the Dove River Valley.</p>
3.3.136	Stating that the individual assets have a low value detracts from the significance of the group heritage asset value and should be removed.

3.3.148	Stating that the individual assets have a low value detracts from the significance of the group heritage asset value and should be removed.
3.3.150	Stating that the individual assets have a low value detracts from the significance of the group heritage asset value and should be removed.
3.3.171	This needs assess the group value of the finds rather than assess the heritage asset value of the individual finds. The purpose of this is to provide an assessment of the likely buried archaeological remains, indicated by the finds group.
3.3.327	Wickham Abbey, there has been no systematic archaeological investigation of the area, therefore the location of the Abbey is not known. There is high archaeological potential for below-ground heritage assets associated with the benedictine cell in the wider area. As result, this needs to provide an assessment of the likely buried archaeological remains, indicated by the information in the HER.
3.4.45	John Constable died in 1837.
3.4.111	<p>The cropmarks have been considered individually, however, when the information from the HER is combined the concentration of cropmarks forming the cropmark complex should afford a higher heritage asset value.</p> <p>The purpose of this is to provide an assessment of the likely buried archaeological remains, indicated by the cropmarks.</p>
3.4.123	This is a good indication for the presence of preserved organic archaeological remains within the river.
3.4.453	The Church of St Mary's (1351625) was sketched by John Constable, this would need to consider when discussing the heritage asset value and would need to be considered when discussing impacts on setting, as with other Constable artworks.

6. SCC Ecology

- 6.1 The documentation is thorough but, although it acknowledges the close inter-relationship with other projects (particularly at Bramford), this is not, in my view, pursued with detail.
- 6.2 The lack of detail is also something of a general issue here. We are anticipating detailed information in the Environmental Statement (when it arrives in support of the DCO) as there are a large number of species-specific field surveys that are still on-going (during the 2024 survey season). It is very difficult for us to make detailed comments when we don't have any significant data.

Specific Comments

- 6.3 Fragmentation and degradation of habitat is my major concern with this proposal. It is the cutting of hedgerows and tree lines to install the cables and, whilst it is appreciated that there will be some planting, it is the loss of these features – even if only temporarily - that concerns me. There is some mention of techniques to, for example, provide continuity for bat foraging and navigation but considerable detail will be required. Thought must be given to interim measure to retain ecological connectivity.
- 6.4 SCC is concerned (as a Member of the County Wildlife Site Panel) of potential impacts upon County Wildlife Sites including Roadside Nature Reserves. The likelihood of damage has been mentioned in the PEIR and this is, of course, concerning. We wish to assist the Applicant by providing such information as may be required to understand where these sites are, why they are listed and discuss what site-specific mitigation will be required. We think that an Ecology Working Group (consisting of the Applicant and key Natural Environment stakeholders) will be of real benefit to all parties.
- 6.5 The PEIR acknowledges the blocks of Ancient Woodland within the proposed Order Limits (they identify four) but recognises that smaller blocks (of valuable woodland) have been omitted. I think that this omission should be remedied and recommend that NG contact SBIS where mapping of smaller features has been undertaken.
- 6.6 At 8.6.36 (page 210) it is proposed not to survey within the Order Limits for Common Lizard. The species can be present (and certainly has successful populations in Suffolk). The remedy to this particular issue (and to other similar statements is set out in my general comments below.
- 6.7 SCC welcomes the proposal to appoint an Ecological Clerk of Works and, through an Ecology Working Group, believe that this will be useful to address any problems and issues that arise during the construction and post construction phases.
- 6.8 SCC notes that impacts upon Species of Principal Importance will be considered in the Environmental Statement but anticipate that we shall wish to consider the data and proposals most carefully.
- 6.9 Highly mobile species (such as Badger) are still being surveyed for currently but, as the Applicant will be aware, they can start populating an area very quickly. We anticipate the ECoW will be well aware of this and will deliver the appropriate advice to the construction crews.

- 6.10 Invasive Non-Native Species are mentioned but there is no undertaking to remove them, if encountered. We would like assurance that, rather than just ensuring that they don't spread, that, if encountered, the Applicant will deal with them.
- 6.11 Please ensure that all biodiversity survey data is forwarded to SBIS (for Suffolk) and the relevant information services for Norfolk and Essex as well.

General Comments

- 6.12 There are a couple of examples of species that have been dismissed from the survey effort (such as Common Lizard) within the Order Limits. I think that this may be a little short-sighted but I am not unduly worried as any competent Ecologist carrying out field surveys will record their presence if encountered. It is the oft-validated assertion that wildlife doesn't read the books and can appear in places where we may not expect to encounter them. I think that good, competent Ecologists will walk around with their eyes open and, if any are encountered, will record them and address the required mitigation (and any requisite compensation) in supporting documentation (e.g., LEMP).
- 6.13 An Ecology Working Group comprising the Applicant and key natural environment stakeholders will be an invaluable tool to maintain good lines of communication between all parties and allow issues and problems to be more speedily resolved. This has worked with other NSIPs and we think that the Applicant would find it beneficial. It will also assist in directing, for example, the requisite Biodiversity Net Gain.
- 6.14 Because wildlife can be mobile, an almost continuous monitoring of the site for species such as Badger will be required. Will the methods for doing this be set out in the LEMP or ES?
- 6.15 There was no mention of micro-routing to avoid impacts on important features – such as Veteran Trees – and this should be addressed.

Other Points

- 6.16 An asset-based tree valuation system, CAVAT (Capital Asset Value for Amenity Trees) for the UK should be utilised in monetary terms for individual tree loss as way of compensation measures such as.
- a. i -Tree calculates the replacement value of each tree and the benefits it provides in terms of carbon sequestration, carbon storage, air pollution removal and rainwater retention. The value of the "ecosystem services" provided for urban trees, or
 - b. i - Tree Eco suite of tools. This can be a very useful tool for ensuring that compensation measures are also met for any replacement planting for the loss of those ecosystem services.
- 6.17 Both systems are peer-reviewed tree benefits estimation science. Hopefully this can be put into the mitigation measures for compensation loss for trees and hedgerows.

Conclusion

- 6.18 The PEIR is fairly comprehensive document but is lacking species survey detail. Without that data, we have difficulties in making comments to address, in

particular, mitigation. The Applicants will need to address mitigating the loss of and degradation of ecological connectivity as well.

- 6.19 SCC are firmly of the view that an Ecology Working Group would be of real value to the Applicant and to the key environmental stakeholders. We are pleased that an ECoW will be appointed and will do what we can to assist them.

7. SCC Economic Development, Tourism and Skills

Economic development and skills

- 7.1 Table 15.1 describes the widening of the wider study area to include West Suffolk due to the location of the project office and Ipswich Borough Council to more accurately reflect potential sources of labour where commuting distance is 45 minutes or less. However, using this same rationale, East Suffolk should also be included in this study area due to major settlements being located within this 45-minute commuting radius in order to adequately reflect the labour market area and commuting patterns for construction workers for infrastructure projects. SCC recommends that this study area is extended, particularly due to the large number of other Nationally Significant Infrastructure Projects which will be under construction in the region (at least 8 in Suffolk alone, including Sizewell C as well as Sea Link and Lion Link, both power infrastructure projects). CITB have estimated that an additional 19,050 construction workers needed up until 2027 to deliver the planned work (CITB East of England outlook 2023-2027).
- 7.2 It is imperative that the applicant works with SCC and its regional skills coordination function as well as other relevant organisations to maximise the proportion of workforce sourced locally. Detailed plans and evidence of this should be provided as well as demonstration of collaboration with other projects and activities in the region. Any assumptions around workforce origins within the socio-economic assessment should reflect the impact of construction occurring alongside a large number of Nationally Significant Infrastructure Projects as well as consideration in the assessment of transport impacts.
- 7.3 SCC welcome the plans to provide a detailed assessment of local economy and employment to be undertaken in Environmental Statement with final construction employment numbers, incorporating leakage, displacement and multiplier effects, including indirect and induced effects on the economy of the wider study area. This is particularly important due to the large number of concurrent Nationally Significant Infrastructure Projects in the region. It is vital that the workforce assessment considers the different demands on the different phases of the project and assess these cumulatively with other potential major construction projects which will be occurring simultaneously. The Environmental Statement should consider the impact and opportunities the development may place on the local labour market. As per the Planning Inspectorate's scoping opinion comments, we would expect to receive detailed workforce information to facilitate regional coordination across Nationally Significant Infrastructure Projects, including a breakdown of the expected number and nature of employment opportunities during each phase of the development, as well as expected source of labour (ie. local vs national). The applicant should relate this to the availability of labour in the area and identify how any mismatch between supply and demand will be addressed.
- 7.4 As part of future submissions, a workforce profile should be provided outlining:
- a) Peak workforce numbers;
 - b) Average daily workforce numbers;
 - c) Broad competencies of workforce (i.e. civils, mechanical, electrical etc);

- d) Anticipated split of home based and non-home based workforce;
 - e) These profiles will need to be set against the construction timeline.
- 7.5 SCC welcomes the expansion of Grid for Good to deliver training and skills development in the region, to encourage the next generation of green energy workers. However, it should be noted that this programme will need to be tailored to the unique needs, characteristics and challenges of the region and take into account other projects and activities available in the area to avoid duplication.
- 7.6 When considering the inter-project Zone of Influence (table 17.4), SCC does not consider it appropriate in this instance to group socio-economics, recreation and tourism together. Socio-economics must be considered separately as the current ZOI of 1km to allow for inter-project impacts to be accurately represented. SCC recommends that socio-economics is considered independently and that the ZOI for this environmental topic specifically is widened in order to accurately reflect the employment impacts across the wider study area, which has been identified as significantly bigger than 1km.
- 7.7 There is an absence of reference to several key documents and sources of data that will enhance the provided socio-economic assessment. This includes the Technical Legacy Report for Norfolk and Suffolk along with the SCC's Energy Infrastructure and Climate Adaptive Infrastructure Policy.
- 7.8 The Council expects the applicant to:
- a) Deliver and fund, in collaboration with the Councils and local partners, activities that develop both local talent pools and local people so that they are enabled to take up opportunities of recruitment into skilled roles across the project;
 - b) Work collaboratively with the Councils to ensure that where possible skills training, aimed at creating wider and deeper local talent pools from which to draw from, also has a long-term demand within the region thus ensuring a greater opportunity for sustainable employment;
 - c) Set an ambition for 5% of the roles required by the project to be filled through 'earn and learn' positions (the majority of which will be apprenticeships but may also include graduates on formalised training schemes and sponsored students as per the definition of the '5% club') including a commitment to a minimum number of apprenticeship opportunities to be provided to local people;
 - d) Create tangible mechanisms for ensuring that the skills base developed for the construction of the project is as transferable as possible to other key construction projects being delivered regionally;
 - e) Deliver activities with the aim to increase the size and diversity of the labour market pool;
 - f) Put into place clear plans (e.g., commitments within contracts) to drive the behaviours of their associated supply chain(s) to achieve skills and employment outcomes;
 - g) Incorporate social value measures within all activity and use as a tool to quantify the success of any and all interventions and to drive commitment

and delivery of the associated supply chain to recruit locally and provide apprenticeship opportunities where feasible;

- h) Clearly set out via a Skills Plan, incorporating, supply chain skills plans a strategic approach to developing and supporting the project's workforce requirements. The strategic approach should take into account each distinct phase of the project, feedback from employment monitoring measures and be reflective of Suffolk's economics, in particular local opportunity that meets skills legacy for the region;
- i) Adopt and fund a dynamic approach to monitoring skills, employment and education outcomes and impacts that, through clearly identified governance, processes the use of all available evidence, local expertise and LMI to ensure home based worker targets are being met and programmes are in place to support/ensure local talent pools are available to combat any negative churn effects;
- j) Actively engage with the Regional Skills Coordination Function at SCC to enable a strategic approach to workforce development in the region, maximising local benefits, minimising negative impacts and ensuring efficiencies.

Tourism & visitor economy

- 7.9 Suffolk offers a rich and varied tourist offer known for its heritage assets, landscape designations and promoted areas, such as, two designated AONBs, the Dedham Vale, Stour Valley, Waveney Valley and Suffolk's Wool Towns. NGET needs to fully assess the direct and indirect impacts of this project and its associated infrastructure on all of these known features and particularly the extent to which the physical infrastructure will impact and detract from the environmental quality of an area for recreational activity. The proposed route will also impact known visitor attractions such as Bressingham Steam and Gardens, Needham Lake, Hintlesham Hall, RSPB Wolves Wood. More broadly, it is also imperative that the project considers its part in the cumulative impact on the perception and propensity of people to visit the area during the works period.
- 7.10 SCC will provide further detail at the statutory consultation stage when the proposed routing of the pylons becomes clearer.

8. Suffolk Fire & Rescue

- 8.1 Having looked at the proposal there appears to be limited comment required from an SFRS perspective. That said I would anticipate a need to ensure that SFRS and GHI colleagues are kept abreast and involved in any traffic management plans that will impact flow or access to commercial or residential areas that pose a potential impact on our response standards (speed at which we are able to reach the address requiring our attendance).
- 8.2 We have seen work on the A14 have a measurable impact and whilst there may be unavoidable impacts by way of facilitating the construction, the engagement with SFRS will ensure we understand this ahead of time.

9. SCC Lead Local Flood Authority

9.1 LLFA Comments are as follows.

PEIR Vol 1 Construction – Temporary Features

Watercourse Crossings (4.8.62) & Culvert (4.8.65)

- 9.2 Comment: re the need to get Land Drainage Act(s23) consent(s) for any works that affect a watercourse (temporary or permanent). Ideally the SCC LLFA would prefer all crossing of watercourse for access to be via a single span bridge, but if culverts are to be installed, then the length of the pipe shall be kept to a minimum and the diameter shall be the largest possible.
- 9.3 All temporary culverts shall be removed, if a culvert needs to be retained, as new Land Drainage Act consent application is to be made.
- 9.4 Cables shall be either laid over the watercourse or if below, shall be at least 1m below the bed depth and shall have a strike plate.
- 9.5 Land Drainage Act (s2) Consent whilst is a planning consideration, but not a planning matter.

Preliminary Construction Effects Soils and ALC

6.8.1 – Stockpiling of soil resources are to be kept at least 10m away from any watercourse or waterbody.

PEIR Vol 1 Chapter 12: Hydrology and Land Drainage

Regional and Local Policy 12.2.8

Suffolk Flood Risk Management Strategy (Feb 2023) [Final-Published-Suffolk-LFRM-Strategy-February-2023.pdf \(greensuffolk.org\)](#)

Guidance 12.2.10

Add Suffolk Flood Risk Management Appendices

APPENDIX A - Sustainable Drainage Systems (SuDS), a Local Design Guide

APPENDIX B - Policy for Working on Watercourses in Suffolk

APPENDIX C - Protocol for Local Planning Authorities and Developers on SuDS, Surface Water Drainage and Local Flood Risk in Suffolk

APPENDIX D - Flood Investigation - S19 Flood and Water Management Act 2010

APPENDIX E - Guidance for Riparian Ownership in Suffolk

APPENDIX F - Advice on what to do before, during and after a flood

PIER Vol 2 Figures 12.2 Flood Risk Area

Only Fluvial and Pluvial referenced, no mention of groundwater. Needs to be included on maps.

Groundwater flood risk can be found in BMSDC SFRA 2020 as an initial indication.

General

- 9.6 The Flood Risk Assessment shall be for all types of flood risk (river/sea, surface water, groundwater, foul and reservoir). The data shall be EA national mapping, LLFA's Preliminary Flood Risk Assessment, District Councils Strategic Flood Risk Assessment and any historical records of flooding the LLFA's may hold.
- 9.7 A strategy for the disposal of surface water will need to be submitted for all buildings over 1,000sqm or if the developed area is over 1 hectare and shall be in accordance with National and Local Policy/Guidance – Within Suffolk local policy shall apply Suffolk Flood Risk Management Strategy & Suffolk CC, LLFA Suffolk SuDS Guidance March 2023.
- 9.8 A Construction Surface Water Management Plan(s) shall be conditioned for construction activities.
- 9.9 Rainwater harvesting and reuse shall be utilised as a priority to avoid abstraction and demand on local supplies during construction and operation.
- 9.10 Hartismere within Mid Suffolk has water shortages - Hartismere water resource zone.

10. SCC Local Highways Authority

Executive Summary (Highways)

10.1 The main features of the project in transport terms are:

- a) Substation extension at Bramford: Likely to generate construction and worker traffic including abnormal indivisible loads along the A1071, B1133 and A14 including through Bramford and Sproughton.
- b) Cable sealing end compounds located at the south end of the Waveney Valley (if alternative option chosen) at Palgrave and the north end of the underground section across the Stour Valley AONB near Wenham. Besides construction of the sealing end compounds this activity will require cement bound sand, cables and ducting to be imported to the site. AILs in the form of cranes, earthmoving equipment and cable drums (both on low loaders) will also be required. It is likely that worker trips will be concentrated at a few larger compounds with use of internal haul roads to access the site.
- c) Laydown areas and compounds at between Palgrave, Needham Market and Stowmarket, Raydon together with multiple cable pulling locations. The former will be a source of HGV and construction worker movements with the latter also requiring delivery of cable drums (AILs) either via the internal haul road or local road network.
- d) Overhead cable sections: These activities will typically generate less construction and worker movements and be more spread out across the network than the substations, cable sealing end and construction compounds. Typically, construction vehicles will be cranes, cable drums, ready mixed concrete and deliveries of the pylon components. In some locations piling rigs may be necessary where ground conditions are poor. Workers will typically use crew buses and travel along the local highway network.

10.2 The concerns of SCC as the Local Highway Authority are:

- a) The volume of HGVs on parts of the local highway network including the MRN. Specific examples are up to 232 HGV a day using the A1120 through Stowupland and 189 HGV a day on the B1070 through Holton St Mary.
- b) The cumulative impacts of multiple energy projects in the area around Bramford and the daily HGV movements on the A1214, A1071 and B1113 for example if Bramford to Twinstead and Norwich to Tilbury are constructed at the same time.
- c) Repeated cumulative impact if energy projects follow sequentially, again predominately in the Bramford area, due to repeated closure or disruption to the highway and PRow network.
- d) Local access routes to the site that are unsuitable for large vehicles and the design of the accesses themselves.
- e) Although spread out throughout Norfolk, Suffolk and Essex which disperses construction journeys the lack of suitable public transport will mean a reliance on cars and vans by workers and visitors.
- f) Where assessments identify significant impacts on the highway network these are agreed with the LHA.
- g) That adequate control, monitoring and enforcement measures are included within Construction Management Plans

- h) Resilient access routes are provided for infrastructure such as substations and sealing end compounds during the construction and operational phases. Thus AIL movements *should be scoped into the operational phase assesment.*

Detailed Comments.

- 10.3 In highway terms underground creates more vehicle trips, particularly HGVs for underground cables compared to pylons.

National Guidance EN-1

- 4.1.17 The Secretary of State should consider the guidance in the NPPF, the Planning Practice Guidance: Use of Planning Conditions, and TANs, or any successor documents, where appropriate.
 - 4.4.4 whilst mentioning increased traffic as having a direct impact on health SCC considered that a significant health impact will result from construction activities discouraging use of the highway and PRow network for walking and cycling. In 4.4.5 EN-1 acknowledges the cumulative impact of multiple projects albeit simultaneously but not sequentially.
 - 4.10.1 states *that if new energy infrastructure is not sufficiently resilient against the possible impacts of climate change, it will not be able to satisfy the energy needs as outlined in Part 3 of this NPS.* With respect to transport this should require applicants for all energy projects to consider providing suitable and resilient highway routes to access the major elements to the projects (eg substations and convertor stations) from the SRN / MRN and for AILs from the nearest suitable port from construction through to decommissioning (4.10.11). In Suffolk consideration should be given to the avoiding development in areas vulnerable to coastal change (5.6.2) including inundation and surface water flooding (5.8.8) which would have an adverse impact on the highway network and access to the project.
- 10.4 Co-ordination between projects and assessment of their cumulative impacts (4.11.7) is as important to provision of connections to and access within the highway network as to the national grid.
- 10.5 Wherever practical SCC would encourage proximal applications to be considered together and make use of shared infrastructure.
- 10.6 Changes to the highway should considered minimising vegetation removal wherever it is safe to do so. This may be through use traffic management where acceptable to the LHA or trimming / coppicing as a temporary measure.
- 10.7 If a project is likely to have significant transport implications, the applicant's ES (see Section 4.3) should include a transport appraisal. The DfT's Transport Analysis Guidance (TAG). 5.14.6 Applicants should consult with National Highways and Highways Authorities as appropriate on the assessment and mitigation to inform the application to be submitted.
- 10.8 The applicant should also provide details of proposed measures to improve access by active, public and shared transport to:

- reduce the need for parking associated with the proposal • contribute to decarbonisation of the transport network
- improve user travel options by offering genuine modal choice. 5.14.11 Where mitigation is needed, possible demand management measures must be considered. This could include identifying opportunities to:
 - reduce the need to travel by consolidating trips locate development in areas already accessible by active travel and public transport
 - provide opportunities for shared mobility
 - re-mode by shifting travel to a sustainable mode that is more beneficial to the network
 - retime travel outside of the known peak times
 - reroute to use parts of the network that are less busy
- 5.14.14 The Secretary of State may attach requirements to a consent where there is likely to be substantial HGV traffic that:
 - control numbers of HGV movements to and from the site in a specified period during its construction and possibly on the routing of such movements
 - make sufficient provision for HGV parking,270 and associated high quality drive facilities either on the site or at dedicated facilities elsewhere, to support driver welfare, avoid 'overspill' parking on public roads, prolonged queuing on approach roads and uncontrolled on-street HGV parking in normal operating conditions
 - ensure satisfactory arrangements for reasonably foreseeable abnormal disruption, in consultation with network providers and the responsible police force.
- 5.14.16 Applicants should consider the DfT policy guidance "Water Preferred Policy Guidelines for the movement of abnormal indivisible loads" when preparing their application. All stages of the project should support and encourage a modal shift of freight from road to more environmentally sustainable alternatives, such as rail, cargo bike, maritime and inland waterways, as well as making appropriate provision for and infrastructure needed to support the use of alternative fuels including charging for electric vehicles (5.14.12).
- 5.14.20 Development consent should not be withheld provided that the applicant is willing to enter into planning obligations for funding new infrastructure or requirements can be imposed to mitigate transport impacts
- 5.14.21 The Secretary of State should only consider refusing development on highways grounds if there would be an unacceptable impact on highway safety, residual cumulative impacts on the road network would be severe, or it does not show how consideration has been given to the provision of adequate active public or shared transport access and provision.

Major Highway Concerns

Cumulative Impacts with other projects

- 10.9 Cumulative impact particularly in the area around Bramford if Bramford to Twinstead and Norwich to Tilbury are constructed at the same time
- 10.10 Repeated cumulative impact if both the above projects follow sequentially, again predominately in the Bramford area, due to repeated closure or disruption to the highway and PRow network contrary to table 17.2 . This will also follow disruption resulting from the Scottish Power Renewables EA1 and EA3 projects.

Abnormal Loads

- 10.11 Potential AIL include:

- Cranes
- Large earthmoving equipment
- Temporary accommodation
- Piling Equipment (where required)
- Transformers, switchgear, other electrical equipment
- Cable Drums

- 10.12 Confirm pylon sections delivered to site are not AILs. AIL movements should not be scoped out of the operational phase.

Construction Traffic

- 10.13 Peak HGV movements are likely to be associated with importation and removal of aggregate required for temporary haul roads, working platforms for pylons and site compounds at the start and end of the construction phase. Appendix 16.2 Future Baseline (in volume III)

Construction compounds in Suffolk

- Lings Lane, Wortham Ling: RG-CC04 (CSE Construction Compound) and RG-CC05 (Cable Construction Compound) for Waveney Valley Alternative
- Bury Road RG-Main, Mellis (Main Construction Compound)
- Bells Lane, Stonham Earl. RG150 (Overhead Line Satellite Compound)
- Bramford Sub Station RG-CC06 (Substation / CSE Construction Compound)
- Wenham Grove, Raydon JC-CC01 (Tertiary CSE Construction Compound)
- B1070, Raydon JC-CC02 (Primary Cable Compound)

Primary Access Routes (PAR) in Suffolk

- PAR 9 A143 Old Bury Road and 10 Lion Road (Stuston, Palgrave).
- PAR 11 B1113 Finningham Road / Walsham Road, 12 Wickham Road and 13 Eastland Road (Rickenhall Gislingham and Finningham). LHA concerns about nature of this route particularly cross roads in Finningham. Highway constraints include bends on the B1113 and limited visibility from some junctions eg Back Street
- PAR 14 Thornham Road

- PAR 15 A1120 Church Road and Bells Lane (Stowupland). LHA concerns about routing construction traffic through Stowupland due to sensitive receptors.
- PAR 16, 17 A1120 and 18 Mill Lane Gateway 14 (Stowmarket , Creting St Peter). Mill Lane has recently been replaced in part by Gateway Boulevard and new purpose built industrial road.
- PAR 19 B1113 Louraine Way and 20 Bullen Lane (Claydon, Bramford).
- PAR 21 A1214 London Road 22 A1071 (Pinewood, Sproughton and Burstall). A1071 at B1113 Beagle Roundabout and The Street Burstall have had a reputation for collisions. The latter has visibility that would not comply with modern design standards.

10.14 PAR 23 B1070 Hadleigh Road, 24 and 25 Arcadia Road (Holton St Mary). LHA concerns regarding access off A12 due to road safety and nature of B1070 through Holton St Mary. The latter includes tight bends and poor visibility from one arm of Raydon Road.

10.15 SCC considers that parts of the MRN such as the A140 should be assessed in terms of IEMA rule 1 and 2. AIL routes should be proven as viable from a port of origin to the site access off the PAR.

Local Access

10.16 Local access will be a concern. The work may require both construction traffic and worker vehicles to use narrow minor roads. In this case the applicant appears to be taking efforts to avoid this where practical although it is possible that subject to suitable

Swept path analysis of junctions and accesses

10.17 Feasible junction design including rsa if appropriate and impacts in term of vegetation clearance to provide accesses and visibility splays.

10.18 4.8.54 notes tat discussions with LHA regarding potential highway improvement works is at an early stage and is not yet reflected in the draft order limits nor PIER.

10.19 SCC notes commitment in table 4.2 for 10% BNG but will seek clarification on how this can be recognised when compensating for vegetation removal for temporary and permanent accesses.

Transport assesment including

10.20 SCC preference is for impact on receptors to be included within an Environmental Statement with a separate transport to assess the network related matters such as

- junction / link capacity and supporting traffic modelling,
- sensitivity testing of scenarios such as overlap with other significant projects
- road safety including assessment of collisions,

- access routes including those for AILs based on a worst realistic case load in terms of weight and dimensions. This should include assessing the capacity of highway structures along the route.
- temporary and permanent access design
- highway improvements necessary to deliver the project

Construction Workers

10.21 The impacts arising from construction of the overhead cable sections are likely to be dispersed in terms of workers accessing the pylon sites. However, due to the dispersed rural locations the availability of public transport is likely to be poor and the vast majority of worker trips will be by car or van.

10.22 It is noted that 800 workers spread across the full length of the project. It is likely that the project will propose using shift patterns that focus trips outside the network peak hours. Care should be taken that when multiple projects are constructed at the same time that the use of similar shift items do not create a new peak

CTMP

10.23 Details of construction routes and closures and diversions. There should be clear if the CTMP includes pre-commencement activities that may have an impact on local highways such as temporary access for surveys, site compounds, vegetation clearance or if a separate management plan will be agreed.

Environmental assesment

10.24 The LHA has the following comments:

- Geographical scope must include Primary Access Routes where construction or worker traffic is significant.
- Accepts scoping out of transport issues from operational phase except for AIL movements.
- Disagrees with applicant that PRoW can be covered in multiple topics rather than one on its own.
- Use IEMA 2023 guidance
- Rules 1 and 2, percentages should not be taken as absolutes recognising that there is an element of statistical variation in survey data (eg increases of 29% or 9% should not be discounted without justification).
- Data should always be used instead of engineering judgement as the latter may be open to challenge.

Sensitivity

10.25 The LHA would consider the following list a non-exhaustive guide to identifying sensitive locations in Suffolk (in addition to 16.6.2):

- Primary and Secondary Schools

- Children's Nurseries
- Hospitals
- Care Homes
- Surgeries
- Dentists
- Community centres, parish halls
- Retail centres (including village shops / post offices, garden centres)
- Railway Stations
- Bus Interchanges
- Harbours
- Studs and formal horse walks / canters
- Publicly Advertised Tourist Attractions, museums, visitor centres and nature reserves
- Places of Worship including cemeteries
- Publicly advertised national and regional walking and cycling routes, quiet lanes
- Commons, parks and other public open spaces.
- Hotels, hostels, guest houses and campsites
- Restaurants, cafes and public houses

Cycleways

10.26 It is notable that a new cycle route has been promoted, see <https://www.cyclinguk.org/route/wolf-way>

Road Safety

10.27 In addition to those locations given in 16.6.24 SCC have identified the junction of the A140 /Workhouse Road / Stoke Road at the Wite Horse crossroads at Stoke Ash as an area of concern with respect to collisions.

10.28 SCC notes that in Figures 16.3 only 2020-2022 collision data is shown. Accepting the disruption due to the Covid pandemic additional data would be required to provide a 5 year collision history for assessment.

CTMP Control Measures

10.29 Section 16.7.7 does not cover vehicle emissions not control of parking within and without the site. The definition of HV and the methodology to ensure compliance with HGV routes and numbers should be included within the ES.

Construction Hours

10.30 The LHA notes that in paragraph 4.7.2 7 days week working is proposed. The LHA would find it unacceptable for HGVS and AILs to be using the local highway network without pause as this will not give local communities any respite from construction traffic. This would be pronounced near the underground cable route, cable end sealing compounds and sub stations where traffic is concentrated.

11. SCC Landscape

11.1 The Applicant states, that prior to the 2023 non-Statutory consultation, they have carefully considered the feedback received to the 2022 Non-Statutory Consultation, including feedback proposing design changes, which is welcome.

Key issues

11.2 SCC considers that the key issues that will need to be resolved by the Applicant following this consultation are:

- a) Extent of undergrounding of the proposed line through the Waveney Valley and resulting change requests south of Diss
- b) Change requests to route alignments, undergrounding and access arrangements around Gislingham
- c) Opportunity for restoration of the historic landscape and for Biodiversity Net Gain (BNG) at the poplar plantation west of Wickham Skeith
- d) Exploration of further options to mitigate the adverse impacts of the scheme in the Gipping Valley, through potential changes in alignment or undergrounding of the 400kV line, as well as further rationalisation of the existing 132kV and 33kV networks, south-east of Stowmarket in particular, as part of this project
- e) Positive strategic placemaking around Bramford substation
- f) Effects of undergrounding on the Dedham Vale National Landscape (NL) (formerly Area of Outstanding Natural Beauty (AONB))
- g) Consideration of additional sections of Horizontal Directional Drilling (HDD)
- h) Comprehensive mitigation and screen planting around Cable Sealing End (CSE) compounds

Technical and presentation issues

11.3 Apart from the key issues with regards to the scheme itself, comments are offered at the end of this section with regards to technical and presentation issues, such as:

- i) The importance of Good Design
- j) Approach and Methodology
- k) Documentation of vegetation losses to establish a robust baseline,
- l) Visual assessment and its presentation,
- m) Reinstatement planting, Biodiversity Net Gain (BNG) and landscape and visual mitigation,

- n) Full application of the Mitigation Hierarchy, including compensation for residual landscape and visual impacts
- o) Aftercare, post- construction monitoring, and the control document OLEMP
- a) The extent of undergrounding of the proposed line through the Waveney Valley and resulting change request south of Diss**

Waveney Valley

- 11.4 SCC considers the Waveney Valley to be a highly valued and highly sensitive landscape and has provided evidence to support this⁷. The Council considers that this evidence clearly demonstrates that the value and sensitivity of this landscape means that undergrounding is justified in this area in accordance with NPS EN-5.
- 11.5 The Waveney Valley west of Diss is a shallow, intimate landscape consisting of a distinct valley floor and gentle valley sides. It is within an area that was previously designated as a Special Landscape Area in Mid Suffolk. In the South Norfolk Local Plan, it is recognised as a valued landscape.

Overhead Line

- 11.6 While SCC acknowledges that the new proposed alignment of an overhead line, east of Wortham Ling SSSI and west of Roydon Fen Local Nature Reserve, would reduce adverse effects of the scheme to the west of Wortham Ling SSSI, on Listed Buildings and Bressingham Steam and Gardens, the proposed alignment is now crossing the Waveney Valley in a more remote, yet publicly accessible area, previously recognised as a Special Landscape Area.
- 11.7 Towers RG85 – RG87, would run closely parallel to The Angles Way, a 93-mile long-distance walking trail from Great Yarmouth to Thetford, before crossing it, and would be likely to dominate the valley floor in this area.
- 11.8 SCC considers that the significant adverse effects on landscape character and visual amenity resulting from the proposal in this area, would be incapable of mitigation and unacceptable in their level of harm. It is noted in this context that the Applicant has not further pursued a realignment to the east of Diss.

Waveney Valley Alternative

- 11.9 Given that the Applicant is promoting the alignment to the west of Diss, SCC considers it justified and in accordance with national policy⁸, to request the undergrounding for the section, where the proposed alignment crosses the highly sensitive landscape of the Waveney Valley and welcomes, in principle, the proposals for a Waveney Valley Alternative, which would provide undergrounding.
- 11.10 However, SCC considers that the overall extent of undergrounding proposed to date is insufficient to adequately safeguard the valley landscape from visual harm. While avoiding towers being located within Wortham Ling SSSI, the

⁷ <https://suffolklandscape.org.uk/wp-content/uploads/2024/04/Waveney-Valley-Valued-Landscape-Final-Report-17-April-2024.pdf>

⁸ Para 2.11.6 [Electricity Networks National Policy Statement - EN-5 \(publishing.service.gov.uk\)](https://www.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/123456/EN-5.pdf)

setting of Wortham Ling would be detrimentally affected by the visual effects resulting from the southern CSE compound and the towers continuing south. Similarly, the current undergrounding proposals on the northern side of the valley are insufficient to alleviate the adverse visual effects of towers ascending on the northern side of the valley.

- 11.11 North of the Waveney, SCC considers, without prejudice, tower location RG80 would provide a more suitable location for an CSE compound, as this appears to be the minimum undergrounding necessary to adequately protect the setting of St Remigius's Church, Roydon (Grade I Listed building), and views from the valued landscape of the Waveney Valley to the north.
- 11.12 To protect the landscape value and amenity of Wortham Ling south of the Waveney, SCC considers it necessary to extend the undergrounding to RG95, east of St John's House and Goodrich Park.
- 11.13 In order to also protect the function and flight path of Brook Farm airstrip, given the runway alignment, SCC considers that the most cost-effective approach would be to request a change in alignment of the proposed 400kV line to follow the existing 132kV Line at this point, and in addition extension to the proposed undergrounding of the existing 132kV powerline north to the River Waveney, to partially offset the impacts of the scheme.
- 11.14 SCC proposes to continue the 400kV powerline south-eastwards across Dams Lane towards the alignment of the existing 132kV line, to PKF30, PKF31 or PKF32 (subject to full assessment), and to connect from there back into the currently proposed alignment at RG102.
- 11.15 SCC considers that the further rationalisation (undergrounding) of the existing 132kV powerline all the way to Diss substation or as near as possible to it (around PKF40, near Elm Vale Farm), would compensate to some degree for the adverse impacts of the proposals in this area by reducing the extent of the cumulative wire-scape to the south of Diss and in the Waveney Valley. This would also benefit several Listed properties in the area and PRoWs, which the 132kV line currently crosses multiple times.
- 11.16 SCC is conscious that there is a high potential for sensitive and significant Archaeology within the additional areas of undergrounding. Around St John's House (west of RG95) appears to be a transitional site, with Archaeology from the Anglo-Saxon, Roman and medieval periods.
- 11.17 Therefore, SCC would consider it necessary to include full geophysical surveys and trial trenching for these areas.
- 11.18 SCC considers that additional HDD may become necessary in this context, including, where the cable corridor crosses Doit Lane.

b) Change requests to route alignments, undergrounding and access arrangements around Gislingham

- 11.19 Currently there are four directional changes (at towers RG108, RG110, RG 112, and RG116) to the north-east of Gislingham. SCC acknowledges that this alignment was probably chosen to avoid impacts on the setting of the moated

site at Moatyard Plantation. However, this includes crossing Burgate Road twice, which is likely to result in significant adverse effects and disbenefits for the visual amenity along this route.

- 11.20 SCC (Landscape) considers, without prejudice, that there is potential to avoid the double crossing of Burgate Road by locating the powerline between Burgate Road to the west and the Moatyard Plantation to the east, while still respecting the setting of the moated site, (by either starting the route change at RG 108 or RG109). This would also largely avoid cutting through the Green Lane connecting Burgate Road and Mellis Road. In landscape and visual amenity terms this would be a significant improvement to the alignment.
- 11.21 SCC (Landscape) further considers, without prejudice, that the concentration of energy infrastructure at Burgate Road could be further reduced by continuing the undergrounding of the UKPN line to PKF 14 and providing robust screen planting around the CSE compound.

Access points from Thornham Road/Major Lane, Gislingham

- 11.22 SCC (Landscape) considers that the proposed access to the construction corridor from Thornham Road/Major Lane via Coldham Lane is not acceptable in landscape terms and it must be expected that there would also be considerable adverse effects for ecology and cultural heritage. This is an unused track with mature, potentially veteran, trees on either side, which is considered unsuitable as an access road. SCC (Landscape) considers that an access should be created directly into the corridor from Thornham Road/Major Lane at a suitable point, where it crosses the corridor.
- 11.23 SCC (Landscape) would further seek clarification from the Applicant, why it is not proposed to use the existing field path, just east of the railway embankment and cut through to the little triangular field to access the construction corridor on the eastern side of the railway, where the fewest trees are. Instead, access is proposed to diagonally across a field and through a tree belt. SCC(Landscape) considers that this should be re-assessed.

c) Opportunity for restoration of the historic landscape and for Biodiversity Net Gain (BNG) at Poplar Plantation west of Wickham Skeith

- 11.24 It is notable that the current alignment north of a visually prominent poplar plantation has been modified in comparison to earlier consultations. A tower that was previously placed in the middle of a probable roman site to the north of the plantation (<https://heritage.suffolk.gov.uk/Monument/MSF7298>) has now been moved further west. The line still crosses the poplar plantation, but further west than the original crossing point.
- 11.25 The poplar plantation itself is in a small field, with the River Dove flowing through it. The field is bounded to the north and south by hedgerows with prominent and locally characteristic pollard oak trees, some of which show veteran characteristics, historically there were also Elm pollards present. During the 1960s the entire area underwent a comprehensive and extensive programme of field amalgamation. However, this small stream side enclosure remained intact, because the river was too large to be piped. The field could

not be incorporated into the adjacent land to the north and was bounded to the south by Wickham Road. However, the landowner did take the opportunity to plant commercial hybrid poplars (*Populus x canescens*) onto the site, certainly with a view to selling these, possibly for match production. See Ordnance Survey mapping from 1903⁹ and 1953¹⁰.

- 11.26 Removal of part of the western end of this relatively short-lived commercial plantation to make way for the overhead line is likely to increase the risk of wind-throw for the remaining trees, which are now comfortably middle-aged. This could create a serious risk for users of Wickham Road and the PRow in and adjacent to the plantation.
- 11.27 Therefore, it is essential that these trees are carefully inspected to understand their current health and disease profile, and how they might react to the significant change in their environment by the removal and disturbance of part of the plantation. Depending on the findings of these inspections, and notwithstanding the visual prominence of this plantation, the most responsible approach to forestall the anticipated public safety / access and highway risks associated with the ageing and deterioration of this plantation may be to remove the entire plantation.
- 11.28 Should this be the case, SCC considers that this would present a unique opportunity for the Norwich Tilbury project to deliver significant historic landscape and biodiversity gains at this site.
- 11.29 The extensive work necessary to accommodate the new pylons would provide the opportunity for the site to be cleared, de-stumped, and for the previous historic landscape of the riverside meadow to be revealed.
- 11.30 SCC considers that throughout this process, it is essential for the final alignment to avoid impacts on the historic pollard trees in the site boundary, and those on the southern side of Wickham Road.

Public Rights of Way (PRow) west of Wickham Skeith

- 11.31 The currently proposed alignment crosses Wickham Road at a point where two PRow meet.
- 11.32 One PRow leads westwards through the plantation to Eastlands Lane. This PRow would be part of the restoration proposals, with the potential for additional voluntary open access, subject to landowner agreement.
- 11.33 The PRow leading south-east from Wickham Road would meet the power line again where it ends at a single-track lane to the south. Previous hedgerow restoration adjacent to the west of this PRow would provide some screening from the close-range views of the power line along this route, which would further improve over time. It will be essential to appropriately protect this hedge and its young hedgerow trees during the construction phase of the scheme.

⁹ <https://maps.nls.uk/view/114498817>

¹⁰ <https://maps.nls.uk/view/189257108>

d) Exploration of further options to mitigate the adverse impacts of the scheme in the Gipping Valley, through potential changes in alignment or undergrounding of the 400kV line as well as further rationalisation of the existing 132kV and 33 kV networks, south-east of Stowmarket in particular, as part of this project

Gipping Valley, Needham Market, Stowmarket to Bramford

- 11.34 SCC welcomes the proposed rationalisation and incorporation into the project of the existing 132kV line in this area but considers that there is a wider opportunity for a comprehensive scheme of undergrounding to include 132kV and 33kV infrastructure that would, subject to archaeological constraints, compensate for, through offsetting, the harm of the 400kV line, providing significant landscape and heritage benefits.
- 11.35 There is also a need to realign the 400kV line through the Gipping Valley from its current alignment further to the west.

The Gipping Valley

- 11.36 SCC has concerns about the new preferred alignment through the wider Gipping Valley and considers that the currently proposed alignment through the Gipping Valley requires re-configuration.
- 11.37 While the Gipping Valley has in many parts lost its remote, tranquil and undeveloped character, there are still pockets where field patterns and the spatial relationship between the valley sides and the valley floor are legible. In these areas, which were formally identified as a Special Landscape Area, any development can have a profound visual impact, in particular new vertical elements within the valley side landscape, such as pylons.
- 11.38 The current alignment passes to the east of Creeting Hall through one such area crossing two small tributary valleys, that were formerly a Special Landscape Area and still exhibit the key characteristics and features such as small fields bordered by hedgerows and visually prominent trees and pockets of grasslands. Whereas, to the west of Creeting Hall, the land rises to an open plateau landscape which has been subject to a comprehensive programme of agricultural improvement and rationalisation of boundary features.
- 11.39 Therefore, SCC requests that the alignment is moved to the west of Creeting Hall by changing the alignment between RG160 and RG167. This would also result in reducing the adverse effects to the setting for the Grade II* Listed Creeting Hall.
- 11.40 Re-routing to the west may affect the amenity of the dense network of PRowS in this area and therefore undergrounding should be considered. However, SCC is aware that there is a high potential for Archaeology within the Gipping Valley and its valley sides. Therefore, SCC would consider it necessary to include full geophysical surveys and trial trenching for these areas of undergrounding.

Further rationalisation of the existing 132kV network generally, and south-east of Stowmarket in particular, as part of this project

- 11.41 The southern valley sides of the Gipping River retain a more intact landscape pattern and provide an important setting for the valley as well as for Stowmarket and Needham Market. Located on these southern slopes south of Stowmarket is the significant cultural heritage site of Badley Hall Farm and St Mary's Church cluster.
- 11.42 As the visual assessment (Viewpoint 2.16) shows, the setting of this cluster is already impacted by two existing 132kV powerlines, passing the site to the east in close proximity. A further powerline crosses the approach from the B1113. With the addition of the proposed 400kV powerline the setting of this cluster would be further significantly eroded. SCC considers that it would be appropriate and reasonable to compensate for the impacts of the new 400kV powerline through a comprehensive scheme of undergrounding of the 132kV and other lower voltage lines in this area.
- 11.43 Holyoak Farm and the settlement of Combs, which are currently sandwiched between two powerlines would be additional areas, where undergrounding or rationalisation of 132kV and 33kV powerlines would provide compensation for the adverse effects of the proposed 400kV powerline in form of wider landscape restoration.

e) Positive strategic placemaking around Bramford substation

Bramford substation

- 11.44 SCC is concerned that the cumulative effects around Bramford substation will result in a landscape dominated by pylons and electricity infrastructure, with a wide-ranging visual envelope. The Council considers it essential that the Applicant should focus on strategic positive placemaking around Bramford substation, to address the significant adverse effects on landscape character and visual amenity in this area, resulting from high voltage electricity transmission infrastructure converging. This should include rationalisation and/or undergrounding of power lines, as well as strategic planting and placemaking at a landscape scale. The cumulative effects of the proposed reinforcement of the Bramford to Twinstead line must also be addressed in this context and acknowledged on the Norwich to Tilbury plans and drawings as well as in the assessments.

Bramford to Dedham Vale National Landscape (NL) (formerly Area of Outstanding Natural Beauty (AONB))

- 11.45 The undergrounding or incorporation of the two existing 132kV overhead lines east of Bramford Substation into the 400kV line will be essential for the new alignment to be considered acceptable. In absence of this being secured, the option to underground the proposed 400kV line between Bramford Substation and Chattisham should be further explored.

f) Effects of undergrounding on the Dedham Vale National Landscape (NL) (formerly Area of Outstanding Natural Beauty (AONB))

- 11.46 SCC welcomes, in principle, the proposals for undergrounding the proposed 400kV line within the Dedham Vale NL, and the efforts made by the applicant to avoid significant adverse effects on honeypot locations, such as Flatford.

- 11.47 However, the undergrounding may in itself result in significant adverse impacts and effects on the NL. These are likely to result from the requirement to navigate the complex and wooded valley slopes which define the vale, the need to cross the river Stour west of Stratford St Mary and navigate various waterbodies on the valley floor, to cross the Black Brook in a further, parallel, tributary valley to the south, as well as the A12 near Langham.
- 11.48 The landscape within the NL is intrinsically sensitive and change can result in significant adverse effects on the immediate environment, as well as on longer distant views across the valley. The new preferred alignment is likely to result in significant adverse effects on longstanding and traditional landuse patterns and in the loss of mature trees, which form an integral part of the landscape.

Wenham/Raydon

- 11.49 The Council welcomes the siting of the Cable End Sealing compounds so that they avoid significant harm to the Dedham Vale National Landscape and Raydon Airfield. Although in order to ensure that a conflict with Raydon Airfield is avoided, moving the Cable End Sealing Compounds further north to Lattice Tower JC026 in the vicinity of Wenham Thicks would be beneficial. It would also lessen the impacts upon and the Grade II Listed Buildings at Wenham Grange and Vauxhall.
- 11.50 Should the location of the CSE compound remain unchanged, SCC (Landscape) queries whether it would be worth/possible to head east rather than west at the very beginning of the undergrounding from the CSE compound to save some field trees, which would be lost using the currently proposed alignment (this potential change request is subject to not interfering with the landing strip of Raydon Airfield and to archaeological constraints).

The undesignated landscape south of the NL

- 11.51 SCC welcomes the proposal to continue the undergrounding to the EACN Substation, as this would reduce the adverse effects outside the NL, especially around Ardleigh.

g) Consideration of additional sections of Horizontal Directional Drilling (HDD)

- 11.52 Additional HDD (in addition to further HDD requests elsewhere) should be considered by the Applicant to minimise the adverse effects on landscape features that are integral to the NL and its setting.

Approach to Glebe Farm

- 11.53 Without prejudice to comments from Essex County Council and Colchester City Council, SCC (Landscape) is concerned regarding the avenue of trees (Lime?) leading from Dedham Road to Glebe Farm (a Grade II listed Farmhouse and Barn), in Langham; although these trees seem (from google street view) like relatively young trees, there is a line of trees shown on the OS Six Inch map, 1830-1880 (county layers), albeit not following the same alignment all the way to farm. While the existing trees may be a relatively recent reinstatement of the

original avenue of trees, it is considered that, if HDD drilling is not used in this location, not only will the trees have to be removed, but they can also not be replanted as an avenue. While Glebe Hall is not situated within the National Landscape (NL), it is within 500m of the National Landscape to the west, north and east, and arguably part of the setting of the NL. The avenue of trees may also be relevant to the setting of Grade II listed Glebe Gouse to the west and Ewens Farmhouse to the east. Glebe Farm and the avenue can be found on Figure 4.1 (Design), Page 29.

- 11.54 On the same page (Figure 4.1 (Design), Page 29), further south, the corridor seems to go through woodland and across footpaths around Springfield Farm; some trees appear to be conifers, but there may be broadleaf trees further south. SCC (Landscape) queries whether the value of these trees has been fully assessed and whether their loss can be avoided, by either diverting the cable corridor or by using HDD.
- 11.55 From here, corridor leads on to the crossing of the Black Brook, again with wooded areas being affected. SCC (Landscape) considers that this area should be assessed in detail and that HDD drilling should be considered.

h) Comprehensive mitigation and screen planting around Cable Sealing End (CSE) compounds

- 11.56 SCC considers that the required Cable Sealing End compounds will need to be carefully sited and mitigated. As a design principle, Cable Sealing End compounds should be sited away from the more sensitive valley sides, on the plateaux, where the potential for successful effective screening through strategic landscape scale planting may be achieved. Site selection for Cable Sealing End Compounds should further be guided by existing landscape features as well as built structures, which should be utilised to help embed the compounds into their surroundings.

i) The importance of Good Design

- 11.57 Paragraph 2.2.6 of the National Policy Statement for Electricity Networks Infrastructure (EN-5) states that 'locational constraints identified [...] do not, of course, exempt applicants from their duty to consider and balance the site-selection considerations set out below, much less the policies on good design and impact mitigation detailed in Sections 2.4-2.9.'

- 11.58 Paragraphs 2.2.8 -2.2.12 add:

- a) '2.2.8 There will usually be a degree of flexibility in the location of the development's associated substations, and applicants should consider carefully their location, as well as their design.
- b) 2.2.9 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. (See Section 2.10 below and Section 5.10 in EN-1.)

- c) 2.2.10 As well as having duties under Section 9 of the Electricity Act 1989, (in relation to developing and maintaining an economical and efficient network), applicants must take into account Schedule 9 to the Electricity Act 1989, which places a duty on all transmission and distribution licence holders, in formulating proposals for new electricity networks infrastructure, to “have regard to the desirability of preserving natural beauty, of conserving flora, fauna and geological or physiographical features of special interest and of protecting sites, buildings, and objects of architectural, historic or archaeological interest; and ...do what [they] reasonably can, to mitigate any effect which the proposals would have on the natural beauty of the countryside or on any such flora, fauna, features, sites, buildings or objects.”
 - d) 2.2.11 Depending on the location of the proposed development, statutory duties under Section 85 of the Countryside and Rights of Way Act 2000, Section 11A of the National Parks and Access to the Countryside Act 1949 (as amended by Section 62 of the Environment Act 1995), and Section 17A of the Norfolk and Suffolk Broads Act 1988 may be relevant. Applicants should note amendments to each of these provisions contained in Section 245 of the Levelling Up and Regeneration Act 2023.
 - e) 2.2.12 Transmission and distribution licence holders are also required under Schedule 9 to the Electricity Act 1989 to produce and publish a statement setting out how they propose to perform this duty generally.’
- 11.59 SCC considers that there is the opportunity to achieve a coherent landscape design approach for all Cable sealing End Compound sites and substations along the route, which should be explored by the Applicant.
- 11.60 This should be based on the Mitigation Hierarchy, as defined in the Glossary of Overarching National Policy Statement for Energy (EN-1), November 2023: The ‘avoid, reduce, mitigate, compensate process that applicants need to go through to protect the environment and biodiversity.’
- 11.61 SCC therefore expects the Applicant to provide measures of compensation, where residual harm persists beyond measures to avoid, reduce and mitigate.
- 11.62 SCC would support the principle of a Design Champion (para 4.7.5, Overarching National Policy Statement for Energy (EN-1), November 2023) being engaged sufficiently early in the development of the project to oversee the design process, primarily within highly sensitive landscapes and around substation and Cable Sealing End Compounds, where positive placemaking will be essential. Further, there would be opportunities for the Design Champion to contribute to back-checking of various alignment alternatives and to the integration of the proposals into the landscape at the detailed design, construction, and operational stages of the project, including micro-siting of pylons. As this this work will need to straddle both engineering and landscape disciplines, two key leads may be required to work in close collaboration.
- 11.63 The skillset required of a Design Champion has not been clearly defined within the National Infrastructure Strategy. The Institution of Civil Engineers (ICE) and the National Infrastructure Commission Design Group (NICDG) have produced

a useful working paper 'Defining and developing the design champion role', (August 2022), in this respect.

j) Approach and Methodology

- 11.64 SCC welcomes that the Applicant will continue to review the extent of the study area, and that more distant viewpoints (up to 5 km from the scheme) will be considered if there is potential for significant visual effects beyond the 3 km study area, for example where there are particularly sensitive visual receptors and where topography allows more far-reaching views (paragraph 13.5.5.) SCC considers that there may also be additional viewpoints required along the route, which are closer to the scheme (see further comments below).
- 11.65 SCC also welcomes the application of the Rochdale Envelope.

Approach to rationalisation of the 132kV network

- 11.66 As the rationalisation and/or undergrounding of 132kV powerlines along the reinforcement route from Norwich to Tilbury is expected to form an essential part of the mitigation and compensation for the scheme, SCC considers that further technical clarity and certainty are required.
- 11.67 It is essential to understand which are single circuit lines and which are double circuit lines within the scheme, and what the resulting technical requirements would be for undergrounding (numbers of cables, depth cables need to be buried at, cable corridor width - standard sections would be helpful).
- 11.68 Additional certainty is required regarding how this work would be managed contractually, and how it would be controlled. SCC considers that a full assessment of impacts and effects, including vegetation loss and impact on archaeology will be required as part of this DCO application.
- 11.69 SCC further requests detailed information with regards to the Decommissioning Strategy for the 132kV power lines, for example, whether foundations will be removed to plough depth.

k) Existing Baseline and Documentation of vegetation losses

Baseline data

- 11.70 SCC assumes that the Applicant is aware of tree and hedge data from Suffolk Biodiversity Information Service (SBIS) for mapping and data and the Joint Babergh and Mid Suffolk District Council Landscape Guidance Joint Babergh and Mid Suffolk District Council Landscape Guidance, 2015.
- 11.71 SCC considers that the proposals regarding the Bramford to Twinstead reinforcement should be included in plans, drawings and assessments as a likely part of the baseline.

Access Points, visibility splays, temporary access routes and work compounds

- 11.72 SCC (Landscape) considers that proposed temporary access points and routes, as well as compound areas, need to be carefully considered, fully assessed and ground-truthed with regards to existing vegetation (trees, hedges

and woodland) that may be affected. Visibility splays need to be fully considered in this context.

- 11.73 No compounds or laydown areas shall be located within the National Landscape, except HDD compounds.
- 11.74 Where conflicts with mature vegetation of landscape, amenity or screening value are identified, alternatives should be actively sought by the Applicant. SCC has identified one particularly concerning example at Gislingham (Coldham Lane – see comments earlier), but there may be others (for example the proposed access from High Road, Diss, Norfolk, leading to the Grade II Listed Farmhouse at Grove Farm).

Hedgerows

- 11.75 The hedgerow surveys will need to be completed and listed for the ES.
- 11.76 There should be a clear listing of how many metres/ kilometres of hedge are permanently or temporarily lost, how many kilometres will be coppiced and how many kilometres of hedgerow will be retained through HDD. This should be done for each section of the scheme to inform the mitigation requirements in different areas and needs to include all enabling works, such as haul roads, site compounds, access points and all works associated with the removal and undergrounding of section of 132kV power lines and other required associated works that need to be undertaken by Third Parties the enable the Scheme.
- 11.77 Please note for Appendix 8.1 Habitat Report, Chapter 4 Results, paragraphs 4.2.3 and 4.2.3:
- a) Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006 lists Hedgerows as habitats of principal importance in England, as boundary and linear features.
 - b) Any important hedgerows that are to be removed should be listed in a Schedule (Removal of Important Hedgerows) and identified on an appropriate plan.
 - c) No work should be allowed to commence until full and complete hedgerow surveys have been carried out. This is necessary to inform the baseline against which Biodiversity Net Gain and the success of the LEMP need to be assessed and to agree replacements as part of the landscaping scheme.
- 11.78 SCC considers that important hedgerows for the purposes of this scheme should include;
- a) Those meeting the Hedgerow Regulations (1997), including the criteria for Archaeology, History, Wildlife and Landscape as listed in Schedule 1 of the Regulations. If bat surveys identify 20 or more passes by bats the hedgerow should be considered important as a bat corridor.

- b) All the hedgerows where one or more passes of a barbastelle have been recorded - due to the rarity of the species and margin for error in recording. The Regulations do not appear to set out a basis for a threshold of 5 passes.
- c) Those that perform an important visual function.

11.79 To enable full understanding and assessment of locations of important hedges, and areas, where either Horizontal Directional Drilling (HDD) needs to be undertaken, or offsetting of residual impacts needs to be agreed, SCC would ask the Applicant to:

- a) Append a column which identifies, by reference to the Hedgerow Regulations (1997), why hedgerows are considered important.
- b) Display the above hedges on a colour – coded map of an appropriate scale, distinguishing between the different criteria. This should also include the additional hedgerows covered by points 2 (bat passes) and 3 (visual importance) above.
- c) Confirm that the hedgerows in the DCO limits have been assessed against all the criteria in the hedgerow regulations, regarding, for example the presence of other protected species (Part II 6 (3)) and proximity to rights of way (Part II 8).
- d) Provide photos of each of the hedgerows which fall within the definition of 1, 2 and 3 above as and in accordance with point C. This will provide a reference for the baseline.
- e) Confirm which hedgerows the Applicant is proposing to HDD.
- f) Confirm how adverse impacts on hedgerows are minimised, for example by defining a minimum width for the cable corridor, when crossing hedges. This should be individual for each hedgerow (as circumstances may differ).

Trees

11.80 Prior to the detailed design stage full Tree Surveys in accordance with BS 5837:2012 Trees in relation to design, demolition and construction should be submitted to and agreed in writing by the relevant LPA. These Tree Surveys need to be completed and listed for the ES should then be used to inform the detailed design stage and micro-siting of all works.

11.81 There should be a clear record and audit of how many trees are permanently or temporarily lost, how many need to be pruned or coppiced (please define these terms) and how many would be retained. This needs to be done for each section of the scheme to inform the mitigation requirements in different areas and needs to include all enabling works, such as haul roads, site compounds, access points and all works associated with the removal and undergrounding of section of 132kV power lines and other required associated works that need to be undertaken by Third Parties to enable the Scheme.

- 11.82 No works should be allowed to commence until a full Arboricultural Impact Assessment (including Tree Survey and Tree Protection Plan) and an Arboricultural Method Statement, (including location specific special construction method statements, where works are to be carried out within rootzones of trees that are to be retained) in accordance with BS 5837:2012 are submitted to and agreed with the relevant LPA in writing.
- 11.83 No article in the DCO should authorise any works to any tree subject to a tree preservation order. Such works, if demonstrated to be unavoidable, should be agreed with the relevant LPA on a case-to-case basis so that appropriate compensation can be agreed and secured.
- 11.84 The trees that are being lost should be appropriately evaluated by using an appropriate asset-based tree valuation system which calculates the replacement value of each tree and the benefits it provides in terms of carbon sequestration, carbon storage, air pollution removal and rainwater retention. This is to ensure that compensation measures are met for any replacement planting for the loss of those ecosystem services.

I) Visual assessment and its presentation

Viewpoints

- 11.85 While SCC agrees, in principle, with the Applicant, that the viewpoints for the visual assessment should be representative and cannot be expected to cover all visual receptors, it is becoming evident that 89 viewpoints are not sufficient for a linear scheme that stretches across 184km. For comparison, for the proposed reinforcement of the powerline from Bramford to Twinstead 156 viewpoints were assessed for a scheme of 29km length. This is more than times the number of viewpoints per km than are provided for this Scheme.
- 11.86 While SCC does not pursue a standardised number of viewpoints per kilometre of a scheme, the viewpoint coverage for Bramford to Twinstead seemed proportionate, whereas with this scheme, the insufficiency of viewpoint coverage has become evident during recent site visits, for example to the Waveney Valley. While it may be the case that the undergrounding proposals may require a slightly different arrangement of viewpoints than the proposals for an overhead line, a shortage of viewpoints was also identified for the overhead line proposals.
- 11.87 SCC would welcome the opportunity to work with the Applicant to identify and close any further gaps in the assessment, prior to the production of the ES, with a focus on the more sensitive locations across the scheme.

Viewpoint map

- 11.88 It would be helpful, if the viewpoints could be presented using Figure 4.1 Project Description- Project Design as a base and indicate the viewing direction with a cone.

Arrangement and presentation of visualisations

- 11.89 Within the document library it would be helpful, if the photo pages could be grouped by project sections, and then viewpoint numbers. Currently some viewpoints that were added later are grouped with viewpoints for other sections of the scheme.
- 11.90 While the superimposition of the wirelines into the viewpoint photographs is welcome, the general legibility of the visual assessment pages could be much improved, if a few changes were made for the ES, such as clearer location maps on an OS base with recognizable reference points, and bigger and clearer viewpoint numbers, title and viewing directions. Again, the visual assessment pages of Bramford to Twinstead would be a good example to emulate, as a tried, tested and approved format. SCC (Landscape) would also be happy to provide further feedback.

m) Reinstatement and Biodiversity Net Gain (BNG) and landscape and visual mitigation.

- 11.91 SCC (Landscape) welcomes the Applicant's commitment to a 10% minimum BNG, recognising that this is in fulfilment of the obligations with their regulator Ofgem.
- 11.92 Unfortunately, preliminary areas identified for additional mitigation and BNG ('Environmental Areas') do not appear to be presented on Figure 4.1: Proposed Project Design in Appendix II (as stated in paragraph 4.2.11 of the PEIR). SCC would be grateful, if these could be communicated in due course, if possible, prior to submission of the DCO application,
- 11.93 Vegetation retention, removal and reinstatement plans should be at a suitable scale (no less than Figure 4.1), clear and complete and included under approved documents.
- 11.94 The pre-requisite to achieving BNG is successful reinstatement planting.
- 11.95 With the current, justified focus on BNG and reinstatement, the third element of successful mitigation is in danger of being overlooked and ignored: planting for mitigating the landscape and visual effects of the development.
- 11.96 While reinstatement planting would form the basis for landscape and visual mitigation planting, and BNG measures could also achieve landscape and visual mitigation, the rationale and aims for this third element are distinct from the two others: Landscape mitigation seeks to conserve and enhance landscape features and the landscape character impacted by the development, while Biodiversity Net Gain is linked to the habitats impacted. Visual mitigation is required so that the visual effects of development are minimised, by helping to embed the development into the surrounding landscape with effective screen planting.
- 11.97 While the three types of planting are interlinked, the Councils do not consider that landscape and visual mitigation requirements are by default satisfied, once reinstatement planting and BNG goals are achieved. The Councils expect that full consideration is given to landscape and visual mitigation and, if required, to

compensation measures. The Councils consider that landscape and visual mitigation planting offers additional opportunities to the overall BNG being achieved.

a) Full application of the Mitigation Hierarchy, including compensation for residual landscape and visual impacts

Mitigation

- 11.98 SCC has concerns with regards to the terminology regarding different types of mitigation. While SCC agrees with the definition given of embedded mitigation (paragraph 13.7.3), the council considers that the definition for standard mitigation (paragraph 13.7.4) is insufficient, and that for additional mitigation (paragraph 13.7.7) unhelpful and inappropriate.
- 11.99 It is the Council's view that the Waveney Alternative should be considered part of the embedded mitigation.
- 11.100 Any planting for Landscape and Visual Mitigation (i.e. which is proposed in addition to reinstatement planting for vegetation that was removed to enable the scheme) with the purpose of screening or filtering views of CSE compounds and/or other elements of the scheme, is considered by SCC to be required and necessary to mitigate impacts and minimise effects on visual receptors (application of the mitigation hierarchy). This is required to make the scheme acceptable in landscape terms. It stands side by side with reinstatement planting and planting for Biodiversity Net Gain and cannot be considered 'additional' or 'above and beyond' (paragraphs 13.7.7 and 13.7.9).

Compensation

- 11.101 Despite acknowledging in paragraphs 13.8.24 and 13.8.28 that long-term significant adverse impacts and effects on landscape character types and long-term significant adverse effects on visual receptor groups including residents, road users and recreational receptors are likely, the Applicant does not mention or explore the fourth column of the Mitigation Hierarchy, Compensation, in the landscape chapter. This is unacceptable. (see also, main PEIR text, paragraph 8.2.18).
- 11.102 SCC considers that residual adverse impacts, that cannot be mitigated, need to be compensated, by means of wider landscape restoration and a coordinated Landscape, Ecology, Archaeology, and Rights of Way Masterplan, in particular, but not exclusively, in areas which are disproportionately affected by energy infrastructure, such as Bramford, Burstall and the Gipping Valley. Landscape enhancement may need to be secured outside the DCO boundary via a Section 106 agreement.

b) Aftercare, post- construction monitoring, and the control document OLEMP

- 11.103 Aftercare has not been dealt with in the PEIR. With regards to Aftercare SCC is advocating an outcome-oriented approach of dynamic or adaptive aftercare. This means, planting will need to reach agreed growth and survival rates in

order to be moved forward into the next year of agreed aftercare. This may result in different duration of aftercare periods for different types of planting (hedge/scrub/trees/ woodland) or different areas within the scheme.

- 11.104 The rationale behind this is as follows: If the reinstatement planting cannot achieve a return to the baseline conditions which existed prior to the development, whether this is because certain elements of habitats cannot be reinstated (such as trees) or because implemented reinstatement planting has failed during the aftercare period, this will impact on, and reduce the percentage of BNG that is achieved elsewhere on site. In other words, more biodiversity measures need then to be implemented to achieve 10% BNG.
- 11.105 The Councils therefore consider that the aftercare for reinstatement planting needs to be linked to considerations about BNG. This may result in extended aftercare periods, if successful establishment of the reinstatement planting is not achieved within five years. The success, or lack thereof, of the reinstatement planting needs to be considered, when the success of the biodiversity enhancement measures is evaluated, and management measures are reconsidered.
- 11.106 Any tree or shrub that is removed, dies, or becomes seriously damaged or diseased during the aftercare period, must be replaced with suitable replacement plants or trees to the specification agreed in writing with the relevant LPA during the next available planting season (ideally the following November/December).
- 11.107 The proposals should allow for the costs of annual post monitoring inspections by and reports to the LPAs for the life span of the project or at least for the first 15 years, and longer if mitigation goals are not being achieved (dynamic aftercare).

The baseline to monitor against is the pre-construction baseline data.

- 11.108 The OLEMP will be submitted as part of the DCO application (see paragraph 5.1.2). No draft of an OLEMP has been included within the Statutory Consultation Documents. SCC encourages the Applicant to provide a draft OLEMP as soon as possible, prior to the submission of the DCO application, so that any potential issues can be resolved prior to examination, with the aim to make the examination as expedient as possible.

12. SCC Public Health - Community Wellbeing

12.1 Many thanks for the document and please find some comments from Public Health.

12.2 Chapters checked:

- a) 5.3: Air Quality.
- b) 5.6: Health and Wellbeing.
- c) 5.10: Noise and Vibration
- d) 5.11: Socio Economics, Recreation and Tourism.
- e) 5.12: Traffic and Transport.
- f) 5.13: Cumulative Effects.

12.3 Overall, the document is good. Points for consideration:

- a) Can a mental health impact assessments be done to enable any mitigations of unnecessary mental health impacts to residents¹¹
 - i. Overhead pylons and EMFs. Evidence suggesting that there is no impact to people from any power surges, can still raise anxieties, and be identified as a concern through the mental health impact assessment can be mitigated through local education/guidance through community engagement to help residents understand that they will not be impacted by any power surges.
 - ii. Anxieties may also be raised from noise and vibrations although mitigations have been stated on the document.
 - iii. To ensure residents in Waveney are informed of excess traffic using the Waveney Valley Alternative routes for construction traffic and not raise anxieties.
- b) Good to see mitigations linking with Suffolk Wildlife Trust, Natural England on traffic control, as long as this doesn't start impacting areas with small pockets of housing and roads.
- c) Will there a document/engagement with residents to explain the nature of the work and the time period in order to reduce any anxieties and stress during construction period and for businesses/tourism to ensure they have any measures in place as required?
- d) Nothing to raise on Air Quality.
- e) Cumulative Impact: Good to see the different stage processes and to ensure good communications with local residents of any/all impacts are raised.

PIER at 10.5.4 - should be expanded to include the 'Joint Local Health and Wellbeing Strategy 2022 – 2027' -¹² and data available at Suffolk Office of Data & Analytics¹³

¹¹ <https://healthycampuses.ca/wp-content/uploads/2014/07/MentalWellbeingImpactAssessmentAtoolkitforwellbe-1.pdf>

¹² <https://www.healthysuffolk.org.uk/asset-library/Health-and-Wellbeing-Strategy-22-27.pdf>

¹³ <https://www.suffolkobservatory.info/soda/>

13. SCC Public Rights of Way

- 13.1 The proposed new pylon route significantly affects the public rights of way (PROW) network during the construction phase due to this SCC strongly advocates this is dealt with within its own chapter. It is therefore covered in health and well-being chapter; landscape and visual chapter; social economics, recreation and tourism and transport and traffic chapter. As a result, the post methodology's do not recognise the importance of the quality of the experience enjoyed by the public when going for a walk or ride. We do welcome the Draft PROW Management Plan, but would like all the other aspects to be covered off or repeated in a dedicated PROW chapter.
- 13.2 Paragraph 1.1.5 of the Draft PROW Management Strategy states that no permanent diversion of PROW are expected and therefore the document only covers temporary diversions. And if they occur, it would be with consultation with LHA PROW officer including any mitigation.
- 13.3 Paragraph 2.2.3 of the Draft PROW Management Strategy states that a survey of the PROWs affected will be undertaken over a 12 hour period. This may not be representative of the actual usage of the PROW and depends on the hours covered. I would also recommend that a weekday AND weekend day are both surveyed, and the hours surveyed are at least 7am to 9pm.
- 13.4 Table 3.1 of the Draft PROW Management Strategy states that when haul roads and PRoW share the same alignment that a safety fence would be erected the entire length with separation, if possible. SCC PROW require the minimum definitive width of the route and at least 0.5m separation of a fence.
- 13.5 Section 15 covers receptors and some long-distance trails, some notable circular walks have been omitted and need to be referenced and assessed, using the 'Discover Suffolk website' routes affected are and not limited to:
- a) Gislingham Circular Walk 1,
 - b) Gislingham Circular Walk 2,
 - c) Mendlesham Wimble Walk,
 - d) Great Bricett Moat & Pub Walk,
 - e) Great Bricett Airfield & Hall Walk,
 - f) Bramford Mills and Meadows Walk.
- 13.6 167 PRoW in Babergh and Mid Suffolk have been referred to as being affected by the proposals. Why are only 17 PRoW's addressed in table 15.17?
- 13.7 Section 15 p496: W-129/025/0 is not marked as significant in the construction phase, what methodology has been employed to make this decision?
- 13.8 SCC has concerns about the impact of multiple National Grid projects particularly within the Bramford area and the long-term impact on restrictions on the rights of way network. The combination of projects could see closures for significant lengths of time effectively severing the network and creating long term disruption to PRoW users. Although the closures are not permanent, this will impact on access and thus on the health and well-being of the local

community over a lengthy period. SCC considers that appropriate mitigation for these residual impacts is required.

- 13.9 Several promoted long-distance routes will be affected by the proposal covering the Stour Valley Path, Gipping Valley Footpath and Mid Suffolk Footpath and connecting promoted circular routes, in addition to local strategic routes close to villages. These routes need to be monitored during construction of the line and usage of haul roads, to identify impacts and where required further mitigate. This should also cover the increase in construction traffic on minor routes close to villages that are also used for non-motorised access to the PRow network. SCC are happy to provide details of specific areas of known medium to high use that should be included in further surveying. - This comment carries over from previous correspondence and ties into point 2.2.3 of the Draft PRow Management Strategy
- 13.10 SCC also expects mitigation measures for the impact on the popular sections of the rights of way to offset the disruption to local communities. Consideration needs to be given to whether temporary infrastructure can assist as legacy for PRow access as a permanent measure once completion of the scheme, including any proposed structures. Further discussion would be welcomed on this.
- 13.11 Further details would be welcomed on treatment of routes and proposals for closures.
- 13.12 Additional general comments as follows:
- a) A pre and post condition survey must be carried out including identification and assessment of surface condition and with a scope of coverage and methodology to be agreed with SCC as Highway Authority. This should include pre-construction work where PRow might be used to gain access to the corridor and reinforcement works might be required prior to use by vehicles. Pre and post condition surveys are covered in 2.2.4 and will be required and agreed by SCC PRow.
 - b) Where impacted by the works, any PRow will be restored to original condition or to a condition agreed with SCC - where there are existing defects, the applicant should agree restoration measures with the SCC, and this should be included within a Code of Construction Practise. This is referred to in 2.2.4 of the Draft PRow Management Strategy.
 - c) Where PRow cross the cable corridor, haul road, access tracks and other sites, the surface must be kept in a safe and fit condition at all times for all users. Management measures should be included within the Construction Traffic Management Plan. This is mostly covered in table 3.1
 - d) Pre-construction works must not obstruct or disturb any public rights of way (e.g. new fencing, archaeology surveys etc) unless otherwise agreed with SCC. Management measures should be discussed, and any temporary closures will need to be included in the DCO.

- e) Public rights of way that are used for any stage of construction access should remain open, safe, and fit for the public to use at all times with management measures put in place with the agreement of SCC.
- f) Any temporary closure of a PRoW must be agreed with SCC and the duration kept to the minimum necessary, this must be included within the DCO.
- g) An alternative route must be provided for any public right of way that is to be temporarily closed prior to closure. The location of alternative routes to be agreed with SCC. This is covered in section 3.2 of the Draft PROW Management Strategy. The path or way must not be substantially less convenient to the public in consequence of the diversion.
- h) Any alternative route must be safe and fit for the public to use at all times – suitable surface, gradient and distance with no additional road walking between the natural destination points.
- i) Any temporary closure and alternative route will be advertised in advance on site and in the local media, and to the local parish councils including a map showing the extent of the closure and alternative route. The closure and alternative should be signed accordingly. This is mostly covered in 3.3 but does not mention parish councils. Also, The path or way must not be substantially less convenient to the public in consequence of the diversion
- j) There should be no new gates or stiles erected on any public rights of way that are impacted by the cable corridor and any other associated site.

14. SCC Planning

Minerals & Waste Safeguarding

- 14.1 SCC is the planning authority for minerals and waste planning matters within Suffolk as well for its own development which includes schools and some highways developments.
- 14.2 The Development Plan for the area directly affected by the scheme includes the Suffolk Minerals & Waste Local Plan.¹⁴
- 14.3 The main concern in terms of minerals and waste development is the safeguarding of minerals resources and development and the safeguarding of waste development.
- 14.4 The relevant Suffolk Minerals & Waste Local Plan policies are MP10 for minerals and WP18 for waste.
- 14.5 Having considered the proposals and safeguarding maps there are no impacts in respect of existing or proposed mineral or waste facilities.
- 14.6 In terms of underlying minerals resources geological mapping indicates extensive spreads of sand and gravel resources. However, in terms of the relevant importance of these resources they are considered to be at most of regional significance compared to these grid reinforcement proposals which are of national significance. In addition, significant parts of the route are within areas where in reality planning permission would not be granted because of the impact upon statutory landscape areas for example.
- 14.7 SCC will defer to Babergh & Mid Suffolk District Councils and Parish Councils to make comments in respect of their own development plans.

Airfield Safeguarding

Policy Considerations

- 14.8 When considering the potential impacts upon Airfields from other forms of development there are a number of relevant policy documents. A number of these are outlined below.

Overarching National Policy Statement for Energy (EN-1)

- 14.9 This was published by the Department of Energy and Net Zero in November 2023. Paragraph 5.5.51 on Page 110 states that “In particular, the Secretary of State should be satisfied that the proposal has been designed, where possible, to minimise adverse impacts on the operation and safety of aerodromes...”.¹⁵ It is SCC’s view that this has not been achieved.

¹⁴ <https://www.suffolk.gov.uk/planning-waste-and-environment/minerals-and-waste-policy/suffolk-minerals-and-waste-development-scheme>

¹⁵ <https://assets.publishing.service.gov.uk/media/65bbfbd709fe1000f637052/overarching-nps-for-energy-en1.pdf>

National Policy Statement for Electricity Networks (EN-5)

- 14.10 This was published by the Department of Energy and Net Zero in March 2023. This refers to Electric and Magnetic Fields and their potentially unacceptable impacts on safeguarded technical sites in Paragraph 2.11.3 on Page 27.¹⁷
- 14.11 No technical sites within Suffolk are known to be affected although it is proposed to route overhead lines and underground cables on or near airfields which conceivably could interfere with radio communication and navigational aids.
- DfT/ODPM circular 1/2003 - advice to local planning authorities on safeguarding aerodromes and military explosives storage areas.
- 14.12 This circular:
- a) provides details of the system of safeguarding
 - b) lists the civil aerodromes which are officially safeguarded
 - c) lists the local planning authority areas containing civil en-route technical sites for which separate official safeguarding maps have been issued.
- 14.13 None of the airfields in the vicinity of the proposed development are officially safeguarded.
- Civil Air Publication 793 Safe Operating Practices at Unlicensed Aerodromes (CAP 793)
- 14.14 This was published by Civil Aviation Authority's Safety Regulation Group in June 2010. Chapter 4, Paragraph 3.6 refers to there being a minimum 2km distance between the mid-point of the runway and an obstacle of 150ft or more.
- 14.15 There are a number of airfields affected by the proposals for siting 50m high pylons that are within 2km. It is also noted that Tibbenham Airfield say 5km would be more appropriate as they need to negotiate Priory Farm Airfield's overhead before continuing to climb.¹⁸

National Planning Policy Framework

- 14.16 This was published by the Department for, Housing and Local Communities in December 2023 and refers to the importance of safeguarding airfields in Paragraph 110 f):¹⁹
- 14.17 "f) recognise the importance of maintaining a national network of general aviation airfields, and their need to adapt and change over time – taking into account their economic value in serving business, leisure, training and emergency service needs, and the Government's General Aviation Strategy."
- 14.18 SCC believes that these proposals fail to accomplish these goals.

¹⁷ https://assets.publishing.service.gov.uk/media/64252f852fa848000cec0f53/NPS_EN-5.pdf

¹⁸ <https://www.caa.co.uk/publication/download/13965>

¹⁹ https://assets.publishing.service.gov.uk/media/65a11af7e8f5ec000f1f8c46/NPPF_December_2023.pdf

York Aviation Report into the Economic Value of GA in the UK

14.19 This research, commissioned by the Department of Transport and published in February 2015, found that the total economic impact of GA on the UK economy is around £3.0 billion of Gross Value Added (GVA) and supports in excess of 38,000 jobs.²⁰

14.20 SCC notes that there has been no assessment of the impacts upon aviation of these proposals.

General Aviation Strategy

14.21 This was published by the Department for Transport in March 2015 and details the Government's vision for the aviation sector.²¹

14.22 "The Government's vision is of the UK being the best place in the world for GA as a flourishing, wealth generating and job producing sector of the economy."

14.23 This includes the following commitment:

"10. We will amend planning guidance on the National Planning Policy Framework for England so that it makes appropriate reference to GA aerodromes as part of a network;"

14.24 SCC believes that these proposals are unnecessarily detrimental to this Vision and contrary to the NPPF.

General Aviation Airfields Study

14.25 This research, commissioned by the Department for Transport and published in March 2021, describes the economic impact of General Aviation (GA) airfields. SCC believes that this provides a valuable insight into potential economic impact of the proposals upon the airfields along the route of the proposed development where avoidance of flight paths has not been adequately adopted.

Impacts Upon Specific Airfields

14.26 The proposals as currently drafted have potentially serious implications for a number of airfields.

Tibenham Airfield

14.27 See Inset Map G. The proposed route of the overhead lines is within 3.5 km of the centre of runway and would present an obstacle of 150ft or more which is contrary to the recommendations of the airfield operators, who have commented that 5km would be more appropriate due to the need to transit over the Priory Farm circuit pattern.

²⁰ <https://assets.publishing.service.gov.uk/media/60cc6ed78fa8f57ceec3c9e0/york-aviation-general-aviation-airfields-study-2021.pdf>

²¹ https://assets.publishing.service.gov.uk/media/5a805326ed915d74e622dcd3/General_Aviation_Strategy.pdf

Tibenham Priory Farm Airfield

- 14.28 See Inset Map G. The proposed route of the overhead lines is within 2km of the centre of runway and would present an obstacle of 150ft or more, contrary to the recommendations contained within CAP 793. The proposed overhead line passes below the Runway 01 left hand circuit pattern and the reciprocal Runway 19 right hand circuit pattern. The circuit for fixed aircraft is flown lower than average at 500 ft above airfield due to being adjacent to Tibenham Airfield where gliders operate from.

Brook Farm Airfield, Burgate

- 14.29 See Inset Map A. The proposed route of the overhead lines is within 2km of the centre of runway and would present an obstacle of 150ft or more, contrary to the recommendations contained within CAP 793. The proposed overhead line passes below the Runway 05 right hand circuit pattern on the crosswind and downwind legs and the reciprocal Runway 23 left hand circuit pattern on the downwind and base legs. The upwind sector of the Runway 05 circuit would involve the aircraft taking off and climbing away from the ground until 500 ft Above Aerodrome Level is reached before commencing a right climbing turn onto the crosswind leg. The proposed pylons and overhead line at 180 ft high (55m) and 183 kilometres (114 miles) in length would present an obstacle that aircraft would need to clear. Climb rate is affected by many factors including meteorological conditions, aircraft condition and pilot competence. If an engine failure took place in this phase of flight pilots are trained to land with 30 degrees of the heading to avoid stall/spin accidents which would be more likely if the aircraft was to attempt a sharp turn under those circumstances. This would not be possible under these circumstances as the options would be limited by the presence of the powerlines to the starboard side during take off.

Wattisham Airfield

- 14.30 See Inset Maps B, C and D. Here the overhead lines pass below the Extended Centre Line and Instrument Landing System Path of Runway 23 and are within both the Wattisham Air Traffic Zone and Military Air Traffic Zone. Confirmation from the Ministry of Defence that they are content with the proposals must be sought as the proposed overhead line would be taller than the existing 132kV which follow a similar route in this location.

Elmsett Airfield

- 14.31 See Inset Maps C and D. Here the proposed overhead lines run to the north of Runway 23 left hand circuit base leg and the reciprocal Runway 05 right hand circuit crosswind leg. Confirmation from the airfield operators that they are content with the proposals must be sought as the proposed overhead line would be taller and closer to the airfield than the existing 132kV which follow a similar route in this location.

Raydon Airfield

- 14.32 See Inset Map E. The proposed route of the overhead lines is within 2km of the centre of runway and would present an obstacle of 150ft or more, contrary

to the recommendations contained within CAP 793. The proposed underground cables run underneath Runway 09/27. Open trench construction would prevent use of the runway as would significantly settle afterwards.

Boxted Airfield

- 14.33 See Inset Maps E and F. The proposed route of the overhead lines is within 2km of the centre of runway and would present an obstacle of 150ft or more, contrary to the recommendations contained within CAP 793. The proposed overhead line passes below the Runway 20 left hand circuit pattern on the upwind and downwind legs and the reciprocal Runway 02 right hand circuit pattern on the downwind and final legs.

West Horndon Airfield

- 14.34 See Inset Map H. The proposed route of the overhead lines is within 2km of the centre of runway and would present an obstacle of 150ft or more, contrary to the recommendations contained within CAP 793. The proposed overhead line passes below the Runway 24 left hand circuit pattern and the reciprocal Runway 06 right hand circuit pattern.

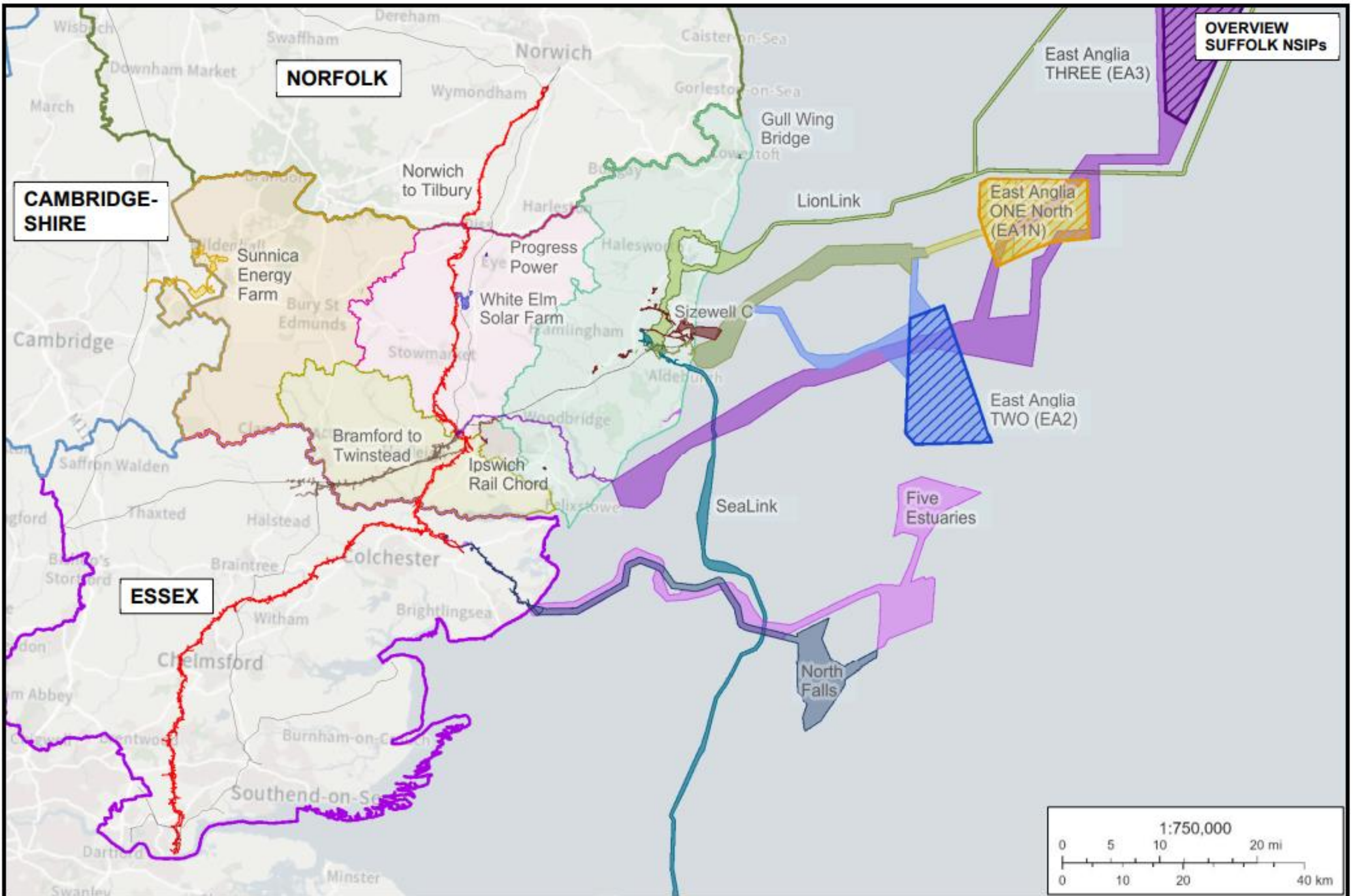
Thurrock Airfield

- 14.35 See Inset Map H. The proposed route of the overhead lines is within 2km of the centre of runway and would present an obstacle of 150ft or more, contrary to the recommendations contained within CAP 793. The proposed overhead line passes below the Runway 25 Grass left hand circuit pattern and the reciprocal Runway 07 (Grass and Asphalt) right hand circuit pattern.

Conclusion

- 14.36 In the interests of the amenity of users of these facilities, national defence and the general aviation industry in the area, the proposals should allow for their continued and safe use and if necessary the proposals must be amended. Clearly multiple airfields are detrimentally impacted and hence the overall impact is regionally significant and hence SCC is referring to airfields outside of it's jurisdiction.

15. Appendix B - Plans

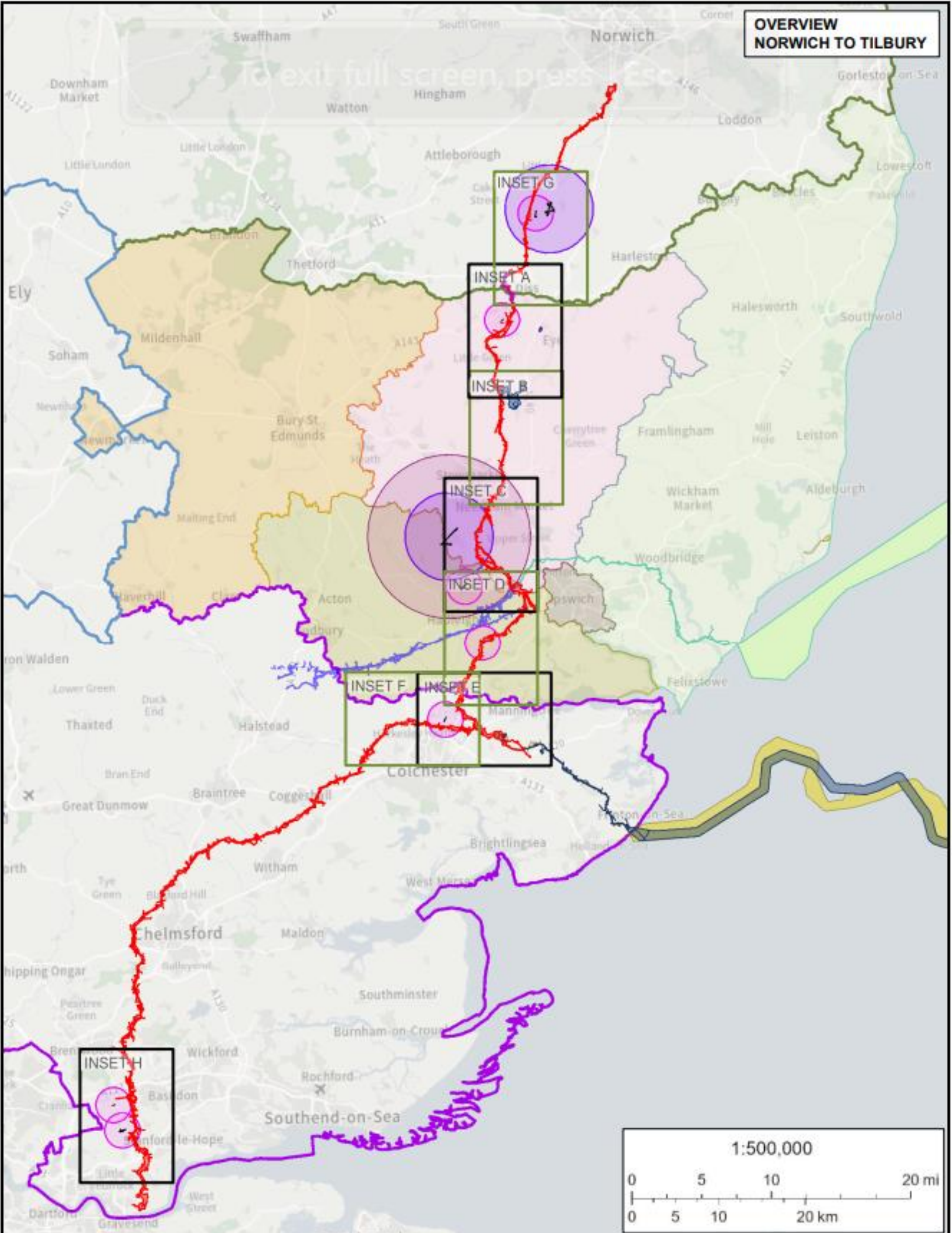


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**OVERVIEW
NORWICH TO TILBURY**



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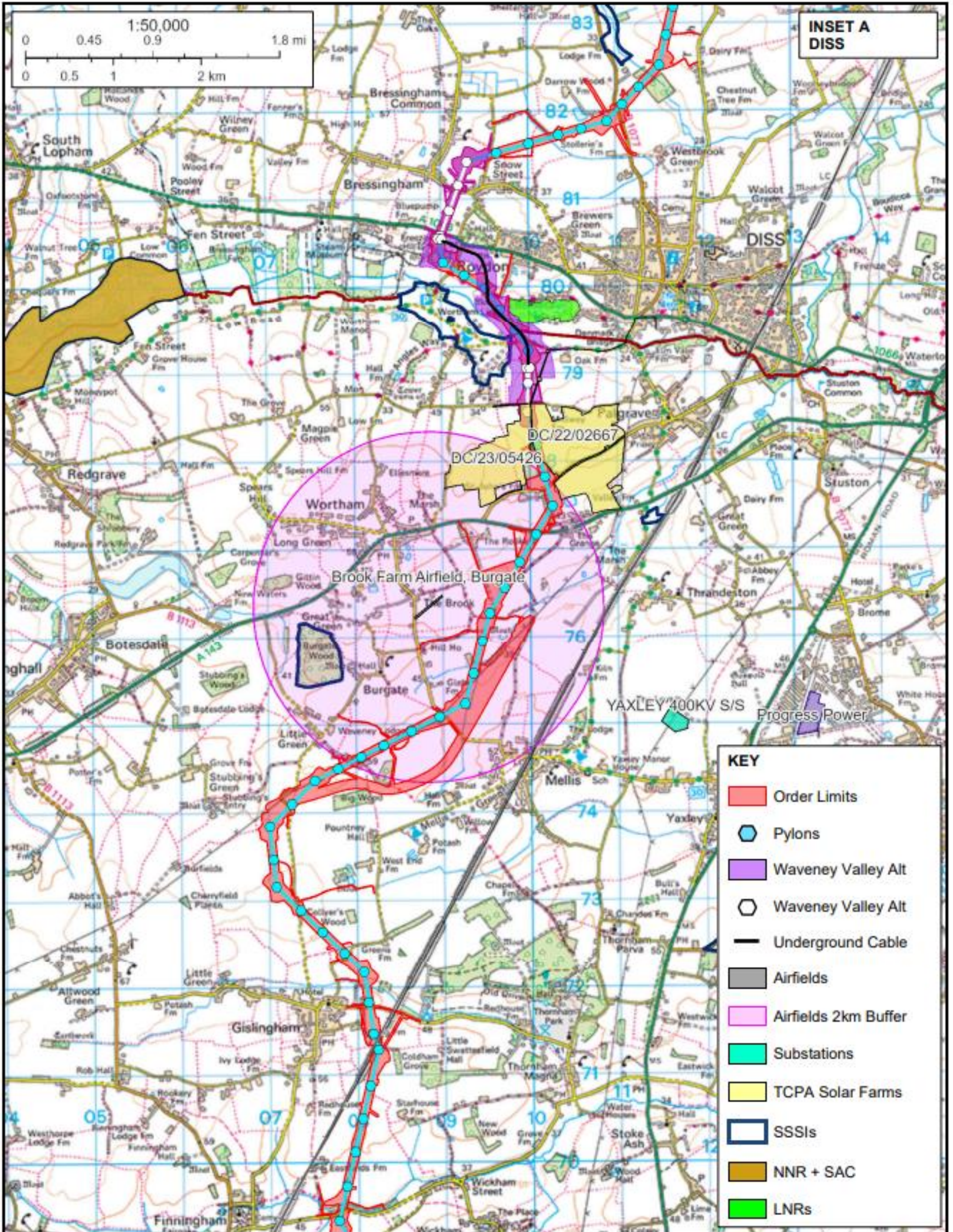


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KEY

- Order Limits
- Pylons
- Waveney Valley Alt
- Waveney Valley Alt
- Underground Cable
- Airfields
- Airfields 2km Buffer
- Substations
- TCPA Solar Farms
- SSSIs
- NNR + SAC
- LNRs

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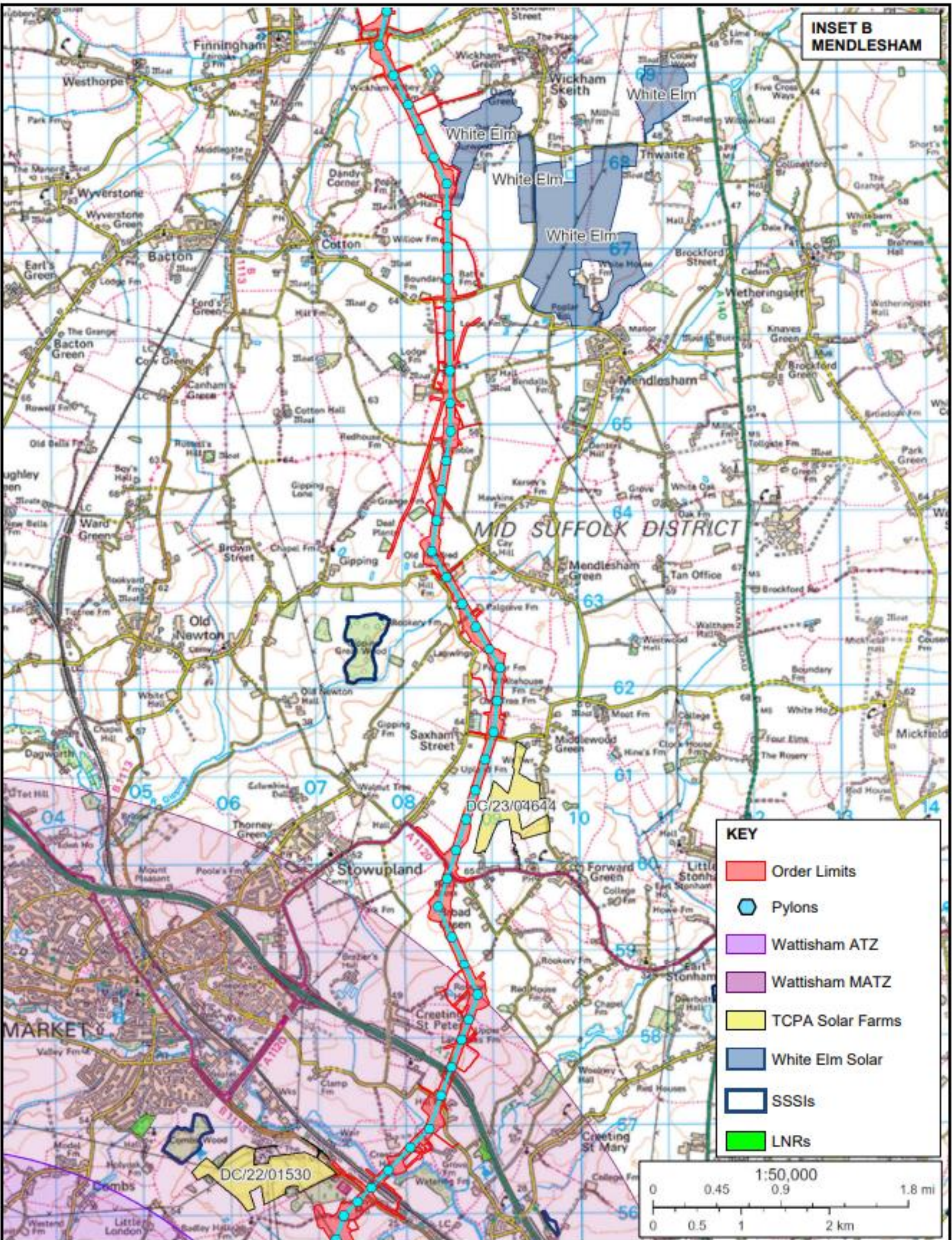


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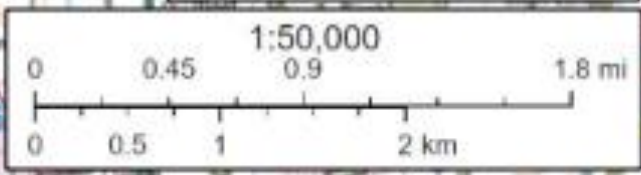
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**INSET B
MENDLESHAM**



KEY	
	Order Limits
	Pylons
	Wattisham ATZ
	Wattisham MATZ
	TCPA Solar Farms
	White Elm Solar
	SSSIs
	LNRs



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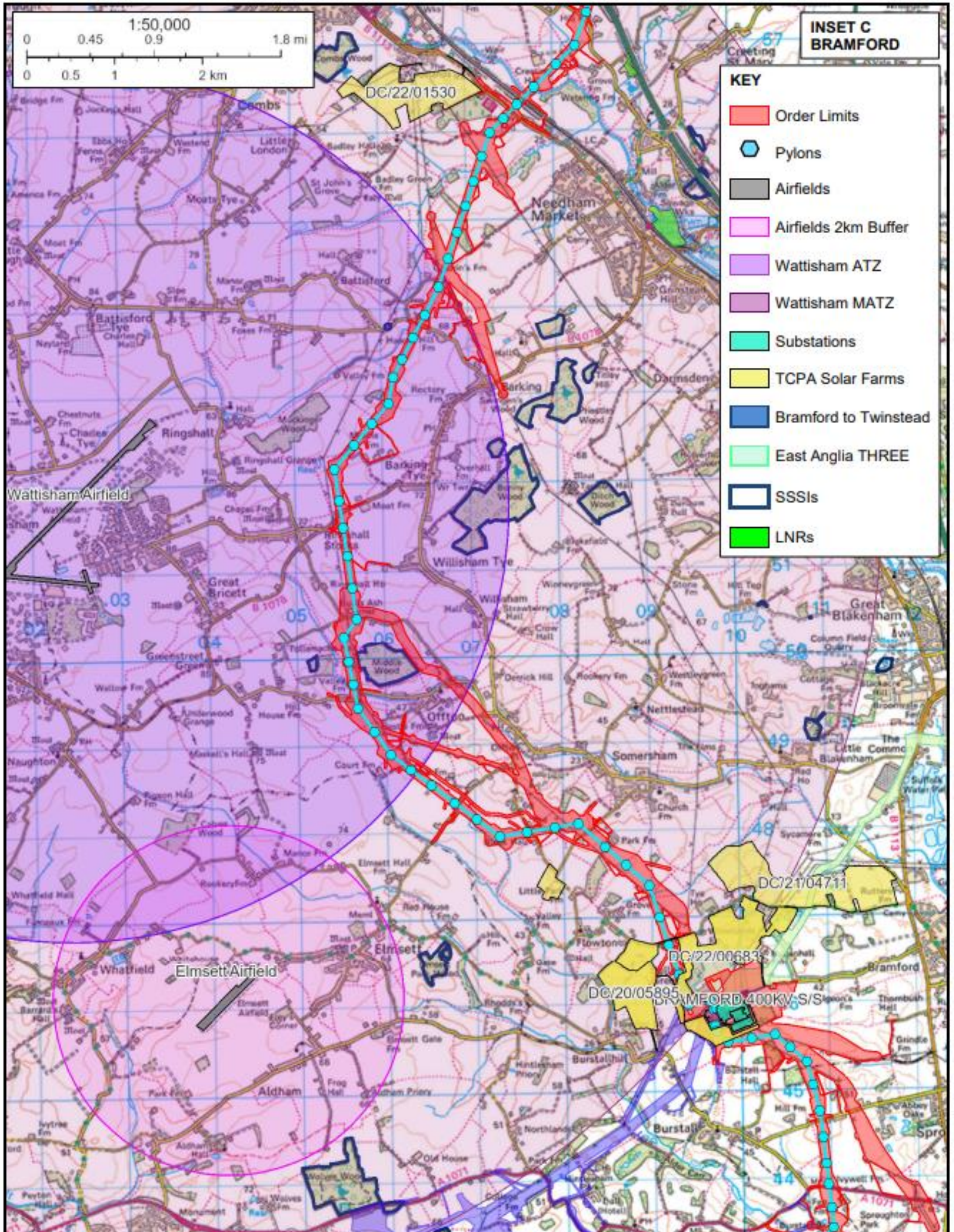


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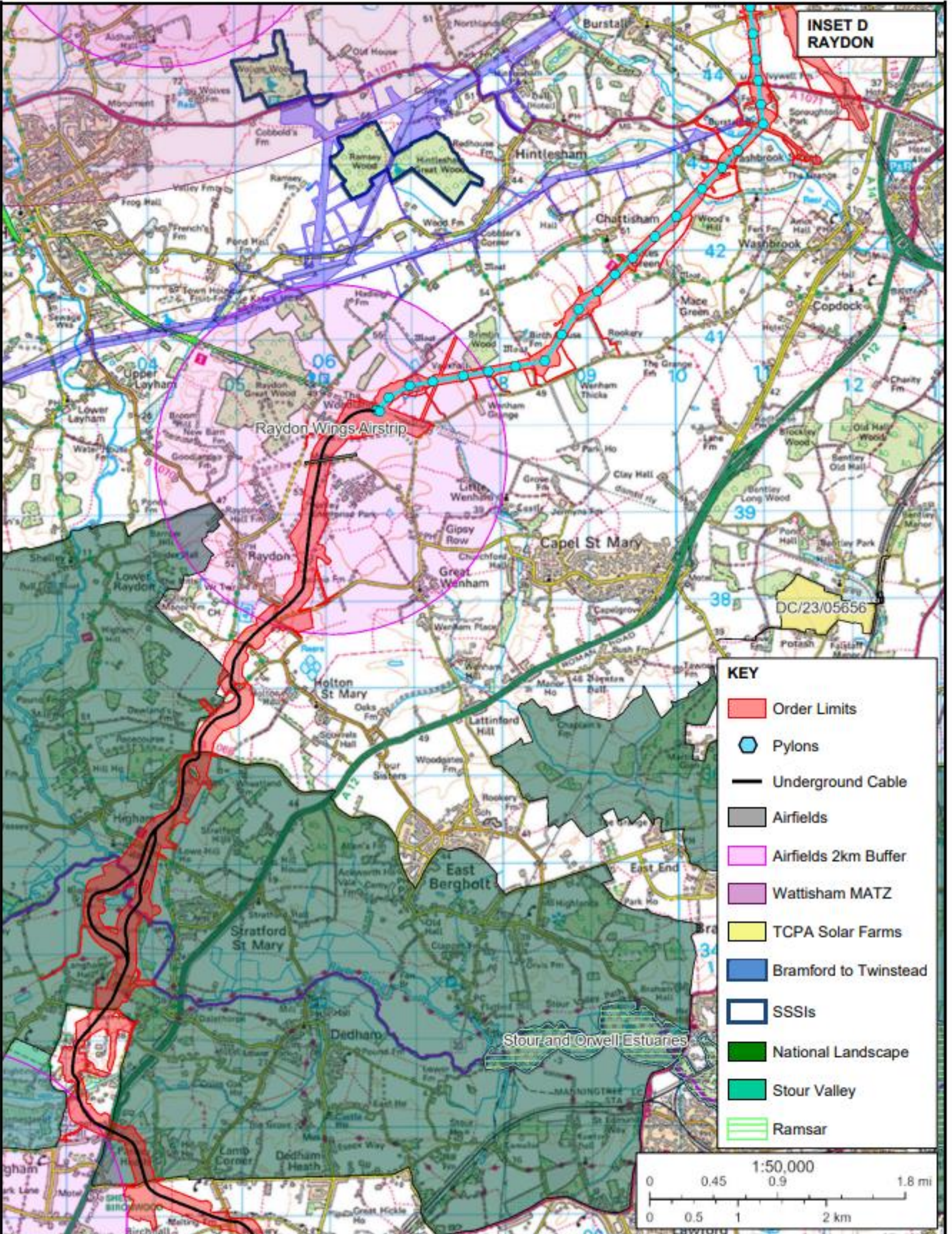
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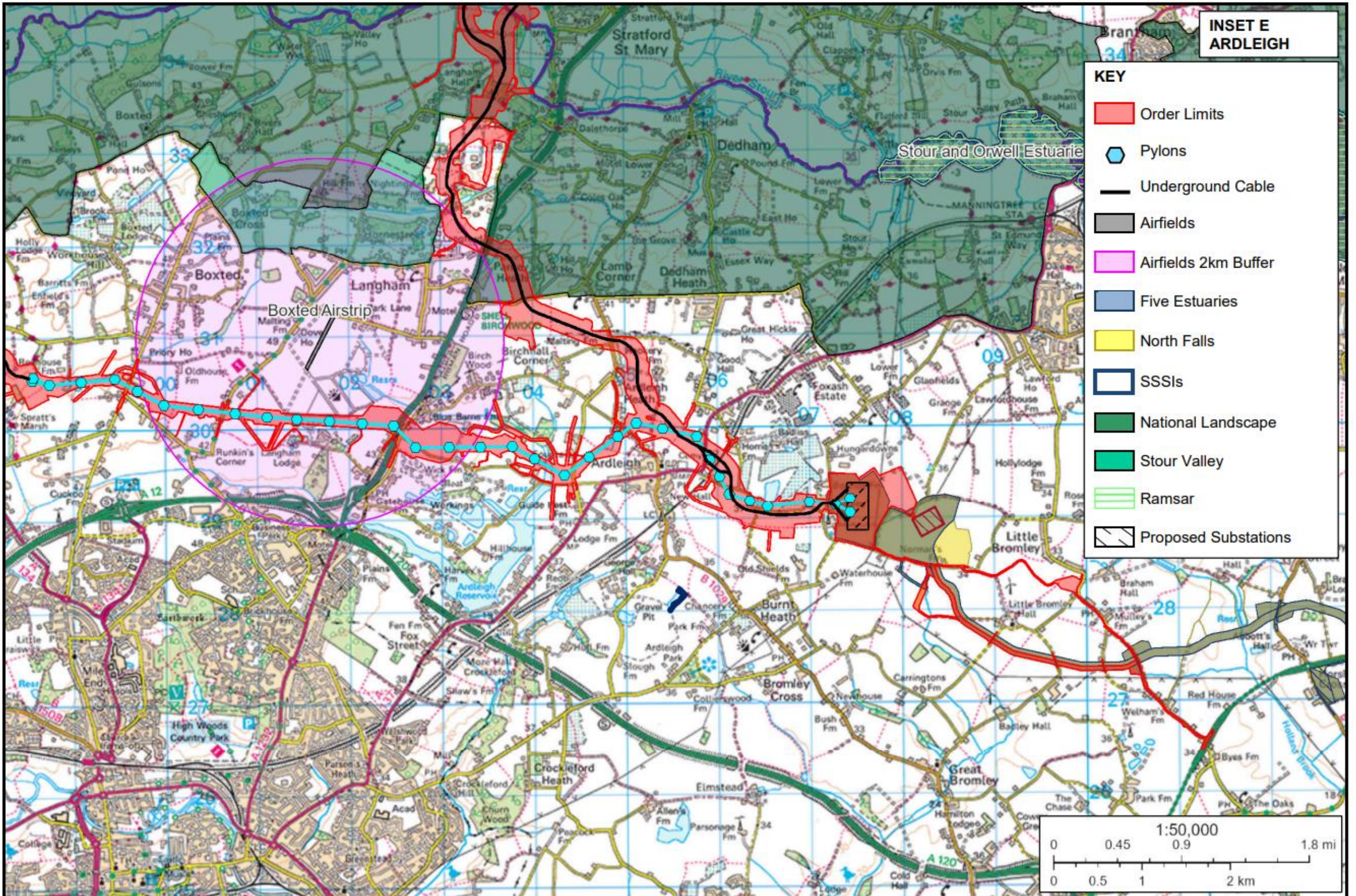


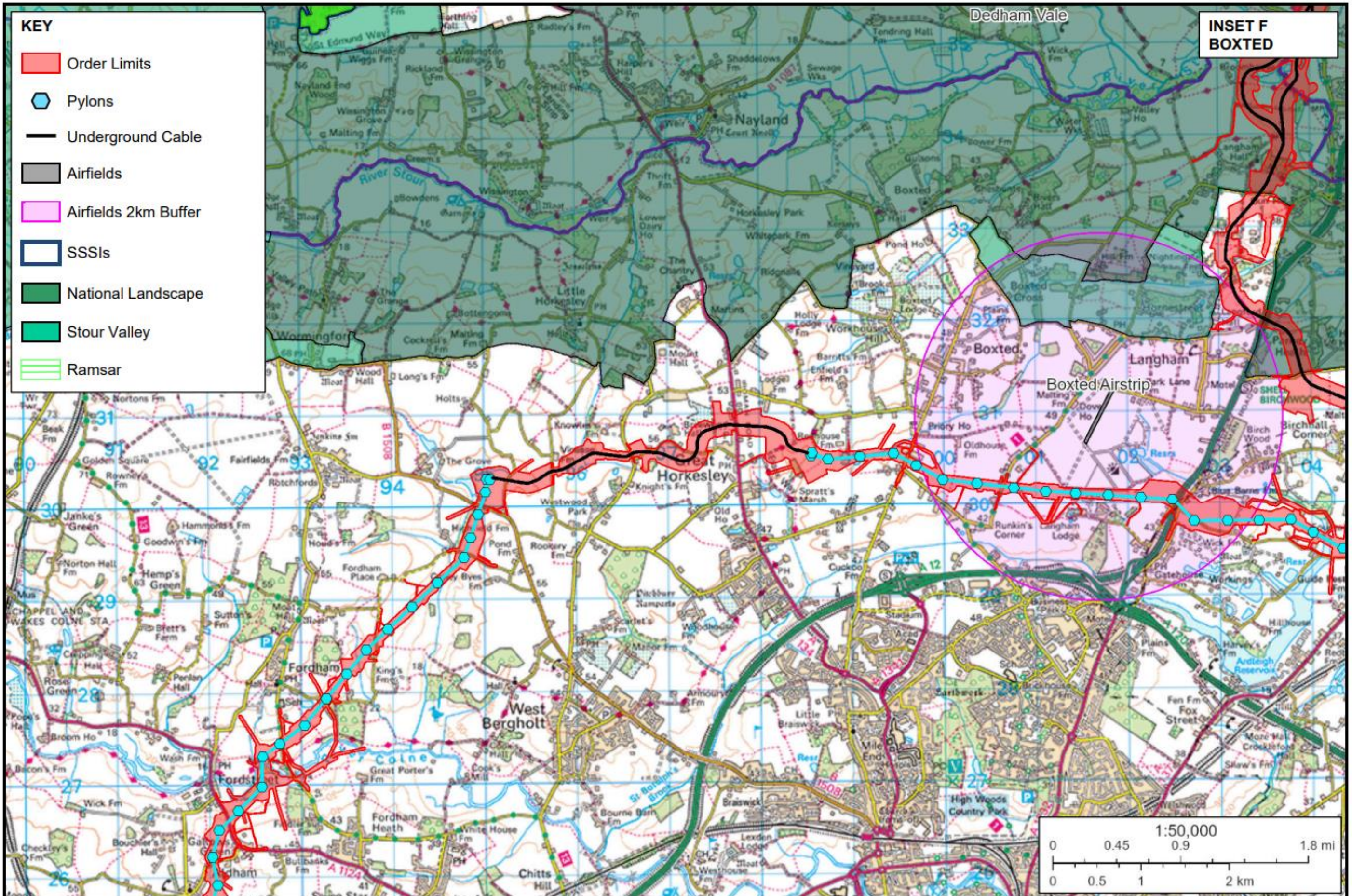
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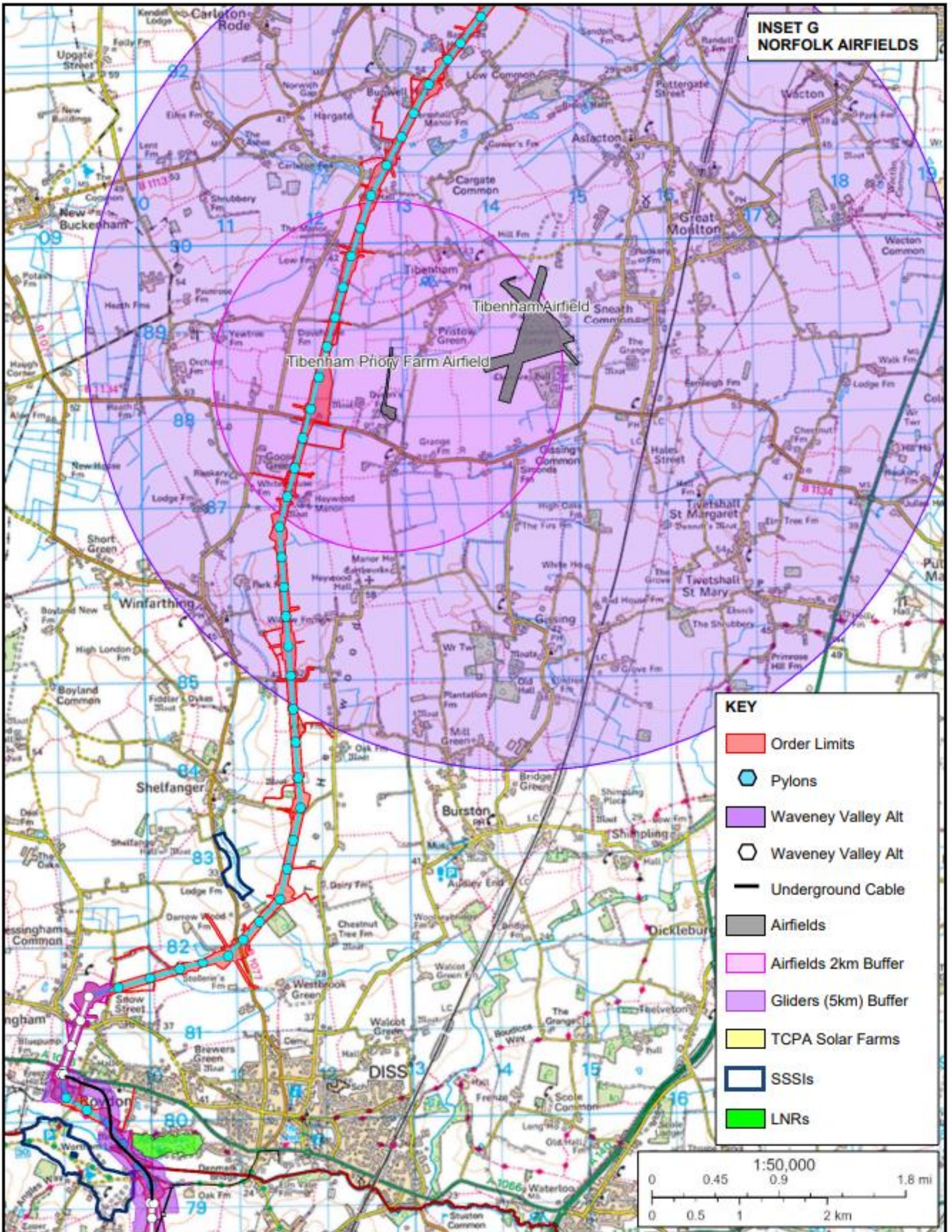
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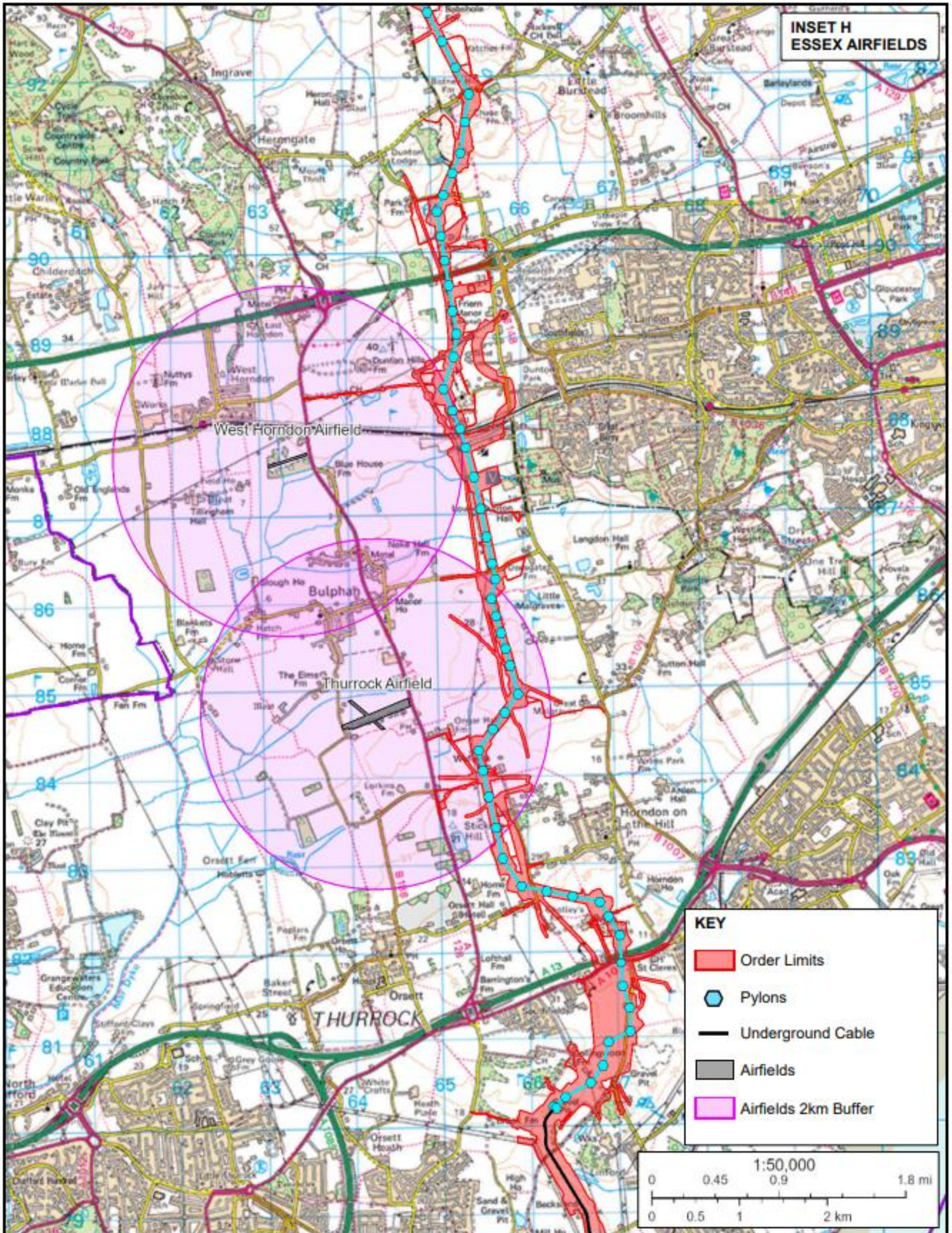


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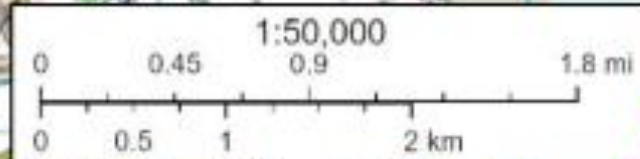




INSET H
ESSEX AIRFIELDS

KEY

- Order Limits
- Pylons
- Underground Cable
- Airfields
- Airfields 2km Buffer



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