



Norwich to Tilbury

Non-Statutory Consultation (Part 2)

27 June – 21 August 2023

Comments of Suffolk County Council

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### Introduction

- 1.1 The following comments from Suffolk County Council (SCC) are in response to the non-statutory consultation (part 2) held between the 27 June and 21 August 2023 by National Grid Electricity Transmission (NGET) upon the Norwich to Tilbury (NT) proposals to build a new 400kV electricity transmission line between Norwich and Tilbury.
- 1.2 These comments build upon many of the earlier comments made by SCC in response to the previous round of non-statutory consultation which was held between 21 April and 16 June 2022 before the rebranding by NGET when the proposals were known as East Anglia Green.<sup>1</sup>
- 1.3 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 Area of Outstanding Natural Beauty (Dedham Vale AONB) on the border with Essex.
- 1.4 The SCC electoral divisions directly affected include the following:
  - Hartesmere
  - Thedwastre North
  - Upper Gipping
  - Stowmarket and Stowupland
  - Thredling
  - Bosmere
  - Cosford
  - Gipping Valley
  - Belstead Brook
  - Samford
- 1.5 This representation sets out in the first section the SCC's key issues, with the second part (in Appendix A) providing detailed technical comments. Appendix A explains where those technical comments have derived from the SCC's inhouse staff and where they have involved input from external bodies. Given the extent and nature of the matters of concern to the SCC it was not practical for them to be expressed using the format of NGET's consultation feedback form.

# **SCC Energy Infrastructure Policy**

1.6 Suffolk County Council Cabinet agreed the Council's updated Energy and Climate Adaptive Infrastructure Policy at its meeting on 16 May 2023, which indicates the predisposition of the Council to supporting projects that are necessary to deliver Net-Zero Carbon for the UK. However, in order to be able to support a project, the Council expects that any impacts (including

<sup>&</sup>lt;sup>1</sup> <u>https://www.suffolk.gov.uk/asset-library/imported/scc-response-to-eag-informal-consultation-16-june.pdf</u>

- cumulative impacts in combination with other projects) are appropriately dealt with.<sup>2</sup>
- 1.7 SCC will follow this approach in this Consultation Response, and throughout the DCO process.
- 1.8 SCC acknowledges the refinements to the proposals that have been made since the 2022 consultation although there are still some outstanding issues which need to be addressed. SCC continues to be willing to work with NGET through these issues towards the improvement of the proposals and looks forward to continuing engagement over the coming months.

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<sup>&</sup>lt;sup>2</sup> https://committeeminutes.suffolk.gov.uk/DocSetPage.aspx?MeetingTitle=(16-05-2023),%20The%20Cabinet

# **Key issues**

# **SCC Objection**

1.9 SCC recognises the potential importance of the Norwich to Tilbury (NT) proposals as part of the national infrastructure to connect energy developments that will reduce carbon emissions, to decarbonise the grid, improve energy supply resilience, and help to meet the challenges of climate change. For reasons given below however, SCC has no option but to object to this proposal as it stands.

## The Need Case Presented by National Grid

1.10 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. In the supporting information of the NT consultation, NGET states:

"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.

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.

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."

### Offshore Centred Approach

1.11 However, SCC's clear preference is for a coordinated, offshore centred approach, delivered at pace, to minimise onshore infrastructure in Suffolk. If this approach can deliver an alternative to NT 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.

### **Onshore Proposals**

1.12 SCC also considers that there are also significant shortcomings within the submitted proposals, that would be required, in the event that the preferred offshore centred approach, delivered at pace, to minimise onshore

- infrastructure in Suffolk cannot be delivered. Substantial and significant amendments must be made to this project to reduce the adverse impact on the communities and the environment of Suffolk and realise the potential additional benefits that could accrue from this project.
- 1.13 Until these shortcomings are addressed, SCC cannot support the specific proposals put forward to date by NGET, in respect of NT.

### **Bramford Substation**

- 1.14 The substation provides a means of connection for multiple energy projects including from within the local area and from much further afield. The NT 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.
- 1.15 The Council also 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.

### **Additional Undergrounding**

- 1.16 SCC does not believe that the current or emerging planning policy framework for transmission projects, *National Policy Statement for Electricity Networks EN-5*, can support *widespread* undergrounding<sup>3</sup>. However, the new draft policy does support a range of mitigation measures, including undergrounding in sensitive areas outside nationally designated landscapes.
- 1.17 SCC seeks modification of the proposals as presented at this consultation stage, to include, subject to full assessment by the Applicant, further mitigation including potentially additional areas of undergrounding. SCC proposes to work with other local authorities and the Dedham Vale AONB Project Board to provide the evidence required to justify additional undergrounding.

### **Undergrounding in the Waveney Valley**

1.18 SCC considers there to be a robust case for undergrounding on specific stretches where the line crosses the Waveney valley, as this is supported by draft National Planning policy, noting that the routing and method of this will need to avoid harm to Wortham Ling SSSI. The present proposals involve overhead lines crossing close to the west of Diss in attempt to avoid other constraints (highlighted in yellow on Maps 1, which is appended below). This raises significant concerns and should be avoided unless there is a clear case that alternatives are not reasonably achievable.

### **Undergrounding in the Gipping Valley**

1.19 Where the proposed lines cross the Gipping Valley, SCC seeks undergrounding; this would also result in the avoidance of substantial harm to

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<sup>&</sup>lt;sup>3</sup> Paragraphs 2.9.23-25

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\_data/file/11 47384/NPS EN-5.pdf

the assemblage of listed buildings around St Mary's Church, Badley (highlighted in yellow on Map 5 appended below).

## **Undergrounding in the Dedham Vale AONB**

1.20 SCC welcomes the proposals to underground the section which runs through the Dedham Vale AONB. Siting of the Cable End Sealing compounds so that they avoid significant harm to the Dedham Vale AONB will also require careful consideration. Within Suffolk, it is anticipated that a site potentially to the north of Holton St Mary would need to be found which would also not impinge on the flying activities at Raydon Airfield or cause significant harm to the villages of Little and Great Wenham (highlighted in yellow on Maps 9 and 10 which are appended below). SCC considers that, subject to detailed proposals, there may be a case to extend the undergrounding beyond the boundary of the AONB if there is an impact of any overground structures on the setting of the AONB.

### **Undergrounding to the North of Lawford Substation**

1.21 Although within Essex, SCC fully supports the Dedham Vale AONB Project Board and Essex County Council in asking for undergrounding of the lines as they leave Suffolk and the AONB and approach the Lawford substation because of the potential impact upon the Dedham Vale AONB and the local residents close to the proposed substations who would potentially be boxed in by lines travelling both to and from Lawford substation. It is noted since the last round of non-statutory consultation that NGET have adopted this approach in their current proposals (as shown in Map 10 appended below).

# Undergrounding to the South of Lawford Substation and the Dedham Vale AONB

1.22 Although within Essex, SCC fully supports the Dedham Vale AONB Project Board and Essex County Council in asking for undergrounding of the lines as they leave Lawford substation because of the potential impact otherwise on the Dedham Vale AONB and the residents close to the proposed Lawford substation. Undergrounding would also remove the potential to stop flying activities at the historic Boxted airfield. It is noted since the last round of non-statutory consultation that NGET have only partially adopted this approach in their current proposals (as shown in Map 10 appended below).

### The Removal of Obsolete 132kV Pylons

1.23 SCC 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.<sup>4</sup> It appears there may be opportunities for rationalisation of this 132kV network, around Needham Market, and between Diss and Stowmarket<sup>5</sup> (for example the existing 132kV line between Bramford and Lawford substations, highlighted in blue on Maps 8, 9 and 10 which are appended below). The Council recognises, and

<sup>&</sup>lt;sup>4</sup> <a href="https://www.gov.uk/government/publications/british-energy-security-strategy/british-energy-security-security-strategy/british-energy-security-strategy/british-energy-security-security-security-security-security-security-security-security-security-security-security-security-security-security-security-security-securit

<sup>&</sup>lt;sup>5</sup> Network Infrastructure and Usage Map (NIUM) — UK Power Networks (opendatasoft.com)

- expects, that this will require effective collaboration between NGET, UKPN and Ofgem.
- 1.24 Therefore, a *Distribution System Options Report*<sup>6</sup>, 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.

### The Avoidance of Heritage Assets

1.25 It is also expected that the refined routing and compensatory measures will need to have significant regard for sensitive receptors such as Mellis Conservation Area highlighted and Thornham Park highlighted in yellow on Map 2 appended below. This might include micro-siting of towers and/or offsite planting for example

### The Avoidance of Airfields

- 1.26 The proposals as currently drafted have potentially serious implications for a number of airfields including the following:
  - Brook Farm, Burgate
  - Wattisham
  - Elmsett
  - Raydon
  - Boxted
- 1.27 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 amended.

# **Mitigation Measures**

1.28 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 such residual impacts, which could be, for example, include funding for alternative outdoor recreational offers, access and amenity improvements, cultural and heritage enhancements.

### **Community Benefits**

1.29 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. Further, SCC would be happy to discuss further options suitable for the locality. SCC also seeks project promoters to consider legacy opportunities of all elements of their development.

<sup>&</sup>lt;sup>6</sup> https://www.nationalgrid.com/electricity-transmission/document/137461/download

### **Skills Training Measures**

1.30 In terms of skills SCC 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.

### **Tourism Mitigation**

1.31 SCC anticipates that the proposed development, given its location which is located across the Dedham Vale AONB and other rural areas of Suffolk of importance to the tourism economy, 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 DV AONB and other areas should be agreed.

# **Retention of Construction Bridges and tracks**

1.32 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 NT 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.

### **Traffic and Transport**

1.33 SCC is concerned to ensure these impacts are fully assessed and mitigated, especially as regards construction traffic impacts on SCC's rural road network and the limited options for suitable HGV and AIL routes once the NT route alignment has been chosen. Decommissioning/removal also needs careful consideration.

### **Cumulative Impacts**

1.34 This is an important issue given the numbers of infrastructure and other developments proposed across SCC's area and the need for a full assessment of environmental and socio-economic impacts of the cumulative effects of the NT in conjunction with those other projects.

### Other Issues

### **Further Information Requirements**

1.35 As expected at this stage of the development of the NT proposals an enormous amount of background information remains to be presented at the Statutory Consultation stage within the Preliminary Environmental Impact Report. Appendix 1 sets out the responses from internal consultees which highlight in particular where the gaps in knowledge are in respect of the receiving environment and methodological requirements lay. It is expected that further adjustments to the proposals are likely to be required as greater knowledge is gained of the environment.

# Appendix A – detailed technical comments

# 1. Introduction

- 1.1 Suffolk County Council (SCC) has been liaising with Babergh & Mid Suffolk District Councils, the other County and District Councils along the route, as well as the Dedham Vale Area of Outstanding Beauty Project in gathering the technical information below.
- 1.2 As part of this activity Essex Place Services (EPS) have been instructed to provide a response to ecology, landscape and built heritage aspects. Where EPS contributions have been provided this has been identified and SCC endorses the EPS contributions on these matters.
- 1.3 The full list of technical comments is as follows:
  - 2. SCC Archaeology
  - 3. EPS Ecology
  - 4. SCC Economic Development
  - 5. SCC Emergency Planning
  - 6. SCC Floods
  - 7. SCC Highways
  - 8. EPS Historic Environment
  - 9. SCC Landscape
  - 10. SCC Public Health
  - 11. SCC Public Rights of Way
  - 12. SCC Planning Authority

# 2. SCC Archaeology

#### Overview

- 2.1 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).
- 2.2 Suffolk County Council 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.
- 2.3 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.
- 2.4 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, to characterise remains, assess the impacts of the scheme and to inform mitigation strategies.

### Impacts of the scheme

- 2.5 The impacts of the scheme vary along its length, but aspects with groundworks that have the potential to destroy or damage archaeological remains include:
  - 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).
  - Potential undergrounding to pass under the Bramford to Twinstead Lines
  - Potential undergrounding in additional areas identified by SCC
  - Cable sealing end compounds (30x80m) and access tracks
  - Construction compounds and other temporary land-take for construction (including HDD sites and offsite transport enhancement)
  - Biodiversity offsetting areas and other offsite mitigation.
  - Works around Bramford substation
  - Pylons

# Siting and routeing methodology

- 2.6 The Strategic Options Appraisal is based on designated assets only (Scheduled Monuments, Battlefields, Conservation Areas, Listed Buildings), and sets out the intention to avoid or minimise impacts on them. National Grid acknowledge that the scheme also has potential to impact archaeological remains and recognises the need for assessment and mitigation work, although the Corridor and Preliminary Routeing and Siting Study does not include detailed reference to information in the Historic Environment Record at this stage.
- 2.7 For the proposed overhead lines between Norwich and Bramford, it is stated by the promoters of the scheme that:
  - below ground archaeological remains have not been a differentiating factor in route options
  - the preferred option is considered deliverable 'subject to normal routeing and siting practices'
  - 'impacts will be considered in later stages of design to ensure that effects on remains and constraint to design, consent and delivery can be better understood and managed'
  - Effects could be effectively managed through careful routing and an agreed scheme of investigative mitigation.
- 2.8 Given the width of the present corridor proposed for overhead lines and the general nature of impacts, SCCAS broadly agree with the above stance. However, SCCAS highlight below some known non-designated sites within 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 footnote 63 of the National Planning Policy Framework). Targeted further assessment should therefore be brought forward to an early stage, to inform refinements.
- 2.9 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. The pinch-point at the proposed crossing of the Stour has known high archaeological sensitivity.
- 2.10 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

2.11 There are numerous sites and finds recorded in the HER for the corridor and in the landscape around it. SCCAS offers some comments on certain sites at this stage, based on a high-level review, although this is not exhaustive and, as the area with the proposed corridor has largely not been subject to systematic archaeological evaluation, there is high potential for additional and as yet unknown heritage assets to be encountered. Codes used are HER numbers. Further information for background only can be found on our

- website <a href="https://heritage.suffolk.gov.uk/">https://heritage.suffolk.gov.uk/</a> in the publicly accessible version of the HER. Further consideration needs to be given to archaeology and as a minimum, a Historic Environment Record search and critical review of archaeological potential is advised as part of baseline data gathering to further inform siting and routing.
- 2.12 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. Sites include:
  - prehistoric funerary monuments at Cotton, Mendlesham, Creeting St Peter and Badley (COT 016, MDS 078, MDS 121 and MDS 122, CRP 008, BAD 005, BAD 006, BAD 007)
  - prehistoric enclosures at Creeting St Peter (CRP 002)
  - areas of prehistoric occupation at Wortham and Mellis (WTM 010, MLS 007)
  - an area of Iron Age and Roman settlement at Stowupland (SUP 009)
  - Roman lead coffins may indicate a wider cemetery at Great Wenham (WMM 002)
  - a probable Roman villa 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
  - A large scatter of finds indicating a Roman site at Barking (BRK 117), also associated with a Roman Road line (RGL 006)
  - Iron Age/Roman/Saxon occupation at Badley (BAD 016 and BAD 020)
  - finds scatters indicative of a Roman and Anglo-Saxon cemetery at Palgrave/Wortham (PAL 034 and WTM 050)
  - areas of Saxon occupation at Wortham (WTM 010)
  - a possible church site at Wortham (WTM 036) and sites around the church at Creeting St Peter (CRP 004),
  - moated sites at Creeting St Peter, which the authors note may be a possible Adulterine Castle (CRP 001)
- 2.13 SCCAS notes several Scheduled Monuments within or near the corridor. Offton Castle (OFF 002) is mainly outside the current corridor, although some of the scheduled area lies within it. The route also passes very close to Wenham Castle (WMP 001). A scheduled monument is also present within the corridor at Stratford St Mary (mill mound, formerly thought to be a henge), SSM 011. Historic England will advise on impacts on the monuments and their settings.
- 2.14 For proposed undergrounding, there is high potential for impact on remains. In particular, the pinch-point where the route crosses the Stour Valley is an area of high archaeological complexity and sensitivity. It is likely that other/discounted options for crossing points in this archaeologically sensitive landscape would also have implications, but for the favoured route there is 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 Church of St Mary is also in this area (HGH 014). Early assessment may inform design options for HDD and the location of drill sites to minimise disturbance to archaeological remains. SCCAS therefore advises early geophysical survey of the whole width of the crossing point and someway northwards of Higham Road, to inform siting decisions, design and to inform on mitigation measures. SCCAS also advises early archaeological trial- trenching to ground truth the results. SCCAS notes that further work would be undertaken to identify the most appropriate location for CESC sites and that further exploration of landscape features is proposed and advise also that they should be subject to archaeological evaluation.
- 2.15 Finally, additional areas of undergrounding would affect valley sites. There is potential for well-preserved stratified sites in and on the valley sides, and for wet deposits that contain valuable organic 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 Creeting 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 work should be undertaken in these areas.

# Expectations for EIA

- 2.16 In accordance with National Policy Statements for Energy, EN-1 and EN5, SCCAS would expect an Environmental Impact Assessment to be informed by a suite of evaluation techniques including trial trenched 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*.
- 2.17 In advance of EIA scoping, we advise that it should include the following:
  - Desk-based assessment, based on a commissioned HER search, which draws on landscape, soil type, historic landscape character and topography to provide critical assessment of potential as well as known sites. 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. 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 a search buffer in more detail.
  - 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
- Specialist modelling and assessment for impacts on Palaeolithic/Mesolithic sites.
- 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.
- 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.
- 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.
- Fieldwalking/metal detecting of key sites
- 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 trial trenching 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.
- Proposals for mitigation. Detailed evaluation may reveal as-yet-unknown sites of local, regional and national significance. Mitigation may include avoidance, preservation in situ (including archaeological management plans), or excavation, recording and publication of the results to allow for the enhancement of public understanding of heritage assets to be impacted by development. 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 timetable
- 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, Ecology, Spoil and Dust Management).
- Proposal for outreach, potentially linking up with other projects in the area.

### Comments on next steps

- 2.18 SCCAS advises that an archaeological consultant 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.
- 2.19 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).
- 2.20 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.
- 2.21 Provision of GIS data at all stages of projects is very useful.
- 2.22 Several large projects in the area at a given time may put pressure on available archaeological work forces.
- 2.23 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.
- 2.24 SCCAS advises that a Historic Environment/Landscape Stakeholder group is established 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.
- 2.25 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.
- 2.26 SCCAS would be happy to discuss the scope of required work at an early stage.

# 3. EPS Ecology

- 3.1 These comments are in addition to those provided on 19 May 2022 and relate to the non-statutory consultation for Norwich to Tilbury (N2T) NSIP and the scheme design including corridor options to minimise ecological impacts.
- 3.2 The submitted information clearly outlines the 2023 preferred draft alignment for the route for the proposed new 400 kV overhead line between the existing Norwich Main substation in Norfolk to the existing substation at Bramford, and from Bramford to the existing Tilbury substation in Essex.
- 3.3 We have viewed the changes for each LA area as set out on the applicant's website and welcome the interactive map. We have also reviewed the consultation documents including the Strategic Options Backcheck and Review 2023 and Design Development Report 2023 (National Grid, June 2023).

# Updated route and design for Mid Suffolk and Babergh Districts within Suffolk

- 3.4 We note that for Mid Suffolk and Babergh Districts, the changes include some re-routing outside the 2022 preferred draft corridor e.g. east of Wortham Ling SSSI, north of Flowton and west of Gt Wenham, but also within the preferred draft corridor presented in 2022. We welcome that these realignments will reduce effects on woodland.
- 3.5 We appreciate that the details for ecological survey & assessment for protected and Priority species likely to be present in the Preferred Corridor and would be affected, will come at a later stage. This will be necessary to demonstrate that the applicant has followed the mitigation hierarchy for likely ecological impacts and provide sufficient information to support the DCO application at examination.
- 3.6 We re-iterate that the substation siting constraints need to include nonstatutory designated sites e.g. CWS in order to avoid significant ecological impacts as this could trigger the need to deliver compensatory habitat.
- 3.7 We note that if any ecology constraints are scoped out of the Options Appraisal, they would still be covered in the Environmental Statement for assessment.

### Other matters

3.8 We are concerned that more information is needed to understand the impacts on hedgerows along the route, particular those that could be important for bat foraging and commuting routes for Barbastelle bats or Dormouse.

### **Next Steps**

3.9 We seek to inform choices on species options for restoration planting schemes as well as securing temporary mitigation measures during construction.

# 4. SCC Economic Development, Tourism and Skills

# **Economic development and skills**

- 4.1 As an individual project, National Grid Electricity Transmission Norwich to Tilbury, offers no substantial opportunity in its own right. However, it should be viewed as one of the many individual projects that National Grid Plc via NGV and NGET are delivering in region and SCC seeks to work with National Grid Plc to deliver a package of training, skills and growth opportunities that engages with the local supply chain strategically across all local projects e.g.; Bramford to Twinstead and Norwich to Tilbury overhead lines, Suffolk to Kent marine link, Nautilus, and Eurolink interconnectors alongside this project, East Anglia GREEN.
- 4.2 SCC considers it essential that the inward investment, socio-economic and skills benefits of these projects is maximised, ensuring the best possible outcome for the communities that are hosting this Net Zero transmission, connection and generation infrastructure which has significant impact on them and their environment. Initiatives such as those delivered in Somerset, associated with the Hinkley Point C connection project, where communities have benefited from over £1 million of community funding and access to an education fund.
- 4.3 In terms of skills, SCC 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. A strategic and collaborative approach should be taken to skills, including engagement with the regional skills coordination function located within the County Council to enhance the impact of ongoing activity in the area and maximise socio-economic impacts for local residents. We would expect this to be included in a Skills and Employment Plan.
- 4.4 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.

### **Tourism & visitor economy**

- 4.5 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.
- 4.6 SCC will provide further detail at the statutory consultation stage when the proposed routing of the pylons becomes clearer.

# 5. SCC Emergency Planning

5.1 No issues arising.

# 6. SCC Floods

- The LLFA does not have any objection in principle to the proposals that are proposed within Suffolk, noting that they are still at an early stage of development and there is not yet sufficient detail to assess the interactions between the development, especially the substation and other built structures, and flood risk and surface water drainage.
- 6.2 A site-specific flood risk assessment is to be submitted and the applicant will need to demonstrate that they have consider flood risk and surface water drainage for any permanent and temporary works.
- 6.3 The applicant will be required to submit the following documents as minimum depending on the application type.

Document Submitted	Document	Pre-	Outline	Full	Reserved	Discharge
	Description	App			Matters	Condition
Flood Risk Assessment (FZ3 or Site >1Ha)	Evaluation of flood risk (fluvial, pluvial & groundwater) to the site – will guide layout and location of open spaces. (SCC may require modelling of ordinary watercourse if EA Flood Maps not available)	<b>√</b>	<b>✓</b>	<b>√</b>		
Drainage Strategy/Statement (less detail required for Outline)	Document that explains how the site is to be drained using SuDS principles. Shall include information on:  Existing drainage (inc adjacent roads) Impermeable Area (Pre and Post Development) Proposed SuDS Hydraulic Calculations (see below) Treatment Design (i.e. interception, pollution indices) Adoption/Maintenance Details Exceedance Paths		~	~		
Contour Plan	Assessment of topography/flow paths/blue corridors	✓	<b>✓</b>	<b>√</b>		
Impermeable Areas Plan	Plan to illustrate new impervious surfaces		<b>1</b>	<b>✓</b>		
Preliminary Layout Drawings (including landscaping details)	Indicative drawings of layout, properties, open space and drainage infrastructure including:-  • Discharge location (outfall) • Conveyance network • Form of SuDS and location on the site		~			
Preliminary Site Investigation Report	3 or more trial pits to BRE 365 and associated exploratory logs (check for groundwater)	1	~			
Preliminary hydraulic calculations	<ul> <li>Discharge Rates (using suitable method i.e. FEH, IH124 (ICPSUDS) or modified rational method (brownfield sites)</li> <li>Storage Volume</li> <li>Long Term Storage (if required)</li> </ul>	<b>√</b>	<b>✓</b>			

Document Submitted	Document	Pre-	Outline	Full	Reserved	Discharge
	Description	App			Matters	Condition
Evidence of any third party agreements to discharge to their system (i.e. Anglian Water agreement or adjacent landowner)	Evidence of any permissions or permits being obtained.		<b>✓</b>	<b>✓</b>		
Detailed Development Layout and SuDS Provision Plan (including landscaping details)	Dimensioned plans showing the detailed development layout including SuDS components, open spaces and exceedance corridors.			<b>✓</b>	<b>✓</b>	<b>✓</b>
Full SI Report	Detailed assessment of ground conditions – leading on from initial testing  • Widespread coverage of trial pits to BRE 365  • Contamination/Pollution check  • Groundwater Monitoring			<b>✓</b>	<b>✓</b>	<b>✓</b>
Detailed Drainage Scheme Plan	Dimensioned plan showing main aspects of the drainage infrastructure. Plans should ref:-  • SuDS details (size/volume)  • Pipe Numbers/Sizes/Levels  • Outfall & Permitted Discharge (if applicable)			<b>✓</b>	✓	<b>✓</b>
Detailed SuDS Drawings (Open SuDS)	Dimensioned plans of proposed SuDS components i.e. scaled cross sections/long sections			<b>✓</b>	✓	<b>✓</b>
Full hydraulic calculations (MicroDrainage "Network" output)	At this stage, SCC require simulations of the drainage network inc SuDS components. MicroDrainage Network should be submitted for 1,30 and 100yr+CC storms. (Source Control files are useful but not enough on their own)			<b>~</b>	<b>√</b>	<b>✓</b>
Discharge Agreements	Evidence of any permissions or permits being obtained.			1	✓	✓
Health and Safety Risk Assessment	Where deep open SuDS (water level >0.5m) are proposed a H&S file will be required.					<b>✓</b>
Surface Water Construction Plan	Plan of how surface water runoff is to be attenuated and treated during the construction phase. Including plans of any temporary drainage.					✓

Due to the number of potential crossings of ordinary watercourses, we'd expect a full list of any crossing points and whether these are permanent or temporary crossings. These crossing points may require written consent under the Land Drainage Act, as amended by the Flood and Water Management Act 2010.

# **Key Points**

- Cable or pylons shall not be laid through a watercourse without written Land Drainage Act consent.
- Direct drilling will not require Land Drainage Act consent if cables as laid below the bed of the watercourse.
- Cables laid below an ordinary watercourse shall be at least 1m below bed depth.
- Single span bridges are preferred to culverts
- Any culverts (temporary or permanent) in the ordinary watercourse will require Land Drainage Act consent.

# **Useful Links**

- Land Drainage Act consent, SCC LLFA
- Guidance on development and flood risk, SCC LLFA

# 7. SCC Highways

### Overall project

7.1 SCC recognises that the major impact of the scheme in terms of transport will be during construction and removal at the conclusion of the project. Limited movements will be generated during operation, and these will be concentrated at the substation sites.

#### Route selection

7.2 The information provided on route option selection does not specifically consider transport, for example ease of access for construction vehicles and workers. PRoW is split between two disciplines, social / economic and landscape ignoring their function as highways.

### **Access Arrangements**

- 7.3 SCC will need to understand the proposed access arrangements for constructing the cable corridor, any temporary construction compounds or site offices and preparatory work such as archaeological or ground investigations. This includes understanding of visibility and vehicle swept paths in order to provide safe turning movements in/out of each access. This may require relevant speed surveys to understand visibility requirements or potential temporary speed limit changes to reduce impacts on hedgerows etc.
- 7.4 Details of the connection of the access tracks will need to be provided to show that they are safe to use, with the need for an adequate length of access road that is of a suitable width to allow two vehicles to pass safely and that this is not obstructed by gates preventing vehicles leaving the public highway. The access roads will need to be designed to prevent trafficking of mud and debris or the flow of water onto the public highway.

### **Assessment of transport impact**

- 7.5 A number of assessment methods are available to assess transport impacts of projects. Although no information is provided on the applicant's preferred method of assessment SCC would place it on record that use of DMRB LA112 without modification is for new highways schemes and not other linear schemes such as this, nor for construction impacts. The timing and nature of impacts for construction of a transmission scheme are different to a new highway. Information should be provided on the expected programme for construction, including length of construction activities. It should be made clear where any conclusions regarding impacts of the development are based on the length of construction activities and their 'temporary' nature. This would include preparatory work such as utility diversions if applicable.
- 7.6 NPS1 (5.13.1) states that applicants should consult the Highways Agency and Highways Authorities as appropriate on the assessment and mitigation.

# Public rights of way

7.7 Public Rights of Way should be dealt with as a single topic area not split between landscape, social economic – refer to separate PRoW comments.

### **Cumulative and aggregated impact**

7.8 NGET will need to consider the cumulative and aggregate impact with the Bramford to Twinstead proposals and other NSIPs. This is particularly important with regard to PRoW around Bramford, and the aggregate impact on amenity value of PRoW and highways, in terms of the global impact of all NSIPs, other non-NSIP schemes e.g. solar farms and, generally, the repeated occurrence of construction projects in limited geographical area.

### **AIL movements**

7.9 Whilst the substation at Bramford is connected to the M25 by a DfT preferred heavy load route (HR82) this road-based approach is no longer valid. The route predates NPS1 EN-1 which clearly states that 'water-borne or rail transport is preferred over road transport at all stages of the project, where cost-effective'. SCC have been advised by National Highways that structures on the A12 south of Ipswich are no longer cleared for special order movements.

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\_data/file/360533/High\_and\_Heavy\_Load\_Grids\_Map\_for\_Abnormal\_Loads.pdf

### Cables

7.10 SCC is aware that cable for transmission projects is moved in loads falling in the STGO category. Thus, these too should fall under the preference for water borne transport and should be delivered to the nearest feasible port.

### Strategic Road Network (SRN)

- 7.11 The SRN is the responsibility of National Highways. However, as the local highway authority SCC expresses concerns regarding the sub-standard nature of many of the junctions on the A12 between Colchester and Ipswich.
  - A12/B1029 Stratford St Mary
  - A12/B1068 Higham
  - A12/B1070 East Bergholt
  - A12 junctions with Wenham Lane, Pound Lane south of Capel St Mary
  - A12 NB off slip into Capel St Mary
- 7.12 These junctions do not comply with modern design standards and the short acceleration and deceleration lanes are considered to be a road safety issue. This would be exacerbated by additional construction vehicles, particularly HGVs.
- 7.13 Congestion is experienced at the A12/A14 Copdock Interchange which aggravates safety issues on the A12 northbound. Of concern to the LHA is that this congestion results in traffic diverting off the A12 to 'rat run' through local communities such as Copdock and Washbrook. National Highways have included this junction within the Road Investment Scheme 3 (RIS3) but neither delivery nor the timing are confirmed.
- 7.14 Other junctions of concern on the A14 are:

- junction 51 A14/A140 Beacon Hill and
- junction 52 A14 Claydon
- 7.15 It is acknowledged that the choice of the transmission route within the area of consideration is unlikely to alter the above.

# Regional networks

7.16 To access the transmission corridor, it is presumed that workers and construction traffic use major access routes such as A140, A143 and A1071.

# A140 (A14 to Scole)

- 7.17 Due to the number of crashes on this route a maximum speed limit of 50mph was placed on the road in Suffolk. Generally, this has stabilised the number of crashes but the impacts of additional traffic resulting from the East Anglia Green project and its impact on road safety will need to be considered. As it is heavily trafficked the A140 severs some communities such as Little Stonham and Brockford Street. SCC would be concerned about the impact of additional traffic at a number of junctions.
  - B1078, Coddenham
  - All Saints Road, Creeting St Mary
  - A1120, Earl Stonham
  - Stoke Road (White Horse) Crossroads, Stoke Ash

### A143 (Bury St Edmunds to Scole)

- 7.18 This route has seen improvements in parts with a number of bypasses completed in the 1980's and 1990's. However, sections remain, including junctions that have not been improved to modern standards of design. Known issues on the A143 are:
  - Bunbury Arms junction, Great Barton: Capacity and Road safety. Note that developer funded improvements scheme is due at this location.
  - Air Quality Management Are at Great Barton (West Suffolk)

### A1071 (Ipswich to A34 Sudbury)

- 7.19 A1071 varies from recent construction (Hadleigh Bypass) to narrow twisting evolved sections such as either side of Hintlesham. Some lengths have a poor safety record and there is a notable narrow pinch point south of Burstall Bridge where it is not possible for two HGVs to pass. Key issues on the A1071 are:
  - B1113 Beagle Roundabout, Sproughton (capacity / road safety)
  - Junction with Burstall Lane (road safety)
  - Narrow road and Burstall Bridge (road layout / width)
  - Hintlesham (severance, fear and anxiety)

- Bends west of Hintlesham (road layout, safety)
- A1141 and Aldham Mill Hill junctions on Hadleigh Bypass (road safety)
- A134/A1071 junction at Newton (road safety)

# Other issues related to the regional network

- 7.20 The rail line between Ipswich and Norwich acts as a barrier to movement north of the A14. There are a number of narrow or low bridges (e.g. Bacton, Needham Market) and level crossings (e.g. Mellis). This is of concern where the transmission route lies west of the rail line making access from the A140 more difficult. This may be why the existing transmission line is between the Norwich rail line and the A140.
- 7.21 The combination of the A14, rail line and River Gipping creates a barrier to access between Needham Market and Bramford substation channelling local traffic through Claydon, Needham Market or Stowmarket.
- 7.22 The River Stour also acts as barrier although in this case the impacts are limited due to the proximity of the proposed route to the A12.
- 7.23 The Suffolk Lorry Route Network <a href="https://www.suffolk.gov.uk/assets/Roads-and-transport/lorry-management/Lorry-Route-Map-Amended-MAY-17.pdf">https://www.suffolk.gov.uk/assets/Roads-and-transport/lorry-management/Lorry-Route-Map-Amended-MAY-17.pdf</a> shows the preferred hierarchy of routes that may be suitable for HGVs. Whilst a number of B class roads (B1078, B1113) are shown as local access routes these are only for access to specific locations and not as a route for significant numbers of construction vehicles. Nor should such routes be presumed to be suitable for movement of heavy loads.

### Local issues

- 7.24 The majority of Suffolk's minor B, C and unclassified roads are narrow, bendy and unsuitable for HGVs or significant numbers of light traffic. Examples are:
  - B1068 between Stoke by Nayland and Thorington Street (pinch point where 2 cars struggle to pass)
  - B1113 Sproughton, B1068 Stoke by Nayland, B1070 Benton Street Hadleigh, Stone Steet Boxford (narrow streets through historic communities)
- 7.25 Generally local roads in Suffolk have evolved rather than being designed and as a consequence often have thin construction. Combined with narrow roads this often results in rapid edge deterioration and verge erosion. Proximity of ditches, trees and hedges also restricts movement and creates engineering difficulties when maintaining or improving highways.
- 7.26 Selection of the preferred transmission route will have a significant influence on which local roads will be used for local access or where haul roads are required to avoid specific problem areas.

### **National Cycle Routes**

- 7.27 Several National Cycle Routes cross the proposed route
  - Cycle Route 1 between Capel St Mary and Washbrook.

- Cycle Route 51 follows the B1113 south of the River Gipping
- Cycle Route 30 follows the Norwich Rail line north from Yaxley to south of Diss and then west towards Redgrave

https://www.sustrans.org.uk/national-cycle-network/?gclid=EAlalQobChMlovndsuXm9wlVAevtCh0eNQAsEAAYASABEgJhRPD\_BwE

### **Environmental**

- 7.28 It is likely that a large number of accesses will be required to the transmission corridor from the public highway, or alternatively significant lengths of temporary haul road will be required. Both will have local environmental impacts, the removal of hedges or trees to create safe accesses or vehicle movements to construct and remove temporary haul routes.
- 7.29 However, post construction mitigation along the route, for example when reinstating land used for access, can be identified as a contribution to environmental and biodiversity net gain as it allows excellent opportunities to reconnect important habitats via green corridors, biodiversity stepping zones, and reestablishment of appropriate hedgerows; and/or connect people to the environment, for instance via footpaths and cycleways constructed in tandem with biodiversity enhancements (Draft EN-5 2.8.1).

<u>EN-5 Electricity Networks National Policy Statement - final word version</u> (publishing.service.gov.uk)

### Workers movements

- 7.30 It is presumed that as the construction will be of limited duration the workforce will be largely transient. As accommodation is limited within the area and the project covers a significant length this will result in workers travelling form distance to the site. Whilst access by sustainable transport in a generally rural location will be limited SCC would support any measures that could reduce workers trips such a car share, park and ride sites or pick up busses. A Workers Transport Plan with appropriate monitoring and controls would be required for the project to ensure sustainable travel practices.
- 7.31 SCC notes that the assessment of transport impacts relies heavily on gravity models for workforce distribution. At this time there are a number of inherent weaknesses in data use in such models such as the age of the data (i.e., 2011 census data). With the scale of development in the region it is likely that the availability of permanent or transient workers and accommodation to house them will be in high demand and assumptions made in the past regarding proximity of workers to sites may no longer be valid.
- 7.32 Evidence should be provided outlining the:
  - Peak number of workforce and vehicle movements.
  - Average workforce numbers and vehicle movements.
  - The profile of workforce numbers and vehicle movements for the construction activities.

- Origin of workforce (ideally supported by a socio-economic assessment).
- Staff shift patterns, including evidence where appropriate, especially where this affects the assessment of traffic impacts.
- The measures that will be used to reduce single occupancy vehicle trips to the construction site, including monitoring and enforcement.
- The level of and management of on-site car parking and potential monitoring of fly parking.

### **Construction traffic movements**

- 7.33 Little detail is provided in the consultation to inform a response on the impacts of construction traffic. Other than the general and location specific information about the local highway network provided above SCC would expect that any assumptions made within transport models is robust and backed by acceptable monitoring and control measures. This is critical where embedded mitigation relies of fixed shift patterns or a presumed hourly distribution of deliveries.
- 7.34 Evidence should be provided setting out the following:
  - Consideration that was given to transporting freight traffic by rail.
  - The peak number of HGV movements (including movements to/from each access and along each link).
  - The average number of HGV movements to the site (including movements to/from each access and along each link).
  - The profile for the requirements for the transportation of construction materials over the duration of the project.
  - Operational HGV traffic.
  - Routeing of HGV traffic.
  - The proposals that are in place to limit the impact of HGV movements on the local highway network such as restricting working hours.
  - Origin/destination of HGV movements.
  - The peak number of LGV movements.
  - The average number of LGV movements.
  - Numbers of anticipated abnormal loads and abnormal indivisible loads.
  - Routeing of anticipated abnormal loads and abnormal indivisible loads.

# Mitigation

7.35 NPS1 (5.13.1) states that applicants should consult Highway Authorities as appropriate on the assessment and mitigation. The information provided in the

consultation does provide sufficient details to assess the impacts of East Anglia Green in isolation or in combination with other infrastructure projects. SCC considers that potential mitigation may include:

# Road safety and / or capacity improvements

- A12 slip roads
- A140 junctions such as at Coddenham(B1078), Stoke Ash, A1120 Stonham
- A1071 between Ipswich and the A134
- As yet unidentified improvements on B, C and unclassified roads.

# Serviceability / access improvements

- Passing places minor roads
- Widening of local highways
- Strengthening of carriageways
- Additional maintenance to repair deterioration of local roads due to construction traffic

#### Non-motorised users

- 7.36 The applicant should also provide details of proposed measures to improve access by public transport, walking and cycling, to reduce the need for parking associated with the proposal and to mitigate transport impacts. (NPS 5.13.4)
  - Improvements to footways, cycleways and crossing points to reduce fear and anxiety for non-motorised users
  - Alleviation of severance within communities due to additional construction and worker movements.

### Controls, monitoring and enforcement

- 7.37 It is expected that the following will need to be developed in conjunction with SCC as part of these proposals:
  - Construction Management Plans;
  - Travel Plans
  - Protection of Highway Rights and recovery of Costs.
  - Relevant controls, monitoring and enforcement measures will need to be put in place to ensure that all HGV movements do not exceed those assessed within the relevant Development Consent Order submission and supporting documents such as the Transport Assessment and Environmental Statement. This will need to include the ability to monitor HGV numbers and routeing to/from each site access through an appropriate delivery management system, such as through the use of GPS.

# Requirements

7.38 If decommissioning of the project is excluded from environmental assessments, it is recommended that a requirement be included to ensure this is assessed when it becomes necessary.

### 8. EPS Historic Environment

- 8.1 NT is a proposal by National Grid Electricity Transmission (National Grid) to reinforce the high voltage power network in East Anglia, in order to meet future energy transmission demands. The proposals relate to several districts between South Norfolk and Tilbury, Essex.
- 8.2 Whilst the following Built Heritage Advice relates solely to the proposals which fall within the county of Suffolk, the scheme should be considered holistically when developing the proposals to ensure a high-quality project which is sympathetic to the historic built environment. The following advice is designed to inform the next steps in developing the proposals including the preparation of an Environmental Impact Assessment (EIA), and statutory consultations.
- 8.3 The EIA should include a Heritage Desk-Based Assessment (DBA), the objective of which is to identify all heritage assets which have the potential to be impacted by the proposals and which should therefore be taken forward for further assessment. A methodology for this should be provided and it is recommended that this is informed by Historic Environment Good Practice Advice in Planning Note 12: Statements of Heritage Significance and Historic Environment Good Practice Advice in Planning Note 3: The Setting of Heritage Assets (Second Edition), which provides for a staged approach to proportionate decision-taking as follows:
  - Step 1: Identify which heritage assets and their settings are affected
  - Step 2: Assess the degree to which these settings and views make a contribution to the significance of the heritage asset(s) or allow significance to be appreciated
  - Step 3: Assess the effects of the proposed development, whether beneficial or harmful, on the significance or on the ability to appreciate it
  - Step 4: Explore ways to maximise enhancement and avoid or minimise harm
  - Step 5: Make and document the decision and monitor outcomes
- 8.4 In identifying which heritage assets and their settings may be affected (Step 1) it is recommended, given the scale and nature of the proposals, that a study area of 5km from the graduated swathe boundary is adopted. All heritage assets within this study area including Listed Buildings, Scheduled Monuments, Conservation Areas, Registered Parks and Gardens, and non-designated heritage assets should be identified.
- 8.5 The National Planning Policy Framework notes that the extent of a heritage asset's setting is not fixed and may change as the asset and its surroundings evolve. As such, heritage assets that are landmark buildings or buildings located on a higher topography may be situated outside of the study area but

- still require assessment. Therefore, it is recommended that a Zone of Theoretical Visibility (ZTV) is established. A ZTV overlayed with a Designations Map showing the location of all Listed Buildings, Scheduled Monuments, Conservation Areas, Registered Parks and Gardens, and non-designated heritage assets would be considered valuable in identifying those heritage assets which should be taken forward for further assessment.
- 8.6 Should it be determined that a heritage asset should be scoped out and not taken forward for further assessment, a clear and convincing justification for this should be provided.
- 8.7 Once all of the identified heritage assets which have the potential to be impacted by the proposals have been identified, the degree to which their settings and views make a contribution to the significance of the heritage assets or allow their significance to be appreciated, should be assessed (Step 2). This should seek to establish a heritage baseline for each asset.
- 8.8 The DBA should seek to demonstrate a sound understanding of historic use/land use and ownership, and identify which farm(s)/field(s) the heritage assets were historically and/or functionally associated with, in order to fully assess the impact of the proposals on the historic, architectural, and associative value of the heritage assets.
- 8.9 Furthermore, the views from and to each heritage asset should be carefully considered. The following would be considered valuable in establishing a heritage baseline:
  - A ZTV overlayed with a Designations Map and a Viewpoint Location Plan, naming all Listed Buildings, Scheduled Monuments, Conservation Areas, Registered Parks and Gardens, and non-designated heritage assets
- 8.10 The methodology for the views and visual representations should be in accordance with the Guidelines for Landscape and Visual Impact Assessment (GLVIA3) and guidance notes provided by the Landscape Institute. It is further recommended that views be undertaken during winter months at a minimum, to reflect and consider the 'worst case scenario.' All viewpoints should be consulted and agreed.
- 8.11 The following publications and advice notes from Historic England are also useful guidance:
  - Historic Environment Good Practice Advice in Planning 2: Managing Significance in Decision- Taking in the Historic Environment
  - Historic Environment Good Practice Advice in Planning Note 3: The Setting of Heritage Assets (Second Edition)
  - Historic England Advice Note 7: Local Heritage Listing Identifying and Conserving Local Heritage (Second Edition)
  - Historic England Advice Note 10: Listed Buildings and Curtilage
  - Historic Environment Good Practice Advice in Planning Note 12: Statements of Heritage

# **Significance**

- 8.12 Any heritage assets which are identified as being potentially impacted by the proposals should be taken forward for further assessment during which the effects of the proposed development, whether beneficial or harmful, on the significance of the heritage asset or on the ability to appreciate it, should be assessed (Step 3).
- 8.13 The third stage of any analysis is to identify the effects a development project may have on settings and to evaluate the resultant degree of harm or benefit to the significance of the heritage assets. Again, the guidance provided in Historic Environment Good Practice Advice in Planning Note 3: The Setting of Heritage Assets (Second Edition) should inform the methodology for analysis.
- 8.14 Given the scale and nature of the proposals, it is recommended that the evaluation extend to include an assessment of cumulative impacts which may arise from other large-scale developments or similar schemes. Furthermore, complex impacts arising from the development which may not be solely visual should also be assessed.
- 8.15 Once the extent to which heritage assets are impacted by the proposals, through change within their setting, is fully understood, ways to maximise enhancement and avoid or minimise harm should be explored (Step 4). There may be design amendments which could mitigate any identified harm, and these should be carefully considered.
- 8.16 Should the proposals result in residual 'less than substantial' harm, despite mitigation efforts, then paragraph 202 of the NPPF would be a relevant consideration and the Local Planning Authority is required to make a balanced judgement between the level of harm and the public benefits.
- 8.17 Paragraph 199 should also be considered as this gives great weight to the conservation of heritage assets, as well as the statutory duty of Section 66 and 72 of the Planning (Listed Buildings and Conservation Areas) Act 1990 under which local planning authorities should have special regard to the desirability of preserving the settings of listed buildings and the character and appearance conservation areas.
- 8.18 It is recommended that further pre-application discussions are sought after the heritage assessment is completed.

### 9. SCC Landscape

- 9.1 In summary SCC considers that the key issues that will need to be resolved by the Applicant following this consultation are:
  - The need for undergrounding of the proposed line, through the Waveney Valley
  - Exploration of further options to mitigate the adverse impacts of the scheme in the Gipping Valley, in particular rationalisation of the 132kV network.
  - Positive strategic placemaking around Bramford substation and the Cable Sealing End Compounds
  - Review of the potential reuse of the existing 132kV alignment to the east of Creeting St Mary
  - Further rationalisation of the existing 132kV network generally, as part of this project
  - Options for further reduction in changes of direction of the proposed alignment
  - Full application of the Mitigation Hierarchy, including compensation for residual landscape and visual impacts
- 9.2 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.

# 9.3 Waveney Valley

- 9.4 SCC considers the Waveney Valley to be a highly valued and highly sensitive landscape. 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.
- 9.5 While SCC acknowledges that the new proposed alignment, 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 now crosses the Waveney Valley in a more remote, yet publicly accessible area.
- 9.6 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.

- 9.7 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. The Applicant has not further pursued a realignment to the east of Diss, which may be overall less sensitive to the proposed development than the west of Diss.
- 9.8 If the Applicant intends to pursue the new preferred alignment to the west of Diss, SCC considers it justified and in accordance with emerging national policy<sup>7</sup>, to request the undergrounding for the section, where the proposed alignment crosses the highly sensitive landscape of the Waveney Valley. The Council recognises that an underground route in the Waveney valley is likely to follow a different alignment to the overhead alignment proposed in this consultation.

# Diss to Needham Market, Gipping Valley, Stowmarket to Bramford

- 9.9 The impacts of the proposals will be subject to further assessment, in particular regarding the interaction between the proposed alignment and the existing 132kV line.
- 9.10 SCC considers that the potential for rationalisation and incorporation into the project of the existing 132kV line between Diss and Bramford should be further explored, in areas including, but not limited to; the Gipping Valley, around Offton and Somersham, and around Bramford Substation. It is also noted that the new preferred alignment includes several angled changes in direction, where they occur these are likely to increase the residual visual impact of the project.

# The Gipping Valley

- 9.11 In the more open and developed landscape on the northern valley sides of the Gipping Valley, towards Stowmarket, rationalisation of the existing 132kV lines with the new 400kV line should be further explored. It should be explored whether the existing corridor of the 132kV line could be utilised (diverting from the proposed alignment from around RG148/RG150).
- 9.12 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.
- 9.13 Beyond the Gipping Valley the landscape transitions to small-scale, intimate tributary valleys and plateaux with several ancient woodlands. This area was previously recognised as the Gipping Special Landscape Area and has an intact wooded character, historic lanes and settlements and scenic variety, owing to the landform and tranquillity.
- 9.14 SCC has concerns about the new preferred alignment through the wider Gipping Valley and considers that the applicant should consider

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<sup>&</sup>lt;sup>7</sup> Para 2.11.5

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\_data/file/11 47384/NPS EN-5.pdf

undergrounding and/or rationalisation of, and with, the 132kV transmission network in the area.

#### Bramford

9.15 SCC is concerned that the cumulative effects around Bramford substation will result in a landscape dominated by pylons and electricity infrastructure. 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.

## **Bramford to Dedham Vale AONB**

9.16 The undergrounding or incorporation into the 400kV line of the two existing 132kV overhead lines east of Bramford Substation 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.

# Effects of undergrounding on the Dedham Vale Area of Outstanding Natural Beauty (AONB)

- 9.17 SCC welcomes, in principle, the proposals for undergrounding the proposed 400kV line within the Dedham Vale AONB, and the efforts made by the applicant to avoid significant adverse effects on honeypot locations, such as Flatford, the undergrounding may in itself result in significant adverse impacts and effects on the AONB. 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.
- 9.18 The landscape within the AONB 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.
- 9.19 Additional sections of Horizontal Directional Drilling (HDD) should be considered by the Applicant in order to minimise the adverse effects on landscape features that are integral to the AONB.

#### The undesignated landscape south of the AONB

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

#### The undesignated landscape north of the AONB

9.21 SCC considers that the Applicant has not fully explored the option of routeing and/or undergrounding the proposed 400kV line along the corridor of the existing 132kV line to the east of Creeting St Mary, where the required length for undergrounding would be comparable to that currentlyproposed.

## 9.22 Cable sealing End Compound sites

9.23 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.

## The importance of Good Design

- 9.24 Paragraph 2.2.6 of the emerging draft 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.'
- 9.25 Paragraphs 2.2.8 -2.2.12 add:
  - '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 placement in the local landscape, as well as their design.
  - 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.)
  - 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."7
  - 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 1995 Environment Act), and Section 17A of the Norfolk and Suffolk Broads Act 1988 may be relevant.

- 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.'
- 9.26 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.
- 9.27 This should be based on the Mitigation Hierarchy, as defined in the Glossary of Draft Overarching National Policy Statement for Energy (EN-1), March 2023: The 'avoid, reduce, mitigate, compensate process that applicants need to go through to protect the environment and biodiversity.'
- 9.28 SCC therefore expects the Applicant to provide measures of compensation, where residual harm persists beyond measures to avoid, reduce and mitigate.
- 9.29 SCC would support the principle of a Design Champion (para 4.6.5, Draft Overarching National Policy Statement for Energy (EN-1), March 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 micrositing 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.
- 9.30 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.

## 10. SCC Public Health - Community Wellbeing

- 10.1 SCC recommends to undertake an appropriate assessment of possible impacts on health for those who are to be living in proximity to overhead line and cables and main findings are shared and provide an assurance to mitigate all risks. Some people may question about the depths of cables to be installed and all parameters are shared with local population and those whose health and wellbeing might be impacted. Otherwise this could cause anxiety and unnecessary worry among public.
- 10.2 The whole project will take years and will use large scale of land which could cause noise, dust, and cause inconvenience to their everyday life. For example, people may have a limited access to green spaces, public rights way, thus this could impact people's health and wellbeing.
- 10.3 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 for such residual impacts, which could be, for example, include funding for alternative outdoor recreational offers, access and amenity improvements, cultural and heritage enhancements.
- 10.4 NPPF requires local planning authorities to work with public health, health organisations and other authorities to:
  - take account of the health status and needs of the local population including expected future changes
  - consider any information about the barriers to improving health and wellbeing
  - support safe, secure, and healthy communities with local services by active sustainable travel
  - promote good design of development, open space and green links
  - taking account of local health strategies etc.

While for NSIPs, the NPPF does not directly apply, these principles should be considered in the context of this application.

### 11. SCC Public Rights of Way

- 11.1 The proposed new pylon route significantly affects the public rights of way network during the construction phase. Due to this SCC strongly advocates that this is dealt with within its own chapter and not dealt solely within elements of Landscape and Socio-economic chapters.
- 11.2 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.
- 11.3 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.
- 11.4 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.
- 11.5 Further details would be welcomed on treatment of routes and proposals for closures.
- 11.6 Additional general comments as follows:
  - 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.
  - 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.
  - 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

- Pre-construction works must not obstruct or disturb any public rights of way (e.g. newt 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.
- 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.
- 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.
- 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.
- 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.
- 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.
- 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.

### 12. SCC Planning Authority

- 12.1 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.
- 12.2 The Development Plan for the area directly affected by the scheme includes the Suffolk Minerals & Waste Local Plan.<sup>8</sup>
- 12.3 The main concern in terms of minerals and waste development is the safeguarding of minerals resources and development and the safeguarding of waste development.
- 12.4 The relevant Suffolk Minerals & Waste Local Plan policies are MP10 for minerals and WP18 for waste.
- 12.5 Having considered the proposals and safeguarding maps there are no impacts in respect of existing or proposed mineral or waste facilities.
- 12.6 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.
- 12.7 SCC will defer to Babergh & Mid Suffolk District Councils and Parish Councils to make comments in respect of their own development plans.

#### The Avoidance of Airfields

- 12.8 The proposals as currently drafted have potentially serious implications for a number of airfields including the following:
  - Brook Farm, Burgate (see marked in green on Map 1 appended) where the proposed overhead line passes below the Runway 05 right hand circuit pattern on the upwind 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

<sup>&</sup>lt;sup>8</sup> <u>https://www.suffolk.gov.uk/planning-waste-and-environment/minerals-and-waste-policy/</u>

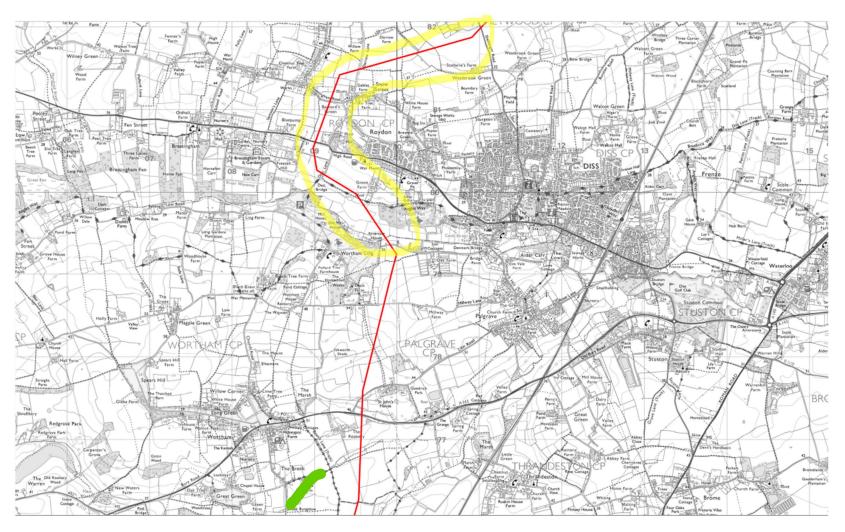
sharp turn under those circumstances. This would not be possible under these circumstances.

- Wattisham (see marked green on Map 6 appended) where the overhead lines pass below the Extended Centre Line and Instrument Landing System Path of Runway 23. 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 (see marked in green on Map 7 appended) where 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 (see marked in green on Map 8 appended) where the proposed overhead line passes below the Runway 09 extended centre line and right hand circuit pattern on the crosswind and downwind legs and the reciprocal Runway 27 left hand circuit pattern on the downwind and base legs and extended centre line. Similar concerns to Brook Farm apply.
- Boxted (Essex) (see marked in green on Map 10 appended) where 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 base legs.
- 12.9 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 amended.
- 12.10 Further guidance can be found in the Civil Aviation Authority's Safety Regulation Group publication CAP 793 titled "Safe Operating Practices at Unlicensed Aerodromes" Chapter 4 Paragraph 3.6 which talks about there being a minimum 2km distance between the mid-point of the runway and an obstacle of 150ft or more.9
- 12.11 The National Planning Policy Framework as alludes to the importance of airfields in Paragraph 106 f).<sup>10</sup>

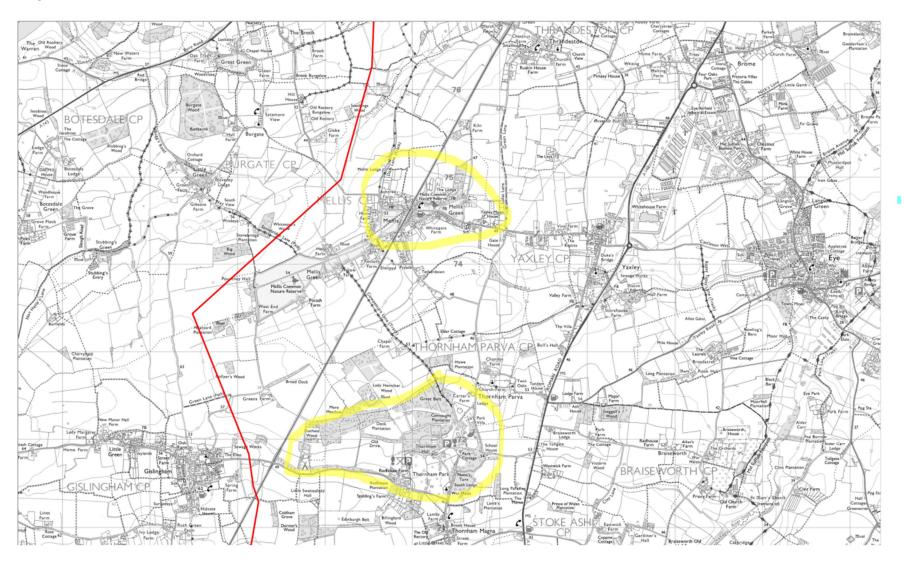
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\_data/file/10 05759/NPPF July 2021.pdf

<sup>9</sup> https://publicapps.caa.co.uk/docs/33/CAP793.pdf

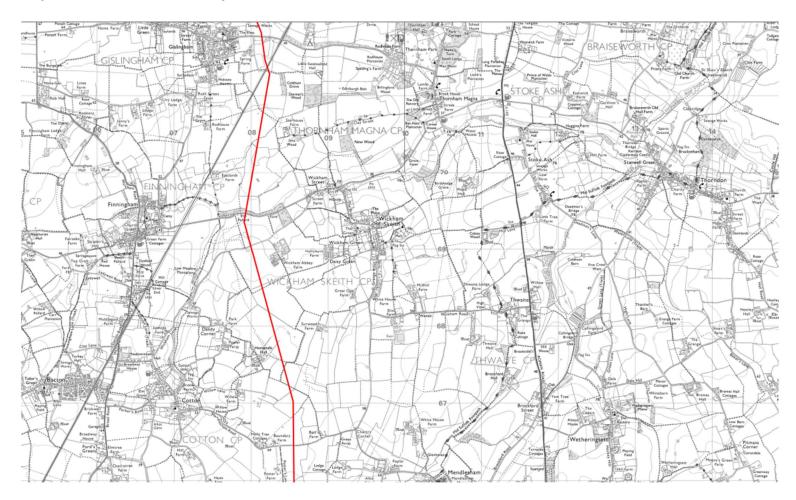
13. Maps
Map 1: Waveney Valley Landscape & Brook Farm Airfield



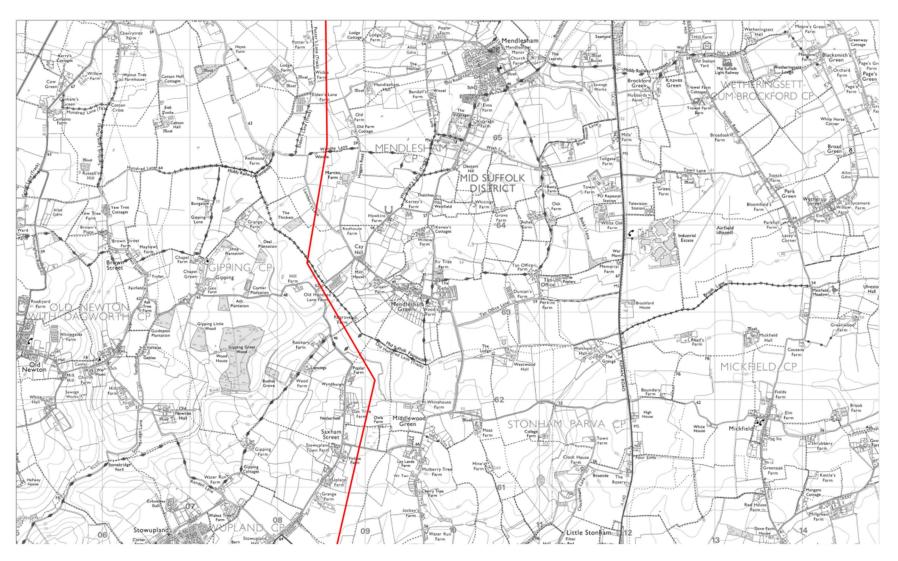
Map 2: Mellis Conservation Area & Thornham Park

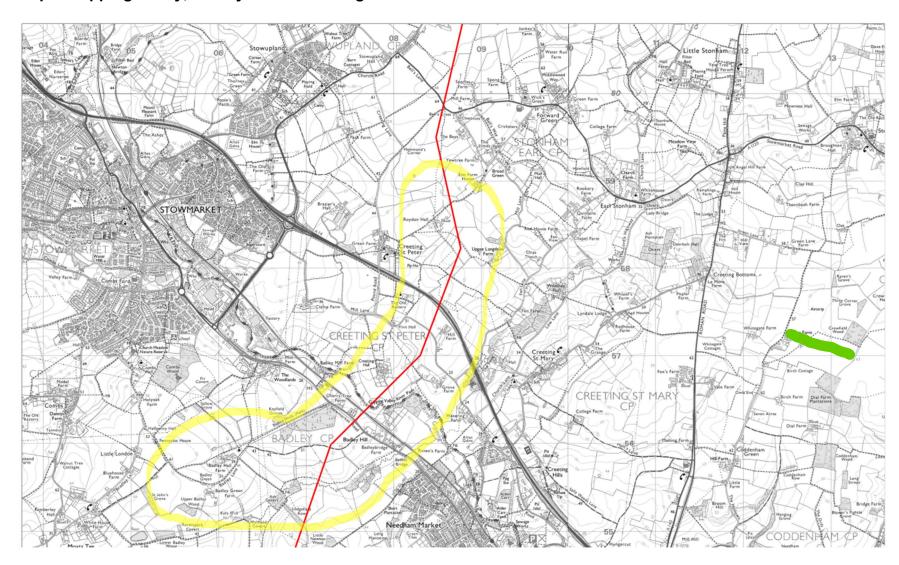


**Map 3: Wickham Skeith Poplars** 



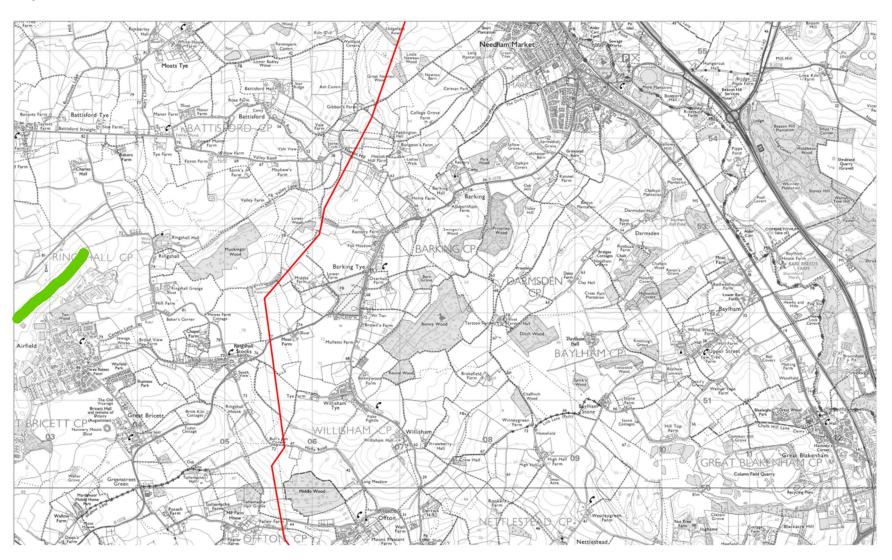
Map 4: Mendlesham & Stow Upland



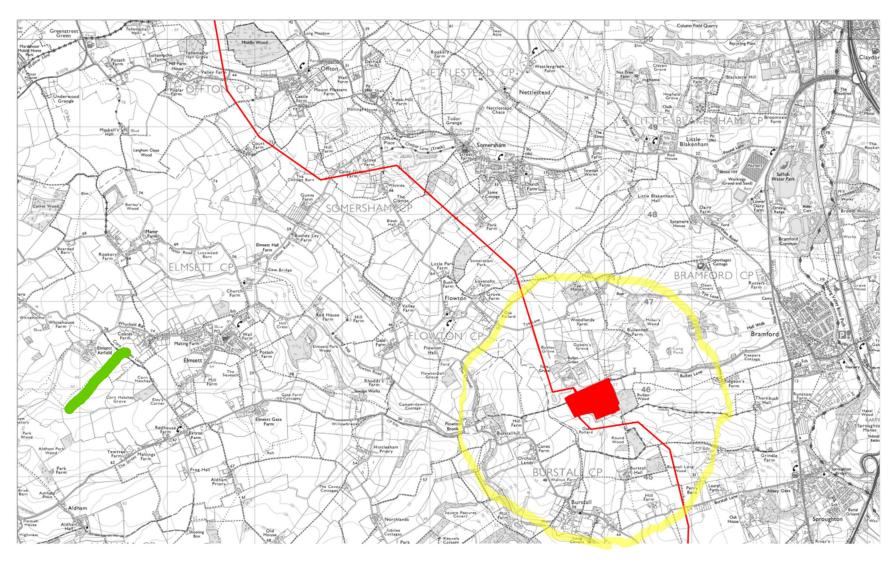


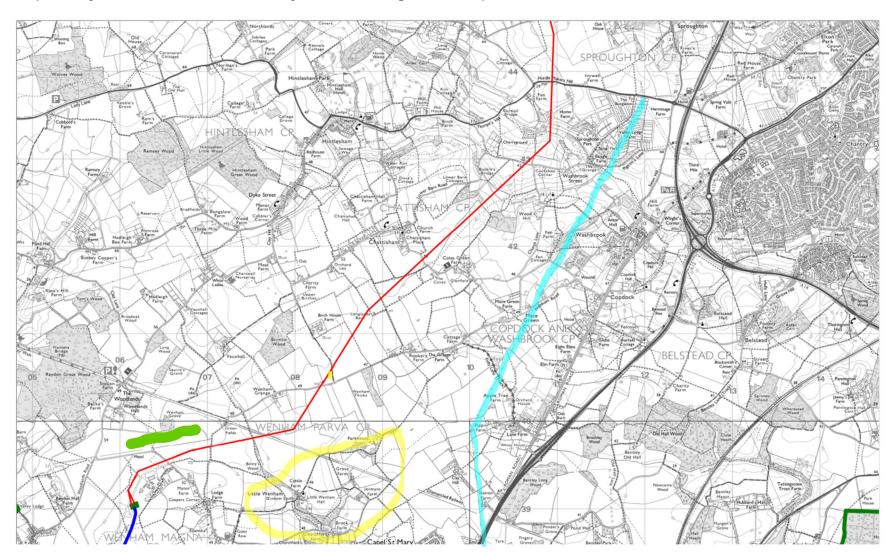
Map 5: Gipping Valley, Badley Listed Buildings & Crowfield Airfield

Map 6: Wattisham Airfield

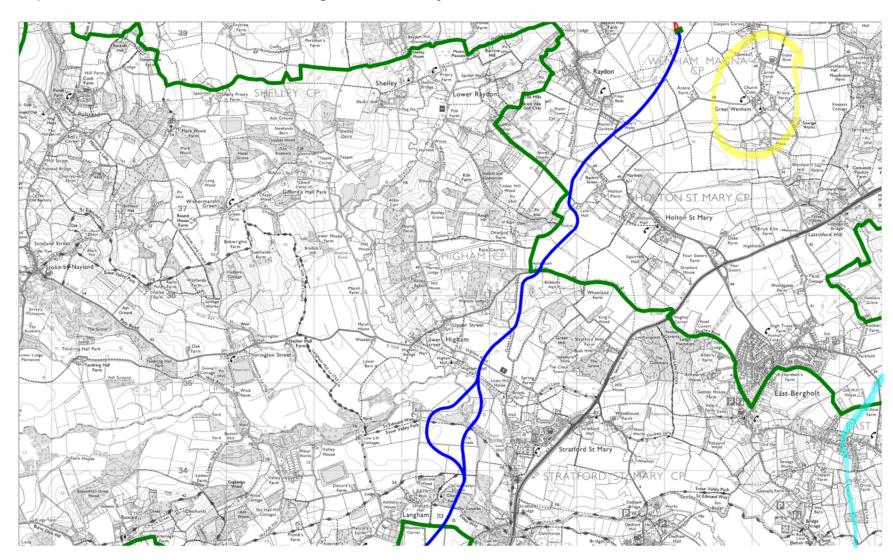


Map 7: Elmsett Airfield and Bramford Substation



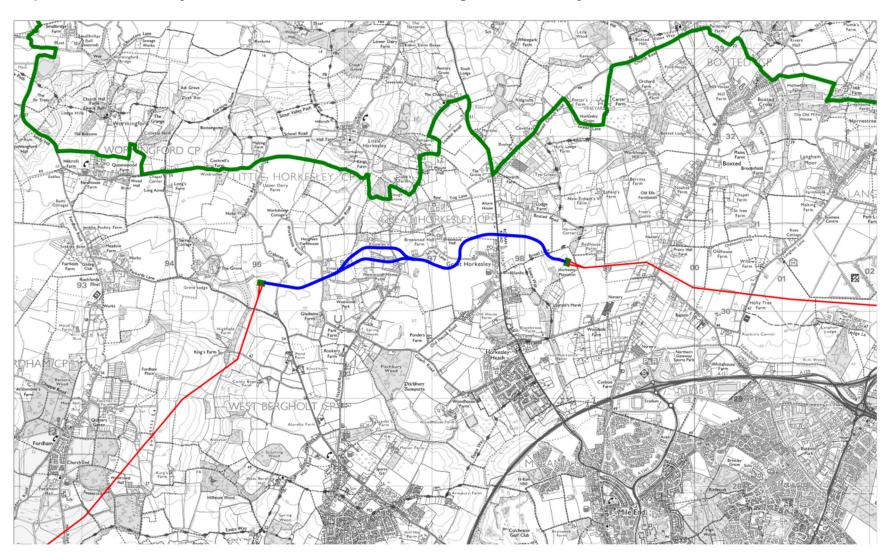


Map 8: Raydon Airfield & Stour Valley North sealing End Compound



Map 9: Dedham Vale Area of Outstanding Natural Beauty

Map 10: Dedham Vale Area of Outstanding Natural Beauty, Lawford Substation and Boxted Airfield



Map 11: Great Horksley & Dedham Vale Area of Outstanding Natural Beauty