

SCOPING OPINION

Proposed Bramford to Twinstead Tee 400kV Connection



March 2013

CONTENTS

EXECUTIVE SUMMARY

1.0 INTRODUCTION.....	1
2.0 THE PROPOSED DEVELOPMENT	4
3.0 EIA APPROACH AND TOPIC AREAS	17
4.0 OTHER INFORMATION	31

APPENDIX 1 – LIST OF CONSULTEES

APPENDIX 2 – RESPONDENTS TO CONSULTATION AND COPIES OF REPLIES

APPENDIX 3 – PRESENTATION OF THE ENVIRONMENTAL STATEMENT

EXECUTIVE SUMMARY

This is the Scoping Opinion (the Opinion) provided by the Secretary of State in respect of the content of the Environmental Statement for the proposed Bramford to Twinstead Tee 400kV Connection between Bramford Substation (west of Ipswich) and Twinstead Tee (south of Sudbury).

This report sets out the Secretary of State's opinion on the basis of the information provided in National Grid's ('the Applicant') report entitled 'Environmental Impact Assessment Scoping Report' (February 2013) ('the Scoping Report'). The Opinion can only reflect the proposals as currently described by the Applicant.

The Secretary of State has consulted on the Scoping Report and the responses received have been taken into account in adopting this Opinion. The Secretary of State is satisfied that the topic areas identified in the Scoping Report encompass those matters identified in Schedule 4, Part 1, paragraph 19 of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2009 (as amended).

The Secretary of State draws attention both to the general points and those made in respect of each of the specialist topic areas in this Opinion. The main potential issues identified are:

- Landscape and visual during both construction and operational phases;
- Transport and accessibility during construction phase, arising in particular due to delivery of abnormal indivisible loads and potential impacts on protected lanes;
- Noise and vibration during construction phase and noise during operational phase associated with the proposed substation;
- Impact on historic environment during construction due to potential impacts on in-situ archaeology and the operational phase in terms of potential effects on the setting of historic assets; and
- Biodiversity and nature conservation impacts during construction arising from the loss of habitat and disturbance of species.

Matters are not scoped out unless specifically addressed and justified by the Applicant, and confirmed as being scoped out by the Secretary of State.

1.0 INTRODUCTION

Background

- 1.1 On 15 February 2013, the Secretary of State (SoS) received a scoping report submitted by the Applicant under Regulation 8 of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2009 (SI 2263) (as amended) (the EIA Regulations) in order to request a scoping opinion for the proposed Bramford to Twinstead Tee 400kV Connection ('the proposed development'). This Opinion is made in response to this request and should be read in conjunction with the Applicant's Scoping Report.
- 1.2 The Applicant has formally provided notification under Regulation 6(1)(b) of the EIA Regulations that it proposes to provide an ES in respect of the proposed development. Therefore, in accordance with Regulation 4(2)(a) of the EIA Regulations, the proposed development is determined to be EIA development. The EIA Regulations enable an applicant, before making an application for an order granting development consent, to ask the SoS to state in writing their formal opinion (a 'scoping opinion') on the information to be provided in the environmental statement (ES).
- 1.3 Before adopting a scoping opinion the SoS must take into account:
 - (a) the specific characteristics of the particular development;
 - (b) the specific characteristics of the development of the type concerned; and
 - (c) environmental features likely to be affected by the development'.

(EIA Regulation 8 (9))
- 1.4 This Opinion sets out what information the SoS considers should be included in the ES for the proposed development. The Opinion has taken account of:
 - i the EIA Regulations
 - ii the nature and scale of the proposed development
 - iii the nature of the receiving environment, and
 - iv current best practice in the preparation of environmental statements.
- 1.5 The SoS has also taken account of the responses received from the statutory consultees within the statutory timeframe (see Appendix 2 of this Opinion). The matters addressed by the Applicant have been carefully considered and use has been made of professional judgement and experience in order to adopt this

Opinion. It should be noted that when it comes to consider the ES, the SoS will take account of relevant legislation and guidelines (as appropriate). The SoS will not be precluded from requiring additional information if it is considered necessary in connection with the ES submitted with that application when considering the application for a development consent order (DCO).

1.6 This Opinion should not be construed as implying that the SoS agrees with the information or comments provided by the Applicant in their request for an opinion from the SoS. In particular, comments from the SoS in this Opinion are without prejudice to any decision taken by the SoS (on submission of the application) that any development identified by the Applicant is necessarily to be treated as part of a nationally significant infrastructure project (NSIP), or associated development, or development that does not require development consent.

1.7 Regulation 8(3) of the EIA Regulations states that a request for a scoping opinion must include:

- (a) 'a plan sufficient to identify the land;
- (b) a brief description of the nature and purpose of the development and of its possible effects on the environment; and
- (c) such other information or representations as the person making the request may wish to provide or make'.

(EIA Regulation 8 (3))

1.8 The SoS considers that this has been provided in the Applicant's Scoping Report.

The Secretary of State's Consultation

1.9 The SoS has a duty under Regulation 8(6) of the EIA Regulations to consult widely before adopting a scoping opinion. A full list of the consultation bodies is provided at Appendix 1. The Applicant should note that whilst the SoS's list can inform their consultation, it should not be relied upon for that purpose.

1.10 The list of respondents who replied by the statutory deadline and whose comments have been taken into account in the preparation of this Opinion is provided at Appendix 2 along with copies of their comments, to which the Applicant should refer in undertaking the EIA. Certain parish councils were given a later date to respond to consultation on the scope of the proposed ES (12 April 2013). If any of these parish councils responds with issues not considered in this Opinion, then the SoS's Opinion will be updated and re-issued. In any event, the parish councils' responses will be forwarded to the Applicant.

- 1.11 The ES submitted by the Applicant should demonstrate consideration of the points raised by the consultation bodies. It is recommended that a table is provided in the ES summarising the scoping responses from the consultation bodies and how they are, or are not, addressed in the ES.
- 1.12 Any consultation responses received after the statutory deadline for receipt of comments will not be taken into account within this Opinion. Late responses will be forwarded to the Applicant and will be made available on the Planning Inspectorate's website. The Applicant should also give due consideration to those comments in carrying out the EIA.

Structure of the Document

- 1.13 This Scoping Opinion is structured as follows:

- Section 1 Introduction
- Section 2 The proposed development
- Section 3 EIA approach and topic areas
- Section 4 Other information.

The Scoping Opinion is accompanied by the following Appendices:

- Appendix 1 List of consultees
- Appendix 2 Respondents to consultation and copies of replies
- Appendix 3 Presentation of the environmental statement.

2.0 THE PROPOSED DEVELOPMENT

Introduction

2.1 The following is a summary of the information on the proposed development and its site and surroundings prepared by the Applicant and included in their Scoping Report. The information has not been verified and it has been assumed that the information provided reflects the existing knowledge of the proposed development and the potential receptors/resources.

The Applicant's Information

Overview of the Proposed Development

2.2 The proposed development comprises a combination of 400kV overhead line and underground cables with sealing end compounds at each interface point these between Bramford and Twinstead Tee. The proposals also involve the removal of the existing 132kV overhead line and a section of an existing 400kV overhead line between Burstall Bridge and Twinstead Tee and Twinstead Tee to Henny Back Road respectively, and the construction of a new 400kV/132kV substation, at a location west of Twinstead Tee, to replace the 132kV overhead line.

2.3 Paragraph 3.2.1 of the Scoping Report has identified the following principal components of the proposed development, which are shown on Figures 2, 3, 4.1 - 4.9 and 5 in the Scoping Report:

- construction of 400kV overhead line;
- installation of 400kV underground cables;
- construction of four sealing end compounds;
- construction of a grid supply point substation (subject to consultation);
- removal of the existing 132kV overhead line between Burstall Bridge and the diamond crossing at Twinstead Tee (Figure 5);
- Removal of four spans of existing 400kV overhead line south from Twinstead Tee to the sealing end compound at Henny Back Road (Figure 5); and
- associated works to include: temporary access roads; highway works; construction compounds; work sites; and ancillary works.

2.4 The Applicant has divided up the proposed connection route into six 'sections' as shown on Figures 2 and 3 in the Scoping Report. These are: Sections AB (Bramford Substation and Hintlesham); Section C (Brett Valley); Section D (Polstead Heath); Section E (Dedham Vale AONB); Section F (Leavenheath/Assington); and

Section G (Stour Valley). At present the Applicant has confirmed its preferred route alignment for Sections C to G inclusive (paragraph 3.1.1). However, the Applicant has identified that at present they are unable to confirm the preferred alignment of the connection in study area AB (Bramford and Hintlesham) as liaison is currently on going with English Heritage, in relation to the potential effects of the proposed interim overhead alignment on the Grade I listed Hintlesham Hall (paragraph 2.7.5 of the Scoping Report). The alternative alignments for Section AB of the connection route are shown on Figure 3 of the Scoping Report.

Description of the site and surroundings

The Application Site

- 2.5 The proposed development is a linear scheme. The site is located within three administrative boundaries: Bramford Substation is located within Mid Suffolk District; the majority of the connection route is located within Babergh District, in Suffolk; and the western part of the connection route falls within Braintree District in Essex, as shown on Figure 1 of the Scoping Report.
- 2.6 The proposed connection route would cross through a landscape described as consisting of a series of river valleys with intervening plateaus or influences of higher ground (paragraph 5.2.2 of the Scoping Report). The majority of the site is used as arable and pasture land and contains mature hedgerows, woodland blocks, ponds and river valleys. There are hamlets and individual residential properties within and beyond the proposed development areas.
- 2.7 The connection route corridor includes an existing 400kV overhead line between Bramford Substation and Twinstead Tee and a 132kV overhead line which runs broadly parallel to the existing 400kV line from Burstall Bridge to Twinstead Tee as shown on Figure 1 of the Scoping Report. Within Section G (Sudbury) of the proposed connection route, a railway track crosses the alignment in a north and south direction and is adjacent to the River Stour, which is navigable by shallow-draft boats.
- 2.8 Substation Study Area A is located within Colne Valley, which consists of pastoral land with vegetation along the banks of the River Colne, which flows across the eastern side of the site. This study area contains two small woodland areas and includes the A1071 which runs in a southerly direction from Great Yeldham to Castle Hedingham and a short row of houses and two offices on the eastern side of the A1071 as shown on Figure 4.1 in the Scoping Report.
- 2.9 Substation Study Area B comprises gently undulating arable land, interspersed with blocks of woodland. The study area includes the B1508 Sudbury Road runs in an east-west direction between the

A131 (to the east) and Castle Hedingham (to the west), and Delvyn's Lane which runs north from the B1508 and is flanked by tall hedgerow and mature trees, which are designated by Essex County Council as Special Roadside Verges, as shown on Figures 4.2 to 4.6 in the Scoping Report.

- 2.10 Substation Study Area C includes two areas of woodlands, Butler's and Waldegrave Woods, which are designated by Essex County Council as Local Wildlife Sites. The site also includes two minor roads, Old Road and Watery Lane, which are designated as Protected Lanes in Braintree District Council's Local Plan and nearby residential properties, as shown on Figures 4.7 to 4.9 in the Scoping Report.
- 2.11 The Scoping Report confirms at paragraph 6.2.1 that there are no international wildlife sites within the influence of the proposed development. However, designated sites extending within the proposed development area include:
 - Dedham Vale AONB;
 - Hintlesham Woods SSSI, designated for its ancient semi-natural woodland habitat and associated bird communities; and
 - Over 20 county/local wildlife sites.
- 2.12 Protected and priority species have been identified within and adjacent to the preferred alignment of the route connection and the Substation Study Areas. These species include, but are not limited to: bats; badger; brown hare; dormouse; water vole; otter; reptiles; amphibians, including great crested newts; European eel and a range of bird species including Schedule 1 and amber and red listed species (paragraph 6.2.3 in the Scoping Report).
- 2.13 The route corridor has a high potential for the survival of previously unrecorded buried archaeology, particularly dating from the Bronze Age, Iron Age, Roman, medieval and post medieval periods. The following heritage assets are located within the route corridor and within a 250m buffer from the corridor edge as identified in paragraph 7.2.1 of the Scoping Report:
 - 146 non-designated heritage assets (these are not named in the Scoping Report);
 - One unnamed Scheduled Monument;
 - Two unnamed conservation areas;
 - Three Grade I listed buildings, only Hintlesham Hall has been named within the Scoping Report;
 - Four unnamed Grade II* listed buildings; and

- Seventy unnamed Grade II listed buildings.
- 2.14 Within the proposed Substation Study Areas the following heritage assets have been identified: two Grade II listed buildings and five non-designated heritage assets are located within the Study Area for Substation A; Seven Grade II listed buildings and one non-designated heritage asset the Study Area for Substation A; and One Grade II* listed building, eight Grade II listed buildings and six non-designated heritage assets within the Study Area for Substation C.
- 2.15 Sections of the proposed development are partially located within Flood Zones 2 and 3 with the main source of flood risk coming from the Rivers Brett, River Box, River Stour and Belstead Brook which are located within 150m of the proposed route corridor. The Scoping Report confirms that none of these watercourses are tidally influenced (paragraph 9.2.2 in the Scoping Report). The study area for the proposed development also includes a reservoir near Appletree Wood.

The Surrounding Area

- 2.16 Villages located outside of the development boundary along the proposed connection route include Burstall, Flowton, Bramford, Sproughton, Upper Layham, Polstead Heath, Stoke and Castle Headingham with larger settlements such as Hadleigh and Sudbury at further distance from the site.
- 2.17 The surrounding area is characterised by Rolling Valley Farmlands and Ancient Rolling Farmlands located within river valleys which run north to south with plateaus of higher ground between. Prominent landmarks in the surrounding landscape include two televisions transmitter masts, referred to as the 'Assington masts', 160m and 100m high and located approximately 0.6km north of the existing 400kV overhead line close to Stour Valley (Section F of the proposed connection route) and several large sand and gravel pits (Layham Quarry) which comprises an authorised landfill.
- 2.18 Main roads in the wider area include the A1071, A134 and A131. The local road network comprises minor roads and narrow rural lanes. Public Rights of Way (PRoW), including the Gripping Valley River Path, a long distance route located approximately 2km east of Bramford Substation, and Regional and National Cycling Routes, cross the surrounding landscape along the proposed connection route.
- 2.19 Arger Fen SSSI and Local Nature Reserve is an area of woodland which is located approximately 0.5km south of the preferred alignment of Section F (Stour Valley). Further local/county wildlife sites are located adjacent to the site boundaries.

- 2.20 A considerable number of heritage assets are located within 10km of the site, as shown in Table 7.1 of the Scoping Report.
- 2.21 The Colne Valley Railway visitor attraction is located to the immediate southeast of Substation Study Area A and PRoW, forming part of the Edgar Eastall's Church Fields Way, a published long distance route, are located to the north of this proposed substation site.
- 2.22 The nearby residential receptors to the proposed Substation Study Area B include properties within the nearby villages of Gestingthorpe, located approximately 1km to the northeast and Castle Hedingham, located 1km to the southwest. Nearby farms to this study area include Parkgate Farm, located to the northern edge of the study area, and Pannells Ash Farm, located immediately to the southwest of the study area.
- 2.23 The landscape, located approximately 1km to the east of Substation Study Area C, is managed in accordance with the Dedham Vale and Stour Valley Project countryside management project, which also applies to the Dedham Vale AONB. The Partnership managing this landscape has issued a 'Statement of Intent to Natural England' in November 2009 seeking an extension of the Dedham Vale AONB westwards towards Sudbury. This intention has also been included within the Dedham Vale AONB and Stour Valley Management Plan 2010-2015. At present whilst no current boundary for this extension has been proposed, there is the potential for views towards Substation Study Area C from the extended AONB (paragraph 5.2.85 of the Scoping Report).

Description of the Proposed Development

- 2.24 The proposed connection would run predominately to the south of the existing 400kV Bramford – Twinstead – Pelham overhead line which runs west from Bramford Substation in Suffolk to a 'tee' in the existing 400kV overhead line transmission system near Twinstead (referred to as 'Twinstead Tee') in Essex as shown on Figure 3 in the Scoping Report. Overall, the proposed connection would be approximately 28.5km in length, comprising approximately 56 new pylons and approximately 8km of underground cables. Underground cables are only proposed along Sections E (Dedham Vale AONB) and G (Stour Valley) of the connection route as shown on Figure 3. Four sealing end compounds would be developed at the connection points where the overhead line becomes underground cables and visa versa.
- 2.25 Temporary pylons would be required in Section AB (Bramford Substation and Hintlesham) if the existing 400kV overhead line is re-routed north of Hintlesham Woods. The interim and preferred alignment routes incorporate a 20m limit of deviation either side of the proposed centre line of alignment as shown on Figures 2 and 3 in the Scoping Report.

- 2.26 The existing 400kV overhead line between Twinstead Tee and the new connection point, sealing end compound 1, would be removed as shown on Figure 5 in the Scoping Report, as the proposed new 400kV connection would then connect directly to the existing 400kV Bramford – Braintree – Rayleigh overhead line approximately 1km to the south of Twinstead Tee.
- 2.27 A new substation is proposed to replace the existing 132kV overhead line that runs west from Burstall Bridge, approximately 2km to the south of Bramford Substation, to Pelham Substation. Between Burstall Bridge and Bramford Substation the 132kV line is connected via underground cables as shown on Figure 3 in the Scoping Report. As part of the proposed development the overhead section of the 132kV line would be removed from Burstall Bridge up to, and including, crossing beneath the existing 400kV Bramford – Braintree – Rayleigh overhead line as shown on Figure 5 in the Scoping Report. This would result in the removal of approximately 83 132kV pylons. The existing 132kV underground cables would remain in-situ (paragraph 3.8.2 of the Scoping Report).
- 2.28 The new substation would be located to the west of the Twinstead Tee and east of Thaxted. The Applicant has identified three potential locations for the substation site which are still subject to consultation: Substation Study Area A (Colne Valley); Substation Study Area B (Delvyn's Lane); and Substation Study Area C (Butlers wood and Waldegrave Wood). The location of these proposed substation sites are shown on Figure 2 in the Scoping Report. The substation would contain one Super Grid Transformer to reduce the voltage from 400kV to the 132kV required by the Distribution Network Operator in East Anglia, UK Power Networks' (UKPN).

The Proposed 400kV Overhead Line

- 2.29 The proposed overhead line would comprise triple 'araucaria' conductors and be supported by lattice steel pylons, which are likely to have the following characteristics (paragraph 3.4.1 of the Scoping Report):
- suspension pylons (where line is straight), tension pylons (where line changes direction) and terminal pylons (where line changes to underground cable and connects to a sealing end compound);
 - approximately 50m (standard height);
 - footprint of approximately 10m x 10m;
 - foundations may be piled or excavated; and
 - have a typical span of around 360m.

2.30 The overhead line sections are identified on Figure 2 in the Scoping Report and include:

- Section AB, Bramford substation and Hintlesham. The interim line is to be routed to the south of the existing 400kV line. The existing 400kV line is to be re-routed to the north of Hintlesham Woods and the proposed line would use the route of the existing 400kV line. Temporary towers would be required during re-routing;
- Sections C and D, Brett Valley and Polstead Heath. The proposed overhead line would follow the route of the existing 400kV line to the south; and
- Section F, Leavenheath and Assington. The proposed route is to the south of the existing 400kV line.

400kV Underground Cables

2.31 There would be 18 underground cables laid in six groups of three with a gap of approximately 350mm between each of the three cables within a group and approximately 3m between each of the groups. The underground cables, which would be laid in trenches approximately 1.4m deep and 1.3m wide, are likely to be approximately 150mm in diameter with two fibre optic cables laid alongside for monitoring purposes, and require the following:

- a working width of approximately 65m wide along the length of the underground cable route to allow for 350mm between each of the three cables per group and a separation distance of 3m between each of the six groups of cables;
- underground cable joints every 500-800m with a surface accessible link pit at each joint with maximum dimensions of 4m long by 3m wide and 0.75m high;
- sealing end compounds, approximately 80m x 50m, comprising a terminal overhead line pylon with down-leads connecting to a gantry which then connect to the sealing end and other electrical equipment;
- a 10m x 6m x 4m control room may be required located within a compound, with a 2.4m high fence surrounding the compound and a permanent access road.

2.32 The two sections of the proposed underground cable are identified on Figure 2 in the Scoping Report and include:

- Section E where the line crosses Dedham Vale AONB; and
- Section G, Stour Valley, up to sealing end compound 1, south of Twinstead Tee. The proposed alignment connects to the

existing Bramford – Braintree – Rayleigh overhead line approximately 1km south of Twinstead Tee.

Grid Supply Point (GSP) Substation

2.33 The proposed substation would connect to the existing 400kV Bramford – Twinstead – Pelham overhead line via an existing or new pylon and connected to UKPN's existing 132kV network via an underground cable to a new pylon on that line. The substation would be located at one of three possible locations as shown on Figure 2 and would be surrounded by electrified fencing, and include the following components:

- protection equipment;
- communication equipment;
- isolation equipment;
- cooling fans;
- auxiliary diesel generator;
- water tank;
- one Super Grid Transformer;
- switching devices; and
- associated buildings.

2.34 Temporary scaffolding would be installed during the works to protect existing infrastructure, including roads, railways and public rights of way. Some existing distribution network overhead lines may be temporarily switched off, relocated or removed as necessary during construction (see paragraph 3.4.9 of the Scoping Report).

Proposed Access

2.35 Temporary access roads of approximately 4m wide and 350mm deep would be constructed to each pylon site using crushed stone and trackway panels with a reinforcing semi-permeable membrane to protection soils (see paragraph 3.4.7 of the Scoping Report). Alterations to public highways may be necessary to accommodate abnormal indivisible loads (AIL) movements.

2.36 A temporary haul road would run along the route of the underground cables during construction and ongoing access would be required for maintenance.

- 2.37 Permanent access roads, single carriage width with passing places, would also be required for each of the sealing end compounds and the substation.

Construction

- 2.38 Temporary stone pads would be required adjacent to pylon locations for plant used during construction. Typical plant would include cranes and piling rigs. The pylons would be delivered to site in pre-constructed sections or numbered parts.
- 2.39 The working area at each pylon would include a security hut and welfare facility and constant security would be required during the construction phase. The area would be fenced off during construction and gated entrances used. Indicative dimensions of working areas are shown on Figure 8 in the Scoping Report. The underground cable area would include temporary contractor's compounds and offices every 400-800m along the route.
- 2.40 Materials relating to the overhead lines would be delivered to site when required rather than storing them on site. On site storage of materials would be required for the underground cable sections.
- 2.41 The underground cables would be predominately installed through open trenching. Where wider crossings are encountered that require a 'trenchless technique' to avoid environmental constraints, Horizontal Directional Drilling (HDD) or thrust boring will be used with the cables pulled through installed cable ducts (paragraph 3.5.3 of the Scoping Report).
- 2.42 Sealing end compounds would require an adjacent temporary construction compound. Foundations, cables troughs and stone pads (for cranes) would be required within the sealing end compounds. A scaffold structure covered with weatherproof material would be required while terminations are being installed.
- 2.43 A temporary construction compound and welfare facilities would be required adjacent to the proposed substation area. Foundations would be required for electrical equipment. A 14 axle girder frame trailer with tractor units at either end would be required to deliver the Super Grid Transformer to the site.

Operation and Maintenance

- 2.44 Pylons have a life expectancy of approximately 80 years, the conductors approximately 60 years and insulators and fittings approximately 40 years. Underground cables have a life expectancy of approximately 40 years, as do sealing end compounds and the substation.
- 2.45 The overhead line would be subject to an annual inspection either from the ground or by helicopter. Underground cables would be

inspected every 3 years via the kiosks above ground at the joints. Further monitoring would be carried out via the fibre optic cables installed with the underground lines. Infrequent visits to the sealing end compounds would be required to monitor underground cables and carry out maintenance and routine maintenance of the substation would be undertaken approximately every 3 years.

- 2.46 Vans would usually be used to transport workers to and from the site whilst lorries would be used to carry materials where necessary.

Decommissioning

- 2.47 Decommission of the proposed development is considered within the Scoping Report and indicates that lines and pylons may be removed if no longer required. Unless there is a particular need to remove all of the foundations, it is proposed that they would be removed to approximately 1.5m depth and subsoil and topsoil reinstated. Underground cables are proposed to remain in-situ following decommissioning.

- 2.48 Sealing end compounds and the substation would be removed and recycled where possible following decommissioning.

The Secretary of State's Comments

Description of the Application Site and Surrounding Area

- 2.49 The characteristics of the proposed development and its site and surroundings are generally well described within the Scoping Report. However, the descriptions are grouped by location which makes it difficult to understand an overview of the types of works proposed and the overall construction programme across all sections of the proposed connection route. This should be clarified in the ES.

Description of the Proposed Development

- 2.50 The SoS notes that the design process for the proposed development is at an early stage and options are currently being consulted on. The SoS is aware from the consultation responses received, that following the submission of the scoping request to the SoS, the Applicant has subsequently selected, following consultation, Corridor 2B interim alignment within Section AB of the preferred route corridor (as shown on Figure 2 in the Scoping Request). This alignment proposes to install the new 400kV overhead line close to, and south of, the existing 400kV overhead line located to the north of Hintlesham Hall. This information has been taken from National Grid's Bramford to Twinstead Connection project website. The Applicant should note that as two interim alignment options were identified for Section AB within the

Scoping Request, this Opinion has considered both options as shown on Figure 2 in the Scoping Report.

- 2.51 The SoS also notes that at present the Applicant has identified three potential new substation locations, referred to as Substation Study Areas A, B and C, as shown on Figure 2 of the Scoping Report. With regard to Substation Study Areas B and C, the Applicant has also identified alternative site layouts for the infrastructure to be located at these sites (see Figures 4.2 to 4.9 in the Scoping Report). Whilst the Applicant has identified within the Scoping Report the intention to announce its preferred substation option and location prior to submission of the draft DCO, the SoS notes that the assessments for the EIA will be undertaken in the meantime based on the proposed site layouts identified in Figures 4.1 to 4.9 of the Scoping Report for the three substation locations (paragraph 2.8.7 of the Scoping Report). The description of the proposed development in the ES must be sufficiently certain to meet the requirements of Schedule 4, Part 1, paragraph 17 of the EIA Regulations and the Applicant should ensure that by the DCO is submitted, the ES support the details set out in the DCO (see also Appendix 3 to the Scoping Opinion).
- 2.52 It should be noted that if the proposed development changes substantially during the EIA process, prior to the submission of the DCO application, the Applicant may wish to consider the need to request a new Scoping Opinion.
- 2.53 Within the draft DCO to be submitted by the Applicant, it should clearly define what elements of the proposed development are integral to the NSIP and which is 'associated development' under the Planning Act 2008 (as amended) or is an ancillary matter. Any proposed works and/or infrastructure required as associated development, or as an ancillary matter, (whether on or off-site) should be considered as part of an integrated approach to environmental assessment.
- 2.54 Figures 4.1 to 4.9 of the Scoping Report provide useful simplified illustrations of the potential layouts at each of the substation sites. However, it is unclear why, in Figures 4.1 – 4.6 of the Scoping Report, the potential DCO site boundary for the possible substation sites extends beyond the boundary of the study area as identified for the substation sites. The study area assessed should be sufficient to encompass the layout of all elements of the proposed development at the possible substation locations and any appropriate buffer zones applied. The Figures, showing the proposed substation site provided within the ES, should also clearly show the location of all infrastructure within the substation site and DCO boundary.
- 2.55 Although not exhaustive, the following list provides an indication of the aspects of the proposed development which are expected to be clearly set out in the ES:

- plans and figures illustrating the proposed substations, sealing end compounds and pylons;
- characteristics of the land required during the construction and operational phases;
- construction processes and methods, including site preparation, methods for excavation of foundations, and the extent and location of any vegetation and habitats that may require removal to facilitate construction;
- access arrangements, including anticipated routes for construction vehicles into/within the site and to/from construction compounds or any off site locations;
- locations, and restoration or reinstatement of any construction compounds, lay down areas for major components and parking areas;
- types and quantities of materials used;
- any potential risk of accidents/spillages, having regard in particular to substances or technologies used;
- emissions (water, air and soil pollution, noise, vibration, etc);
- details of any measures required to mitigate impacts that form part of the scheme design; and
- land use requirements for development and any associated development, landscaping areas and potential off-site mitigation or compensation schemes.

2.56 The environmental effects of all wastes to be processed and removed from the site should be addressed. The ES will need to identify and describe the control processes and mitigation procedures for storing and transporting waste off site. All waste types should be quantified and classified. Attention is drawn to the response from the Environment Agency, with regard to the need for the production of a Site Waste Management Plan (SWMP) (see Appendix 2 of this Opinion).

2.57 The ES should describe proposals for handling different types of topsoil and subsoil and provide details relating to their management and storage. The Application is referred to the comments by the Environment Agency on this issue (see Appendix 2 of this Opinion).

Alternatives Considered

2.58 The ES requires that the Applicant provide '*An outline of the main alternatives studied by the applicant and an indication of the main reasons for the applicant's choice, taking into account the environmental effects*' (See Appendix 3). The SoS draws the Applicant's attention to the responses from parish councils and local authorities, at Appendix 2 of this Opinion, regarding alternative site locations and installation methods for various aspects of the proposed development, when addressing alternatives within the ES.

Proposed Access

- 2.59 The SoS considers that information regarding site access routes for construction traffic and any vehicles carrying abnormal indivisible loads (AIL) should be clearly identified and assessed within the ES, including any alterations required to the existing road network to accommodate any AIL. The ES should also identify whether any alterations to the existing road network would be retained or reinstated, and assess the potential effects arising from such reinstatement works within the ES.

Construction

- 2.60 The SoS considers that information on construction including: numbers of workers; phasing programme; construction methods and activities associated with each phase; siting of construction compounds (including on and off site); lighting equipment/requirements; and number, movements and parking of construction vehicles (both HGVs and staff) should be clearly indicated in the ES. Information should also be provided in the ES on whether any construction activities are restricted to a particular time of year.
- 2.61 The SoS notes that the Scoping Report refers to the possible provision of a Construction Management Plan (CMP) (see paragraph 12.6.2 of the Scoping Report). The SoS considers that an outline CMP, setting out how construction phase effects would be managed and mitigation measures implemented, should be produced and appended to the ES.

Operation and Maintenance

- 2.62 The SoS welcomes the inclusion of information on the operation and maintenance of the proposed development and the potential effects arising during these stages, within the ES.

Decommissioning

- 2.63 In terms of decommissioning, the SoS acknowledges that the further into the future any assessment is made, the less reliance may be placed on the outcome. However, the purpose of such a long term assessment is to enable the decommissioning of the works to be taken into account in the design and use of materials such that structures can be taken down with the minimum of disruption. The process and methods of decommissioning should be considered and options presented in the ES. The SoS encourages consideration of such matters in the ES and welcomes the commitment in the Scoping Report to identify and assess within the EIA the permanent and temporary effects arising during decommissioning (paragraph 4.1.19 of the Scoping Report).

3.0 EIA APPROACH AND TOPIC AREAS

Introduction

- 3.1 This section contains the SoS's specific comments on the approach to the ES and topic areas as set out in the Scoping Report. General advice on the presentation of an ES is provided at Appendix 3 of this Opinion and should be read in conjunction with this Section.
- 3.2 Applicants are advised that the scope of the DCO application should be clearly addressed and assessed consistently within the ES.

ES Approach

- 3.3 The information provided in the Scoping Report sets out the proposed approach to the preparation of the ES. Whilst early engagement on the scope of the ES is to be welcomed, the SoS notes that the level of information provided at this stage is not always sufficient to allow for detailed comments from either the SoS or the consultees. This is reflected in the comments of some of the consultees with regard to the proposed new substation locations, as a preferred location has not yet been identified. The Applicant is referred, in particular, to the comments by Braintree District Council (Appendix 2 of this Opinion). The Applicant may find it helpful to undertake further discussions with the relevant consultees to inform the scope of the EIA once the decision on the location of the new substation has been announced.
- 3.4 The Scoping Report indicates that the proposed connection alignment will be divided into 'Sections A-F', as identified in paragraph 3.2.5, in order to manage the assessment and presentation of the environmental information within the ES. The SoS is of the opinion that while it would be useful, in places, to assess impacts specific to individual sections of the connection route, the ES should also provide an assessment of the impacts of the proposed development as a whole to enable a clear understanding of the physical extent of the potential impacts arising from the development.
- 3.5 The SoS notes (paragraph 4.1.12 of the Scoping Report) that the approach to defining 'significance' in the EIA would be predominately based on the magnitude of effect considered against the sensitivity of the receptor using the terminology identified in Table 4.1 in the Scoping Report, unless stated otherwise in the environment topic assessments within the ES. The SoS notes, for example, that the Traffic and Transport assessment and the Landscape and Visual assessment do not use this terminology. The SoS considers that it may be helpful to consider the use of a consistent terminology throughout the ES as this facilitates an easier understanding of the overall impacts.

However, it is understood that the terminology may stem from the guidance being used. The SoS welcomes the intention to recognise both positive and adverse significant effects arising from the proposed development in the ES.

- 3.6 The SoS recommends that the physical scope of the study areas used to inform the EIA should be identified under all the environmental topics and identified by reference to a Figure provided within the ES showing the extent of the study area, including any buffer zones applied. The physical and temporal extent of each environmental topic study area should be sufficiently robust in order to undertake the assessment and should be informed on the basis of recognised professional guidance, whenever such guidance is available. The study areas should also be agreed with the relevant consultees and, where this is not possible, this should be stated clearly in the ES and a reasoned justification given.
- 3.7 A key concern identified by consultees is the description of baseline to be used in the EIA for each topic area and whether this includes all existing electrical infrastructure. The Applicant is referred, in particular, to the comments of Braintree District Council, Babergh and Mid Suffolk District Councils, Essex County Council and Suffolk County Council (see Appendix 2 of this Opinion). The SoS considers that the baseline should clearly identify all existing electrical infrastructure, including any infrastructure which would subsequently be removed, as part of the proposed development. The Applicant is referred to the SoS more detailed comments on identifying the baseline in Appendix 3 of this Opinion.
- 3.8 The SoS welcomes the Applicant's intention to identify and assess cumulative impacts within each environmental assessment topic of the ES in accordance with the criteria identified in paragraph 4.1.23 of the Scoping Report. The SoS agrees that the identification of other projects included within these criteria should be discussed and agreed with the relevant local planning authorities and other relevant bodies. The Applicant is referred to the SoS more detailed comments on identifying and assessing cumulative effects in Appendix 3 of this Opinion.
- 3.9 The SoS notes and welcomes the intention to finalise the scope of investigations in conjunction with ongoing stakeholder liaison and consultation with the relevant regulatory authorities and their advisors. The SoS encourages the Applicant to agree, where possible, the timing and relevance of survey work as well as the methodologies to be used with the relevant consultees.

Matters to be Scoped Out

- 3.10 The Applicant has identified within Table 15.3 of the Scoping Report, the matters proposed to be 'scoped out'. These include:

- effects on climate change;
- air quality - Eutrophication;
- effects of tidal flooding;
- effects of flooding from sewers;
- effects from vibration (during the operational phase);
- effects from noise during the operational phase (excluding assessment of the noise emissions from the substation);
- effects on the transport network (during the operational phase);
- effects on property prices;
- effects on the tourism economy; and
- electro-magnetic compatibility (EMC).

3.11 Matters are not scoped out unless specifically addressed and justified by the Applicant, and confirmed as being scoped out by the SoS.

3.12 The Scoping Report states that it is not proposed to include an assessment of effects on climate change. The SoS considers that the proposed development is unlikely to significantly contribute to climate change and therefore agrees that effects of the proposed development on climate change can be scoped out of the ES.

3.13 The Scoping Report states that the proposed development does not give rise to emissions such as nitrates or ammonium and no pathways have been identified within the ES. The SoS therefore agrees to effects from eutrophication being scoped out of the ES.

3.14 The location of the site is such that effects from tidal flooding are unlikely to arise due to distance from the tidal watercourses. The SoS therefore agrees to effects of tidal flooding being scoped out of the ES.

3.15 The Scoping Report states that an assessment of effects of flooding from sewers is not necessary due to the site being unlikely to require a connection to the existing sewerage network. The SoS agrees to the effects of flooding from sewers being scoped out of the ES providing no connection to the existing sewerage network is required.

3.16 The Scoping Report proposes to exclude effects from both noise and vibration during operation. In respect of noise, the Scoping Report states that no significant noise effects are anticipated from the underground cables or sealing end compounds during the operational phase of the project. The Scoping Report identifies that the transformer and its cooler are the only elements within the proposed new substation that have the potential to generate noise and therefore noise emissions from these elements would be

assessed within the noise assessment (paragraph 12.3.4 of the Scoping Report). The Scoping Report acknowledges that there is the potential for the overhead lines and associated infrastructure to emit noise under certain atmospheric conditions. The Applicant has concluded that due to the design of the overhead line and the insulators on the pylons, no significant noise effects are anticipated (paragraph 12.3.7).

- 3.17 The potential for high voltage transmission lines to generate noise under certain weather conditions is recognised in the Electricity Networks National Policy Statement (EN-5, July 2001, at Section 2.9), which concludes that where the applicant can demonstrate that appropriate mitigation measures will be put in place, the residual noise impacts are unlikely to be significant. The SoS agrees that assessment of potential noise emissions from the overhead line, underground cables and sealing end compounds can be scoped out of the EIA. However, the SoS would need to be satisfied that relevant assessment methodologies have been used and that the appropriate mitigation options have been considered and adopted as requirements in the draft DCO.
- 3.18 In respect of vibration, the Scoping Report states that effects are unlikely to occur during the operational phase of the development. The SoS agrees that assessment of potential vibration effects arising from the overhead line, underground cables and sealing end compounds and substation can be scoped out of the EIA.
- 3.19 The Scoping Report states that it is not intended to include effects on the transport network during the operational phase of the proposed development in the ES. Although no justification has been provided to support this exclusion, due to the nature of the project, the SoS considers that the volume of traffic generated through maintenance of the proposed development is unlikely to be significant. The SoS therefore agrees to effects on the transport network during operation being scoped out of the ES. However the ES should include reference to planned maintenance arrangements.
- 3.20 The Applicant proposes to scope out the effects on property prices from the ES on the basis that any effects on property prices as a result of development is not a matter that requires assessment under the EIA Regulations. The SoS agrees that, within the context of the ES, effects on property prices can be scoped out. However, the Applicant may care to consider the concerns of the consultees, in particular the parish councils (see Appendix 2 of this Opinion), with regard to the potential effects that the proposed development may have on property prices and how this may be addressed as part of the proposed DCO application.
- 3.21 The Applicant proposes to scope out effects on the tourism economy on the basis that effects on tourism will be assessed qualitatively, with a focus on potential amenity impacts to tourism

and recreation features, affected by the development. The SoS has given consideration to the responses of the consultees, in particular, the parish councils (see Appendix 2 of this Opinion). Little evidence has been provided in the Scoping Report as to how important the tourism industry is to the local economy. Information is provided only in terms of the numbers employed in the tourism industry rather than the value of this industry to the local economy. Therefore further evidence would be required to demonstrate that this aspect could be scoped out of the ES.

- 3.22 The Scoping Report states that the overhead line, substation, sealing end compounds and underground cables proposed for this project, would be covered by the Certificate of Conformity and the proposed development would present no issues with TV or radio interference under normal operating conditions. It is therefore proposed to scope out effects arising from electro-magnetic compatibility (EMC). The SoS considers that whilst there is the potential for interference during non-normal operating conditions, the SoS considers that any such potential effects are unlikely to be significant and therefore agrees that the EMC assessment can be scoped out of the ES.
- 3.23 In order to demonstrate that topics have not simply been overlooked, where topics are scoped out prior to submission of the DCO application, the ES should still identify these topics and explain the reasoning and justification for the approach taken.

ES Structure

- 3.24 The SoS notes that from the proposed ES would include a number of assessments under the broad headings of (paragraph 15.1.4):
- Landscape and Visual;
 - Biodiversity and Nature Conservation;
 - Historic Environment;
 - Geological Conservation;
 - Flood Risk, Water Quality and Resources;
 - Traffic and Transport;
 - Air Quality and Emissions;
 - Noise and Vibration;
 - Socio-Economic and Land Use; and
 - Electric and Magnetic Fields.
- 3.25 A full description of the potential impacts should be provided and all sensitive receptors identified. The assessment should include proposed mitigation measures where appropriate, as well as stating any residual impacts.

Environmental Topic Areas

Landscape and Visual Assessment (see Scoping Report Section 5)

- 3.26 The SoS notes, at paragraph 5.4.1 of the Scoping Report, the intention to review landscape and visual assessment in line with the third edition of the Guidelines for Landscape and Visual Impact Assessment which are due to be published in April 2013. The SoS welcomes this approach.
- 3.27 The SoS recommends that photomontages illustrating the proposed development should take account of seasonality and the change in levels of vegetation screening throughout the year.
- 3.28 The landscape and visual assessment in the scoping report refers to the Zone of Theoretical Visibility (ZTV). The SoS advises that the ES should describe the model used, provide information on the area covered and the timing of any survey work as well as the methodology used.
- 3.29 The SoS welcomes the proposal to agree viewpoint locations with the local authorities and considers that it may be useful to also liaise with parish councils in this respect. The Applicant's attention is drawn to the consultation responses from Holton St Mary Parish Council and Chattisham and Hintlesham Parish Council (see Appendix 2 of this Opinion).
- 3.30 When selecting viewpoints, the SoS recommends that consideration is given to the potential effects of the development on the historical environment in relation to the potential effects on the setting on heritage assets, as the Scoping Report has identified the presence of a number of designated assets located within the route corridor and within the 250m buffer zone, including three Grade I listed buildings, including Hintlesham Hall and four unnamed Grade II* listed buildings (paragraph 7.2.1 of the Scoping Report). The SoS welcomes the intention to give consideration to the potential inter-relationships between the landscape and visual impact assessment and the historic environment assessment.
- 3.31 The proposals will be for large structures. The SoS requests that careful consideration should be given to the form, siting, and use of materials and colours in terms of minimising the adverse visual impact of these structures, in particular the proposed new substation.
- 3.32 Landscape and visual impact should be assessed not only in the context of the particular 'section' of the connection but should also take account of the wider surroundings. In particular, the Applicant's attention is drawn to the comments of Layham Parish

Council and the response from Babergh District Council in this regard (see Appendix 2 of this Opinion).

- 3.33 The response from Natural England draws attention to the setting of Dedham Vale AONB and states that the assessment of the AONB should be given careful consideration to ensure that impact on the landscape and receptors is kept to a minimum. Natural England's response also refers to Heritage Landscapes and that consideration should be given to areas qualifying for conditional exemption from capital taxes as these are considered to be designated landscapes of national importance and impacts on these should be assessed where appropriate (see Appendix 2 of this Opinion). The SoS notes the need to undertake a Landscape Character assessment.
- 3.34 The Applicant's attention is also drawn to the response from Braintree District Council and Essex County Council in relation to the level of sensitivity that should be afforded to the cultural significance of the Stour Valley; and to the response from Suffolk County Council regarding the sensitivity of AONBs (see Appendix 2 of this Opinion).

Biodiversity and Nature Conservation (see Scoping Report Section 6)

- 3.35 The SoS notes that consultation has already taken place with a number of bodies, listed in paragraph 6.4.1, and welcomes the inclusion of bodies such as Natural England, Suffolk Wildlife Trust and the Royal Society for the Protection of Birds, to determine the scope of the Ecological Impact Assessment.
- 3.36 The SoS welcomes the proposal, at paragraph 6.4.35 of the Scoping Report, to incorporate ecological enhancement measures and recommends that the proposals should address fully the needs of protecting biodiversity, in particular the potential impact of the development on biodiversity associated with Braintree District Council's designated protected lanes and the impacts on trees, vegetation and protected hedgerows (see comments of Braintree District Council, Babergh and Mid Suffolk District Councils, Suffolk County Council and Essex County Council in Appendix 2 of this Opinion).
- 3.37 The SoS notes that consideration has been given in the Scoping Report to potential inter-relationship of effects with the landscape and visual impact and the historic environment assessments (paragraph 6.7.1). The SoS welcomes this approach. The SoS is of the opinion that consideration should also be given to the potential inter-relationship of effects arising as a result of noise, vibration and air quality (including dust), and cross reference should be made to these specialist reports, where appropriate.

- 3.38 The SoS notes the proximity of the site to protected species (referred to in Paragraph 6.2.3 of the Scoping Report) and therefore the potential need for licences from Natural England should be considered. Section 4 of this Opinion sets out the recommended approach in respect of other regulatory regimes and attention is drawn to the comments from Natural England in this regard (see Appendix 2 of this Opinion).
- 3.39 The Applicant's attention is drawn to the response from Natural England which considers that impacts upon the Hintlesham Woods SSSI should be assessed during all phases of the development. The SoS agrees with this approach. The assessment should include consideration of whether there will be a loss of woodland habitat, any felling or lopping of mature trees, changes to woodland management and changes to bird breeding which may occur as a result of habitat loss, change, disturbance or habitat fragmentation and any change in local drainage. The response also relates to impact on wildlife and geodiversity interests of local wildlife sites. Attention is drawn to Section 4 of this Opinion which sets out the recommended approach in respect of SSSIs.

Historic Environment (see Scoping Report Section 7)

- 3.40 The SoS welcomes the proposal to assess the historic environment in line with guidance referred to in paragraph 7.1.2 of the Scoping Report and notes that the Applicant has already consulted with those bodies mentioned at paragraph 7.4.1 of the Scoping Report to assess the potential scope of the assessments.
- 3.41 The SoS considers that discussions with local authorities and English Heritage should be ongoing and the Applicant should seek to agree the methodology and scope of any archaeological assessment. The Applicant's attention is drawn to Braintree District Council's and Essex and Suffolk County Councils responses in relation to archaeological monitoring and recording (see Appendix 2 of this Opinion).

Geological Conservation (see Scoping Report Section 8)

- 3.42 Existing and previous land uses should be adequately described in the ES and used to identify any areas of potential contamination. The SoS considers that where areas of potential contamination are identified, investigation should be undertaken to establish the nature and extent of the contamination and presented in the ES. Any intrusive investigations that may be required should extend to depths appropriate to determine the nature and extent of contamination.
- 3.43 Where contaminated land has been identified, the ES should contain sufficient information to identify any risks to the water environment with appropriate mitigation measures and residual impacts considered, where appropriate. Please see the response

from the Environment Agency regarding the production of a Preliminary Risk Assessment and providing comments on pollution control (see Appendix 2 of this Opinion).

Flood Risk, Water Quality and Resources (see Scoping Report Section 9)

- 3.44 The SoS welcomes that the Applicant has already consulted with a number of local authorities, identified at paragraph 9.4.1 of the Scoping Report, regarding flood risk, water quality and resources and feedback from this consultation has been used to inform the Scoping Report. The SoS is pleased to note that the Applicant proposes to undertake further consultation with these authorities and the Environment Agency to inform the assessment (paragraph 9.4.5 of the Scoping Report).
- 3.45 The existing hydrological baseline conditions and study area should be clearly defined within the ES and details of any models used in the assessment should be clearly stated.
- 3.46 The SoS welcomes the provision of a Flood Risk Assessment (FRA). This should form an appendix to the ES and include an assessment of the likelihood of soil, stored during construction, affecting water flows and the extent of any flooding that this may cause. The Applicant's attention is drawn to the comments of the Environment Agency relating to flood risk, water quality and resources (see Appendix 2 of this Opinion).
- 3.47 The Environment Agency in their response have also noted that parts of the substation Study Area A site are within the floodplain associated with the River Colne. Consideration should be given as to the likelihood of flooding in this area and the siting of the substation and any associated infrastructure, including access roads, within this study area, if this site is selected as the preferred location.
- 3.48 The Applicant's attention is drawn to the response from Essex County Council regarding the need to obtain drainage approval for any works affecting surface water (see Appendix 2 of this Opinion).
- 3.49 The SoS's comments on the Applicant's proposal to scope out effects from tidal flooding and flooding from sewers are provided above in the 'Matters to be Scoped Out' section of this Opinion.

Traffic and Transport (see Scoping Report Section 10)

- 3.50 The SoS welcomes the development of the assessment of transport impacts in association with the local authorities. The SoS would expect future discussions to include the Highways Agency, who have identified the need for the Applicant to seek a Technical Approval from the Highways Agency for cabling under the A14 and

for the ES to assess the potential construction impacts on the Claydon Interchange on the A14 to West of Ipswich (see the Highways Agency's comments in Appendix 2 of this Opinion). The SoS would also expect consultation to be undertaken with Network Rail and the appropriate network operator, where the proposed development is located in the vicinity of a railway line.

- 3.51 A key consideration in the traffic and transport assessment will be the delivery of abnormal loads, in particular, the super grid transformer to the substation site and the suitability of the existing strategic road network to accommodate such infrastructure. The SoS notes that the Scoping Report has identified the need for road closures, diversions and/or widening to accommodate this infrastructure during the construction phase of the development (paragraph 10.3.2). The delivery route for these abnormal loads should be identified in the ES and any alternations to the existing road network should be described and assessed in the ES, with the location of these alterations identified by reference to Figures in the ES. Consideration should be given to potential impacts on the emergency services where roads will be closed or diverted and consultation with the local police and ambulance service is recommended. The Applicant is referred to the comments of Suffolk and Norfolk County Councils on potential impacts on the strategic road network and Polstead and Castle Hedingham Parish Councils on the suitability of the local road network for abnormal loads (see Appendix 2 of this Opinion).
- 3.52 The SoS notes the requirement for proposed temporary haul roads running immediately parallel along the underground cables location to facilitate movement of construction vehicles (paragraph 10.3.2) in the Scoping Report). The SoS notes the statement in the Scoping Report that once construction is completed the transport network would be reinstated during the operational phase of the development (paragraph 10.3.4). Consideration should be given in the ES to removal of these temporary haul roads and reinstatement of this land and the existing transport network, including the potential effects during this work and of the reinstatement in terms of the landscape and visual assessment, biodiversity and nature conservation assessment.
- 3.53 Where new access roads are to be constructed in relation to the proposed development, in particular, to provide access to the new substation and sealing end compounds, these should be identified and assessed within the ES. The ES should clearly identify any access roads which are to be retained beyond the construction phase and provide details of ongoing maintenance of these roads.
- 3.54 The Applicant's attention is drawn to the response from Braintree District Council in respect of potential effects of the proposed development on protected lanes, including the designation features of these lanes, which include their 'tranquillity' character in addition to their landscape and nature conversation character

(see Appendix 2 of this Opinion). The SoS agrees that the ES should consider this potential impact of the proposed development on the designations of the protected lanes.

- 3.55 The SoS welcomes the commitment in the Scoping Report to the consideration of the potential effects of the proposed development on PRow including bridleways, byways, cycle and river routes (paragraph 10.2.1). The ES should clearly identify all potentially affected PRow and set out impacts on them, including within the wider area. It is important to minimise hindrance to them where possible and enhancements should be considered as part of the mitigation proposed. A clear indication should be given as to how the development would affect the existing and any proposed PRow, including the need for any stopping up or diversion orders, and what mitigation would be appropriate in the short, medium and long term. The Applicant's attention is drawn to the response from Layham Parish Council regarding the consideration of PRowS in terms of frequency of use and a distinction to be made between recreational PRow and primary routes of communication between communities (see Appendix 2 of this Opinion).
- 3.56 The SoS's comments on the Applicant's proposal to scope out operational effects on the transport network are provided above in the 'Matters to be Scoped Out' section of this Opinion.

Air Quality and Emissions (see Scoping Report Section 11)

- 3.57 It is noted that the Applicant has already undertaken discussions with local authorities regarding air quality to discuss the potential scope of this assessment. The SoS welcomes this approach and would expect on-going discussions and agreement on the scope and methodology of the assessment, where possible, with such bodies.
- 3.58 The SoS notes that consideration has been given to the potential effects on the Sudbury Air Quality Management Area arising from traffic movements during construction of the proposed development (paragraph 11.2.1). The Applicant is referred to the comments by Suffolk County Council identifying potential impacts to this AQMA (see Appendix 2 of this Opinion).
- 3.59 The SoS welcomes the consideration given to appropriate mitigation measures and to monitoring dust complaints identified within the Scoping Report (paragraph 11.6.1).
- 3.60 The SoS's comments on the Applicant's proposal to scope out effects from eutrophication are provided above in the 'Matters to be Scoped Out' section of this Opinion.

Noise and Vibration (see Scoping Report Section 12)

- 3.61 The SoS notes that consultation has already taken place with local authorities to discuss the potential scope of the noise and vibration assessments. The SoS recommends that the methodology and choice of noise receptors should also be discussed and agreed with the relevant Environmental Health Department of the Councils and the relevant parish councils where the new substation would be sited. In particular, consideration should be given to any potential noise disturbance likely to occur at night and other unsocial hours such as weekends and public holidays.
- 3.62 Information should be provided on the types of vehicles and plant to be used during the construction phase and an assessment of noise and vibration undertaken. The noise and vibration assessments should take account of construction traffic movements along access routes. In particular, Braintree District Council refers specifically to the potential effect upon Halstead Town Centre, which is a conservation area (see Appendix 2 of this Opinion).
- 3.63 The SoS agrees that consideration should also be given to the assessment of potential noise impacts on wildlife, in particular, protected habitats and species, in consultation with Natural England. Cross-reference should be made in the ES to the Ecological Impact Assessment, where appropriate.
- 3.64 The SoS's comments on the Applicant's proposal to scope out operational noise (excluding noise emissions from the substation transformer and its cooler) and vibration effects are provided above in the 'Matters to be Scoped Out' section of this Opinion.
- 3.65 Consideration should be given to monitoring noise complaints, particularly during the construction phase of the development.

Socio-Economics and Land Use (see Scoping Report Section 13)

- 3.66 The SoS welcomes the Applicant's approach to discussing the scope of the socio-economic and land use assessments with the relevant local authorities, representatives from Dedham Vale AONB and the National Farmers Union (paragraph 13.4.1). When refining the scope of these assessments, the Applicant may also find it useful to engage in discussions with the relevant parish councils, in particular, when considering potential effects on the tourism economy and local amenities.
- 3.67 The SoS's comments on the Applicant's proposal to scope out consideration of house prices and a quantitative assessment of potential effects on tourism due to the proposed development are provided above in the 'Matters to be Scoped Out' section of this Opinion.

- 3.68 Comments from consultees, in particular, the parish councils and the local authorities, have identified the wish for the Applicant to consider the potential impact of the project on human health in terms of health, wellbeing and visual amenity within the socio-economics assessment in accordance with guidance such as the HM Treasury Guidance (the Green Book) (see in particular, comments by Essex and Suffolk County Councils and Great Henny, Little Henny, Middleton and Twinstead parish council in Appendix 2 of this Opinion). The SoS notes that there is no direct statutory provision in the planning system relating to protection from EMFs and the construction of new overhead power lines near residential or other occupied buildings. The SoS draws the attention of the Applicant to the comments in Section 4 of this Opinion as to the need for a separate Health Impact Assessment.
- 3.69 The SoS recommends that the assessment criteria should be locationally specific and consider the potential significance of the impacts of the proposal within the local and regional context. The Applicant should assess the project's requirements, including construction materials and workforce numbers, and evaluate these against local availability. The types of jobs generated should be considered in the context of the available workforce in the area, this applies equally to the construction and operational stages and taking into account potential cumulative effects on availability of a local workforce and materials arising from other projects in the local area. The Applicant is referred to the comments by Suffolk County Council (see Appendix 2 of this Opinion).
- 3.70 The Scoping Report identifies that the predominant land use within the route corridor is arable farmland and that the baseline of the land use assessment will identify the Agricultural Land Classification (ALC) value of the affected land (paragraph 13.4.7). The SoS considers that the land use assessment should clearly identify and assess whether installation of the cables, in areas where the connection is proposed to be undergrounded, would restrict the types of farming activity undertaken in order to protect the cables. The ES should identify the depth to which the cable would be buried and the distance between the cables and the surface topsoil. The assessment should also include information relating to the Agricultural Land Classification (ALC) and current land use.

Electric and Magnetic Fields and Electro-Magnetic Compatibility (see Scoping Report Section 14)

- 3.71 The SoS welcomes the approach taken by the Applicant to discuss the scope of the electric and magnetic fields (EMF) assessment with local authorities, the outcome of these discussions should be recorded in the ES. The Applicant is also referred to the comments of the Health Protection Agency on the assessment of EMF (see Appendix 2 of this Opinion).

3.72 The SoS's comments on the Applicant's proposal to scope out consideration of electro-magnetic compatibility (EMC) are provided above in the 'Matters to be Scoped Out' section of this Opinion.

4.0 OTHER INFORMATION

- 4.1 This section does not form part of the SoS's Opinion as to the information to be provided in the environmental statement. However, it does respond to other issues that the SoS has identified which may help to inform the preparation of the application for the DCO.

Sites of Special Scientific Interest (SSSIs)

- 4.2 The SoS notes that two SSSIs, Hintlesham Woods SSSI and Auger Fen SSSI are located close to the proposed development. Where there may be potential impacts on the SSSIs, the SoS has duties under sections 28(G) and 28(I) of the Wildlife and Countryside Act 1981 (as amended) (the W&C Act). These are set out below for information.
- 4.3 Under s28(G), the SoS has a general duty '... to take reasonable steps, consistent with the proper exercise of the authority's functions, to further the conservation and enhancement of the flora, fauna or geological or physiographical features by reason of which the site is of special scientific interest'.
- 4.4 Under s28(I), the SoS must notify the relevant nature conservation body (NCB), Natural England (NE) in this case, before authorising the carrying out of operations likely to damage the special interest features of a SSSI. Under these circumstances 28 days must elapse before deciding whether to grant consent, and the SoS must take account of any advice received from the NCB, including advice on attaching conditions to the consent. The NCB will be notified during the examination period.
- 4.5 If applicants consider it likely that notification may be necessary under s28(I), they are advised to resolve any issues with the NCB before the DCO application is submitted to the SoS. If, following assessment by applicants, it is considered that operations affecting the SSSI will not lead to damage of the special interest features, applicants should make this clear in the ES. The application documents submitted in accordance with Regulation 5(2)(I) could also provide this information. Applicants should seek to agree with NE the DCO requirements which will provide protection for the SSSI before the DCO application is submitted.

European Protected Species (EPS)

- 4.6 The Applicant should also be aware that the decision maker under the Planning Act 2008 (PA 2008) has, as the competent authority (CA), a duty to engage with the Habitats Directive.
- 4.7 The SoS considers that there is potential for the presence of EPS within the study area for the proposed development. Where a

potential risk to an EPS is identified and before making a decision to grant development consent the CA must, amongst other things, address the derogation tests in the Habitats Regulations. Therefore the Applicant may wish to provide information which will assist the decision maker to meet this duty. Where required the Applicant should, in consultation with NE, agree appropriate requirements to secure necessary mitigation.

- 4.8 If the Applicant has concluded (in consultation with NE) that an EPS licence is required the ExA will need to understand whether there is any impediment to the licence being granted. It would assist the examination if the Applicant could provide with the application confirmation from NE whether they intend to issue the licence in due course.

Health Impact Assessment

- 4.9 The SoS considers that it is a matter for the Applicant to decide whether or not to submit a stand-alone Health Impact Assessment (HIA). However, the Applicant should have regard to the responses received from the relevant consultees regarding health, and in particular to the comments from the Health Protection Agency in relation to assessment of EMF (see Appendix 2).
- 4.10 The methodology for the HIA, if prepared, should be agreed with the relevant statutory consultees and take into account mitigation measures for acute risks.

Other regulatory regimes

- 4.11 The SoS recommends that the Applicant should state clearly what regulatory areas are addressed in the ES and that the Applicant should ensure that all relevant authorisations, licences, permits and consents that are necessary to enable operations to proceed are described in the ES. Also it should be clear that any likely significant effects of the proposed development which may be regulated by other statutory regimes have been properly taken into account in the ES.
- 4.12 It will not necessarily follow that the granting of consent under one regime will ensure consent under another regime. For those consents not capable of being included in an application for consent under the PA 2008, the SoS will require a level of assurance or comfort from the relevant regulatory authorities that the proposal is acceptable and likely to be approved, before they make a recommendation or decision on an application. The Applicant is encouraged to make early contact with other regulators. Information from the Applicant about progress in obtaining other permits, licences or consents, including any confirmation that there is no obvious reason why these will not subsequently be granted, will be helpful in supporting an

application for development consent to the SoS. The Applicant is referred, in particular, to the comments of the Environment Agency and the Health and Safety Executive in relation to consideration of other construction and operational consents (see Appendix 2 of this Opinion).

APPENDIX 1
List of Consultees

APPENDIX 1

LIST OF BODIES FORMALLY CONSULTED DURING THE SCOPING EXERCISE

CONSULTEE	ORGANISATION
The Health and Safety Executive	Health and Safety Executive
The relevant Strategic Health Authority	East of England Strategic Health Authority
Natural England	Natural England
The Historic Buildings and Monuments Commission for England	English Heritage
The relevant fire and rescue authority	Suffolk Fire and Rescue Service Essex County Fire and Rescue Service
The relevant police and crime commissioner	Suffolk Police and Crime Commissioner Police and Crime Commissioner for Essex
The relevant Parish Council	Aldham Parish Council Alphamstone and Lamarsh Parish Council Assington Parish Council Belchamp Walter Parish Council Belstead Parish Council Bentley Parish Council Boxford Parish Council Boxted Parish Meeting Bramford Parish Council Bulmer Parish Council Bures Hamlet Parish Council Bures St. Mary Parish Council Burstall Parish Council Capel St. Mary Parish Council Castle Hedingham Parish Council Chattisham and Hintlesham Parish Council Claydon and Whitton Parish Council Copdock and Washbrook Parish Council Elmsett Parish Council Flowton Parish Meeting Gestingthorpe Parish Council Great Cornard Parish Council Great Henry, Little Henry, Middleton & Twinstead Parish

CONSULTEE	ORGANISATION
	Council Great Maplestead Parish Council Great Yeldham Parish Council Hadleigh Town Council Higham Parish Council Holton St. Mary Parish Council Kersey Parish Council Langham Parish Council Layham Parish Council Leavenheath Parish Council Little Blakenham Parish Council Little Cornard Parish Council Little Maplestead Parish Council Little Yeldham, Tilbury, Juxta Clare and Ovington Parish Council Mount Bures Parish Council Nayland-with-Wissington Parish Council Newton Parish Council Pebmarsh Parish Council Pinewood Parish Council Polstead Parish Council Raydon Parish Council Ridgewell Parish Council Semer Parish Council Shelley Parish Meeting Sible Hedingham Parish Council Sproughton Parish Council Stambourne Parish Council Stoke by Nayland Parish Council Toppesfield Parish Council Wenham Magna Parish Meeting (Great Wenham) Wenham Parva Parish Meeting Whatfield Parish Council Wickham St. Paul Parish Council Wormingford Parish Council
The Environment Agency	The Environment Agency
The Commission for Architecture and the Built Environment	CABE at Design Council
The Equality and Human Rights Commission	Equality and Human Rights Commission
The Homes and Communities Agency	The Homes and Communities Agency

CONSULTEE	ORGANISATION
The Commission for Rural Communities	The Commission for Rural Communities
The Highways Agency	The Highways Agency
The relevant Highways Authority	Suffolk County Council Essex County Council
The Passengers Council	Passenger Focus
The Disabled Persons Transport Advisory Committee	Disabled Persons Transport Advisory Committee
The Coal Authority	The Coal Authority
The Office of Rail Regulation	Office of Rail Regulation
Approved Operator	Network Rail Infrastructure Ltd Network Rail (CTRL) Ltd
The Gas and Electricity Markets Authority	OFGEM
The Water Services Regulation Authority	OFWAT
The Relevant Waste Regulation Authority	The Environment Agency
The Relevant Internal Drainage Board	East Suffolk Internal Drainage Board
The British Waterways Board	The Canal and River Trust
The Health Protection Agency	The Health Protection Agency
The Relevant Local Resilience Forum	Suffolk Local Resilience Forum Essex Local Resilience Forum
The Crown Estate	The Crown Estate

CONSULTEE	ORGANISATION
Commissioners	
The Forestry Commission	The Forestry Commission – East of England
Relevant Statutory Undertakers	
Health Bodies (s.16 of the Acquisition of Land Act (ALA) 1981)	
Primary Care Trust (PCT)	Mid Essex Primary Care Trust North East Essex Primary Care Trust Suffolk Primary Care Trust
NHS Foundation Trust	West Suffolk NHS Foundation Trust
Ambulance Trusts	East of England Ambulance Service NHS Trust
Relevant Statutory Undertakers (s.8 ALA 1981)	
Railways	BRB Residuary Limited
Water Transport	The Canal and River Trust
Canal or Inland Navigation Authorities	The Environment Agency
Universal Service Provider	Royal Mail Group
Water and Sewage Undertakers	Anglian Water
Public Gas Transports	British Gas Pipelines Ltd Energetics Gas Ltd ES Pipelines Ltd ESP Connections Ltd ESP Networks Ltd ESP Pipelines Ltd Fulcrum Pipelines Limited GTC Pipelines Limited Independent Pipelines Limited LNG Portable Pipeline Services Limited National Grid Gas Plc (NTS) National Grid Gas Plc Quadrant Pipelines Limited SSE Pipelines Ltd The Gas Transportation Company Limited Utility Grid Installations Limited
Electricity Licence Holders having CPO Powers	ESP Electricity Limited UK Power Networks Limited Energetics Electricity Limited Independent Power Networks Limited The Electricity Network Company Limited

CONSULTEE	ORGANISATION
Electricity Transmitters with CPO Powers	National Grid Electricity Transmission plc
Local Authorities (s.43)	
<p>Babergh District Council Braintree District Council Breckland Council The Broads Authority Cambridgeshire County Council Chelmsford City Council Colchester Borough Council Essex County Council Hertfordshire County Council Ipswich Borough Council London Borough of Enfield London Borough of Havering London Borough of Redbridge Maldon District Council Medway Council Mid Suffolk District Council Norfolk County Council South Cambridgeshire Council Southend-on-Sea Borough Council South Norfolk Council St. Edmundsbury Borough Council Suffolk Coastal District Council Suffolk County Council Tendring District Council Thurrock Council Uttlesford District Council Waltham Forest Council Waveney District Council</p>	

Note: the Prescribed Consultees have been consulted in accordance with the Planning Inspectorate's Advice Note 3 'Consultation and notification undertaken by the Planning Inspectorate' (May 2012).

APPENDIX 2

Respondents to Consultation and Copies of Replies

APPENDIX 2

LIST OF BODIES WHO REPLIED BY THE STATUTORY DEADLINE

Babergh District Council
Braintree District Council
BRB (Residuary) Ltd
Burstall Parish Council
CABE at Design Council
Castle Hedingham Parish Council and Burial Board
Chattisham and Hintlesham Parish Council
The Coal Authority
Environment Agency
E S Pipelines Ltd
Essex County Council
Fulcrum Pipelines Limited
Great Henry, Little Henry, Middleton and Twinstead Parish Council
Health and Safety Executive
Health Protection Agency
Highways Agency
Holton St. Mary Parish Council
Layham Parish Council
Leavenheath Parish Council
Mid Suffolk District Council
Natural England
Polstead Parish Council
South Norfolk Council
Stoke by Nayland Parish Council
Suffolk County Council
Tendring District Council
Uttlesford District Council
Wenham Magna Parish Council (Great Wenham)
West Suffolk Council
Wickham St. Pauls Parish Council

Place Directorate

Responsible for the Economy
and the Environment



Mr A Ridley
The Planning Inspectorate
3/18 Eagle Way
Temple Quay House
2 the Square
BRISTOL BS1 6PN

Please ask for: Mr Ward
Direct line: 01473 825851
Fax number:
Your reference: 130218_EN020002_1658728
Our reference:
E-mail: nick.ward@babergh.gov.uk
Please reply to: Babergh District Council

18 March 2013

BY EMAIL

Dear Mr Ridley

INFRASTRUCTURE PLANNING (ENVIRONMENTAL IMPACT ASSESSMENT) REGULATIONS, BRAMFORD TO TWINSTEAD TEE 400KV CONNECTION

Thank you for your letter dated 18 February.

As requested I have set out in the attached document the additional information Babergh and Mid Suffolk District Councils consider should be taken into account by the applicant in preparing an Environmental Impact Assessment for the proposed project.

I should be grateful if you would acknowledge receipt of this letter.

Yours sincerely



N J Ward

Corporate Manager - Heritage
Babergh and Mid Suffolk District Councils - Working Together

enc.

Babergh District Council
Council Offices, Corks Lane, Hadleigh, Ipswich, IP7 6SJ
Telephone (01473) 822801
Facsimile (01473) 825742
Minicom (01473) 825878
www.babergh.gov.uk

Mid Suffolk District Council
Council Offices, High Street, Needham Market, Ipswich, IP6 8DL
Telephone (01449) 724500
Facsimile (01449) 724627
SMS Text Mobile (07827) 842833
www.midsuffolk.gov.uk

Strategic Director (Place): Lindsay Barker
Head of Economy: Peter Burrows Head of Environment: Chris Fry

BABERGH DISTRICT COUNCIL / MID SUFFOLK DISTRICT COUNCIL

**INFRASTRUCTURE PLANNING (ENVIRONMENTAL IMPACT ASSESSMENT)
REGULATIONS, 2009**

PROPOSED BRAMFORD TO TWINSTEAD TEE 400KV CONNECTION

COMMENTS ON SCOPING REPORT

This document sets out a joint response on behalf of Babergh and Mid Suffolk Councils to the Scoping Report produced by National Grid. For ease of reference the comments have been set out using the headings contained within the report. In commenting upon the content of the Scoping Report it should be noted that the District Councils observations should not be interpreted as being in agreement with or offering acceptance of any or all of the supporting documents that National Grid refers to in the Scoping Report.

Introduction

The overview of the proposal is sufficient however it should be noted that the proposals for the construction of a new sub-station at Twinstead are currently the subject of a public consultation exercise. In the circumstances should the position at Twinstead change, the base line conditions and scope of the Environmental Impact Assessment (EIA) may require review. At this stage, the request for a Scoping Opinion appears premature until the precise parameters of the project are fully known.

Main Alternatives Considered

The need for a connection from Bramford to Twinstead is well documented elsewhere however the EIA will need to include a comprehensive assessment of the alternatives considered. In the light of changing circumstances surrounding the potential programming of some significant electricity generating projects the District Councils would question whether reports previously prepared by National Grid are sufficiently up-to-date and can be relied upon.

Characteristics of the Proposed Development

Describing the proposed development by reference to specific sections is helpful. The project components are also clearly outlined. The location of the proposed development is briefly set out however it majors on designated landscapes and features. It fails to acknowledge the wider intrinsic quality of the South Suffolk landscape. The District Councils therefore consider the EIA should give detailed consideration to this issue.

Approach to the Environmental Impact Assessment

The intended approach to the EIA raises no particular issues. The District Councils would however question the intended approach to the consideration of cumulative impacts with existing and proposed developments. The existing 400kV overhead lines in combination with those proposed and the intended sub-station developments at Bramford and Twinstead have the potential to cause significant localised environmental impacts which need to be fully assessed.

Although the Scoping Report appears to suggest that above and below ground heritage assets are to be considered within a single chapter, the District Councils would suggest they are assessed in a manner which provides appropriate differentiation. Perhaps separate chapters are required.

Landscape and Visual Assessment

As indicated above, the District Councils are of the opinion that the cumulative impact of the existing and proposed overhead lines should form part of a cumulative assessment of landscape and visual impacts. This would accord with the requirements of National Policy Statement EN1 which requires that consideration be given to developments already in existence.

The proposed undergrounding of cables within certain sections will necessitate the permanent removal of trees and hedgerows within the cable corridor. The EIA will therefore need to identify the extent of these impacts and their significance. Consideration will also be required to the residual landscape and ecological effects as well as the proposals to mitigate these impacts.

The construction of a new 400kV line will lead to tree and vegetation loss within the proposed way leave or as a result of accommodation works for construction purposes. The extent of these impacts should be assessed within the EIA and proposals for mitigation planting should be put forward.

It is noted that the Landscape and Visual Impact Assessment (LVIA) will deal with the impacts of the proposal on the setting of the AONB and the Stour Valley. The EIA will need to clearly articulate these effects via an appropriate description and visualisation. This will need to include the proposed Sealing End Compounds which are intended to be very close to the boundaries to these areas.

The Scoping Opinion suggests that the potential effect of the proposal upon the cultural heritage will be considered as part of the LVIA. The extent and range of this work is not however clear. The District Councils have made representations via thematic group meetings with National Grid that in addition to a LVIA of the route, separate Historic Landscape Characterisation needs to be undertaken in accordance with the guidance produced by English Heritage.

The landscape in South Suffolk is characterised by isolated farmsteads in an undulating landscape which exhibits evidence of very early enclosure.

Biodiversity and Nature Conservation

The District Councils are generally supportive of the approach outlined in this section of the Scoping Report. It is however requested that the EIA gives further consideration to the use of Horizontal Directional Drilling (HDD) to minimise potential tree and hedgerow loss and the impact upon biodiversity as a means of mitigation.

Historic Environment

The District Councils do not consider that the Scoping Report gives any consideration to the Historic Landscape Characterisation of the area and the important cultural associations that exist with artists such as Constable, Gainsborough, Nash and the East Anglia School of Artists under the direction of Sir Cedric Morris.

As already indicated South Suffolk is characterised by isolated farmsteads in an undulating landscape which exhibits evidence of very early enclosure. These intrinsic environmental qualities are fundamental to the economic prosperity and social well-being of the area.

The Scoping Report appears to confine the assessment of the proposals upon the setting of built designated heritage assets in limited visual terms. As indicated in the guidance produced by English Heritage (2011) *'The setting of Heritage Assets'*,

“Setting does not have a fixed boundary and cannot be definitively and permanently described as a spatially bounded area or as lying within a set distance of a heritage asset. Views on what comprises a heritage asset’s setting may change as the asset and its surroundings evolve, or as the asset becomes better understood. Construction of a distant but high building; development generating noise, odour, vibration or dust over a wide area; or new understanding of the relationship between neighbouring heritage assets may all extend what previously had been understood to comprise setting”.

In the light of this guidance the District Councils consider the EIA should seek to assess the impacts of the proposed development upon the sense of tranquillity and remoteness of the affected designated heritage assets and the extent to which any identified impacts in this regard can be mitigated. Furthermore the EIA needs to give detailed consideration to the cumulative impact of the proposed development in association with other projects upon the setting of designated heritage assets. This comment applies especially to the setting of Hintlesham Hall, a Grade 1 listed building, where the District Councils have already made representations to National Grid on the unacceptable nature of the development in this section of the route corridor.

The District Councils are generally supportive of the approach outlined in the Scoping Report in relation to the assessment of archaeology. They would however refer the Secretary of State to any observations that Essex and Suffolk County Councils may have as the relevant authorities.

As indicated elsewhere it would be helpful if greater differentiation were provided in relation to the assessment of impacts upon above and below ground heritage assets.

Geological Conservation

The District Councils are generally supportive of the approach outlined in this section of the Scoping Report.

Traffic and Transport

The District Councils are not satisfied that the traffic and transport aspects of the proposed development have been fully identified in the Scoping Report. The area is characterised by minor roads and lanes that are not suitable for large volumes of construction traffic. The District Councils would therefore refer the Secretary of State to the observations made by Essex and Suffolk County Councils as the relevant local highway authorities.

Air Quality and Emissions

The District Councils are generally supportive of the approach outlined in this section of the Scoping Report. The predicted impacts are more likely to arise during the construction rather than operational phase of the development and may require further evaluation once the traffic and transport impacts.

Noise and Vibration

The District Councils are generally supportive of the approach outlined in this section of the Scoping Report. The predicted impacts are more likely to arise during the construction rather than operational phase of the development and may require further evaluation once the traffic and transport impacts.

Socio-Economics and Land Use

The District Councils do not consider the Scoping Report gives sufficient consideration to this very significant matter. The suggested approach is limited to considering the economic impacts of the proposed development upon tourist related facilities and businesses. A holistic approach is required which takes into account the intrinsic environmental qualities of the area and the way in which they are valued as part of the EIA. It is these very qualities that make the area an important destination for visitors. National Policy Statement EN1 states that energy infrastructure should contribute to the Government's wider objectives including sustainable development and the way energy infrastructure affects the well being of society and individuals.

The District Councils would also draw the Secretary of State's attention to the comments made by the Suffolk County Council on socio-economic considerations and the extent to which it is intended that they be assessed in the EIA.

Electric and Magnetic Fields

The District Councils are not in a position to comment upon this aspect of the Scoping Report.

Content and Scope of Environmental Statement

As already indicated, the District Councils would suggest that impact of the proposals upon above and below ground heritage assets are to be considered in a manner which provides appropriate differentiation. Perhaps separate chapters are required.

Dated: 18 March 2013

From: [Goodings, Emma](#)
To: [Environmental Services;](#)
Subject: EIA scoping response National Grid Bramford to Twinstead connection project
Date: 18 March 2013 15:31:15
Attachments: [BRAMFORD TO TWINSTEAD TEE 400Kv CONNECTION SCOPING REPORT BDC response.doc](#)

Dear Alan,

Please find the Braintree District Council response to the consultation.

I would be grateful if you could acknowledge receipt of this application.

Kind Regards

Emma Goodings
Local Plans Manager
Braintree District Council
Telephone 01376 551414 ext 2511

BRAMFORD TO TWINSTEAD TEE 400Kv CONNECTION SCOPING REPORT, FEBRUARY 2013

Key Issues

Scope of the proposal

The overview of the proposal is outlined in paragraphs 1.1.1 – 1.1.4 of the Scoping Report. National Grid's preferred option to secure system security for UKPN following the removal of the 132kV overhead line connection is to build a new substation at a location west of Twinstead Tee. It is acknowledged that this is currently the subject of consultation until early April 2013. The EIA Scoping Report presently remains uncertain as to whether a new substation will be the option brought forward and subject to an EIA. Paragraph 3.7.1 states:

If a substation is confirmed as the preferred form of securing the 132kV connection supply, the ES will report on the environmental assessments undertaken for the preferred substation site.

A further document titled 'Distribution System Options Report' is also being consulted upon, which is seeking views on a wide range of options for maintaining system security to UKPN following the dismantling of the 132kV. Options being consulted upon include options for new overhead lines, undergrounding, new substations, and an expanded substation. National Grid are also presently consulting on 3 separate locations for a substation, with a range of locations within each option.

For example, Option 5 (Distribution System Options Report), considers the reinforcement of Braintree Substation including options for accommodating much of the cabling in carriageway along the A131 and A1017 to Rushley Green. Clearly, this option would require a review of activities to be considered during the construction phase, namely potential impact on the existing road network and its capacity to be accommodated.

Following consultation National Grid may consider that the preferred option of a new substation west of Twinstead Tee is not the most appropriate solution. Consequently, if an alternative solution is to be progressed then a review will be required concerning the overall scope, environmental baseline and topics contained in the EIA. If any changes are considered significant, which is likely, then a new EIA Scoping Opinion may be required. It is imperative that before any EIA is undertaken that the description of the development that is being applied for is as accurate and firm as possible as this will form the basis for the environmental assessment.

Consequently, Braintree District Council (BDC) and ECC does not consider the proposal is sufficiently defined to enable a robust EIA to be undertaken at present.

Treatment of Alternatives – Undergrounding the entire route

With reference to paragraph 2.3.2, Essex County Council has ongoing concerns that judgements on alternative options are being made with primary reference to cost. The EIA should primarily be concerned with the relative environmental merits of different options, without making comment on National Grid's statutory duties. This is the requirement of the EIA regulations.

The County Council acknowledges that National Grid has to second guess what the regulator might consider what the "efficient costs of delivering the scheme [are] from consumers". However, any proposed scheme must be acceptable in planning terms having regard to the main alternatives. Setting the need case for the project to one side the electrical benefits

provided by this project can be provided by other means, for example by undergrounding of the connection in its entirety (which is supported by the County Council). The principal argument against this is cost; and the Secretary of State should therefore be presented with sufficient information to understand the environmental impact of undergrounding the entire route. It is the County Council impression that NG do not intend to consider the environmental impacts of a totally underground option.

With reference to paragraph 2.7.6 of the Scoping Report, SCC also has concerns that National Grid are misapplying paragraph 2.8.9 of National Policy Statement EN-5. That paragraph sets out the circumstances in which PINS may refuse an overhead line in favour of an underground solution. It does not state that National Grid should only propose an underground solution in these circumstances, which is the way the paragraph has been applied by National Grid to date. Neither does EN-5 state that undergrounding should *only* be proposed in “particularly sensitive areas” (paragraph 2.8.2), which again National Grid appears to treat as a prerequisite criteria. It is noted that PINS should consider the “additional cost of any undergrounding” (paragraph 2.8.9), but the National Policy Statement does not identify this as an overriding argument to be afforded any particular weight.

It is clear from National Grid's interpretation that it is seeking to deliver the absolute minimum of undergrounding to satisfy the policy tests, without having regard to the actual impacts of the scheme (this expanded on below).

Undergrounding of Existing 400kV Underground Line

National Grid has for the first time, proposed to underground two sections of a line as part of an application (Dedham Vale AONB and the Stour Valley), which is welcomed, but more significant improvements to the landscape could be achieved. It is now apparent that National Grid is to be provided with an allowance from Ofgem (approx £500m) to reduce the visual impact of existing electricity transmission infrastructure in environmentally sensitive areas. Consequently, ECC considers that National Grid should also consider undergrounding the existing 400kV overhead line in Dedham Vale AONB, and the Stour Valley, whilst undergrounding the new line. The Stour Valley is subject to the aim of securing AONB status, and possesses many of the characteristics of an AONB. This would secure maximum landscape and visual improvement benefits in the most sensitive locations along the route.

Characteristics of Development, EIA Scoping and Statement of Community Consultation

National Grid updated its ‘Statement of Community Consultation’ in November 2011, to be implemented for Stages 2 and 3, which includes the consideration of the merit for undergrounding sections and the selection of a preferred substation site west of Twinstead Tee. The adopted SOCC also states that parish councils (either whole or in part) within 1km of the outer edge of the chosen route corridor and within a 1km radius of any site for associated infrastructure development will be consulted. The SOCC (Appendix 2) also identifies the consultation zones in relation to the preferred corridor and the 3 potential substation sites, and the parish councils within these zones.

The EIA Scoping Report, Section 3 outlines the characteristics of the proposed development and states in paragraph 3.1.3:

‘Until the preferred substation site is confirmed (anticipated to be confirmed in Spring 2013) the potential substation sites identified within the Substation Study Areas A, B and C are included in the red line boundary (Figures 2 and 4.1 – 4.9)’

And paragraph 3.7.1

`This scoping report is based on all substation options within the Substation Study Areas (described at paragraphs 2.8.3 and 2.8.7), which are still subject to consultation.

As identified on Friday 15th March by Suffolk County Council and Essex County Council, a number of Parish Councils in the immediate vicinity of the proposed sub-station location were not identified as consultees and were not invited to comment on the scoping report. Whilst emails have now been sent to the Parish Council's concerned and they have been given an extension of the time limit to respond, this is only a total of 8 working days. This is considered an inadequate time period for Parish Councils to digest such a large and technical piece of information, to construct a response and to go through their own internal approvals process to send the response. As also set out in the letter from PINs to the Parish Councils, PINs still intend on sending their response to National Grid the day after the deadline for responses that they have given to the Parish Councils, in order to meet their own targets for a response in 42 days. This will give PINs less than 24 hours to revise their response in light of any Parish Council responses which is not considered a sufficient time period for PINs to give sufficient thought and weight to the comments of those affected Parish Councils.

The Council's are therefore concerned that the SOCC has not been properly implemented and that parish councils, potentially impacted upon by substation areas A and B have not been consulted upon with regards the Scoping Opinion. It appears that only those parish councils subject to the overhead line/cable corridor have been consulted on regarding the Scoping Opinion. There is some concern that National Grid may not be able to respond to the requirements of Section 37 of the Planning Act – specifically to produce a Consultation Report that shows how it has had regard to any relevant responses.

Socio economic issues

The continued approach by National Grid in relation to socio-economic matters is considered insufficient. It has to date constrained its approach to considering the economic impacts of the proposal on existing tourist related facilities and businesses, or the proximity of the overhead line to such facilities. National Grid has not considered or factored in the appreciation of the natural and historic beauty of the area into any of their assessment. There is clearly links between the visual quality of the environment and the potential for tourism. The presence of tourist related facilities is considered more incidental than the actual quality of the landscape. EN – 1, paragraph 2.2.27 states that energy infrastructure should contribute to the Government's wider objectives including sustainable development including the way energy infrastructure affects the well being of society and individuals.

Furthermore there are established techniques for measuring the impact of projects on more human issues such as health, wellbeing and visual amenity. One such means is the HM Treasury Guidance (the Green Book), Annex 2. These impacts are gaining more support from Ofgem, and are already being implemented in other transmission infrastructure projects. In fact Ofgem has stated:

'We agree with third party stakeholders that there is a potential role for consumer willingness to pay (WTP) studies, as well as other information on landscape quality and features of special interest, to inform NGET on the efficient level of different technologies when developing its proposals. However, it is ultimately for NGET to develop its proposals and the need for mitigation on a case by case basis by working with stakeholders during the planning process..'

The local authorities and amenity groups have been clear in their wish to see the WTP studies considered in this project. WTP is an important and valid counterweight to National Grid's overriding cost arguments for, amongst other things, not considering an entirely undergrounded route. It is hoped that a more balanced approach can be provided regarding

additional cost, environment and socio economic disbenefits of an overhead line. The NPPF identifies three strands to sustainable development, namely economic, social and environmental, and these need to be considered appropriately.

Sensitivity of Receptor (paragraph 4.1.9 – 4.1.11) – Stour Valley Cultural Significance

The Stour Valley is acknowledged by National Grid as having significant cultural significance of national importance with regards its landscape, which has been reflected in paintings by Gainsborough; Constable and Nash, and has very much contributed to their decision to underground this section of the route and move the Sealing End Compound southwards.

In the Connections Options Report, Consultation Feedback (October 2012), paragraph 9.2 National Grid acknowledge that the landscape in the Stour Valley is of more than local value; namely

- Cultural associations within Stour Valley
- Values of the Stour Valley expressed in the intention of the Dedham Vale AONB and Stour Valley Project to seek an extension of the AONB
- Scenic qualities and value of the landscape

Whilst the Stour Valley does not presently have any formal designation other than in terms of landscape character, the County Council recommends that it should be treated in any EIA as being of 'High Magnitude' of change from any baseline and of 'High Sensitivity' to the proposed development and anticipated effects. Whilst not presently designated as an AONB it contains the characteristics of an AONB, and has been subject to a 'Statement of Intent' to Natural England to extend the AONB westwards into the Stour Valley. Consequently, any decisions made as part of this project, if not considered appropriately, could damage the long term vision for this area. Clarification is sought that the Stour Valley will be treated as both 'High Magnitude' and 'High Sensitivity' in the EIA

Landscape and Visual Assessment – the Baseline for Assessment

National Grid has taken the view that the baseline includes the existing 400kV and 132kV overhead line between Burstall Bridge and Twinstead Tee, however the impact of these two lines is not considered within the Scoping Report. Consequently, it is unclear how the proposed development and its impacts can be measured from this baseline. Paragraph 5.2.2 of the Scoping Report further acknowledges that these two overhead lines influence the existing landscape character.

National Grid has adopted an approach referring to the scale of change, in that there is already an impact on the landscape from existing overhead lines, and any change will be less significant than if there were no overhead lines at all. In reality the change in those areas where an overhead line is being proposed is potentially more severe by removing a 132kV line with a larger and bulkier 400kV overhead line. Paragraph 5.6.20 states:

'The introduction of an overhead line into a view where similar structures are already present is more likely to result in a lower scale of change than the introduction of an overhead line into a view where there are no existing structures present.'

This approach does not appear to take into account the impact of both the existing 400kV and 132kV overhead line, rather the degree of change following the removal of the existing 132kV line. Paragraph 4.2.5 of National Policy Statement EN1 states;

'When considering cumulative effects, the ES should provide information on how the effects of the applicant's proposal would combine and interact with the effects of other development'

(including projects for which consent has been sought or granted, as well as those already in existence)'

Consequently, it does not appear that National Grid will be considering the impact of the existing 132 and 400kV overhead lines as part of the EIA.

It should also be noted that in areas where undergrounding is being proposed the landscape will still be impacted upon by the existing 400kV overhead line. Whilst it is acknowledged that undergrounding in the Stour Valley (and Dedham Vale AONB) is welcomed consideration should also be given to undergrounding the existing 400kV overhead line given the national cultural significance of the Stour Valley through its association with Gainsborough, Nash etc, and the ambition of the local authorities and amenity groups to seek AONB status for the area.

Reference is made throughout the Scoping Report to the potential impact on mature hedgerows and trees, the need for mitigation, and the acceptance of some loss. The use of Horizontal Directional Drilling is identified across key transport routes, rivers and sensitive designations of national and local importance. National Grid should also consider the use of an emerging technique known as 'mini HDD', which is being recommended in other infrastructure projects (eg East Anglia One) in order to minimise any impacts on sensitive landscape and historic features.

National Grid has recognised the national significance of the Stour Valley in cultural terms in relation to painters Constable, Gainsborough and Nash, and its sensitivity to electricity transmission infrastructure. This has already been acknowledged by NG in determining the undergrounding and relocation of a Sealing End Compound in the Stour Valley. However, it is unclear how these cultural associations will be considered within the landscape visual assessment.

Archaeological Assessment

ECC and BDC welcome the consultation undertaken to date by National Grid with the relevant local authorities.

As indicated there will be a requirement for the appropriate assessment of below ground archaeology; namely Geophysical Survey of sites; trial trench evaluation, reporting; and paleo-environmental assessment across flood plains. This will be required along the entire underground sections (Dedham Vale/Stour Valley), within the footprint of pylon bases, temporary compounds/laydown areas; Sealing End Compounds and potentially any substation along with their permanent access roads. ECC would expect the Written Scheme for the assessment; evaluation and reporting stage of this work to be agreed in advance, and submitted within the EIA.

In responding to the Connection Options Report the County Council stated its insistence that a comprehensive and detailed archaeological evaluation programme is undertaken in advance of any development, which would be followed by the detailed open area excavations that will result from the evaluation work. ECC would like to see archaeological evaluation (including intrusive trial trenching) undertaken to inform the EIA, wherever possible. In the first instance this could be targeted at known cropmark or existing sites where the presence of archaeological deposits is known. For all areas not evaluated there will need to be a significant time gap between any trial trenching undertaken at a later date and the construction programme to allow for appropriate large scale open area excavation to take place.

Following the evaluation, archaeological investigation will be required prior to development :

- This will comprise open area excavation of known sites with strip, map and excavation of the full working width (stripped easement) of the pipeline corridor where evaluation has not occurred, temporary compounds/lay-down areas, Sealing End Compound Sites; Substation Site; and permanent access roads.

The timetabling of any open area excavation can be based on the density of archaeological remains defined by the evaluation but should be undertaken well in advance of the start of development.

In addition, continuous archaeological monitoring and recording (a watching brief) of the full working width may also be specified in certain areas. In these areas, opportunity must be given to the contracted archaeologist to hand excavate any discrete archaeological features which appear during earth moving operations, retrieve finds and make measured records as necessary.

Any archaeological work that is required prior to (or immediately before) development, i.e. full excavation and/or monitoring, will need to be the subject of a further Written Scheme of Investigation.

The EIA should contain commitments for the long term legacy of this project, e.g. Post excavation programme, final publication report, museum deposition. In addition, the EIA should also contain proposals for the public benefit of the investigations, both during and after the fieldwork. Provision should be included for outreach activities, for example (and where appropriate), in the form of open days/guided tours for the general public, local schools, local councillors, local archaeological and historical societies and for local public lectures and/or activities within local schools. Provision should be included for local press releases (newspapers/radio/TV).

Assessment of the Heritage Assets and their Setting

Paragraph 7.4.17 refers to the setting of heritage assets. ECC and BDC seeks confirmation as to how the site survey will be undertaken in terms of either walking of the route or specifically visiting each individual heritage asset. It is possible to gain a different appreciation of setting from these two perspectives, and both need to be considered in relation to the impact to or from the planned infrastructure (eg pylon, overhead line, sealing end platform, sealing end compound, substation etc) and the heritage asset

The site visits to consider any impact on setting should also consider tranquillity; remoteness, sense of enclosure or any reference to cultural significance

Assessing the Impact on Protected Lanes

The proposed development of the underground route in the Stour Valley, Sealing End Compound and potential substation all refer to potential impacts on protected lanes, which are highly prevalent in the Stour Valley.

ECC has recently completed the reassessment of protected lanes in Braintree District using revised criteria developed by Essex County Council historic environment specialists. This has provided an appropriate evidence base for Policy ADM 54 – Protected Lanes, as contained in the Braintree Site Allocations and Development Management Plan, Draft, January 2013.

The policy highlights that the historic lanes of the District are a key element of the historic environment. It is suggested that in addition to the conservation of the historic lanes “banks, ditches and verges” other natural features such as the hedgerows and other structural

elements which make up the historic features of the lane should be considered to be covered by the designation. These additional elements have been included as part of the re-assessment of Protected Lanes in Braintree.

It is also important to note that protected lanes are designated not simply for their landscape and nature conservation character, but also their tranquillity, and this could be impacted upon by any new substation. For example, the preferred substation site (C2) is located in close proximity to protected lanes at Old Road and Watery Lane, which may be impacted upon by the constant transformer noise. Consequently, ECC and BDC would seek reference to the impact of noise on protected lanes and their 'tranquillity' in any substation noise assessment, as referred to in paragraph 12.3.4 (Noise and Vibration – Chapter 12).

Paragraph 10.3.1, Chapter 10 – Transport and Traffic identifies potential effects in the construction phase of the proposed development. ECC and BDC would seek to ensure that any potential impacts on protected lanes are avoided or identified at an early stage so that ECC and BDC can agree any mitigation measures. Reference should be made to the potential impact on protected lanes in this paragraph. Some reference is made to the physical effects on historic landscape in paragraph 7.3.1. National Grid should ensure that any relevant impacts are cross referenced with other relevant sections in the EIA, as indicated above.

Traffic and Transport

ECC welcomes the pre application discussion with National Grid regarding the drafting of the Scoping Report and the Abnormal Indivisible Load Access Study. The County Council and BDC would seek ongoing discussion in progressing the scheme with regards:

- Preparation of the Transport Assessment to support the Development Consent Order
- Continued assessment of roads, and their suitability, in relation to the delivery of any potential transformer and heavy loads during construction (bridges, culverts etc)
- Preparation of detailed traffic management plans, where necessary
- Access requirements to specific sites regarding Sealing End Compounds and any potential substation
- Provision of traffic flow data on specified routes and consideration of planned movements on existing flows
- Need for temporary road closures, diversions, widening
- Temporary closures to PROW
- Consultation regarding the potential impact on hedgerows, trees etc along construction traffic routes and their mitigation
- Detailed discussion regarding identified 'negotiability' issues (eg Halstead) and at locations where necessary works have been confirmed.

The construction phase of a substation requires the movement of a 169te transformer from source to any preferred site. Paragraph 10.3.2 should also refer to any potential impacts on bridges and culverts as identified in the Abnormal Loads Survey.

Biodiversity Offsetting

ECC and BDC are generally supportive of the approach outlined in this section, but would like to make some observations.

The County Council would seek National Grid to consider the use of the Defra Metric for Biodiversity Offsetting in order to calculate the appropriate levels of mitigation for this development.

Essex County Council is participating in 1 of 6 national pilots to trial Biodiversity Offsetting and as part of the pilot we are encouraging applicants proposing significant development schemes to utilise the Defra Metric as part of their approach to ecological impact assessment. The Metric provides a straightforward calculator to allow impacts upon habitats which have some biodiversity value to be measured in units or credits.

It is hoped that the use of the Metric will allow impacts to be established in a more transparent fashion and enable mitigation and compensation requirements to be more readily understood and more efficiently delivered. This is aimed at residual biodiversity impacts, i.e. after having taken into account legally protected sites and species. ECC's partners in the pilot, The Environment Bank, are able (free of charge) to support applicants through the new metrics process.

BDC would ask that any offsetting which takes place as a result of these calculations takes place in the immediate vicinity of the site.

More information on the Essex pilot is available here: <http://www.essex.gov.uk/Environment%20Planning/Environmental-Issues/local-environment/Wildlife-and-Biodiversity/Pages/Wildlife-and-Biodiversity.aspx>.

Abnormal Load Routes - Noise and Vibration (eg Halstead)

Within the Scoping Report there does not seem to be any consideration of the potential structural impact on buildings arising from the transportation of the 169te transformer and heavy load lorries, arising from vibration. National Grid has identified their preferred substation site at Butlers Wood, near Wickham St Paul. The preferred AIL route passes along the A131 through Halstead town centre, which is a designated conservation area and identified as an Environmental Improvement Area (Bridge Street/High Street) in the Braintree Site Allocations and Development Management Plan Draft, January 2013. ECC and BDC would recommend that a qualitative assessment is undertaken in Halstead and in other villages along the route to consider the potential impact of vibration effects from the transportation of any transformer and construction vehicles. Paragraph 12.3.1 should also refer to the transportation of a 169te transformer.

Horizontal Directional Drilling

Paragraph 3.5.3 – 400kV Underground Cables – reference is made to the use of Horizontal Directional Drilling to avoid environmental constraints along the underground cable route. The reference to using HDD to cross the River Stour; Sudbury to Bures railway line in the Stour Valley and a belt of woodland at Ansell's Grove (the revised underground route in the Stour Valley) is welcomed. However, consideration should also be given to using HDD to mitigate any damage to ancient hedgerows and the wide network of protected lanes in the Study Area, both in relation to the underground cable route and National Grid preferred substation location (Site C2 – Butlers Wood). ECC and BDC are concerned at the statement in the Substation Siting Study, paragraph 8.29, which states:

'Protected Lanes would be returned to their original condition once construction is complete and this would include replacement hedgerow planting, where required.'

Given the definition of protected lanes in the recent Braintree Study it is considered that any loss of hedgerow through cabling will have a permanent negative impact on the designated protected lane.

Digital Model and Photomontages

Whilst the use of a digital model and photomontages (paragraph 5.5.19 – 5.5.20) is welcomed it remains unclear, at what stage, these may be available to local residents and stakeholders in order that they can inform decision making. It has previously been alluded by National Grid that they will primarily be available to support the DCO, and form part of the Environment Statement. Concerns have been made to NG, both by local authorities, and the Twinstead and Stour Valley Community Forum, that these should be available to inform the decision making process (routing, substation etc) rather than in supporting the submitted application.

General Comments

Biodiversity and Nature Conservation – Chapter 6

Paragraph 6.2.17 should also note the verges along Delvyn's Lane are also designated as Local Wildlife Sites

Paragraph 6.3.1, bullet 1 – the loss of habitats and species through permanent habitat changes may also be as a result of alterations to hydrology, particularly along the easement of an underground cable.

Paragraph 6.7.1 – it should be noted that mitigation proposals for landscape and visual effects and historic environment could also have an effect on ecology.

Paragraph 7.4.6 – reference should also be made to the Protected Lanes Study (Details R Havis)

Consultation of the Scoping Report

4th Floor
One Kemble Street
London
WC2B 4AN

DX 37977 Kingsway
Tel : 020 7904 5079
Fax : 020 7904 5114
Email: colin.lyall@brbr.co.uk

Mr A Ridley
EIA and Land Rights Adviser
The Planning Inspectorate
3/18 Eagle Wing
Temple Quay House
2 The Square
Bristol
BS1 6PN

PINS RECEIVED
26 FEB 2013
NID

25 February 2013

Your ref:- 130218_EN020002_1658728

Dear Mr Ridley,

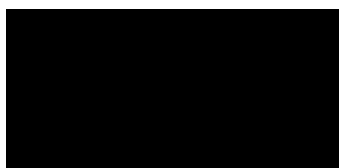
**PROPOSED BRAMFORD TO TWINSTEAD TEE 400KV CONNECTION (the project)
PROPOSAL BY NATIONAL GRID (the applicant)**

Further to your letter on behalf of the Secretary of State dated 18 February, we can confirm BRB (Residuary) Ltd. does not have any comments relating to this project.

As a consequence, it is considered BRB (Residuary) Ltd. are not a consultation body in this matter and can be removed from the consultation process.

Many thanks

Yours sincerely



On behalf of the Company Secretary
BRB (Residuary) Ltd

NB. Please be aware that under the provisions of the Public Bodies Act 2011, BRB (Residuary) Ltd. is due to be abolished later this year with a target date set for 30 September 2013.

C13/07

BURSTALL PARISH COUNCIL

Burstall.pc@btinternet.com

Clerk: Samantha Barber



Chairman: Mr Barry Gasper



Alan Ridley
EIA and Land Rights Advisor
National Infrastructure Directorate
The Planning Inspectorate
Temple Quay House
2 The Square
Bristol BS1 6PN

17 March 2013

Dear Mr Ridley,

**INFRASTRUCTURE PLANNING (ENVIRONMENTAL IMPACT ASSESSMENT) REGULATIONS
2009 SI 2263 (as amended) (the EIA Regulations) PROPOSED BRAMFORD TO TWINSTEAD TEE
400KV CONNECTION (the project) PROPOSAL BY NATIONAL GRID (the applicant)**

The following information is provided to the National Infrastructure Directorate as the response by Burstall Parish Council to the Bramford to Twinstead Tee Connection Project.

Introduction

Burstall village and its outlying residents border directly onto the Bramford Sub-Station and it is the closest village. Therefore, it is not only most affected by the proposed overhead line, but also the Sub-Station infrastructure itself and proposed expansion. National Grid and energy producers are currently proposing to massively extend the Sub-Station, which in itself would have a serious and unacceptable impact on the Burstall community and landscape. However, when considered in conjunction with a new overhead line in Corridor 2, would have an enhanced cumulative detrimental environmental effect on Burstall residents and landscape. There has been a lack of clarity regarding the impact of the high voltage line in conjunction with the developments at the Bramford Sub-Station in the Burstall area, presented by National Grid.

The proposals for the development of Bramford Sub-Station will directly impact Burstall residents and be cumulative with the proposed Twinstead Tee Connection Project. Both projects need to be considered together in terms of their environmental impact, since the Bramford site has now become overdeveloped.

Clearly it is now time for National Grid and energy suppliers to recognise that the Bramford facility is at maximum capacity and immediately halt any further development of the Bramford Sub-Station and use as a converter station. It is time to consider a new hub to accommodate the future energy requirements, in terms of the strategic requirement. This is because energy is now being diverted toward the Bramford Sub-Station instead of using distributed routes to consumers, which logic dictates. The facility has now reached such a size as to have become out of keeping and unacceptable in this rural location. Concentration of too much energy in one location is also strategically unsound.

National Grid claims that the landscape value in the Burstall area is 'marginal'. National Grid are reminded that the landscape has actually been 'marginalised' (their words not ours) by their industrialisation at Bramford Sub-Station and by the overhead lines already deployed. Further overhead lines will aggregate with those already deployed causing further significant disfigurement of the landscape and environmental damage.

Burstall Parish Council considers the only viable solution to a new power line requirement, if it is necessary at all, to be local undergrounding in the vicinity of Burstall and Hintlesham and more generally along the entire proposed route.

Burstall Parish Council wholeheartedly supports local opposition groups, Babergh District Council, other local and County Councils in their opposition to an overhead line and their position that undergrounding is the only viable option. Additionally, from the evidence provided by National Grid, it has become apparent that the need case for a new power line has not been made. Furthermore, with the passage of time, the requirement for a new power line is further receding.

National Grid Consultation Process

We consider that National Grid have not entered into a meaningful consultation process. Also there has been a lack of clarity regarding the impact of the high voltage line and Bramford Sub-Station in the Burstall and Hintlesham area. Burstall Parish Council, local communities and pressure groups have been given the illusion of being able to influence National Grid's decisions, but at community forums and local events, the views of Parish Councillors and residents have been consistently ignored.

A further problem with the consultation process is highlighted by the conclusions of the 'Selection of Preferred Corridor' Report. This report set out criteria by which the choice of a corridor would be made. Having made an overriding strong case for Corridors 3 or 4, using the specified criteria, corridor 2 was chosen by National Grid. Therefore, the consultation process has been flawed and biased from the outset.

Environmental Impact

The applicant's environmental impact assessment concerning flora, fauna, and heritage features remains a work in progress and there are currently no objections to the methodology adopted with regard to these features. However, this Parish Council reserves the right to comment further when the work is complete.

We wish to draw the Inspectorate's attention to the following specific issues and other impacts where we believe the scoping report is deficient in the following ways:

- Concerning the need case (2.2.3) statements in this paragraph require clarification. The generation data used in the reference source cited by the applicant has been superseded and at least one of the generators in this scenario - Sizewell C - cannot produce power in the timescale quoted. Our concern has recently been repeated in Parliament where the MP for South Suffolk asked the Minister of State:
- "Does my Hon. Friend agree that it is very important to avoid incurring costs by building infrastructure that is not needed? Is he aware that the [National Grid](#) proposal to construct overhead pylons across Suffolk was based on the assumption of early completion of new nuclear power stations at Sizewell and completion of a large number of offshore wind farms, none of which is certain to be built? Does he agree, therefore, that the proposal should now be deferred?" (*Citation: HC Deb, 14 March 2013, c455*)
- Noise and vibration should not be summarily scoped out (12.3.6). Residents close to towers in other parts of the UK do not agree with the noise assessment provided in this Scoping Report regarding new types of single insulator and the claims made in the Report should be independently substantiated.
- The evidence concerning vibration - especially with regard to very low frequency harmonics - from sub-stations should be considered in respect to the geology of the area, not merely scoped out. (12.3.11)
- Visual amenity impact has been considered almost exclusively in terms of magnitude of change. Insufficient consideration has been given to cumulative impact. This impact should be considered with regard to the

relationship of the proposed new line with the existing transmission line and also with regard to the resultant lines and other related works, namely the extensive development of the Bramford Sub-Station.

- Concerning Chapter 5 and information in paragraph 5.1, the description of the consultation is incomplete or subjectively reported. As noted above, detailed written evidence has been supplied by amenity groups, parish councils and individuals that is relevant to this section. The report on the consultation in this chapter appears to be limited to one meeting with a small selection of special interest organisations.
- Chapter 13 - Socio-economics and land use:
- The grounds proposed for scoping out socio-economic impacts are insufficient.
- National Grid quotes (13.4.3) the National Policy Statement, EN1 - “little weight should be given to socio-economic impacts that cannot be supported by evidence.”
- National Grid then uses this statement as a reason for scoping out property values.
- Evidence concerning house prices is complex, subject to academic review and cannot be pre-judged at this scoping stage. It is also just one interrelated element in the socio-economic assessment.
- Panel findings are reported for the Rookery South Recovery Facility. That project is not comparable with the Bramford to Twinstead project and the panel’s decision is therefore used out of context. It should also be noted that the panel paid close attention to specific concerns raised by their parish councils.
- Furthermore, NPS EN5 2.8.9 states consent should only be refused for overhead line proposals in favour of an underground or sub-sea line “if it is satisfied that the benefits from the non-overhead line alternative will clearly outweigh any extra economic, social and environmental impacts and the technical difficulties are surmountable.”
- It is thus incumbent on the developer to consider fully all the balancing factors involved. Best practice throughout Government and more recently being developed by National Grid itself places an evidential monetary valuation on visual character of the natural environment. National Grid has been provided with ample reference material on this matter but this is not adequately represented in this Scoping Report.
- Concerning the use of data, the division of geographic areas in the socio-economic section of the report means that the cumulative impact of this linear project on the region as a whole is not fully assessed. Tourists, visitors and residents do not experience one artificially bordered Study Area in isolation. There are rural tourist routes, cycle paths and interconnecting paths that link each Area and provide a unified experience. A power line is thus dissimilar to a waste facility or wind turbine. While it is necessary for practical reporting reasons to divide the area, the scoping report fails to then take account of the ‘bigger picture’ and deal with the impact holistically.
- 5.1 Onwards - The description of the consultation is incomplete. Detailed written evidence has been supplied by amenity groups, parish councils and individuals, all of which is relevant to this section. The report on the consultation in this chapter is limited to one meeting with a small selection of special interest organisations.

Last, but by no means least, throughout the Report impact on visual amenity has been considered almost exclusively in terms of magnitude of change. Insufficient consideration has been given to cumulative impact. This impact should be considered with regard to the relationship of the proposed new line with the existing transmission line - including at points where the proposed line would diverge so far from the existing 400KV line that baseline conditions would alter substantively (as in Study Area AB)- and also with regard to other related works; namely the extensive and highly visible development of the Bramford Sub-Station.

Yours sincerely

B C Gasper

Chairman – Burstall Parish Council

From: [Thomas Bender](#)
To: [Environmental Services](#)
Subject: Confirmation of no comments
Date: 22 February 2013 14:59:26

Proposed Bramford to Twinstead TEE 400KV Connection

Proposed A160/A180 Port of Immingham Improvement

I can confirm that we do not have any comments on the two projects at this stage of the planning process.

Best regards

Thomas Bender

Thomas Bender

Design Council Cabe Senior Advisor | **Cabe @ Design Council** | Angel Building | 407
St John Street | London | EC1V 4AB | m: | t: 020 7420 5234 | f: 020 7420 5300 |

www.designcouncil.org.uk | [map](#)

[Follow us on Twitter](#) | [Find us on Facebook](#) | [Join our group on LinkedIn](#)



Castle Hedingham Parish Council and Burial Board

Mrs Claire Waters
Clerk to the Parish Council
Telephone [REDACTED]
E.Mail: castlehedinghamparishclerk@gmail.com



To:
Alan Ridley
EIA and Land Rights Advisor
Major Applications & Plans
The Planning Inspectorate
Temple Quay House
2 The Square
Bristol BS1 6PN

21 March 2013

Dear Mr Ridley

National Grid Bramford to Twinstead Tee Connection Project: Scoping Opinion

We have been notified of our role as statutory consultees in the above project, and would like to make our views known about the process of consultation as well as the content of the proposals.

Process

- We note that in 2012 Essex County Council reported that Parish Councils in the Braintree area had not been recognised as statutory consultees, and we question why it took so long to correct this omission. Until very recently, the majority of information received by Castle Hedingham Parish Council has been second-hand, confused and contradictory.
- The project continues to be named “Bramford to Twinstead Tee”, which does not clearly represent the scope of the work. The piecemeal nature of the project development and the misleading title has not made it clear to residents of Castle Hedingham that they will be directly affected by the substation proposals.
- Essex County Council reported in July 2012 that “the need for a potential substation located to the west of Twinstead Tee, near Castle Hedingham, appears to have been subsumed into the project following the Strategic Options Report (2009). There does not appear to have been a structured and transparent consideration of all potential substation options.” We support this view.
- In particular, we believe that the option of building a substation next to the existing one in Braintree and cabling underground to the connection point has been discounted by National Grid without proper consideration, and has not been offered as a consultation option. The issue of cost has been used as the reason for this, but there is evidence that the figures have been inflated. Also, at a recent Community Forum, the option of using mole-bearing equipment to reduce cost and impact of undergrounding was dismissed by a National Grid engineer who said that they had not used this technique and had no

knowledge about its suitability. They did not offer to explore it which seems to confirm they are not prepared to deviate from the proposals they have laid before the public.

- We believe that a thorough cost-benefit analysis of all options has not been carried out, including a lack of assessment of Willingness to Pay for the option to site the substation near the existing one in Braintree and cable underground.
- Castle Hedingham is a conservation area, with many listed buildings and Hedingham Castle, which is a Grade 1 Scheduled Monument. We can find no record in the reports of English Heritage being consulted about the impact of the proposals on Hedingham Castle.

Content

1. We strongly believe that the proposals for a substation at either of the Castle Hedingham sites will have an adverse effect on the setting of Hedingham Castle, a Grade 1 Scheduled Monument. The scoping report does not adequately take into account this impact, stating that views of the substation from Castle Hedingham would be screened by mature trees. We note that the scoping report lists motorists as “low sensitivity”. We strongly disagree with this. Hedingham Castle is a notable landmark and can be viewed from some distance away on approaching the village from the north. A substation at either of the proposed Castle Hedingham sites would interrupt this view.
2. The research on tourism in the scoping report is not sufficiently detailed. Employment opportunities in our village, especially for young people, are limited and there is little public transport to enable people to travel to jobs outside the village. Hedingham Castle, as well as local pubs and restaurants rely on tourism and are key employers for our young people. Numbers of visitors are already reduced due to the recession and any negative effect on the perception of our village by the introduction of a substation would only make this worse. In addition, many of our visitors use our footpaths which are well-regarded in the county. Views of a substation will reduce the appeal of these popular walking routes.
3. Land that is described as “arable” in the scoping report is an integral part of our local landscape which attracts the tourism which is so essential to our local economy.
4. We believe it is inappropriate to arbitrarily scope out the noise element and the effect on property value of a substation in our tranquil rural community. Both of these factors would have a significant socio-economic effect on our parishioners.
5. Despite the extensive research in the scoping report into biodiversity and nature conservation issues, it is disturbing to note that two lanes have been severely damaged by heavy equipment involved in the recent work on pylons. The grassy surface of an ancient bridleway has been destroyed and the lane is no longer suitable for exercising horses. In addition both lanes have had the grassy wild flower banks on either side gouged out. The approach to proposed substation site B is via a lane with a protected verge. We do not believe that the work can be completed without damage to our valued landscape. We also feel that the term “temporary effects” is misleading – if an ancient hedgerow is destroyed, that is a permanent effect since it can only be replaced by a new one.
6. National Grid claim that the substation wherever it goes will be screened by trees and planting but this takes time. The initial impact on the landscape will be severe and certainly unacceptable within the castle environs or at the railway. Trees take a long time to grow so any visual impact will only be reduced in 50-100years.
7. We note that the proposed substation A site seems unlikely due to difficulties reinforcing a bridge in our neighbouring village of Gosfield. We believe that the transport assessment of access to all three substation sites is overoptimistic. In particular, our nearest town of Halstead is already in decline, and will suffer badly from heavy construction traffic. The main road is a high street shopping area, and is not equipped to deal with large vehicles. We would also question the ability of the transformer delivery to negotiate the mini-roundabouts and church wall at the top of the high street.

8. Given the above points, we believe that the option of adding a new substation to the existing site at Braintree would alleviate these environmental, socio-economic and transport issues. We do not understand why this has been dismissed by National Grid without reasonable consideration.

Yours sincerely

Claire Waters
Parish Clerk

Chattisham and Hintlesham Parish Council

37 Bentley Lane, Belstead, Ipswich IP8 3LX

Clerk: Mrs Samantha Barber

Chairman: Mrs Stephanie Coupland

Tel: [REDACTED]

The Planning Inspectorate

3/18 Eagle Wing

Temple Quay House

2 The Square, Bristol

18th March 2013

Dear Mr Ridley,

INFRASTRUCTURE PLANNING (ENVIRONMENT IMPACT ASSESSMENT) REGULATIONS 2009 SI 2263 (as amended) (the EIA Regulations) PROPOSED BRAMFORD TO TWINSTEAD TEE 400KV CONNECTION (the project) PROPOSAL BY NATIONAL GRID (the applicant)

The applicant's environmental impact assessment concerning flora, fauna, and heritage features remains a work in progress and there are no objections to the methodology adopted with regard to these features. The Council reserves the right to comment further when the work is complete, although we would highlight that there are several inaccuracies in the base line data gathered by National Grid. We also wish to record that we do not concur with the conclusions reached in the applicant's Connection Options Report and subsequent Feedback Report.

We wish to draw the Inspectorate's attention to the following specific issues:

We note National Grid's Scoping Report highlights an ongoing discussion with English Heritage concerning Grade 1 listed Hintlesham Hall in Study Area AB (Scoping Report paragraph 2.7.5) and that the route option had not been agreed at the time of submitting the Scoping Report. National Grid has subsequently published its decision concerning its preferred route in Study Area AB. The Council does not consider this subject 'closed', especially with regard to the manner in which impact assessment methodology has been applied. The Council believes that the relevant correspondence should have been made available to the Planning Inspectorate in the context of the EIA Scoping Report and regrets that the Inspectorate has not been asked to scrutinise the relevant documents as part of the Report. The Council proposes that now National Grid have published its decision on the route through study area A/B, the Planning Inspectorate should request National Grid to resubmit the EIA Scoping Report showing the correct extent of the proposed development.

With regard to other impacts we believe the scoping report is deficient in the following ways:

Chattisham and Hintlesham Parish Council

37 Bentley Lane, Belstead, Ipswich IP8 3LX

Clerk: Mrs Samantha Barber

Chairman: Mrs Stephanie Coupland

Tel: [REDACTED]

2

Concerning the need case (2.2.3) statements in this paragraph require clarification. The generation data used in the reference source cited by the applicant has been superseded and at least one of the generators in this scenario - Sizewell C - cannot produce power in the timescale quoted. Our concern has recently been repeated in Parliament where the MP for South Suffolk asked the Minister of State:

“Does my hon. Friend agree that it is very important to avoid incurring costs by building infrastructure that is not needed? Is he aware that the [National Grid](#) proposal to construct overhead pylons across Suffolk was based on the assumption of early completion of new nuclear power stations at Sizewell and completion of a large number of offshore wind farms, none of which is certain to be built? Does he agree, therefore, that the proposal should now be deferred?” (*Citation: HC Deb, 14 March 2013, c455*)

Noise and vibration should not be summarily scoped out (12.3.6). Residents close to towers in other parts of the UK do not agree with the noise assessment provided in this Scoping Report regarding new types of single insulator and the claims made in the Report should be independently substantiated.

Concerning Chapter 5 and information in paragraph 5.1, the description of the consultation is incomplete or subjectively reported. Detailed written evidence has been supplied by amenity groups, parish councils and individuals that is relevant to this section. The report on the consultation in this chapter appears to be limited to one meeting with a small selection of special interest organisations.

Chapter 13 - Socio-economics and land use

The grounds proposed for scoping out socio-economic impacts are insufficient.

National Grid quotes (13.4.3) the National Policy Statement, EN1 - “little weight should be given to socio-economic impacts that cannot be supported by evidence.”

National Grid then uses this statement as a reason for scoping out property values.

Evidence concerning house prices is complex, subject to academic review and cannot be pre-judged at this scoping stage. It is also just one interrelated element in the socio-economic assessment.

Panel findings are reported for the Rookery South Recovery Facility. That project is not comparable with the Bramford to Twinstead project and the panel’s decision is therefore used out of context. It should also be noted that the panel paid close attention to specific concerns raised by the parish councils.

Furthermore, NPS EN5 2.8.9 states consent should only be refused for overhead line proposals in favour of an underground or sub-sea line “if it is satisfied that the benefits from the non-overhead line alternative will clearly outweigh any extra economic, social and environmental impacts and the technical difficulties are surmountable.”

Chattisham and Hintlesham Parish Council

37 Bentley Lane, Belstead, Ipswich IP8 3LX

Clerk: Mrs Samantha Barber

Chairman: Mrs Stephanie Coupland

Tel: 

3

It is thus incumbent on the developer to consider fully all the balancing factors involved. Best practice throughout Government and more recently under development by National Grid itself places an evidential monetary valuation on visual character of the natural environment. National Grid has been provided with ample reference material on this matter but this is not adequately represented in this Scoping Report.

Concerning the use of data, the division of geographic areas in the socio-economic section of the report means that the cumulative impact of this linear project on the region as a whole is not fully assessed. Tourists, visitors and residents do not experience one artificially bordered Study Area in isolation. There are rural tourist routes, cycles paths and interconnecting paths that link each Area and provide a unified experience. A power line is thus dissimilar to a waste facility or wind turbine. While it is necessary for practical reporting reasons to divide the area, the scoping report fails to then take account of the 'bigger picture' and deal with the impact holistically.

Last, but by no means least, throughout the Report impacts on visual amenity have been considered almost exclusively in terms of magnitude of change. Insufficient consideration has been given to cumulative impact. This impact should be considered with regard to the relationship of the proposed new line with the existing transmission line - including at points where the proposed line would diverge so far from the existing 400KV line that baseline conditions would alter substantively (as in Study Area AB)- and also with regard to other related works; namely the extensive and highly visible development of the Bramford substation.

Yours sincerely

Mrs Stephanie Coupland

Chair Chattisham and Hintlesham Parish Council

UNCLASSIFIED



**The Coal
Authority**



INVESTOR IN PEOPLE

200 Lichfield Lane
Berry Hill
Mansfield
Nottinghamshire
NG18 4RG

Tel: 01623 637 119 (Planning Enquiries)

Email: planningconsultation@coal.gov.uk

Web: www.coal.decc.gov.uk/services/planning

The Planning Inspectorate
National Infrastructure Directorate

[By Email: environmentalservices@infrastructure.gsi.gov.uk]

6 March 2013

For the Attention of: Mr Alan Ridley – EIA and Land Rights Adviser

Dear Mr Ridley

EIA SCOPING OPINION

Proposed Bramford to Twinstead Tee 400KV Connection

Thank you for your consultation letter of 18 February 2013 seeking the views of The Coal Authority on the EIA Scoping Opinion for the above proposal.

The Coal Authority is a non-departmental public body sponsored by the Department of Energy and Climate Change. As a statutory consultee, The Coal Authority has a duty to respond to planning applications and development plans in order to protect the public and the environment in mining areas.

As the proposal is located off the defined coalfield, I can confirm that The Coal Authority has no specific issues that it would wish to see addressed in the Environmental Statement accompanying this proposal.

Yours sincerely

Mark Harrison

Mark E. N. Harrison *B.A.(Hons), DipTP, MRTPI*
Planning Liaison Manager

Protecting the public and the environment in coal mining areas

From: [Alan Slee](#)
To: [Environmental Services:](#)
Subject: RE: EN020002 - Bramford to Twinstead Tee Connection - Scoping Consultation
Date: 22 February 2013 13:53:41

Hi Alan,

**INFRASTRUCTURE PLANNING (ENVIRONMENTAL IMPACT
ASSESSMENT) REGULATIONS 2009 SI 2263 (as amended) (the
EIA Regulations)
PROPOSED BRAMFORD TO TWINSTEAD TEE 400KV CONNECTION
(the project)
PROPOSAL BY NATIONAL GRID (the applicant)**

130218_EN020002_1658728

ESP Ref: PE099489

OS X (Eastings) 586978
OS Y (Northings) 236564
Nearest Post Code CO10 7PD

Further to your email communication to E S Pipelines Ltd, ESP Networks Ltd, ESP Pipelines Ltd, ESP Electricity Ltd and ESP Connections Ltd dated 18 February 2013 I can confirm that our businesses have no comments at this stage

Regards,

Alan Slee
Operations Manager

DD 01372 227567
Mobile 07766 802070
Fax 01372 386203
www.espipelines.com



FAO: Mr Alan Ridley
The Planning Inspectorate
3/18 Eagle Wing
Temple Quay House
2 The Square
Bristol
BS1 6PN

Our ref: AE/2013/115767/01-L01
Your ref: 130218_EN020002_1658728
Date: 15 March 2013

Dear Mr Ridley

PROPOSED BRAMFORD TO TWINSTEAD TEE 400KV CONNECTION PROPOSED BY NATIONAL GRID.

Thank you for your EIA Scoping consultation letter of 18 February 2013 received in this office by email on the same date.

Environment Agency position

We have reviewed the submitted scoping report and have further comments to make in respect of chapters 7, 8 and 9 to ensure that the Environmental Statement (ES) will appropriately address the environmental issues we consider are of most importance for this proposal.

Our technical comments detailing the information we consider should be provided in the ES are provided below.

Chapter 7 - Biodiversity and Nature Conservation

The approach set out in chapter 7 for assessing the impacts of the proposal on biodiversity appears reasonable.

We are aware that extensive consultation has already taken place on this matter, including the formation of a biodiversity thematic group. Further we understand that various surveys and a Phase 1 Habitat assessment have also been carried out, the findings of which should be incorporated into the ES and influence any decisions made as to how and when works are carried out.

We are also pleased that paragraph 6.4.35 highlights that ecological enhancements measures will be sought in addition to just mitigation and compensation measures.

Chapter 8 - Geological Conservation

The approach set out in chapter 8 for assessing the impacts of the proposal on the water environment from the disturbance of existing ground contamination, as well as the potential for the release of contaminants during the works, appears reasonable.

Contaminated Land

Where land has been affected by contamination as a result of its previous use, sufficient information should be provided to satisfy the requirements of the NPPF. This should take the form of a Preliminary Risk Assessment (including a desk study, conceptual model and initial assessment of risk) and provide assurance that the risk to the water environment is fully understood and can be addressed through appropriate measures.

Pollution Control

It is pleasing to note that section 8.3 of the scoping report recognises mitigation will be required to prevent some of the proposed activities affecting groundwater and surface watercourses. This includes chemical and fuel spills; leaks from plant and machinery stored on site; the inappropriate disposal of foul water or site derived waste; silt runoff and construction of crossings

Chapter 9 - Flood Risk, Water Quality and Resources

The approach set out in chapter 9 for assessing the impacts of the proposal on flood risk and water quality appears reasonable.

Flood Risk

We are pleased the scoping report has acknowledged the need to consider flood risk and for a Flood Risk Assessment to be prepared. Of particular importance will be to ensure that any spoil from excavations will be placed in a way and location to ensure that it does not deflect flood flows or remove flood storage, therefore avoiding adverse flood risk implications. This has been acknowledged in paragraph 9.3.5 of the report.

Consideration should also be given to locating the substations in areas not at risk of flooding. This is particularly relevant to the substation study area A as parts of the site lies in the floodplain associated with the River Colne. The CIRIA document "Flood resilience and resistance for critical infrastructure" (C688) may be of interest.

Water Quality

We are pleased that paragraph 9.3.2 identifies a number of potential effects the construction phase of the project may have on the water environment. Of particular importance, and something not currently identified, will be the proposed methods for dealing with sediment from the dewatering of trenches and excavations to ensure that these do not cause pollution of watercourses.

This chapter also identifies that a qualitative assessment will be undertaken incorporating the objectives of the Water Framework Directive (WFD) and the issues set out for the watercourses under the Anglian RBMP so as to determine compliance with these objectives. The assessment will also identify any WFD mitigation measures proposed to improve the status of locally designated water bodies. This is very

welcomed.

Further, the applicant should be aware that it is a legal requirement to have a site waste management plan (SWMP) for all new construction projects worth more than £300,000. The level of detail that a SWMP should contain depends on the estimated build cost, excluding VAT. The applicant must still comply with the duty of care for waste. Because they will need to record all waste movements in one direction, having a SWMP will help them ensure they comply with the duty of care. Further information can be found at: <https://www.gov.uk/site-waste-construction-plans>.

Environment Agency Consents and other regulations

The applicant should be aware of the following consents which they will need to obtain from us prior to any works being carried out on site:

- Under the terms of the Water Resources Act 1991 and the Anglian Region Land Drainage & Sea Defence byelaws, prior written consent of the Environment Agency is required for any proposed works or structures, in, under, over or within 9 metres of the top of the bank of a "main river". We are pleased to see this has been acknowledged in section 9.4.8 of the EIA Scoping Report.

Consent will therefore be required where the proposed cable route crosses or is adjacent to a "main river" (Belstead Brook, River Brett, Ruver Box & River Stour). Consent will also be required for any substations, roads, etc over or adjacent to a main river.

Where this crossing is by directional drilling, the pipes and any protective surround to the pipes shall be laid at least one metre below the hard bed level of the river and shall remain at or below this level for a distance of not less than three metres from the brink of the river bank before rising at a slope no greater than 1 vertical in 1.5 horizontal. Substantial marker posts shall also be positioned on each bank of the river to indicate the location of the under-crossing and the nature of the works.

- The erection of flow control structures or any culverting of an ordinary watercourse requires consent from the Lead Local Flood Authority which in this instance is Suffolk County Council. It is best to discuss proposals for any works with them at an early stage.
- If any controlled waste is to be removed off site, then the site operator must ensure a registered waste carrier is used to convey the waste material off site to a suitably permitted facility.
- If any waste is to be used on site, the applicant will be required to obtain the appropriate waste exemption or permit from us. We are unable to specify what exactly would be required if anything, due to the limited amount of information provided at this stage.

The comments we set out above are without prejudice to future decisions we make regarding any applications subsequently made to us for our permits or consents for operations at the site.

We trust this advice is useful.

Cont/d..

Yours sincerely



Mrs Jo Firth
Senior Planning Liaison Officer

Direct dial: 01473 706016

Direct e-mail: jo.firth@environment-agency.gov.uk

End

4

From: [Kevin Fraser Principal Planner](#)
To: [Environmental Services;](#)
Subject: Bramford to Twinstead Tee - EIA Scoping Opinion
Date: 18 March 2013 16:50:34
Attachments: [BRAMFORD TO TWINSTEAD TEE 400Kv CONNECTION SCOPING REPORT.doc](#)

Dear Alan

Please find attached the officer response by Essex County Council with regards the EIA Scoping Opinion for the Bramford to Twinstead Tee 400kV Connection.

Please acknowledge safe receipt of these comments

Kevin Fraser

Kevin Fraser
Principal Planner
Environment, Sustainability and Highways
Sustainable Environment and Enterprise
Essex County Council
County Hall
Chelmsford
CM1 1QH
Tel 01245 437559
Ext 51559

BRAMFORD TO TWINSTEAD TEE 400Kv CONNECTION SCOPING REPORT, FEBRUARY 2013

Key Issues

1. Description of Development Proposal

Scope of the proposal

The overview of the proposal is outlined in paragraphs 1.1.1 – 1.1.4 of the Scoping Report. National Grid's preferred option to secure system security for UKPN is to build a new substation west of Twinstead Tee. It is acknowledged that this is currently the subject of consultation until early April 2013, with three potential locations being consulted upon. The EIA Scoping Report presently remains uncertain as to whether a new substation will be the option brought forward and subject to an EIA. Paragraph 3.7.1 states:

If a substation is confirmed as the preferred form of securing the 132kV connection supply, the ES will report on the environmental assessments undertaken for the preferred substation site.

A further document titled 'Distribution System Options Report' is also being consulted upon, which is seeking views on a wide range of options for maintaining system security to UKPN following the dismantling of the 132kV. Options being consulted upon include options for new overhead lines, undergrounding, new substations, and an expanded substation.

For example, Option 5 (Distribution System Options Report), considers the reinforcement of Braintree Substation including options for accommodating much of the cabling in carriageway along the A131 and A1017 to Rushley Green. Clearly, this option would require a review of activities to be considered during the construction phase, namely potential impact on the existing road network and its capacity to be accommodated.

Following consultation National Grid may consider that the preferred option of a new substation west of Twinstead Tee is not the most appropriate solution. Consequently, if an alternative solution is to be progressed then a review will be required concerning the overall scope, environmental baseline and topics contained in the EIA. If any changes are considered significant, which is likely, then a new EIA Scoping Opinion may be required. It is imperative that before any EIA is undertaken that the description of the development that is being applied for is as accurate and firm as possible as this will form the basis for the environmental assessment.

Consequently, the County Council does not consider the proposal is sufficiently defined to enable a robust EIA to be undertaken at present.

Treatment of Alternatives – Undergrounding the entire route

With reference to paragraph 2.3.2, Essex County Council has ongoing concerns that judgements on alternative options are being made with primary reference to cost. The EIA should primarily be concerned with the relative environmental merits of different options, without making comment on National Grid's statutory duties. This is the requirement of the EIA regulations.

The County Council acknowledges that National Grid has to second guess what the regulator (Ofgem) might consider what the "efficient costs of delivering the scheme [are] from consumers". However, any proposed scheme must be acceptable in planning terms having regard to the main alternatives. Setting the need case for the project to one side the electrical

benefits provided by this project can be provided by other means, for example by undergrounding of the connection in its entirety (which is supported by the County Council). The principal argument against this is cost; and the Secretary of State should therefore be presented with sufficient information to understand the environmental impact of undergrounding the entire route. It is the County Council impression that NG do not intend to consider the environmental impacts of a totally underground option.

With reference to paragraph 2.7.6 of the Scoping Report, the County Council also has concerns that National Grid are misapplying paragraph 2.8.9 of National Policy Statement EN-5. That paragraph sets out the circumstances in which PINS may refuse an overhead line in favour of an underground solution. It does not state that National Grid should only propose an underground solution in these circumstances, which is the way the paragraph has been applied by National Grid to date. Neither does EN-5 state that undergrounding should *only* be proposed in “particularly sensitive areas” (paragraph 2.8.2), which again National Grid appears to treat as a prerequisite criteria. It is noted that PINS should consider the “additional cost of any undergrounding” (paragraph 2.8.9), but the National Policy Statement does not identify this as an overriding argument to be afforded any particular weight.

It is clear from National Grid's interpretation that it is seeking to deliver the absolute minimum of undergrounding to satisfy the policy tests, without having regard to the actual impacts of the scheme.

Undergrounding of Existing 400kV Underground Line

National Grid has for the first time, proposed to underground two sections of a line as part of an application (Dedham Vale AONB and the Stour Valley), which is welcomed, but more significant improvements to the landscape could be achieved. It is now apparent that National Grid is to be provided with an allowance from Ofgem (approx £500m) to reduce the visual impact of existing electricity transmission infrastructure in environmentally sensitive areas. Consequently, ECC considers that National Grid should also consider undergrounding the existing 400kV overhead line in Dedham Vale AONB, and the Stour Valley, whilst undergrounding the new line. The Stour Valley is subject to the aim of securing AONB status, and possesses many of the characteristics of an AONB. This would secure maximum landscape and visual improvement benefits in the most sensitive locations along the route.

Characteristics of Development, EIA Scoping and Statement of Community Consultation

National Grid updated its ‘Statement of Community Consultation’ in November 2011, to be implemented for Stages 2 and 3, which includes the consideration of the merit for undergrounding sections and the selection of a preferred substation site west of Twinstead Tee. The adopted SOCC also states that parish councils (either whole or in part) within 1km of the outer edge of the chosen route corridor and within a 1km radius of any site for associated infrastructure development will be consulted. The SOCC (Appendix 2) also identifies the consultation zones in relation to the preferred corridor and the 3 potential substation sites, and the parish councils within these zones.

The EIA Scoping Report, Section 3 outlines the characteristics of the proposed development and states in paragraph 3.1.3:

‘Until the preferred substation site is confirmed (anticipated to be confirmed in Spring 2013) the potential substation sites identified within the Substation Study Areas A, B and C are included in the red line boundary (Figures 2 and 4.1 – 4.9)’

And paragraph 3.7.1

`This scoping report is based on all substation options within the Substation Study Areas (described at paragraphs 2.8.3 and 2.8.7), which are still subject to consultation.

It has been brought to the County Council attention that PINS did not originally consult the following parish councils in relation to the EIA Scoping Report:

Parish Councils where proposed associated infrastructure is potentially planned:

Substation Study Area A – Colne Valley – Great Yeldham Parish Council

Substation Study Area B – Delvyn's Lane – Gestingthorpe Parish Council and Castle Hedingham Parish Council

Parish Councils immediately neighbouring these parishes, and identified in the SOCC, 2011:

- Sible Hedingham
- Great Maplestead

The County Council is therefore concerned that the SOCC has not been properly implemented and that parish councils, potentially impacted upon by substation areas A and B have not been consulted upon with regards the Scoping Opinion. It appears that only those parish councils subject to the overhead line/cable corridor were originally consulted on regarding the Scoping Opinion. Following making this aware to PINS by SCC and ECC, a short extension of time has been provided to those parish councils (approx 8 days) not previously consulted by PINS. However, there is not appropriate time being given to enable the Scoping Opinion to be considered, discussed with councillors/community, and a response agreed through the relevant parish council reporting procedures. Furthermore, there will be minimal time for PINS to consider any representations by those parishes, prior to providing National Grid with their Opinion. Consequently, there is some concern that National Grid may not be able to respond to the requirements of Section 37 of the Planning Act – specifically to produce a Consultation Report that shows how it has had regard to any relevant responses by those `directly' affected by its development.

2. Socio economic issues

The continued approach by National Grid in relation to socio-economic matters is considered insufficient. It has to date constrained its approach to considering the economic impacts of the proposal on existing tourist related facilities and businesses, or the proximity of the overhead line to such facilities. National Grid has not considered or factored in the appreciation of the natural and historic beauty of the area into any of their assessment. There is clearly links between the visual quality of the environment and the potential for tourism. The presence of tourist related facilities is considered more incidental than the actual quality of the landscape. EN – 1, paragraph 2.2.27 states that energy infrastructure should contribute to the Government's wider objectives including sustainable development including the way energy infrastructure affects the well being of society and individuals.

National Grid has placed a great emphasis on cost in determining its alternative means of network reinforcement. It has relied on `judgement' to determine whether the social, environmental and economic impacts, measured `qualitatively, of overhead lines warrant the use of undergrounding. ECC considers that more work is required by NG to actually `quantify' the disbenefits of their scheme, and whether these exceed the additional cost of undergrounding.

Furthermore there are established techniques for measuring the impact of projects on more human issues such as health, wellbeing and visual amenity. One such means is the HM Treasury Guidance (the Green Book), Annex 2. This document would allow `the net value of a project to society as a whole' to be considered, taking account of impacts on health, well

being and visual amenity, and measured against capital costs of the project. These impacts are gaining more support from Ofgem, and are already being implemented in other transmission infrastructure projects. In fact Ofgem has stated:

'We agree with third party stakeholders that there is a potential role for consumer willingness to pay (WTP) studies, as well as other information on landscape quality and features of special interest, to inform NGET on the efficient level of different technologies when developing its proposals. However, it is ultimately for NGET to develop its proposals and the need for mitigation on a case by case basis by working with stakeholders during the planning process..'

The local authorities and amenity groups have been clear in their wish to see the WTP studies considered in this project. WTP is an important and valid counterweight to National Grid's overriding cost arguments for, amongst other things, not considering an entirely undergrounded route. WTP allows consumers to express in monetary terms the perceived environmental and socio-economic disbenefits of overhead lines. The NPPF identifies three strands to sustainable development, namely economic, social and environmental, and these need to be considered appropriately.

The County Council would wish to see National Grid maximise potential benefits to the local community in terms of potential jobs in the construction and operation phases of the project. Every effort should be made to secure local contractors and suppliers wherever possible.

3. Sensitivity of Receptor (paragraph 4.1.9 – 4.1.11) – Stour Valley Cultural Significance

The Stour Valley is acknowledged by National Grid as having significant cultural significance of national importance with regards its landscape, which has been reflected in paintings by Gainsborough; Constable and Nash, and has very much contributed to their decision to underground this section of the route and move the Sealing End Compound southwards.

In the Connections Options Report, Consultation Feedback (October 2012), paragraph 9.2 National Grid acknowledge that the landscape in the Stour Valley is of more than local value; namely

- Cultural associations within Stour Valley
- Values of the Stour Valley expressed in the intention of the Dedham Vale AONB and Stour Valley Project to seek an extension of the AONB
- Scenic qualities and value of the landscape

Whilst the Stour Valley does not presently have any formal designation other than in terms of landscape character, the County Council recommends that it should be treated in any EIA as being of 'High Magnitude' of change from any baseline and of 'High Sensitivity' to the proposed development and anticipated effects. Whilst not presently designated as an AONB it contains the characteristics of an AONB, and has been subject to a 'Statement of Intent' to Natural England to extend the AONB westwards into the Stour Valley.

Consequently, any decisions made as part of this project, if not considered appropriately, could damage the long term vision for this area. Clarification is sought that the Stour Valley will be treated as both 'High Magnitude' and 'High Sensitivity' in the EIA.

4. Landscape and Visual Assessment – the Baseline for Assessment

National Grid has taken the view that the baseline includes the existing 400kV and 132kV overhead line between Burstall Bridge and Twinstead Tee, however the impact of these two lines is not considered within the Scoping Report. Consequently, it is unclear how the

proposed development and its impacts can be measured from this baseline. Paragraph 5.2.2 of the Scoping Report further acknowledges that these two overhead lines influence the existing landscape character.

National Grid has adopted an approach referring to the scale of change, in that there is already an impact on the landscape from existing overhead lines, and any change will be less significant than if there were no overhead lines at all. In reality the change in those areas where an overhead line is being proposed is potentially more severe by removing a 132kV line with a larger and bulkier 400kV overhead line. Paragraph 5.6.20 states:

'The introduction of an overhead line into a view where similar structures are already present is more likely to result in a lower scale of change than the introduction of an overhead line into a view where there are no existing structures present.'

This approach does not appear to take into account the impact of both the existing 400kV and 132kV overhead line, rather the degree of change following the removal of the existing 132kV line. Paragraph 4.2.5 of National Policy Statement EN1 states;

'When considering cumulative effects, the ES should provide information on how the effects of the applicant's proposal would combine and interact with the effects of other development (including projects for which consent has been sought or granted, as well as those already in existence).'

Consequently, it does not appear that National Grid will be considering the impact of the existing 132 and 400kV overhead lines as part of the EIA.

It should also be noted that in areas where undergrounding is being proposed the landscape will still be impacted upon by the existing 400kV overhead line. Whilst it is acknowledged that undergrounding in the Stour Valley (and Dedham Vale AONB) is welcomed consideration should also be given to undergrounding the existing 400kV overhead line given the national cultural significance of the Stour Valley through its association with Gainsborough, Nash etc, and the ambition of the local authorities and amenity groups to seek AONB status for the area.

National Grid has recognised the national significance of the Stour Valley in cultural terms in relation to painters Constable, Gainsborough and Nash, and its sensitivity to electricity transmission infrastructure. This has already been acknowledged by NG in determining the undergrounding and relocation of a Sealing End Compound in the Stour Valley. However, it is unclear how these cultural associations will be considered within the landscape visual assessment.

Reference is made throughout the Scoping Report to the potential impact on mature hedgerows and trees, the need for mitigation, and the acceptance of some loss. The use of Horizontal Directional Drilling is identified across key transport routes, rivers and sensitive designations of national and local importance. National Grid should also consider the use of an emerging technique known as 'mini HDD', which is being recommended in other infrastructure projects (eg East Anglia One) in order to minimise any impacts on sensitive landscape and historic features.

The LVIA should be carried out and assessed in accordance with GLVIA 3rd edition, which will be published in early April 2013.

5. Archaeological Assessment

ECC welcomes the consultation undertaken to date by National Grid with the relevant local authorities.

As indicated there will be a requirement for the appropriate assessment of below ground archaeology; namely Geophysical Survey of sites; trial trench evaluation, reporting; and paleo-environmental assessment across flood plains. This will be required along the entire underground sections (Dedham Vale/Stour Valley), within the footprint of pylon bases, temporary compounds/laydown areas; Sealing End Compounds and potentially any substation along with their permanent access roads. ECC would expect the Written Scheme for the assessment; evaluation and reporting stage of this work to be agreed in advance, and submitted within the EIA.

In responding to the Connection Options Report the County Council stated its insistence that a comprehensive and detailed archaeological evaluation programme is undertaken in advance of any development, which would be followed by the detailed open area excavations that will result from the evaluation work. ECC would like to see archaeological evaluation (including intrusive trial trenching) undertaken to inform the EIA, wherever possible. In the first instance this could be targeted at known cropmark or existing sites where the presence of archaeological deposits is known. For all areas not evaluated there will need to be a significant time gap between any trial trenching undertaken at a later date and the construction programme to allow for appropriate large scale open area excavation to take place.

Following the evaluation, archaeological investigation will be required prior to development :

- This will comprise open area excavation of known sites with strip, map and excavation of the full working width (stripped easement) of the pipeline corridor where evaluation has not occurred, temporary compounds/lay-down areas, Sealing End Compound Sites; Substation Site; and permanent access roads.

The timetabling of any open area excavation can be based on the density of archaeological remains defined by the evaluation but should be undertaken well in advance of the start of development.

In addition, continuous archaeological monitoring and recording (a watching brief) of the full working width may also be specified in certain areas. In these areas, opportunity must be given to the contracted archaeologist to hand excavate any discrete archaeological features which appear during earth moving operations, retrieve finds and make measured records as necessary.

Any archaeological work that is required prior to (or immediately before) development, i.e. full excavation and/or monitoring, will need to be the subject of a further Written Scheme of Investigation.

The EIA should contain commitments for the long term legacy of this project, e.g. Post excavation programme, final publication report, museum deposition. In addition, the EIA should also contain proposals for the public benefit of the investigations, both during and after the fieldwork. Provision should be included for outreach activities, for example (and where appropriate), in the form of open days/guided tours for the general public, local schools, local councillors, local archaeological and historical societies and for local public lectures and/or activities within local schools. Provision should be included for local press releases (newspapers/radio/TV).

6. Assessment of the Heritage Assets and their Setting

Paragraph 7.4.17 refers to the setting of heritage assets. ECC seeks confirmation as to how the site survey will be undertaken in terms of either walking of the route or specifically visiting each individual heritage asset. It is possible to gain a different appreciation of setting from these two perspectives, and both need to be considered in relation to the impact to or from the planned infrastructure (eg pylon, overhead line, sealing end platform, sealing end compound, substation etc) and the heritage asset

The site visits to consider any impact on setting should also consider tranquillity; remoteness, sense of enclosure or any reference to cultural significance

7. Assessing the Impact on Protected Lanes

The proposed development of the underground route in the Stour Valley, Sealing End Compound and potential substation all refer to potential impacts on protected lanes, which are highly prevalent in the Stour Valley.

ECC has recently completed the reassessment of protected lanes in Braintree District using revised criteria developed by Essex County Council historic environment specialists. This has provided an appropriate evidence base for Policy ADM 54 – Protected Lanes, as contained in the Braintree Site Allocations and Development Management Plan, Draft, January 2013.

The policy highlights that the historic lanes of the District are a key element of the historic environment. It is suggested that in addition to the conservation of the historic lanes “banks, ditches and verges” other natural features such as the hedgerows and other structural elements which make up the historic features of the lane should be considered to be covered by the designation. These additional elements have been included as part of the re-assessment of Protected Lanes in Braintree.

It is also important to note that protected lanes are designated not simply for their landscape and nature conservation character, but also their tranquillity, and this could be impacted upon by any new substation. For example, the preferred substation site (C2) is located in close proximity to protected lanes at Old Road and Watery Lane, which may be impacted upon by the constant transformer noise. Consequently, ECC would seek reference to the impact of noise on protected lanes and their ‘tranquillity’ in any substation noise assessment, as referred to in paragraph 12.3.4 (Noise and Vibration – Chapter 12).

Paragraph 10.3.1, Chapter 10 – Transport and Traffic identifies potential effects in the construction phase of the proposed development. ECC would seek to ensure that any potential impacts on protected lanes are avoided or identified at an early stage so that ECC can agree any mitigation measures. Reference should be made to the potential impact on protected lanes in this paragraph. Some reference is made to the physical effects on historic landscape in paragraph 7.3.1. National Grid should ensure that any relevant impacts are cross referenced with other relevant sections in the EIA, as indicated above.

8. Traffic and Transport

ECC welcomes the pre application discussion with National Grid regarding the drafting of the Scoping Report and the Abnormal Indivisible Load Access Study. The County Council would seek ongoing discussion in progressing the scheme, and would like to raise the following points:

- ECC would need to be involved in the preparation of the Transport Assessment to support the Development Consent Order, and which should be informed by up to date

data. Additional surveys may be required and key junctions assessed to consider potential impacts once a substation site has been finalised

- The Scoping Opinion implies that delivery of the transformer and heavy goods will be made at night – any potential impacts on residents along the route will need to be considered in any assessment
- Continued assessment of roads, and their suitability, in relation to the delivery of any potential transformer and heavy loads during construction (bridges, culverts etc)
- Preparation of detailed traffic management plans, where necessary
- Access requirements to specific sites regarding Sealing End Compounds and any potential substation
- Provision of up to date traffic flow data on specified routes and consideration of planned movements on existing flows and the wider road network
- Need for temporary road closures, diversions, widening
- Temporary closures to PROW will need to be identified, and an effective communication strategy of closures considered
- Consultation regarding the potential impact on hedgerows, trees, protected lanes etc along construction traffic routes and their mitigation
- Detailed discussion regarding identified 'negotiability' issues (eg Halstead) and at locations where necessary works have been confirmed.
- ECC agrees that the cumulative impacts of other developments along the proposed AIL routes for the substation and other access routes need to be considered
- A condition survey should be undertaken for roads and PROW should be undertaken prior to commencement of development to ensure any deterioration can be mitigated appropriately
- Paragraph 10.2 – should also refer to the fact there are many roads in the project area which have weight restrictions, as these will impact upon access as part of the Transport Assessment
- Paragraph 10.3 should also refer to residential properties/areas in relation to on street parking, business deliveries
- Paragraph 10.3.3 – reference should also refer to buildings, especially since the proposed AIL route for the preferred substation site passes through Halstead
- Paragraph 10.5.1 – the significance of effect on the highway network should be considered on a site by site basis, as the DMRB guidance refers to the trunk road network and may be too strategic

The construction phase of a substation requires the movement of a 169te transformer from source to any preferred site. Paragraph 10.3.2 should also refer to any potential impacts on bridges and culverts as identified in the Abnormal Loads Survey.

A consistent approach is required regarding referencing the road network, namely the Highways Agency for the strategic network, and the County Councils for the rest of the network

9. Flood Risk, Water Quality and Resources

With reference to Table 9.1 last row; Essex County Council should also be consulted regarding consent for works in an ordinary watercourse.

The baseline sources of information listed in paragraph 9.4.4 should include ECC flood incidents maps.

Finally, it is proposed that Schedule 3 of the Flood and Water Management Act 2010 is commenced by April 2014. This will require National Grid to obtain drainage approval for any works affecting surface water and is in addition to planning permission. It will be an offence

to construct without drainage approval. If, however development consent is granted before this time, then no drainage approval would be required.

10. Biodiversity Offsetting

ECC is generally supportive of the approach outlined in this section, but would like to make some observations.

The County Council would seek National Grid to consider the use of the Defra Metric for Biodiversity Offsetting in order to calculate the appropriate levels of mitigation for this development.

Essex County Council is participating in 1 of 6 national pilots to trial Biodiversity Offsetting and as part of the pilot we are encouraging applicants proposing significant development schemes to utilise the Defra Metric as part of their approach to ecological impact assessment. The Metric provides a straightforward calculator to allow impacts upon habitats which have some biodiversity value to be measured in units or credits.

It is hoped that the use of the Metric will allow impacts to be established in a more transparent fashion and enable mitigation and compensation requirements to be more readily understood and more efficiently delivered. This is aimed at residual biodiversity impacts, i.e. after having taken into account legally protected sites and species. ECC's partners in the pilot, The Environment Bank, are able (free of charge) to support applicants through the new metrics process.

More information on the Essex pilot is available here: <http://www.essex.gov.uk/Environment%20Planning/Environmental-Issues/local-environment/Wildlife-and-Biodiversity/Pages/Wildlife-and-Biodiversity.aspx>.

11. Abnormal Load Routes - Noise and Vibration (eg Halstead)

Within the Scoping Report there does not seem to be any consideration of the potential structural impact on buildings arising from the transportation of the 169te transformer and heavy load lorries, arising from vibration. National Grid has identified their preferred substation site at Butlers Wood, near Wickham St Paul. The preferred AIL route passes along the A131 through Halstead town centre, which is a designated conservation area and identified as an Environmental Improvement Area (Bridge Street/High Street) in the Braintree Site Allocations and Development Management Plan Draft, January 2013. ECC would recommend that a qualitative assessment is undertaken in Halstead to consider the potential impact of vibration effects from the transportation of any transformer and construction vehicles. Paragraph 12.3.1 should also refer to the transportation of a 169te transformer.

12. Horizontal Directional Drilling

Paragraph 3.5.3 – 400kV Underground Cables – reference is made to the use of Horizontal Directional Drilling to avoid environmental constraints along the underground cable route. The reference to using HDD to cross the River Stour; Sudbury to Bures railway line in the Stour Valley and a belt of woodland at Ansell's Grove (the revised underground route in the Stour Valley) is welcomed. However, consideration should also be given to using HDD to mitigate any damage to ancient hedgerows and the wide network of protected lanes in the Study Area, both in relation to the underground cable route and National Grid preferred substation location (Site C2 – Butlers Wood). ECC is concerned at the statement in the Substation Siting Study, paragraph 8.29, which states:

'Protected Lanes would be returned to their original condition once construction is complete and this would include replacement hedgerow planting, where required.'

Given the definition of protected lanes in the recent Braintree Study it is considered that any loss of hedgerow through cabling will have a permanent negative impact on the designated protected lane.

13 Digital Model and Photomontages

Whilst the use of a digital model and photomontages (paragraph 5.5.19 – 5.5.20) is welcomed it remains unclear, at what stage, these may be available to local residents and stakeholders in order that they can inform decision making. It has previously been alluded by National Grid that they will primarily be available to support the DCO, and form part of the Environment Statement. Concerns have been made to NG, both by local authorities, and the Twinstead and Stour Valley Community Forum, that these should be available to inform the decision making process (routing, substation etc) rather than in supporting the submitted application.

General Comments

Biodiversity and Nature Conservation – Chapter 6

Paragraph 6.2.17 should also note the verges along Delvyn's Lane are also designated as Local Wildlife Sites

Paragraph 6.3.1, bullet 1 – the loss of habitats and species through permanent habitat changes may also be as a result of alterations to hydrology, particularly along the easement of an underground cable.

Paragraph 6.7.1 – it should be noted that mitigation proposals for landscape and visual effects and historic environment could also have an effect on ecology.

Paragraph 7.4.6 – reference should also be made to the Protected Lanes Study recently undertaken by ECC.

From: [&box_FPLplantprotection_conx,](#)
To: [Environmental Services;](#)
Subject: RE: EN020002 - Bramford to Twinstead Tee Connection - Scoping Consultation
Date: 05 March 2013 10:20:36
Attachments: [image003.png](#)

Thank you for your request for information about Fulcrum Pipelines Limited's pipes and equipment.

You will be pleased to know we can confirm Fulcrum Pipelines Limited do not have any existing pipes or equipment on or around the above site address.

Please note that other gas transporters may have plant in the area which could be affected by your proposed works.

We will always make every effort to help you where we can, but Fulcrum Pipelines Limited will not be held responsible for any incident or accident arising from the use of the information associated with this search. The details provided are given in good faith, but no liability whatsoever can be accepted in respect thereof.

If you need any help or information simply contact Cindy Cleasby directly on 0114 2804106. Or you can email us at FPLplantprotection@fulcrum.co.uk

CINDY CLEASBY
Design Engineer



FULCRUM

Tel: 0845 641 3010 ext: 4106

Direct Dial:

Email: Cindy.Cleasby@fulcrum.co.uk

Web: www.fulcrum.co.uk



FULCRUM NEWS

THE BAT CAVE SWITCHES TO GAS

Chester Zoo has turned to us to make the switch from fuel oil to cleaner natural gas heating at its famous walk-through bat cave. [Learn more.](#)

**Response to the Planning Inspectorate's call for opinion on
National Grid's Bramford to Twinstead Connection Project
Scoping Report**

from

**Great Henry, Little Henry. Middleton and
Twinstead Parish Council**

This is an initial response presented in a situation where there are ongoing developments in the proposals from National Grid, uncertainty and large amounts of information that need assimilation in order to provide meaningful response. Accordingly, the Parish Council reserve the right to update and revise this response and present an updated submission within the timescale for other Parish Councils (i.e. by 27th Feb 2013)

Executive Summary

This parish council considers the Scoping Report to be flawed in conception and too limited in the geographic area to be assessed. Arguably, the most coordinated location for substation equipment is excluded from the proposed EIA. That said, an area now discounted by NG is included.

The proposed EIA deals with the project area in a fragmented manner and fails to provide an appropriate overall (holistic) impact assessment for the whole project that brings all factors together. In so doing, it fails to properly consider or evaluate the environmental argument for the alternative solution of greatest mitigating potential or least environmental impact – underground transmission.

This Parish Council proposes that Willingness to Pay research is commissioned by NG to inform the EIA. This should be of a similar form to that commissioned by them for the undergrounding of existing transmission lines in designated and non designated landscapes. This proposal is designed to properly address the paucity of effective socio-economic assessment of the impact of the proposed development within the proposed EIA strategy.

The scoping out of key important aspects of environmental impact for tranquil rural areas is unacceptable. Those of particular import are sound and property value both of which are component parts of the prospective socio-economic cost of the proposals and development to our communities.

The EIA proposed only looks at mitigation and not potential for enhancements to the environment for which there is significant environmental and economic benefit potential. Nor does it examine properly the negative impact of the

mitigation measures. Some mitigation measures as outlined by NG would be alien to the prevailing landscape and bring their own environmental impacts.

Development options around the substation proposals exist that would remove the significant environmental detriment of existing pylons, particularly 132kv OHL between Twinstead and Rushley Green. This potential should be captured by the EIA and inform the final choice of strategy to replace the 132kv line from Belstead Brook to Twinstead Tee.

Input to NG's wider B2T consultation from English Heritage (EH) with respect to Hintlesham Hall already brings into question NG's assessments of visual and other impacts on their four point scale. EH argue that NG understate the environmental impact of their proposals in this area and yet the judgmental criteria used in this area must logically be the same as those used across the entire area affected by the Project. This brings the validity of the assessment method and magnitude determination across the whole consultation area into question.

Notes

2.8.2 EIA in the wrong place – areas already discounted for the proposed substation due to transport and environmental issues such as Castle Heddingham have been pointlessly left in.

Whereas:-

Braintree is arguably the most coordinated and economic location option for substation reinforcement that would be needed to replace the supply to be lost to the distribution network through removal of the 132kv line from Burstal Bridge to Twinstead Tee. Location of a substation at say Twinstead would make only 2/3 of the output useful to the wider distribution system. Locating it and integrating into Braintree Substation would make the all of the potential output available to the wider distribution network thus making this the coordinated and efficient location for this asset that could then deliver increased system security and flexibility. Thus the proposed EIA fails to cover an option that is key to National Grid delivering to the objectives laid out in National Policy and the Electricity Act. This option is identified as

Such a solution also makes possible significant environmental improvements to the visual amenity of the landscape through the removal of significant numbers of distribution system pylons and lines. Again, this key environmental benefit would be missed by the proposed EIA.

3.2.4 NG's assertion that a new substation would be required west of the T and east of Thaxted is wrong. There are alternative solutions including the Braintree (NG Option 5.1.2 in NG's recent substation options reports) option outlined above and also direct replacement of the 132 kv OHL to be removed with an underground cable from Burstal Bridge to Twinstead Tee. Both of these options offer significant visual amenity and socio-economic benefits and remove the need for a new substation in the countryside.

3.3.3 The land is in tourism use, not just arable. The natural beauty of the landscape is a key asset for the rural economy and the tourism and leisure industries. This asset is in common ownership and can be valued using methods that are being elucidated by Prof Dieter Helm amongst others. Thus the EIA should include a full valuation of the contribution to the wider rural economy that the land makes.

The EIA as proposed is too narrow in its valuation of the land to be valid. NG, being as European Law has it, "an emanation of the state" should be using Treasury Green Book principles to underpin many aspects of the EIA. Full cost benefit analysis should underpin the impact assessment and this must include all economic contributory aspects of the land.

4.8.1 Magnitude: The method proposed appears vulgar and non linear. Only 2 categories to cover all decision relevant impact levels that might attract mitigation. The method laid out does not enable a holistic approach to developing mitigation strategies that work in a coherent way, one area/aspect to another.

4.1.23 Local government's Core Strategy planning implications are not taken into account in substation specification. The EIA and the proposals that precipitate it seem to consider only that which was or is and not that which can reliably be predicted. Thus the local district council Core Strategy planning documents have not informed the development of future proof proposals. As a result, the proposed EIA is not able to capture likely developments, not able to guide better evolved development plans from NG, and misses other developments in the area to be served by the substation that could also have cumulative impacts.

4.2.1 insufficient time for stakeholders to respond to consultation on scoping.

With respect to the Planning Inspectorate's call for opinion on National Grid's Scoping consultation, the timescale for this consultation is utterly inappropriate with respect to many affected Parish Councils.

At over 300 pages of dense detail in textual and diagrammatic/map form, and with a high competence/awareness threshold needed for an appropriately well informed response. This is true in terms for both background understanding of the pylon/substation proposals and of the Scoping document. Developing a meaningful response by many affected PCs must be deemed impossible within the timescale allowed (4 weeks). We further note that a good number of Parish Councils have only been given 10 days to respond and this timescale does not permit any sensible integration of any views expressed by these PCs into PINS scoping opinion as only 24 hours or less will be available for PINS to do this.

The result is a significant devaluation of the whole planning process with the Parish Councils being disabled from defending the wider interests of their parishioners by time constraint. Such a situation makes the planning process

seen here nothing more than gestural.

It is abundantly clear from the dates involved that the Planning Inspectorate has recognized that they have FAILED to deal with the issue of obtaining scoping opinion from the relevant parishes in an appropriate and timely fashion. Responding to this request is very time consuming, challenging and complex. The current timescale will at best lead to the submission of under-researched plagiarism of the responses of others rather than a full appraisal and critical analysis leading to informed and reasoned response to such a significant document. And it is important that the scoping with respect to specific parishes is properly evaluated in localised detail in order to gauge the impact of failings and omissions in the Scoping Report on local communities an the wider rural areas and economy.

4.2.8 There is a clear comparative mismatch between whole route baseline and fragmented view of impacts failing to take in the bigger picture of the whole route.

We note that the model for receptors throughout the Scoping Report is predominantly static when the area that is its focus is subject to appreciation by dynamic receptors. Tourists, walkers and other leisure related receptors along with residents travel through the landscape. It is unclear how this EIA strategy will capture the impact of say travelling under several OHLs impacts peoples perception of the area and its environmental assets. An example is a tourist journey between the cultural heritage assets of and around Sudbury and those of Constable Country to the east wherein landscape impacted by OHLs and a proposed sealing end compound intervenes between areas of significant cultural capital and natural beauty.

We also note definition of *cumulative effects* to limited in scope and that within NG's document, it seems to link only known other developments and is not used in its fuller and wider sense to consider interactions between impacts, developments and the areas in which they occur.

5.2.89 The statements of distance of villages and settlements in this section is misleading. For example, Twinstead residences are only 350m from area C2 not 1 km as is suggested. 1km is the distance to the village church which is not a particularly relevant receptor location in this context.

5.6.1 Desktop surveying has proved to be too shallow to serve this development plan well. More effort needed to survey on site as desktop surveys have been shown to be insufficient for purpose of developing best routing solutions with respect to issues such as the location of the western sealing end compound in Area G.

5.6.25 We hold that assertions in this section are not true as best views out into the landscape are frequently from 1st floor windows. Therefore in table 6, listed receptors are understated in terms of sensitivity. Many workers jobs, especially tourism/leisure related are consequent of cultural associations and natural beauty of environment, issues that must constantly inform and give

rise to their employment.

Again, many determinations of value are historic/current with little consideration given to exploitable assets that could support future economic development.

12.3.4 Other noise sources should be included such as generators at substations. Mitigation of intermittence of solar and wind and the interaction of the two by the installation of large diesel generators at substations is expected to become common place. The potential therefore is for noise production by substations to increase with the move to more renewables. Such potential impacts should be scoped in.

Again, with respect to this section, potential for future predictable expansion should be included in both plans and EIA such that the EIA captures the likely real development and not just the currently proposed initial tranche of development.

13.4.3 Negative impacts on house values is a significant constituent part of overall socio-economic impact of a development and should be included whether or not it has in the past.

Whether they are considered by NG to be perceived or real, impacts of the proposed development on property values bring both socio-economic and wellbeing impacts and these should be captured by the EIA.

The community is wary of the use of the term "Professional Judgment" where it can lead to shallow desktop study or historically justified myopia. EIA must be amenable to validity testing of all assertions and a given determination cannot be justified by the notion that an expert view is unassailable or necessarily correct.

Mitigation alluded to or indicated by NG often describes a disguise that would draw attention to the development due to its alien nature in the landscape. Some mitigation simply would not work. An example would be that identified for substation site C2 where moving vehicles in winter would see through the blur of deciduous nearby planting to see more clearly the more distant proposed substation. Mitigation cannot be assumed to work adequately.

Tourism attractors are not site specific and can be area wide (diffused) and based on the ambience, nature and the tranquility of an area with no clear focus. Many receptors are a dynamic entity and movement through or repeated passing can impact perception of impact more greatly than a static receptor. Thus passing the proposed development can impact the perception of the countryside and environmental assets beyond.

13.4.7 considers only that which is and not the potential for greater economic activity supported by environmental assets. Understanding of and awareness of valuable cultural and environmental assets is constantly growing. It cannot be assumed that we know about all the assets within the study area. Desktop

surveys of tourism attractors can miss assets of import as has been evidenced in the Stour Valley with its Gainsborough cultural heritage assets.

13.4.9 Sourcing socio economic data from landowners misses the fact that non land owners derive benefit from assets in common ownership such as natural beauty.

13.5.5 Amenity Impact: The included table suggests that one very significant impact would be regarded as of negligible magnitude which is clearly untrue.

Section 15 Scoped out

Vibration in operation should be scoped-in as there is already evidence that the geology of the area propagates low frequency sound and that transformers unless totally decoupled from the ground will drive it at 50hz and its first harmonic, 100hz. Such sound output is difficult to mitigate.

There will be significant effects on the transport network if additional or replacement items that form AILs are delivered to and removed from the site and thus should be scoped in. Again we point to the fact that looking at developments outlined in LA Core Strategy documents suggests that the proposed substation sites may have to grow to serve demand and thus would necessitate the transport of further AILs to the selected site.

Areas under investigation for a substation along with those erroneously omitted (e.g. Braintree) from the EIA need to be scoped in for sound impacts. The sites under consideration (B & C now that A has been discounted by NG) are in extremely tranquil settings of great acoustic sensitivity whereas the site for perhaps the most coordinated solution (Braintree) is not. These sites should be contrasted in terms of sensitivity to sound from transformers and generators.

Property prices are an important part of overall socio-economic impact and should be scoped in.

Effects on the tourism economy should be scoped in and handled as part of cost benefit analysis in keeping with the principles of the Treasury Green Book. Potential cultural and environmental capital should be assessed such that potential economic development drivers, assets and resources are not nullified by the proposed development.

HID Policy - Land Use Planning
NSIP Consultations
Building 5.S.2, Redgrave Court
Merton Road, Bootle
Merseyside, L20 7HS

Your ref: 130218_EN020002_1658728
Our ref: 4.2.1.3457

HSE email: NSIP.applications@hse.gsi.gov.uk

FAO Alan Ridley
EIA and Land Rights Advisor
The Planning Inspectorate
3/18 Eagle Wing, Temple Quay House
2 The Square, Bristol
BS1 6PN

Dear Mr Ridley,

14th March 2013

**PROPOSED BRAMFORD TO TWINSTEAD TEE 400KV CONNECTION (the project)
PROPOSAL BY NATIONAL GRID (the applicant)
INFRASTRUCTURE PLANNING (ENVIRONMENTAL IMPACT ASSESSMENT) REGULATIONS 2009 SI 2263
(as amended) (the EIA Regulations)**

Thank you for your letter of 18th February 2013 regarding the information to be provided in an environmental statement relating to the above project. The HSE does not have any comments on the EIA however there are some observations which it would seem sensible to pass on to National Grid.

Major Hazard installations and explosives sites within the vicinity of the proposed development

The proposed development as is collectively referred to in the *Environmental Scoping Consultation Report*, (Reference 1980.352) and dated February 2013, involves the use of a combination of overhead line and underground cable along the connection route.

Figures 1, 2, 3 and 4.1 - 4.9 extracted from *Environmental Statement Scoping Report* have been used to determine HSE's advice for this development proposal and whether or not the development falls within any consultation distances.

- Figure 1 - Location Plan - location of the proposed development
- Figure 2 - Red Line Boundary - the indicative boundary for the DCO application including any permanent and temporary land take required
- Figure 3 - Proposed Connection Route - part of the proposed development
- Figures 4.1 to 4.9 - Substation Study Areas and Potential Sites - red line boundary of the potential sites for the proposed substation including any permanent and temporary land take required part of the proposed development
- Figure 4.1 – Red Line Boundary Substation A1; Figure 4.2 – Red Line Boundary Substation B1
- Figure 4.3 – Red Line Boundary Substation B2; Figure 4.4 – Red Line Boundary Substation B3
- Figure 4.5 – Red Line Boundary Substation B4; Figure 4.6 – Red Line Boundary Substation B5
- Figure 4.7 – Red Line Boundary Substation C2; Figure 4.8 – Red Line Boundary Substation C3
- Figure 4.9 – Red Line Boundary Substation C4

The proposed development falls within the Consultation Distances of two Major Hazard Pipelines operated by National Grid Gas (NGG):

- Transco Ref: 1683 Bramford / Langham and
- Transco Ref: 1688 Great Cornard / Fordham

Based on the application of PADHI+ and in the absence of further detailed information, HSE has assumed that this development once complete will consist only of workplaces containing less than 100 occupants in any building and less than 3 occupied stories. On this basis, it is unlikely that HSE would advise against the proposal.

Since the works will entail excavation and pilling for new structures, the HSE strongly recommends that at the earliest opportunity, the Developer liaise with the Pipeline Operator NGG for the reasons below:

- The pipeline operator may have a legal interest in the vicinity of the pipeline. This may restrict developments within certain proximity of the pipeline and
- To ensure that the safety of pipelines is not compromised by the works associated with the proposed development.

Please note that the above advice is based on HSE's existing policy for providing land-use planning advice and the information which has been provided. HSE's advice in response to a subsequent planning application may differ should HSE's policy or the proposed development change by the time the formal application is submitted.

Explosives

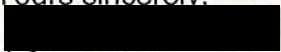
The proposed Bramford to Twinstead Tee Connection application does not impinge on the separation distances of any explosive site licensed by the HSE.

Electrical Safety

This project may create or have an impact on existing generation, transmission and distribution assets. It needs to satisfy general UK health and safety legislation (i.e. Health and Safety at Work etc Act 1974 and supporting regulations), and the proposed design and future operations must comply with the Electricity at Work Regulations 1989 and Electrical Safety, Quality and Continuity Regulations 2002, as amended. Generators, distributors, their contractors and others have defined duties in order to protect members of the public from the dangers posed by the electrical equipment used. HSE enforces the safety aspects of these regulations. If you have any doubts about the particular application of these regulations in terms of either the operation or construction of substations, overhead lines or underground cables, please contact Mr J C Steed, Principal Specialist Inspector (Electrical Networks), either at john.steed@hse.gsi.gov.uk or Rose Court GSW, 2 Southwark Bridge Road, London SE1 9HS.

Please send any further electronic communication on this project directly to the HSE's designated e-mail account for NSIP applications, the details of which can be found at the top of this letter. Alternatively any hard copy correspondence should be sent to:

Miss Laura Evans
NSIP Consultations
5.S.2 Redgrave Court
Merton Road
Bootle
Merseyside
L20 7HS

Yours sincerely,


Laura Evans
HID Policy - Land Use Planning



Health Protection Agency

**Centre for Radiation,
Chemical and
Environmental Hazards**

Chilton, Didcot
Oxfordshire OX11 0RQ

Tel +44 (0) 1235 822849
Fax: +44 (0) 1235 833891
www.hpa.org.uk/IPC

Alan Ridley
EIA and Land Rights Advisor
The Planning Inspectorate
3/18 Eagle Wing
Temple Quay House
2 The Square
BRISTOL BS1 6PN

15th March 2013

Your Ref: 130218_EN020002_16548728
Our Ref: EN_NG_130219_217

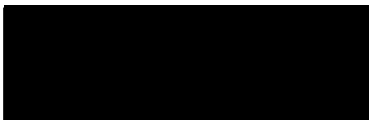
Dear Alan

**INFRASTRUCTURE PLANNING (ENVIRONMENTAL IMPACT ASSESSMENT)
REGULATIONS 2009 SI 2263 (as amended) (the EIA Regulations)
PROPOSED BRAMFORD TO TWINSTEAD TEE 400KV CONNECTION (the project)
PROPOSAL BY NATIONAL GRID (the applicant)**

Thank you for your letter dated 18th February 2013. HPA has reviewed the environmental impact scoping report and notes that the applicant is proposing to assess the EMFs from the new Bramford Substation and Twinstead Tee circuits, using the conditions set out in two of DECC's Codes of Practices 'Power Lines: Demonstrating Compliance with Public Exposure Guidelines' and 'Optimum Phasing of high voltage double-circuit Power Lines'. HPA will comment further as and when these assessments become available.

Please do not hesitate to contact me if you require any further clarification. In doing so, please send all correspondence to crce.ipccconsultations@hpa.org.uk to ensure we are able to deal with your queries efficiently.

Yours sincerely



Dr. Simon Mann
Head of Physical Dosimetry Department

CRCE.IPCCConsultations@HPA.org.uk

Please mark any correspondence for the attention of National Infrastructure Planning Administration.

From: [Jeppe, Aziza \(non CS\)](#)
To: [Environmental Services:](#)
Subject: Your Ref: 130218_EN020002_1658728
Date: 11 March 2013 12:29:03

Dear Alan Ridley,

INFRASTRUCTURE PLANNING (ENVIRONMENTAL IMPACT ASSESSMENT) REGULATIONS 2009 SI 2263 (as amended) (the EIA Regulations) PROPOSED BRAMFORD TO TWINSTEAD TEE 400KV CONNECTION (the project) PROPOSAL BY NATIONAL GRID (the applicant)

Thank you for your letter of 18 February 2013 seeking the Highways Agency's view regarding the environmental statement relating to the project.

We would want the environmental statement to reflect and assess the impact the construction traffic will have upon the Claydon Interchange on the A14 to West of Ipswich, particularly as there will be a proposed compound in close proximity to the interchange and precise detail of how it is intended to get the cables under the A14.

At this point I would like to inform you that a Technical Approval in accordance with BD2 (which is fundamentally a risk management procedure) would need to be sought by our Geotechnics team, without this the Highways Agency will not allow any work to go ahead.

Should you have any further queries please do not hesitate to contact me.

Yours sincerely

Aziza Jeppe

Highways Agency | Woodlands | Manton Lane | Bedford | MK41 7LW

Web: <http://www.highways.gov.uk>

Safe roads, reliable journeys, informed travellers

Highways Agency, an executive agency of the Department for Transport.

From: [Dot Lodge](#)
To: [Environmental Services](#)
Subject: Scoping Report - Infrastructure Planning Environmental Impact Assessment Bramford to Twinstead Connection
Date: 07 March 2013 16:22:30

Holton St Mary Parish Council considers that the following should be in the environmental statement:

- visual impact of the power lines in place
- visual impact caused by ongoing maintenance
- wildlife concerns

D Lodge (Parish Clerk)

From: [Michael Woods](#)
To: [Environmental Services;](#)
cc: [REDACTED]
["Michael Woods";](#)
Subject: FOR THE ATTENTION OF ALAN RIDLEY
Date: 18 March 2013 13:02:40
Attachments: [Scoping response from Layham D \(2\).doc](#)

Dear Alan Ridley

Attached is the response from Layham Parish (Suffolk) to the Bramford /
Twinstead Tee Scoping Report.

Thank you

Michael Woods

Proposed Bramford to Twinstead Tee 400kV connection EIA Regulations – Scoping Opinion.

Response from the group representing Layham Parish Council at the Community Forums.

As an opening comment, we note that there is a presumption in the report that the continuing work on the Environmental Impact Statement will be carried out by TEP. We are somewhat surprised that NGC's procedures do not require a re-tendering prior to such a major undertaking particularly in the light of the poor quality of some of the work done by TEP in the COR. This may unfortunately signal low expectations on the part of NGC.

We submit the following comments on the report as being particularly germane to our case for undergrounding the section through the Brett Valley. We do so in the context of two points of reference.

On the one hand we make reference to the environmental content of the COR, a document that we saw as deficient in many ways and against which we would hope to see a significant improvement.

On the other hand we would hope to see an EIA which provides a true assessment of the environmental impact of the proposal and is designed therefore with reference to the proposal and its location under review rather than merely to comply with the statutory requirements set down in 2009 EIA Regulations.

1. In the description of the existing environment (para 5.2.33.) the report perpetuates the errors of the COR in suggesting that views of are restricted to a few properties on the edge of Layham and other individual properties in the valley. We have consistently drawn attention to our assessment on the ground that people living in a large proportion (a large majority in one area) of the homes in Layham can see the present pylons. This is a major consideration and not the minor consideration it is made out to be.
2. The landscape continues to be parcelled up into sections rather than viewed in the large natural blocks that make up the experience on the ground. The Brett Valley is not seen and therefore, not treated, as part of the Stour, Box and Brett river system that it is.
3. When compared to the COR some attempt has been made to correct the lack of adequate definitions in the COR but the fundamental lexicographic sin is retained in defining a term with reference to itself. Thus, a 'moderate impact' is defined as something on which the impact is 'moderate'.
4. When compared to the COR some attempt has been made to improve on grading of receptors in terms of sensitivity both in the case of residential properties and to the more sensitive case of PRWs However the approach is still deficient in its failure to accurately record the number of receptors

5. In the case of residential receptors this is covered in our previous remark (1) above. In the case PRWs some attempt has been made to grade them by identifying long distance paths of national significance. However it is more important to consider them in terms of frequency of use. Thus there should be a distinction between paths whose prime purpose is recreational and those that are prime routes of communication between communities and parts of communities. Notable would be that along the B1070 between Upper Layham and Hadleigh and that past Layham Mill the only PRW of any sort connecting Upper and Lower Layham. It would be perfectly practical to conduct pedestrian traffic surveys of both these paths.
6. Although the description of the Brett Valley includes reference to its cultural heritage (para 5.2.30) that avoids the pejorative assessments of the COR there is no requirement to include cultural heritage in the scope of the report even in the section dealing with the impact on the Historic Environment which deals only with the archeologically and the built environment. This is perverse as we have the impression that the cultural heritage was significant factor in the decision to underground the Stour Valley section but not the Brett
7. NGC now has a policy statement on the environmental impact of its projects and the case for mitigation:

We have no preference for overhead or underground solutions for any of our projects. Our approach is always to work with all our stakeholders and local communities to find the right balance between keeping costs down for consumers with the need to minimise the visual impact of these new lines. This assessment will be done on a case by case basis to ensure that local considerations are fully understood and accounted for.

We would have thought it difficult to implement this policy without some attempt to quantify, or at least formalise, the costs versus benefits of mitigation in individual cases and compare this with some benchmarks in the implementation of this policy.

16 March 2013

From: [REDACTED]
To: [Environmental Services;](#)
Subject: Infrastructure Planning (EIA)
Date: 15 March 2013 10:07:45

To Secretary of State

From Debbie Hattrell – Clerk to Leavenheath Parish Council

Proposed Bramford to Twinstead Tee 400kv Connection
proposed by National Grid

This matter was discussed at the March Meeting of Leavenheath Parish Council.

Please note Leavenheath Parish Council has no comments on the information provided in the Environmental Statement relating to this project.

Regards
Debbie Hattrell
Clerk to Council

Date: 18 March 2013
Our ref: 78883
Your ref: 130218_EN020002_1658728



Alan Ridley
EIA and Land Rights Advisor
The Planning Inspectorate
3/18 Eagle Wing
Temple Quay House
2 The Square
BRISTOL
BS1 6PN

Customer Services
Hornbeam House
Crewe Business Park
Electra Way
Crewe
Cheshire
CW1 6GJ

T 0300 060 3900



BY EMAIL ONLY

Dear Mr Ridley

**Environmental Impact Assessment Scoping consultation (Regulation 15 (3) (i) of the EIA Regulations 2011):
PROPOSED BRAMFORD TO TWINSTEAD TEE 400KV CONNECTION (the project)
PROPOSAL BY NATIONAL GRID (the applicant)**

Thank you for seeking our advice on the scope of the Environmental Statement (ES) in your consultation dated **18 February 2013** which we received on the same date. Natural England is a non-departmental public body. Our statutory purpose is to ensure that the natural environment is conserved, enhanced, and managed for the benefit of present and future generations, thereby contributing to sustainable development.

Case law¹ and guidance² has stressed the need for a full set of environmental information to be available for consideration prior to a decision being taken on whether or not to grant planning permission. Appendix A to this letter provides Natural England's advice on the scope of the Environmental Impact Assessment (EIA) for this development. Should the proposal be amended in a way which significantly affects its impact on the natural environment then, in accordance with Section 4 of the Natural Environment and Rural Communities Act 2006, Natural England should be consulted again.

We would be happy to comment further should the need arise but if in the meantime you have any queries please do not hesitate to contact us. For any queries relating to the specific advice in this letter only please contact Alison Collins on 01284 735236. For any new consultations, or to provide further information on this consultation please send your correspondence to consultations@naturalengland.org.uk. We really value your feedback to help us improve the service we offer. We have attached a feedback form to this letter and welcome any comments you might have about our service.

Yours sincerely

Alison Collins
Land Use Operations Cambridge

¹ Harrison, J in *R. v. Cornwall County Council ex parte Hardy* (2001)

² *Note on Environmental Impact Assessment Directive for Local Planning Authorities* Office of the Deputy Prime Minister (April 2004) available from

<http://webarchive.nationalarchives.gov.uk/+/http://www.communities.gov.uk/planningandbuilding/planning/sustainability/environmental/environmentalimpactassessment/noteenvironmental/>

Annex A – Advice related to EIA Scoping Requirements

1. General Principles

Schedule 4 of the Town & Country Planning (Environmental Impact Assessment) Regulations 2011, sets out the necessary information to assess impacts on the natural environment to be included in an ES, specifically:

- A description of the development – including physical characteristics and the full land use requirements of the site during construction and operational phases.
- Expected residues and emissions (water, air and soil pollution, noise, vibration, light, heat, radiation, etc.) resulting from the operation of the proposed development.
- An assessment of alternatives and clear reasoning as to why the preferred option has been chosen.
- A description of the aspects of the environment likely to be significantly affected by the development, including, in particular, population, fauna, flora, soil, water, air, climatic factors, material assets, including the architectural and archaeological heritage, landscape and the interrelationship between the above factors.
- A description of the likely significant effects of the development on the environment – this should cover direct effects but also any indirect, secondary, cumulative, short, medium and long term, permanent and temporary, positive and negative effects. Effects should relate to the existence of the development, the use of natural resources and the emissions from pollutants. This should also include a description of the forecasting methods to predict the likely effects on the environment
- A description of the measures envisaged to prevent, reduce and where possible offset any significant adverse effects on the environment.
- A non-technical summary of the information.
- An indication of any difficulties (technical deficiencies or lack of know-how) encountered by the applicant in compiling the required information.

It will be important for any assessment to consider the potential cumulative effects of this proposal, including all supporting infrastructure, with other similar proposals and a thorough assessment of the 'in combination' effects of the proposed development with any existing developments and current applications. A full consideration of the implications of the whole scheme should be included in the ES. All supporting infrastructure should be included within the assessment.

2. Biodiversity and Geology

2.1 Ecological Aspects of an Environmental Statement

Natural England advises that the potential impact of the proposal upon features of nature conservation interest and opportunities for habitat creation/enhancement should be included within this assessment in accordance with appropriate guidance on such matters. Guidelines for Ecological Impact Assessment (EclA) have been developed by the Institute of Ecology and Environmental Management (IEEM) and are available on their website.

EclA is the process of identifying, quantifying and evaluating the potential impacts of defined actions on ecosystems or their components. EclA may be carried out as part of the EIA process or to support other forms of environmental assessment or appraisal.

The National Planning Policy Framework sets out guidance in S.118 on how to take account of biodiversity interests in planning decisions and the framework that local authorities should provide to assist developers.

2.2 Nationally Designated Sites: Sites of Special Scientific Interest (SSSIs)

The ES should thoroughly assess the potential for the proposal to affect designated sites. The development site includes the following designated nature conservation site:

- Hintlesham Woods SSSI

Further information on the SSSI and its special interest features can be found at www.natureonthemap.naturalengland.org.uk. The Environmental Statement should include a full assessment of the direct and indirect effects of the development on the features of special interest within Hintlesham Woods SSSI and should identify such mitigation measures as may be required in order to avoid, minimise or reduce any adverse significant effects.

The EIA scoping report identifies that *Possible effects on vegetation and bird activity in and around Hintlesham Woods SSSI during construction, operational and decommissioning phases of the project* will be considered (Chapter 6, section 6.3.1). Natural England considers that the impact assessment should include consideration of whether there will be any direct loss of woodland habitat, any felling or lopping of mature trees, any changes to the current woodland management, any changes to current bird breeding (species and abundance) which might arise from habitat loss/change and disturbance, any increase in fragmentation of the SSSI woodland habitat and any change to local drainage.

2.3 Regionally and Locally Important Sites

The EIA will need to consider any impacts upon local wildlife and geological sites. Local Sites are identified by the local wildlife trust, geoconservation group or a local forum established for the purposes of identifying and selecting local sites. They are of county importance for wildlife or geodiversity. The Environmental Statement should therefore include an assessment of the likely impacts on the wildlife and geodiversity interests of such sites. The assessment should include proposals for mitigation of any impacts and if appropriate, compensation measures. Contact the local wildlife trusts, geoconservation groups or Local Sites bodies in this area for further information.

2.4 Protected Species - Species protected by the Wildlife and Countryside Act 1981 (as amended) and by the Conservation of Habitats and Species Regulations 2010

The ES should assess the impact of all phases of the proposal on protected species (including, for example, great crested newts, reptiles, birds, water voles, badgers and bats). Natural England does not hold comprehensive information regarding the locations of species protected by law, but advises on the procedures and legislation relevant to such species. Records of protected species should be sought from appropriate local biological record centres, nature conservation organisations, groups and individuals; and consideration should be given to the wider context of the site for example in terms of habitat linkages and protected species populations in the wider area, to assist in the impact assessment.

The conservation of species protected by law is explained in Part IV and Annex A of Government Circular 06/2005 *Biodiversity and Geological Conservation: Statutory Obligations and their Impact within the Planning System*. The area likely to be affected by the proposal should be thoroughly surveyed by competent ecologists at appropriate times of year for relevant species and the survey results, impact assessments and appropriate accompanying mitigation strategies included as part of the ES.

In order to provide this information there may be a requirement for a survey at a particular time of

year. Surveys should always be carried out in optimal survey time periods and to current guidance by suitably qualified and where necessary, licensed, consultants. Natural England has adopted [standing advice](#) for protected species which includes links to guidance on survey and mitigation.

Natural England strongly advises that developers engage at the earliest possible opportunity with Natural England's Regulation function should protected species licences be considered likely to be required. Further information is obtained in our [guidance note](#).

2.5 Habitats and Species of Principal Importance

The ES should thoroughly assess the impact of the proposals on habitats and/or species listed as as 'Habitats and Species of Principal Importance' within the England Biodiversity List, published under the requirements of S41 of the Natural Environment and Rural Communities (NERC) Act 2006. Section 40 of the NERC Act 2006 places a general duty on all public authorities, including local planning authorities, to conserve and enhance biodiversity. Further information on this duty is available in the Defra publication '[Guidance for Local Authorities on Implementing the Biodiversity Duty](#)'.

Government Circular 06/2005 states that Biodiversity Action Plan (BAP) species and habitats, 'are capable of being a material consideration...in the making of planning decisions'. Natural England therefore advises that survey, impact assessment and mitigation proposals for Habitats and Species of Principal Importance should be included in the ES. Consideration should also be given to those species and habitats included in the relevant Local BAP.

Natural England advises that a habitat survey (equivalent to Phase 2) is carried out on the site, in order to identify any important habitats present. In addition, ornithological, botanical and invertebrate surveys should be carried out at appropriate times in the year, to establish whether any scarce or priority species are present. The Environmental Statement should include details of:

- Any historical data for the site affected by the proposal (eg from previous surveys);
- Additional surveys carried out as part of this proposal;
- The habitats and species present;
- The status of these habitats and species (eg whether BAP priority habitat);
- The direct and indirect effects of the development upon those habitats and species;
- Full details of any mitigation or compensation that might be required.

The development should seek if possible to avoid adverse impact on sensitive areas for wildlife within the site, and if possible provide opportunities for overall wildlife gain. The record centre for the relevant Local Authorities should be able to provide the relevant information on the location and type of BAP habitat for the area under consideration.

i) Ancient Woodland

Ancient woodland is an irreplaceable resource of great importance for its wildlife, its history and the contribution it makes to our diverse landscapes. Local authorities have a vital role in ensuring its conservation, in particular through the planning system. The ES should have regard to the requirements under the NPPF (Para. 118)² which states: *'Planning permission should be refused for development resulting in the loss or deterioration of irreplaceable habitats, including ancient woodland and the loss of aged or veteran trees found outside ancient woodland, unless the need for, and benefits of, the development in that location clearly outweigh the loss;'*

2.6 Contacts for Local Records

Natural England does not hold local information on local sites, local landscape character and local or national biodiversity priority habitats and species. We recommend that you seek further information from the appropriate bodies (which may include the local records centre, the local wildlife trust or other recording society and a local landscape characterisation document).

3. Designated Landscapes and Landscape Character

3.1 Nationally Designated Landscapes

As the development site is within Dedham Vale Area of Outstanding Natural Beauty (AONB). Full consideration should be given to the direct and indirect effects upon this designated landscape and in particular the effect upon its purpose for designation within the environmental impact assessment, as well as the content of the Dedham Vale AONB and Stour Valley Management Plan 2010-2015. Natural England expects that AONBs will be afforded the highest level of sensitivity similarly to National Parks (Chapter 5, section 5.6.8). AONBs, along with National Parks, are afforded the highest level of protection by national planning policy.

3.2 Landscape and visual impacts

Natural England would wish to see details of local landscape character areas mapped at a scale appropriate to the development site as well as any relevant management plans or strategies pertaining to the area. The EIA should include assessments of visual effects on the surrounding area and landscape together with any physical effects of the development, such as changes in topography.

Natural England advises that the location and screening of the sealing end compounds in the setting of Dedham Vale AONB should be given particular and careful consideration to ensure that the impact on the protected landscape and key visual receptors is kept to the minimum.

Natural England is satisfied with the proposals to assess visual impacts (see Chapter 5, sections 5.5.11 – 5.5.17 inclusive).

The EIA should include a full assessment of the potential impacts of the development on local landscape character using landscape assessment methodologies. We encourage the use of Landscape Character Assessment (LCA), based on the good practice guidelines produced jointly by the Landscape Institute and Institute of Environmental Assessment in 2002. LCA provides a sound basis for guiding, informing and understanding the ability of any location to accommodate change and to make positive proposals for conserving, enhancing or regenerating character, as detailed proposals are developed.

Natural England supports the publication *Guidelines for Landscape and Visual Impact Assessment*, produced by the Landscape Institute and the Institute of Environmental Assessment and Management in 2002 (2nd edition). The methodology set out is almost universally used for landscape and visual impact assessment.

In order to foster high quality development that respects, maintains, or enhances, local landscape character and distinctiveness, Natural England encourages all new development to consider the character and distinctiveness of the area, with the siting and design of the proposed development reflecting local design characteristics and, wherever possible, using local materials. The Environmental Impact Assessment process should detail the measures to be taken to ensure the building design will be of a high standard, as well as detail of layout alternatives together with justification of the selected option in terms of landscape impact and benefit.

The assessment should also include the cumulative effect of the development with other relevant existing or proposed developments in the area. In this context Natural England advises that the cumulative impact assessment should include other proposals currently at Scoping stage. Due to the overlapping timescale of their progress through the planning system, cumulative impact of the proposed development with those proposals currently at Scoping stage would be likely to be a material consideration at the time of determination of the planning application.

The European Landscape Convention places a duty on Local Planning Authorities to consider the impacts on landscape when exercising their functions. The assessment should refer to the relevant [National Character Areas](#) which can be found on our website. Links for Landscape Character Assessment at a local level are also available on the same page.

3.3 Heritage Landscapes

You should consider whether there is land in the area affected by the development which qualifies for conditional exemption from capital taxes on the grounds of outstanding scenic, scientific or historic interest. These are considered to be designated landscapes of national importance and the impact of your plan on these should be assessed where appropriate. An up-to-date list may be obtained at www.hmrc.gov.uk/heritage/lbsearch.htm and further information can be found on Natural England's landscape pages [here](#).

4. Access and Recreation

Natural England encourages any proposal to incorporate measures to help encourage people to access the countryside for quiet enjoyment. Measures such as reinstating existing footpaths together with the creation of new footpaths and bridleways are to be encouraged. Links to other green networks and, where appropriate, urban fringe areas should also be explored to help promote the creation of wider green infrastructure. Relevant aspects of local authority green infrastructure strategies should be incorporated where appropriate.

4.1 Rights of Way and Access Land

The EIA should consider potential impacts on access land, public open land and rights of way in the vicinity of the development. Appropriate mitigation measures should be incorporated for any adverse impacts. We also recommend reference to the relevant Right of Way Improvement Plans (ROWIP) to identify public rights of way within or adjacent to the proposed site that should be maintained or enhanced.

5. Soil and Agricultural Land Quality

Impacts from the development should be considered in light of the Government's policy for the protection of the best and most versatile (BMV) agricultural land as set out in paragraph 112 of the NPPF. We also recommend that soils should be considered under a more general heading of sustainable use of land and the ecosystem services they provide as a natural resource in line with paragraph 109 of the NPPF.

Soil is a finite resource that fulfils many important functions and services (ecosystem services) for society, for example as a growing medium for food, timber and other crops, as a store for carbon and water, as a reservoir of biodiversity and as a buffer against pollution. It is therefore important that the soil resources are protected and used sustainably.

It is likely that there will be considerable disruption to soils as a result of undergrounding the electricity transmission cables. The applicant should consider the following issues as part of the Environmental Statement:

1. The degree to which soils are going to be disturbed/harmed as part of this development and whether 'best and most versatile' agricultural land is involved.

This may require a detailed survey if one is not already available. For further information on the availability of existing agricultural land classification (ALC) information see www.magic.gov.uk. Natural England Technical Information Note 049 - [*Agricultural Land Classification: protecting the best and most versatile agricultural land*](#) also contains useful background information.

2. If required, an agricultural land classification and soil survey of the land should be undertaken. This should normally be at a detailed level, e.g. one auger boring per hectare, (or more detailed for a small site) supported by pits dug in each main soil type to confirm the physical characteristics of the full depth of the soil resource, i.e. 1.2 metres.
3. The Environmental Statement should provide details of how any adverse impacts on soils can be minimised. Further guidance is contained in the [*Defra Construction Code of Practice for the Sustainable Use of Soil on Development Sites*](#).

6. Climate Change Adaptation

The [*England Biodiversity Strategy*](#) published by Defra establishes principles for the consideration of biodiversity and the effects of climate change. The ES should reflect these principles and identify how the development's effects on the natural environment will be influenced by climate change, and how ecological networks will be maintained. The NPPF requires that the planning system should contribute to the enhancement of the natural environment "by establishing coherent ecological networks that are more resilient to current and future pressures" ([NPPF](#) Para 109), which should be demonstrated through the ES.

7. Cumulative and in-combination effects

A full consideration of the implications of the whole scheme should be included in the ES. All supporting infrastructure should be included within the assessment.

The ES should include an impact assessment to identify, describe and evaluate the effects that are likely to result from the project in combination with other projects and activities that are being, have been or will be carried out. The following types of projects should be included in such an assessment. (Subject to available information):

- a. Existing completed projects
- b. Approved but uncompleted projects
- c. Ongoing activities
- d. Plans or projects for which an application has been made and which are under consideration by the consenting authorities
- e. Plans and projects which are reasonably foreseeable, ie projects for which an application has not yet been submitted, but which are likely to progress before completion of the development and for which sufficient information is available to assess the likelihood of cumulative and in-combination effects.

POLSTEAD PARISH COUNCIL

Clerk: Dave Crimmin, [REDACTED]

Tel: [REDACTED] email: polsteadpc@btinternet.com

14th March 2013

The Planning Inspectorate
3 / 18 Eagle Wing
Temple Quay House
2 The Sqaure
Bristol
BS1 6PN

Dear Mr Ridley,

**INFRASTRUCTURE PLANNING (ENVIRONMENTAL IMPACT ASSESSMENT)
REGULATIONS 2009 SI 2263 (as amended) (the EIA Regulations)
PROPOSED BRAMFORD TO TWINSTEAD TEE 400KV CONNECTION (the project)
PROPOSAL BY NATIONAL GRID (the applicant)**

Thank you for your letter dated 18 February 2013. Polstead Parish Council wishes to make the following comments on the scoping report submitted by the National Grid prior to formulating its environmental statement relating to the above project.

The Polstead Parish area lies within the heart of the rural Suffolk countryside and relates to sections D and E as described within the scoping report. The natural beauty of the area is reflected by the Dedham Vale 'Area Of Outstanding Natural Beauty' which extends into the Parish, and is to be traversed by the new 400 kv cable. The Council has welcomed National Grid's proposal to incorporate an underground section of the new cable under the AONB within the Parish area, together with plans to use 'Horizontal Directional Drilling' to pass under Dollops Wood. However, the Council has a major concern that the new overhead 400kv cable will combine with the existing 400 kv line to form a highly intrusive visual barrier across the open countryside adjacent, and to the east of the AONB, far more intrusive than the existing combination of a 400kv and 132 kv lines. The National Grid appears to be totally committed to the notion that relatively distant views of pylons, even at 85 metres high, do not materially harm landscape views. But, even by its standards, its complete ignoring of the impact of the new line on the view north east from the B 1068 just east of Stoke by Nayland is extraordinary. The present view is scarred by the existing line of pylons and the second line will very much intensify this effect. (One only has to look at the impact a double line of large pylons between Sizewell and Wickham Market). But the only mention that the report makes is of the view of pylons to the north east of Stoke by Nayland, where undergrounding will prevent any intensification.

The last mention in the report, before the Polstead Heath section, of the distance of the new proposed line from the AONB is at para. 5.2.38 (page 41) where the Dedham AONB is said to be "approximately 1.5km to the south of the preferred overhead line alignment". This is about right at the point of leaving the Brett Vale section, just before the Layham gravel pit. From there, however, the report is silent. In fact, the distance of the new line from the AONB to the south closes to less than 800 metres as it crosses Millwood Road, down to less than 400 metres as it crosses Heath Road, until the proposed Sealing End Compound (SEC) will only be some 200 metres north of the AONB. For the last one and a half kilometres, therefore, as it approaches the AONB, the new line will be within one kilometre of the AONB and dominating its skyline to the north, as will the new terminating

POLSTEAD PARISH COUNCIL

Clerk: Dave Crimmin, [REDACTED]

Tel: [REDACTED] email: polsteadpc@btinternet.com

tower, to an even greater extent. The text of the report makes no mention of this important adverse impact on the AONB and so appears to be more than a little misleading

For this reason, the Council has a general comment that this major infrastructure construction project has significant adverse and cumulative impacts which have not been fully recognised by National Grid, evidenced by their proposal to only commit to an 8 km underground section out of the total 28.5km route.

The proposal to site a Sealing End Compound (SEC No.4, as detailed within the scoping report), a major industrial-type construction, within the heart of the Polstead community, adjacent to the AONB boundary is highly problematic. Para. 5.2.41 of the report treats Polstead Heath as a separate village and refers to the area around the green as “the village of Polstead”. In fact, of course, they are both part of the same community and within the same parish (the population of Polstead Heath is actually larger than that around the Green and Polstead Hill). There seems to be a wilful disregard in the report of the fact that the proposed SEC will intrude into the centre of the village and be constantly viewed by many of its inhabitants. Heath Road is a vital communicating link between these two main parts of the community and is used by those accessing the village hall, the community shop, the Cock Inn and Polstead Church, in addition to through traffic in each direction. The fact that the residents of Polstead Heath do not live in the Conservation Area does not mean that they are any less citizens of Polstead.

The SEC will be completely out of proportion to the area and, furthermore, need to be serviced by construction of a new permanent access road which will feed off the ‘public highway’; Heath road will be the primary feeder and is no more than a rural Lane. The closest ‘A’ road is the A1071 which lies up to 3km to the north of the area. The historic local routes, such as Heath Road, barely accommodate existing agricultural and domestic use, with little or no foundations, inadequate drainage, single lane operation and bordered by high banks and ancient hedgerows. The area is also crossed by several well used public rights of way which pass directly underneath the proposed cable routes. The references to footpaths and the use by cyclists of roads in this section of the report is cursory to say the least. At para. 5.2.40 the report says that “there are no long distance footpath routes, national or regional cycle routes in this immediate area”. This dismissive aside is an inadequate assessment. The Polstead footpaths are particularly popular with ramblers and casual walkers, especially the path through Dollops Wood, right beside the proposed SEC. The report itself says that 25% of visitors to the Dedham Vale AONB visit Polstead. A large proportion of these walk through Dollops Wood and follow adjoining paths in sight of the new overhead line and SEC. Although the South Suffolk cycle route does not go past the SEC site, a lot of cyclists prefer to divert up Polstead Hill and along Heath Road. At times in the summer it is more popular than the official route, being more interesting and scenic.

National Grid acknowledge the construction works will cause significant disruption to the local road network during the temporary construction works, however, the location of the SEC will result in a permanent increase of heavy vehicle traffic wholly unsuited to the network of lanes within the area – the Council feel that these specific site issues have not been correctly identified within the scoping report.

In summary, it is hard to imagine a worse site to select for the SEC, than the one National Grid have chosen. It really does seem calculated to do the most possible damage to this area and completely offset the advantages of undergrounding through the AONB.

POLSTEAD PARISH COUNCIL

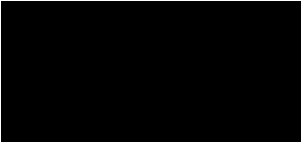
Clerk: Dave Crimmin, [REDACTED]

Tel: [REDACTED] email: polsteadpc@btinternet.com

As an alternative, and to avoid the above problems, the Council has suggested that National Grid relocate SEC No.4 further to the east, to the Layham quarry pit area, which National Grid acknowledge to be a well screened industrial site. This alternative location would significantly reduce the visual impacts on areas immediately adjacent to the AONB, and preserve the integrity of the Polstead community. Furthermore, this site is serviced by a dedicated high quality, 'heavy goods vehicle' standard route feeding directly off the A1071 which would avoid many of the problems associated with access to the SEC as defined within the current proposal.

The attached photographs (Nos. 1a & b) clearly show the problems associated with heavy traffic on Heath Road - traffic safety, and the on-going civil engineering issues, would be seriously compounded if National Grid choose to ignore these concerns. Photograph No.2 shows the preferential direct route to the alternative SEC site.

Yours sincerely



Dave Crimmin MILCM
Clerk to Polstead Parish Council

POLSTEAD PARISH COUNCIL

Clerk: Dave Crimmin, [REDACTED]

Tel: [REDACTED] email: polsteadpc@btinternet.com

Photographs

1 - Heath Road adjacent to proposed SEC No.4



(a) A narrow single track lane with poor visibility, unsuitable for large vehicles



(b) Pedestrian, cycle use etc incompatible with vehicular movements

POLSTEAD PARISH COUNCIL

Clerk: Dave Crimmin, [REDACTED]

Tel: [REDACTED] email: polsteadpc@btinternet.com

2 - Existing, purpose built 'Heavy Goods Vehicle' road between A1071 and Layham quarry, a preferable site for SEC No 4



From: [Michelle Lyon](#)
To: [Environmental Services:](#)
Subject: 130218_EN020002_1658728
Date: 11 March 2013 13:00:56

Planning Inspectorate Ref: 130218_EN020002_1658728
LPA Ref ENQ.2013/0519
Infrastructure Planning (Environmental Impact Assessment)
Regulations 2009 SI 2263 (as amended) (the EIA Regulations)
Proposed Bramford to Twinstead Tee 400KV connection (the
project)
Proposal by National Grid (the applicant)

Dear Mr Ridley

Thank you for your consultation regarding the above.

I can confirm that South Norfolk Council do not have any comments to make in respect of the EIA scoping for the above project.

Regards

Michelle Lyon
Senior Planning Officer

South Norfolk Council
Swan Lane
Long Stratton
Norwich
NR15 2XE

Direct Number: 01508 533681
Email: mlyon@s-norfolk.gov.uk
Web address: www.south-norfolk.gov.uk
Facebook: www.facebook.com/southnorfolkouncil

From: [Bethany Philbidge](#)
To: [Environmental Services:](#)
Subject: EN020002 - scoping opinion Bramford to Twinstead connection
Date: 18 March 2013 16:18:38
Attachments: [SbN PC comments on B2T scoping report - March 2013.doc](#)

Please find attached a response from Stoke by Nayland Parish Council to the consultation on the information to be provided in an environmental statement by National Grid for the proposed Bramford to Twinstead 400Kv connection.

Regards,

Bethany Philbidge
Clerk to Stoke by Nayland Parish Council

**Proposed Bramford to Twinstead Tee 400kV connection
EIA Regulations – Scoping Opinion
Planning Inspectorate Reference 130218_EN020002_1658728**

Comments by Stoke by Nayland Parish Council on Applicant's request

Summary

The applicant proposes a standard, off-the-shelf, methodology. This fails to take properly into account the central feature of the environmental impact of the project. Hence the assessment method is not fit-for-purpose. In its place, our comments direct attention to Cost/Benefit Analysis best practice, with particular reference to public willingness to pay.

What is the Environmental Statement for?

Are the applicant's proposals, for the information to be contained in their environmental statement (ES) on the project, fit for purpose? To answer this, we have to consider the purpose of the ES.

The purpose of the ES is to identify, describe and assess the effects of the project on environmental factors, as per Article 3 of the Directive (85/337/EEC).

Identify, in order to describe – describe, in order to assess – and why assess? The purpose of assessment is, (is it not?), is in order to inform the design of the project and the process of giving it official consent. In other words, the purpose of assessing environmental effects is to identify adverse consequences, to assist in designing mitigation, and to help demonstrate to the relevant authorities that the project merits consent in terms of its residual environmental effects.

So the ES should be driven by the nature and scale of the particular environmental effects of the project, and by the decisions they call for.

This is where the applicant's proposals read very oddly. Apart from their proposals to out-scope certain topics (and we comment on one of these below) they do not attempt to analyse the project's environmental effects, and the possibilities of mitigating them, in terms of scale nor in terms of the relevant options for mitigation. It is as if all environmental effects are equal, irrespective of mitigation options and their cost. In every case they proposeⁱ to assemble data - score for the nature of the effect on a four-point qualitative scale - score for the receptor of the effect on the same four-point scale - combine the two measures on another four-point qualitative scale of significance - consider mitigation - and move on. One size fits all.

The elephant in the room

This simply ignores much the most important issue. There is a vast range of environmental effects from the project, but all but one of them are either of limited importance or can be mitigated at modest cost so as to become so. The dominant effect is on landscape visual amenity, and this can be mitigated almost entirely (by undergrounding) but at major cost. Therefore the crucial question in designing and

consenting the project in question is the extent of undergrounding. The ES should be designed in the light of this.

The dominance of landscape visual amenityⁱⁱ and its corollary mitigation, undergrounding, can be illustrated by reference to the willingness-to-pay data, arising from studies commissioned by the applicant, on public valuation of removal of existing pylons. Theseⁱⁱⁱ show that electricity consumers are on average willing to pay £11 per household per year to underground 50 miles of existing transmission line in rural areas other than the statutorily-designated landscapes of National Parks and AONBs (where they were willing to pay considerably more). This equates to £44 million per mile^{iv}. On this basis, the value of undergrounding the remainder of the project in question, over and above what the applicants already propose, is of the order of £600 million^v. This has to be an order of magnitude greater than the costs and values associated with all the other environmental effects together^{vi}.

Amazingly, the applicant's proposals do not mention undergrounding as a mitigation measure in relation to landscape and views (5.7.1)^{vii}. The key factors of the proposed design are taken as given. In 5.7.1, mitigation of the effect on landscape and views, over and above the already-decided removal of the 132kV line, is confined to tree planting, where, in the context of 50 metre high pylons, the triviality of the cost is more than matched by the triviality of the effect.

The big decision and the small decisions

There are two sorts of decision to be taken in the light of environmental factors. First, there is the big decision about what sections of the link to underground. Second, there are the multitude of small decisions about the detailed routeing of the link^{viii} and specific mitigations^{ix}.

The big decision addresses the landscape visual amenity factor, which applies to a greater or lesser extent to the whole route. No other design decision addresses that factor comparably^x. It is also extremely costly.

The small decisions address purely local issues, covering a wide range of factors, especially biodiversity. Individually and collectively, they are low cost, relative to the cost of the whole project.

The assessment process in the proposal (score on two four-point scales, which are then combined into a four-point qualitative scale of significance) may well be appropriate to these small decisions: because they are small, and extremely diverse in subject matter, and their mitigation measures are mostly low cost, they do not justify elaborate methods and do not require quantification. It may well be sufficient to apply some such rule-of-thumb as "If Significance score is Major or Moderate, apply mitigation measure", irrespective of the topic or cost.

But that assessment process is wholly unsuitable to the big decision. This does call for quantification, at least in terms of orders of magnitude, given the costs involved. Because it involves a single topic, it is reasonable to look for methods specific to that decision. And, as is shown by the existence of data on public willingness to pay for undergrounding transmission lines, such specific quantitative methods are available.

So the one-size-fits-all assessment methodology is inadequate, not necessary, and is not fit for purpose.

Horses for courses

The one-size-fits-all assessment methodology may be considered to be justified by the report^{xi} by the Institute of Environmental Management which the proposals use^{xii} as their touchstone for assessment. This contains references to the use of different assessment methods in the same ES: e.g. “there is a clear need to ensure that all the findings set out in the ES are evaluated in terms of their significance; ideally this would be in a format that allows them to be readily compared with the EIA’s other findings” (page 61). It does not preclude the use of different assessment methods for different topics: e.g. “Problems arise in practice when the ES fails to . . . justify the use of different methods to evaluate significance between topic chapters” (page 61) but it implies that uniform measures are desirable.

This may be helpful if all effects are of similar scale and involve similar cost to mitigate. But, as already emphasised, this is far from the case for the project in question. With the present project, it is easy to “justify the use of different methods to evaluate significance”, and indeed to show that different methods are necessary to do the job properly.

Proposals impracticable for big decision

The proposed process, as applied to landscape and views, will not give usable results.

First, it evaluates “landscape” separately from “views”: 5.5.11 – 5.6.10 describe the landscape process; 5.6.11 – 5.6.28, the views process. The distinction makes no sense: the value of landscape, in terms of visual amenity (and this is the relevant factor here) lies in the value of the views. “Landscape” consists, not of the topography, the physical land form, the geology, the agricultural practice, purely as physical data, but of the topography considered as something which has value to human beings observing it, and this value is to do with aesthetics, culture, associations etc. (not the value of the land for farming etc.). So the proposed process starts with a category error, by attempting to work on the basis that a landscape has value independently of the value of the views of that landscape.

Second, it implies an unmanageably large number of separate evaluations. All “visual receptors” have to be identified (5.5.11 - 17 and 5.6.11 – 12). Each receptor has an evaluation of magnitude (5.6.3 and 5.6.13 – 22) and an evaluation of sensitivity (5.6.4 – 8 and 5.6.23 – 26), combined into an evaluation of significance (5.6.9 – 10 and 5.6.28). Visual receptors include each house/path/road/open space/commercial and industrial premises within 1 km of the line, and each garden/public right of way and publicly-accessible land (“high sensitivity receptors”^{xiii}) up to 5 km from the line^{xiv}. There must be several hundred.

Third, these individual evaluations of significance then have to be combined in some way, if they are to constitute a genuine input to the decision process. The proposals for the ES say nothing about this. So they do not explain how an assessment of the project’s overall environmental effect on landscape/views is to be prepared: they stop at a stage where there are several hundred assessments. Even if the environmental effect on

landscape/views is to be confined to shorter lengths of the route, the number of assessments per mile would run into double figures.

It is not obvious how multiple assessments of significance can be combined. Do 10 (say) "Moderates" equate to one "Major"? In which case, the outcome is driven by the number of receptors identified. Is it a matter of taking the highest significance score and ignoring the rest? In which case, there is no point in assessing receptors of low significance. The proposals say nothing on this aspect.

One is left with the impression that no thought has gone into the question of how this mass of data is to be used.

The alternative assessment method

Given the applicant's proposals - for assessing the environmental effect on landscape/views/ visual amenity - are inadequate, what should be done?

The way to connect directly into "the big decision", on the extent of undergrounding is to express it in terms of public willingness-to-pay. The existing data has been referred to. If it is felt insufficient, it should be supplemented by studies addressing what are felt to be its insufficiencies.

These might reasonably include

- The existing data is to do with removing existing lines, not undergrounding a new one

- The present project is to run alongside an existing similar line

- The present project involves pylons in the setting of an AONB as well as a buried section through the AONB

- The present project involves pylons in the setting of a Grade1 listed building.

These could be tested in a WTP exercise.

This approach has the advantage that it brings the process in line with the Treasury Green Book. This is expected to be applied throughout the public sector, and it is logical for it to be applied by statutory regulated monopolies such as the applicant. If this is not accepted, it may at least be accepted that the Green Book represents a statement of best practice, and that best practice should be applied.

The ES must make clear how the landscape/views assessment provides output usable to inform the decision on undergrounding.

Property prices

The applicant proposes to "scope out" effects on property prices on the ground that "the effect on house prices of an overhead transmission line is not a matter that requires assessment under the EIA Regulations" (Table 15.3). It is arguable that the EIA Directive does require this. Article 3 says that an EIA is to address "the direct and indirect effects of a project on . . . material assets".

17 March 2013

ⁱ See 4.1.5 to 4.1.14 of the proposals.

ⁱⁱ Including the cultural heritage aspects of the landscape (important in the case of the project in question, in terms of “Constable Country” and “Gainsborough Country”).

ⁱⁱⁱ The recent National Grid material can be accessed by clicking on <http://www.talkingnetworkstx.com/consultation-and-engagement.aspx> and then scrolling down to and then clicking on the ‘Stage Four Stakeholder Workshops’ box.

^{iv} 25 million households x £11 per year for 8 years / 50 miles

^v 14 miles at £44 million per mile. This sets on one side the argument that the higher WTP figure applicable to AONBs should be used for the sections which affect the setting of the Dedham Vale AONB.

^{vi} It is also well in excess of the cost, which is £364 million or about £28 million per mile (National Grid, Connection Options Report, lifetime cost basis, excluding sections already proposed to be undergrounded)

^{vii} The reference to “removal of overhead lines” is not to undergrounding, but to the removal of the 132kV line which runs parallel to the existing 400kV line.

^{viii} For example, to avoid an area of ancient woodland or to tunnel under an important hedgerow.

^{ix} For example, creating a new connection between habitats for particular species, replacing one severed by the project

^x Some detailed routeing choices have implications for landscape visual amenity, but these are not only local but also have much less mitigating effect than undergrounding

^{xi} At <http://www.iema.net/state-environmental-impact-assessment-eia-practice-uk>

^{xii} 4.1.6

^{xiii} There is a problem with the definition of high and low sensitivity receptors. It gives no weight to the number of people experiencing a given view. It is entirely reasonable to argue that each driver on a road in sight of the pylon line is much less sensitive to the view than a walker on a footpath with the same view. On this basis, the road is classified as a low sensitivity receptor and the path as a high sensitivity receptor. But if there are several thousand such drivers per day, and only a couple of walkers?

^{xiv} And possibly more: 5.6.12 is not precise

Your Ref: 130218_EN020002_1658728
Our Ref:
Date: 18th March 2013
Enquiries to: Michael Wilks
Tel: 01473 264064
Email: michael.wilks@suffolk.gov.uk



Mr Alan Ridley
3/18 Eagle Wing
Temple Quay House
2 The Square
Bristol
BS1 6PN

Dear Mr Ridley

Infrastructure Planning (Environmental Impact Assessment) Regulations 2009 SI 2263 (as amended) (the EIA Regulations) Proposed Bramford to Twinstead Tee 400kV connection (the project) Proposal by National Grid (the applicant) - Response to Scoping Report of Suffolk County Council

GENERAL MATTERS

1. Suffolk County Council (SCC) restricts its comments to those directly relevant to the scoping exercise. It should not be interpreted that we are satisfied with pre-application process to date (as described in the Report), nor that we are in agreement with the findings of any or all of the supporting documents that National Grid refers to in the Report¹.

Scope of the Project

2. Paragraph 3.1.3 states that all the substation sites should be considered to be within the red line boundary for the purposes of scoping. It is understood, however, that only the relevant parish councils for the overhead line/cable corridor have had the benefit of the full 28 days to respond to the Scoping Report – those affected by the substation proposals have only 12 days, which is regrettable. While the affected parishes lie in Essex, matters raised by those consultees may raise issues that would be relevant to the scheme as a whole, hence the interest of SCC to ensure appropriate consultation has been undertaken.
3. While, it is understood that any responses filed with PINS after this date will be relayed to National Grid, there is the possibility that new issues material to the Scoping Opinion may be raised, but in not being encompassed within the formal Scoping Opinion are deemed to have reduced weight. It would therefore be helpful if PINS could undertake to confirm that it has reviewed any 'late' responses from the affected Parish Councils and does not (or otherwise) consider that any new issues have arisen.
4. We also have some concerns that National Grid, at the same time as providing material for consultation on alternatives to a substation², is producing a Scoping Report which does not provide for the eventuality that consultation responses may influence its decision in this respect. This compromises, perceptually at least, National Grid's ability to respond to the requirements of Section 37 of the Planning Act – specifically to produce a Consultation Report that shows how it has had regard to any relevant responses.

Relevance of cost

5. With reference to paragraph 2.3.2, SCC has ongoing concerns that judgements on alternative options are being made with a significant emphasis on cost. While it is recognised that PINS should consider the

¹ For example, the Strategic Options Report, Connection Options Report and Needs Case.

² <http://www.bramford-twinstead.co.uk/substation-consultation.aspx>

“additional cost of any undergrounding” (EN-5, paragraph 2.8.9), the National Policy Statement does not identify this as an overriding argument to be afforded any particular weight, simply a factor to take into account.

6. Ofgem, who is responsible for evaluating the case for investment, may view the situation quite differently, but SCC’s paramount concern is that the scheme is acceptable in planning terms – so evidence must be presented to allow the Secretary of State to make a balanced judgement.
7. SCC would wish the EIA therefore to be absolutely clear on the relative environmental merits of different options, without making comment on National Grid’s statutory duties. This is the requirement of the EIA regulations³.

Selection of alternatives

8. For the reasons above, the specific alternative of 100% undergrounding (which National Grid has ruled out on cost⁴) should be properly evaluated with the comparative environmental impacts clearly presented.
9. While there is case law on the existence of alternative *sites*, there appears to be limited precedent directly related to this issue of an alternative *proposal which fulfils the same functional need*.
10. There are however parallels with Simon Brown J (as he then was) ruling in Trusthouse Forte Hotels Ltd v. Secretary of State for the Environment (1986) 53 P&CR 293 where he noted that, while the existence of a more acceptable alternative site would not justify refusal upon the application site, where there are clear planning objections to a particular site, it “may well be relevant and indeed necessary to consider whether there is a more appropriate alternative site elsewhere”.
11. He went on to state “that this is particularly so when the development is bound to have significant adverse effects and where the major argument advanced in support of the application is that the need for the development outweighs the planning disadvantages inherent in it” and that “[I]nstances of this type of case are developments, whether of national or regional importance...”
12. This judgement has been quoted positively in a number of subsequent cases and appears supportive of the need to consider less environmentally damaging alternatives in this instance particularly as the circumstances set out in paragraph 11 above apply.

Need Case

13. The Need Case for the project is in far more of a state of flux than is reported in paragraph 2.2.3 – the contracted dates are not realistically achievable, and do not reflect public statements made by the relevant generators. The EIA should consider the ‘do nothing’ alternative and in doing so have regard to the likely connection dates of those generators identified in the Need Case.

Project Description

14. The Environmental Statement should present a detailed construction programme so that the respective timing, nature and scale of activities occurring can be established.

Assessment of effects

15. As mentioned, National Grid places great emphasis on cost when choosing between alternative means of network reinforcement. It uses ‘judgement’ to determine whether the social, economic and environmental impacts, measured *qualitatively*, of overhead lines warrant the use of undergrounding technologies.
16. In SCC’s view, if the ‘benefit’ of using overhead lines is to be measured quantitatively (i.e. ‘X millions cheaper’), then every effort should be made to quantify the disbenefits. This analysis does not need to be exhaustive – it simply needs to be assessed quantitatively whether the disbenefits of the scheme exceed the additional cost of undergrounding.
17. Paragraph 2.8.9 of EN-5 sets out that the Secretary of State should consider whether the benefits of undergrounding outweigh the additional cost. SCC considers that this process would be facilitated, and be more transparent, if National Grid adopted best practice in measuring environmental and socio-economic detriment. This would also be consistent with the sentiments of the Government’s Natural

³ The Infrastructure Planning (Environmental Impact Assessment) Regulations 2009, Schedule 4, Regulation 18

⁴ Review of Strategic Options Report, paragraphs 13.17 -13.18 <http://www.nationalgrid.com/NR/rdonlyres/F50A1521-D755-4116-A787-E623F77D196E/47714/BTReviewofStrategicOptionsReportJune2011.pdf>

Environment White Paper⁵ which recognises that the ongoing “erosion of our natural environment is losing us benefits and generating costs” highlighting “why we must properly value the economic and social benefits of a healthy natural environment”.

18. Consequently, SCC strongly recommends that National Grid make use of HM Treasury Guidance, the “Green Book” and specifically Annex 2 therein⁶. This document describes established techniques that should be used to assess the “net value of a project to society as a whole”. In doing so, impacts on health, wellbeing and visual amenity can be more readily measured against capital cost allowing a more rounded view of the costs of a project to be ascertained.
19. That the Green Book was produced for Government departments is not relevant, it is established best practice, and in any case, through its monopoly nature, National Grid’s projects impact “society as a whole”, therefore the guidance should be applied.
20. The relevance of the approaches described in the Green Book to National Grid are recognised by Ofgem, and indeed have been applied to the valuation of impacts of transmission infrastructure already⁷. While this research relates to existing lines, Ofgem has stated⁸;

2.85. We agree with third-party stakeholders that there is a potential role for consumer willingness to pay (WTP) studies, as well as other information on landscape quality and features of special interest, to inform NGET⁹ on the efficient level of different technologies when developing its proposals. However, it is ultimately for NGET to develop its proposals and the need for mitigation on a case by case basis by working with stakeholders during the planning process...

21. Stakeholders have been very clear to National Grid that WTP studies should be used in respect of this project. WTP allows consumers to express in monetary terms the perceived environmental and socio-economic disbenefits of overhead lines. Such information would therefore provide essential evidence to the Secretary of State (and indeed the regulator) in coming to a view on whether the additional cost of undergrounding can be justified.

Approach to the Environmental Impact Assessment

Clarity and consistency

22. Chapter 4 of the Scoping Report sets out the general approach to assessing the significance of environmental effects. Magnitude of Effect (paragraph 4.1.8) is described on the following scale: High; Moderate; Low; Negligible and the Sensitivity of Receptor (paragraph 4.11) as: Very High; High; Moderate; Low; Negligible. Significance of Effect is then described with reference to the interplay of Magnitude of Effect and Sensitivity of Receptor. This is set out in Table 4.1 as a template for the EIA.
23. This section is confusing in itself and this manifests itself in future chapters.
24. For example, Table 4.1 reverts to the use of “Medium” as opposed to “Moderate” to describe both magnitude and sensitivity. The subsequent text beneath Table 4.1 (paragraph 4.1.13) then makes reference to “high/large” or “medium/moderate” combinations being considered significant. “Large” does not appear in the matrix or any of the preceding text, and reference to a sensitivity of “Very High” is omitted.
25. In the subsequent chapters, there are presentational inconsistencies; particular interchangeability in the use of “moderate” and “medium”; varying categorisation of sensitivity (so that is not clear if there is not a receptor of a given sensitivity, or else that class is not being used) and different scales of magnitude being used. There is also discrepancy, without explanation, of why the significance of a Moderate (or Medium)/High (or Large) combination is “Major” in some circumstances but “Moderate” in others.
26. The Scoping Report (paragraph 4.1.6) states the assessment of significance of effects will be “broadly based on the...criteria from IEMA’s The State of Environmental Impact Assessments in the UK”. That document includes the following figure¹⁰;

⁵ <http://www.official-documents.gov.uk/document/cm80/8082/8082.pdf>

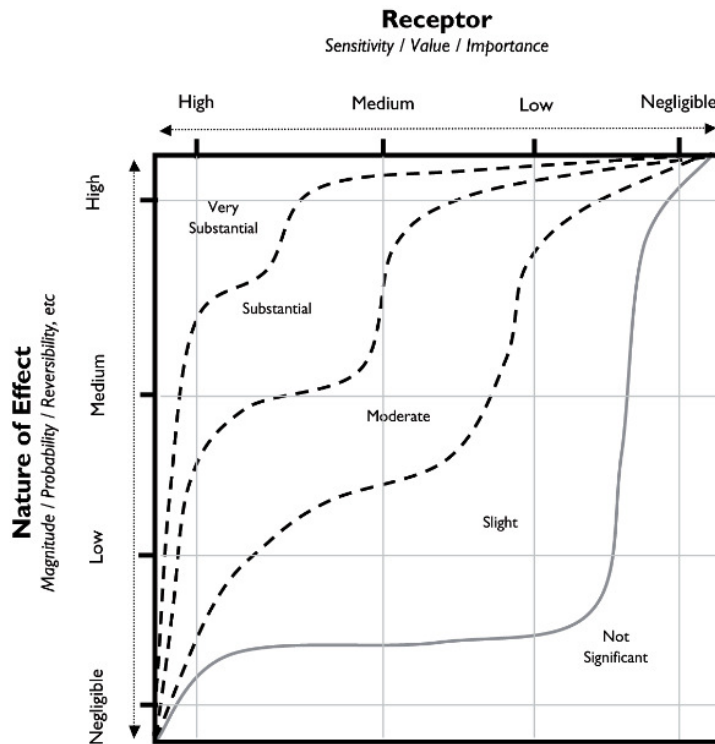
⁶ http://www.hm-treasury.gov.uk/d/green_book_annex2_250711.pdf

⁷ <http://www.nationalgrid.com/NR/rdonlyres/88431596-2009-4CDE-BE51-EC5E536FF2BC/55358/NationalGridWTPreport.pdf>

⁸ http://www.ofgem.gov.uk/Networks/Trans/PriceControls/RIIO-T1/ConRes/Documents1/2_RIIOT1_FP_OutputsIncentives_dec12.pdf

⁹ National Grid Electricity Transmission

¹⁰ <http://www.iema.net/state-environmental-impact-assessment-eia-practice-uk> Figure 6.3



27. It is strongly recommended that National Grid standardises its approach to assessment of effects across the EIA topics as far as is possible so that consistency and comprehensibility is achieved. Any inconsistency will make assessment of in-combination effects particularly difficult.

Analysis

28. To date, National Grid has presented its project with reference to six separate “study areas” (now referred to as “sections” – see paragraph 3.1.1) and reported impacts on a study area by study area basis.

29. The EIA will result in huge amounts of data for each topic area and while the Scoping Report describes how the significance of effect will be established for each receptor, it does not set out how all those individual results will be aggregated to come to a conclusion of overall significance of effect for each study area for each topic area. This then of course has implications for the proposed mitigation and level of residual impacts.

30. The Environmental Statement will need to be clear how the data has been combined in each topic area. It is recommended that National Grid discusses its approach to this issue with stakeholders during the EIA process, particularly with respect to findings of the Landscape and Visual Impact Assessment due to the extensive number of viewpoints proposed.

31. Furthermore, it will be important for the Environmental Statement to report the environmental effects of the proposal, particularly the residual impacts, for the scheme as a whole, not just by study area.

EIA Topics

Socio-economic

Economy and skills

32. Paragraph 13.3.2 identifies the potential socio-economic consequences of the project during construction and operation.

33. The Environmental Statement should consider the pressures the development may place on the local labour market. It should set out clearly the expected number and nature of employment opportunities during each phase of the development. It should relate this to the availability of labour in the area and identify how any mismatch between supply and demand will be addressed.

34. Similar analysis should be undertaken with regard to the supply chain – i.e. National Grid should assess its requirements and evaluate those against the services available locally. In order to maximise the extent of any benefits of the development it should seek to use local contractors and suppliers as much as possible and therefore look to undertake initiatives to develop opportunities for local companies to bid successfully in the procurement process.
35. Consideration needs to be given to the potential impact of any reliance on a mobile workforce for the availability of tourist accommodation. The spending patterns of a transitory labour force would be quite different to those of tourists, thus this might jeopardise trade for other related tourist businesses, such as restaurants and visitor attractions.
36. In all cases, the impact of this project must be considered alongside others in the region – particularly other Nationally Significant Infrastructure Projects. For example, East Anglia ONE’s onshore construction (which terminates at Bramford) is programmed for 2016 to 2018. It is acknowledged that the likely demands on the workforce and the supply chain are likely to be less than those of other infrastructure projects in the region, therefore the assessment should be proportionate to the scale of the anticipated impact.
37. In line with Section 5.12 of EN-1 the proposed mitigation for any impacts should be included within the application; a reliance on the agreement of mitigation strategies by Requirement post-consent will not be acceptable – information should be presented as part of the application.
38. In developing mitigation, National Grid should have regard to parallel initiatives being undertaken in association with other major infrastructure projects in the locality. It should therefore work closely with the Local Authorities and other key stakeholders, for example the Federation of Small Businesses and Chambers of Commerce.

Amenity Value

39. The approach to the assessment of amenity value is not clear (paragraph 13.5.5). It appears to be essentially an in-combination assessment of various EIA topics (not identified), but rather than using judgement to determine the significance of the impact on amenity, a rather mechanistic approach is suggested (Table 13.5).
40. The proposed approach recycles and combines assessments of significance¹¹ from different EIA topic areas to determine a new order of magnitude which is then re-evaluated against sensitivity of receptors to generate a new definition of significance. This appears tautological in that the assessment is reliant on assumptions already made and involves limited further analysis. This is also a particular issue due to the variability used across the EIA topics in describing (the scales of) sensitivity and magnitude of effect (see paragraphs 24-25 above).
41. Furthermore, SCC would disagree with the descriptions of magnitude in Table 13.5. It is not clear why, for example, a receptor experiencing one major and one moderate significant impact would be ascribed an overall impact of “Medium” magnitude. Using the approach set out here, the LVIA might ascertain that a given receptor will experience a significant adverse impact on visual amenity, but according to this methodology, that alone would be insufficient for that receptor to score an overall “large” magnitude of effect on amenity – it would also have to experience at least one further significant residual impact, related to noise for example, and then have that combined with a further assessment of receptor sensitivity to establish overall significance.
42. Consequently, it is suggested that amenity impacts might better be considered within the relevant topic areas – therefore regard can actually be had to the nature of the receptor and the sensitivity of it to disturbance. An in-combination assessment would still be required, but that should have the effect of increasing the overall magnitude of impact where different effects combine, rather than downgrading it through progressive diminution due to the multiplier effect described here.
43. In defining the sensitivity of receptors, National Grid should also clarify how, practically, it proposes to assess “the nature of users” – i.e. access information relating to the demography, health or ‘sensitivity’ of receptors (paragraph 13.5.8).

Tourism

44. SCC broadly agrees with the proposed approach to assess the impact of the development on tourism, with two caveats;

¹¹ Which of course derive from an assessment of magnitude of impact/receptor sensitivity

- The EIA needs to recognise that a large proportion of tourist trips are likely to be associated with the natural and historic beauty of the area as a whole – not whether there is a view of a pylon from a particular pub (see for example paragraph 13.2.25). It is more relevant to consider the extent to which the impact of pylons in the landscape detracts from the environmental quality for recreational activity more broadly, than it is to focus on the locations of ‘tourist-related business’ – the locations of which are likely to be incidental to the purpose of tourists’ visits in many cases and certainly not the determinant of whether they will visit the area or not.
- The baseline should be supplemented with evidence of visitor spend and then, making use of questionnaires¹² (proposed in paragraph 13.4.10), evidence should be presented on the potential economic impact of the scheme.

45. In describing the baseline, reference should be made to *The Monitor of Engagement with the Natural Environment*¹³ which is published by Natural England. This annual survey contains a great deal of information on how people use the natural environment, including numbers of visits made, destinations, purpose of visits and average spend. The links between environmental quality and health and local economic benefits is directly relevant to the potential impacts of overhead lines.

Health

46. SCC does not agree that health impacts should be scoped out from the operational effects of the development (paragraph 13.3.2, Table 13.2) as National Grid has not demonstrated that there will not be significant effects.
47. EN-1 (paragraph 4.2.2) identifies well-being and community cohesion as matters of interest to the Secretary of State and the examination of the project. Similarly, the EIA Directive and consequently the relevant EIA Regulations specifically refer to the effects on ‘human beings’ and ‘population’ distinctly from environmental issues, recognising that environmental or visual impact is not a comprehensive proxy measure for impact on people¹⁴.
48. Paragraph 4.13.4 of EN-1 notes that new energy infrastructure can affect access to public services, and that this includes use of open space for recreation and physical activity. The link between the quality of the natural environment and level of usage is well established (see for example the reference to *The Monitor of Engagement with the Natural Environment*, mentioned previously).

House prices

49. National Grid proposes to scope out the impact on house prices, citing the Rookery South Decision (paragraph 13.4.3) as a precedent. The examining panel concluded that the assertions were not evidenced, not that they were not material. Similarly, section 5.12 of EN-1 is not exhaustive in its requirements. The fact that house prices are not identified *specifically* in the EIA regulations is not surprising - it does not list tourism or creation of jobs either.
50. Nevertheless, SCC agrees that case law has confirmed that the impacts on individual house prices are generally not material in planning terms. However, studies¹⁵ undertaken to date have shown that there are interactions between the proximity of overhead lines and property prices.
51. This depreciation is effectively the price of disamenity and is an alternative/complementary mechanism to Willingness to Pay – the relevance of which was described earlier. Operating at such a scale, this depreciation of property prices (capitalisation of visual amenity) could be considered a “community impact” - which National Grid identifies as an issue that relates to five or more properties (paragraph 13.5.9).

Landscape and Visual Impact Assessment

Mitigation

¹² SCC would like to be involved in the formulation of these surveys

¹³ <http://publications.naturalengland.org.uk/publication/1712385>

¹⁴ EN -1 clarifies that the effect on ‘human beings’ includes the effects on health (see EN-1, p46 footnote 76). ‘Health’ means ‘health and wellbeing’ (EN-1 paragraph 4.13.1).

¹⁵ For example; Atkinson, G., Day, B., Mourato, S. & Palmer, C. (2004) ‘Amenity’ or ‘eyesore’? Negative willingness to pay for options to replace electricity transmission towers’, *Applied Economics Letters*, 11 (4), pp203-208; Navrud, S., Ready, R.C., Magnussen, K. & Bergland, O. (2008) Valuing the Social Benefits of Avoiding Landscape Degradation from Overhead Power Transmission Lines: Do Underground Cables Pass the Benefit–Cost Test? *Landscape Research*, 33 (3), pp281 – 296; Sims, S. & Dent, P. (2005). High-voltage Overhead Power Lines and Property Values: A Residential Study in the UK. *Urban Studies*, 42 (4), pp665–694.

52. EN-5 paragraph 2.8.10 describes undergrounding as a form of mitigation that should be considered to mitigate the landscape and visual effects of overhead lines. In describing the residual impacts of the scheme, the Environmental Statement will need to demonstrate clearly the mitigation options that have been considered and explanation of choice of mitigation, having regard to its ability to reduce the residual impacts.

Cumulative Impact

53. National Grid does not intend to include the existing lines within the cumulative assessment, arguing that they form part of the baseline against which the effect of the development will be assessed (Table 5.2, p63). In that scenario, an assessment of the impact of these structures should have been provided within the description of the existing environment in the Scoping Report, but this does not appear to be the case.
54. In any event, in light of the requirements of paragraph 4.2.5 of EN-1 (which clearly identifies projects already in existence) and the current Guidelines for Landscape and Visual Impact Assessment (to which National Grid refer), SCC believes, and has consistently argued, that such an approach would neither be appropriate or adequate.
55. The cumulative impact of an additional line will vary depending on the landscape and visual impact of the existing line which in turn will be a consequence of the sensitivity of the receiving landscape and its visual receptors.
56. While the Scoping Report generally recognises this process for the new line, it does not appear to do so for the existing line. Understanding the landscape and visual impact of the existing lines on the landscape and historic environment is critical to the process; particularly where the landscape is recognised as being inherently sensitive, or sensitive by reason of national/local designation, or cultural association, or because it is within the setting of heritage assets or designated landscapes.
57. Consequently SCC considers that the existing conductors and towers which will not be removed as part of the proposal should form part of a cumulative assessment of landscape and visual impacts. The cumulative impacts with the existing (and proposed to expand) Bramford substation should be assessed in a similar manner.

Sensitivity and capacity

58. SCC does not agree that AONBs should be categorised as less sensitive than National Parks (paragraphs 4.1.11/5.6.8). SCC has repeatedly advised National Grid that AONBs are of equal status to National Parks in relation to landscape and scenic beauty¹⁶. This is also quite clear in EN-1, paragraph 5.9.9.
59. Furthermore, SCC would reiterate to National Grid that the extent to which a landscape is valued is only one facet of the sensitivity of a landscape and its consequent capacity to accommodate change (this subtlety is not apparent in paragraph 5.6.8, where sensitivity and value are conflated). Capacity is also related to a landscape's inherent sensitivity to a particular proposal by virtue of its characteristics such as landform, scale, or the extent of woodland cover for example. It would therefore be incorrect to draw a direct correlation between landscape value and landscape capacity as National Grid has previously done – for example in the Connection Options Report.
60. Such an approach does not recognise the fact that historic designations would have been made in the absence of contemporary landscape character and visual assessments. Rather, boundaries were drawn to take advantage of obvious and convenient physical features, for example “suitable and convenient roads and field boundaries”¹⁷, as opposed to necessarily reflecting the character or views within and across a landscape and its setting.
61. Consequently, a designation-led approach would risk underestimating the sensitivity of locally designated landscapes and important contribution that such landscapes make to the setting of nationally designated landscapes. A more considered approach which clearly defines the sensitivity of the landscape and its capacity to accommodate further change (having regard to the baseline conditions including the presence of existing lines), needs to be presented.
62. While it is noted that the LVIA will deal with the impacts of the proposal on the setting of the AONB and the Stour Valley, it is essential that these effects are clearly and robustly demonstrated both in terms of

¹⁶ See paragraph 1; <http://archive.defra.gov.uk/rural/documents/protected/npaonb-duties-guide.pdf>

¹⁷ Proposed Extensions to Dedham Vale Area of Outstanding Natural Beauty Statement of Intent, Suffolk County Council 1977.

description and visualisation, as the proposed Sealing End Compounds are often very close the boundaries of these areas. Alternative locations for the Sealing End Compounds should be tested as part of the EIA.

63. Paragraph 5.2.46 refers to the Statement of significance of the AONB – though arguably misses some of the key elements relating to development intrusion and the subtle and intimate character of the landscape – SCC would therefore prefer that it is used in full¹⁸.
64. Finally, with reference to Table 5.6, tourists should be considered “High” sensitivity (but see comments on sensitivity scales in paragraphs 24-25).

Underground cables – description of development

65. The depth of soil that will remain above the buried cables and so available for agricultural operations is not clear (paragraph 3.5.11). Although it is stated that the trench depth will be 1.4m, it is important to understand the depth of soil that will be available for cultivation and if this will be sufficient to facilitate all normal arable operations such as sub-soiling. If the soil above the cables is not available for these deeper arable operations, this may impact on arable farming operations (including through land sterilisation), and consequently result in landscape change. The impacts of undergrounding on soil conditions (soil structure and field drainage) more generally should also be considered.
66. A clear description of the jointing pits (paragraph 3.5.2) and their respective impacts needs to be described and assessed. They should be sited to minimise permanent environmental and land use impacts.

Underground cables – impacts

67. The undergrounding of cables will necessitate the permanent removal of trees from the cable corridor, so there will likely be some residual impacts in the cabled sections (contrary to paragraph 5.3.5). The Environmental Statement should identify the extent and significance of these landscape, visual and potentially ecological effects (paragraph 5.3.14 of EN-1 recognises the biodiversity value of ‘veteran’ trees, for example). Proposals to mitigate/compensate for these impacts should be put forward in the Environmental Statement.
68. Hedgerows are Priority Habitats in both the UK Biodiversity Action Plan and the Suffolk Local Biodiversity Action Plan. The Environmental Statement should clearly map (and ideally document photographically) the hedgerows that will be affected and whether, and according to which criteria, they are ‘important’ according to the Hedgerows Regulations 1997.
69. The Environmental Statement, should not only assess, but also include proposals to minimise landscape and other impacts of the removal of important hedgerows (paragraph 5.5.9). The intention simply to narrow the working width at ancient hedgerows (paragraph 3.5.9) is unlikely to be acceptable – the loss of this resource is irreversible. Rerouting of the haul road to use existing farm entrances should be considered at these crossing points to minimise permanent impacts.
70. Mitigation should also include “mini HDD” or “micro-routeing” (approaches currently being proposed and developed by East Anglia One Ltd in relation to that project), on a more localised scale than those described in paragraph 3.5.3 in order to minimise residual impacts. Mitigation may also include coppicing, storage and replanting of mature hedgerow plants, the creation of temporary access ways over coppiced hedges or the use of instant hedging that could be pre-grown to order.
71. Any residual impacts relating to the loss of important hedgerows and hedgerow trees will need to be offset in line with paragraphs 5.3.4 and 5.3.7 of EN-1. Replacement of important hedgerows and veteran trees on a one for one basis is unlikely to be acceptable. Clearly veteran trees and important hedgerows (which by definition must be at least 30 years old) cannot readily be replaced.

Overhead line – impacts

72. The construction of a new 400KV line is likely to lead to significant tree and vegetation loss within the way leave. The extent and significance of these effects should be assessed within the EIA and proposals for mitigation and/or offset planting should be put forward.

Construction impacts

¹⁸ <http://www.dedhamvalestourvalley.org/assets/Publications/Management-Plan-Docs/DV-AONB7996ManagementStrategyPlan.pdf>
Section 1.6

73. Reference is also made to the possible need for highway widening and gaining access to construction compounds (paragraph 3.5.7). The extent and significance of these effects should be assessed within the EIA and proposals for mitigation should be put forward.
74. The LVIA should also consider the temporary impacts associated with operation of the construction compounds and any infrastructure located thereon.

Cultural associations

75. It is noted (paragraph 5.6.2) that National Grid has agreed that the potential effects on the cultural associations relating to the proposal will be considered as part of the LVIA. However, it is not clear what the range and scope of this work will be – further clarity and consultation is needed on the issues to be addressed in this section of the LVIA.

View points

76. Recently a brief consultation on proposed viewpoints and photomontage locations has taken place. However, given the number of locations and the size of the proposal in combination with the need to take photographs before trees are in leaf, the consultation period has not been sufficient. Therefore SCC reserves the right to ask for further viewpoints or photomontages at a later date if required.

Guidance

77. The LVIA should be carried out and assessed in accordance with GLVIA 3rd edition that will be published on the 3rd April 2013.

Landscape strategy

78. A draft landscape strategy should be provided as part of the application. It will need to be prepared and agreed with the Local Planning Authorities. It may be that measures contained therein will need to be secured via planning obligation, for example offsite planting and the removal of the 132kv line – particularly where it does not interfere with the proposed alignment of the new 400Kv line – for example south east of Hintlesham.

Biodiversity and Nature Conservation

79. There is particular crossover between the assessment of landscape, visual and ecological effects in the impacts of hedgerows and hedgerow trees, as alluded to above. From an ecological perspective it is particularly important that all veteran trees that may be affected are identified and that *all* hedgerows where bat passes are recorded are identified and recognised as important.
80. As mentioned, offsetting of residual impacts outside the red line boundary will need to be considered. Defra has produced some Guiding Principles¹⁹ and an accompanying technical paper²⁰ outlining the relevant metrics. National Grid should have regard to this.
81. In accordance with EN-1, paragraph 5.3.4 National Grid should seek to take advantage of opportunities to conserve and enhance biodiversity. The removal of the 132Kv line provides such an opportunity – particularly for the creation of appropriate Biodiversity Action Plan habitat.
82. Paragraph 6.2.2 states "no grasslands have been recorded as unimproved" - this seems to ignore several grassland County Wildlife Sites (CWS) (Valley Farm Meadow CWS and Layham Pit Woodland and Meadow CWS) which contain herb-rich or unimproved wet meadow.
83. The Environmental Statement needs to set out clearly the anticipated impacts on protected species both as a result of the main development, but also the ancillary temporary development. An assessment of the impacts on protected species is essential before the mitigation hierarchy can be applied.
84. Again cumulative impacts with the existing line should be considered – in ecological terms, this principally relates to displacement or collision risk of birds (paragraph 6.4.17/6.8.1).
85. SCC would request that all data collected is made available to the Suffolk Biological Records Centre.

Historic Environment

86. SCC is generally satisfied with the proposals for the investigation of Historic Environment (Chapter 7) as outlined in the Scoping Report.

¹⁹ <http://archive.defra.gov.uk/environment/biodiversity/offsetting/documents/110714offsetting-guiding-principles.pdf>

²⁰ <http://www.defra.gov.uk/publications/files/pb13745-bio-technical-paper.pdf>

87. In terms of the below-ground archaeology within the route corridor, the following work will be required along the underground section, within the footprint of pylon bases, within temporary site compounds/lay-down areas, and within Sealing End Compounds;
- Geophysical survey of selected sites, identified by the desk-based assessment.
 - Trial-trenched evaluation (systematic sample of the entire route), assessment and reporting.
 - Palaeo-environmental assessment and reporting where the route crosses the floodplains.
88. SCC would expect the Written Scheme for each stage of this work to be agreed in advance, and submitted in the Environmental Statement.
89. Decisions on the need for further archaeological investigation will be made on the basis of the evaluation results. It has been proposed that the field assessment for the route can be undertaken after permission has been granted for the scheme.
90. Although slightly contrary to the National Planning Policy Framework (paragraphs 126 and 127), this approach is considered justifiable in this particular case, given the relative flexibility of the scheme to ensure preservation *in situ* of any significant archaeological remains that might be encountered along the route during the evaluation. This commitment must be also clearly stated in the Environmental Statement.
91. Following the evaluation, archaeological investigation will be required prior to (or immediately before) development:
- strip, map and excavation of full working width (stripped easement), temporary compounds/lay-down areas where archaeological remains are defined in the evaluation.
 - strip, map and excavation of pipe trenches in areas where the evaluation has shown there to be a sufficient buffer (300mm minimum) between the base of the easement strip and the uppermost archaeological horizon enabling archaeological features to be preserved *in situ*.
92. A decision on the timetabling of any further work will be based on the density of archaeological remains defined by evaluation. In general, dense concentrations of archaeological remains (that cannot be preserved *in situ*) will need to be excavated suitably in advance of mainline construction works to avoid delays to the schedule.
93. In addition, continuous archaeological monitoring and recording (a watching brief) of the full working width might also be specified in certain areas. In these areas, opportunity must be given to the contracted archaeologist to hand excavate any discrete archaeological features which appear during earth moving operations, retrieve finds and make measured records as necessary.
94. Any archaeological work that is required prior to (or immediately before) development, i.e. full excavation and/or monitoring, will need to be the subject of a further Written Scheme.
95. The Environmental Statement should also contain proposals for the public benefit of the investigations, both during and after the fieldwork. Provision should be included for outreach activities, for example (and where appropriate), in the form of open days/guided tours for the general public, local schools, local councillors, local archaeological and historical societies and for local public lectures and/or activities within local schools.
96. Provision should be included for local press releases (newspapers/radio/TV). In addition, the Environmental Statement should contain proposals for the long term legacy of this project, e.g. in terms of museum displays, should material of sufficient interest and importance be defined.

Traffic and Transport

97. The Scoping Report sets out the intention to undertake a Transport Assessment, but little detail on this is provided, so SCC provides the following recommendations;
- It needs to include up to date traffic data and this may require additional surveys. Paragraph 10.4.4 refers to desk top study using available data – survey locations and types will need to be agreed with the highways authorities and also be informed by the proposed routing.
 - Traffic flows will need to be considered on the wider network.
 - Impacts on junctions should also be included within the assessment.

- The assessment will need to quantify the impact of the development in terms of all vehicles and HGVs, by site, and include a programme that identifies when vehicles will be accessing the sites. 24 hour access should not be presumed as acceptable due to impact on residents - however, it is accepted that there may be exceptional circumstances.
- The assessment should include proposed routeing for each site and set out how the haul road will be used.
- Information will be required for the Abnormal Indivisible Loads (AIL), both in number and proposed routing and this is likely to also impact the strategic network.
- It is agreed that cumulative impacts as a result of other developments need to be included for all proposed routes within Suffolk and Essex and these should be agreed with the highway authorities.
- The impact on the condition of the access routes needs to be included and take into account maintenance measures to minimise the impact of the developments. There should be no residual deterioration to the maintenance of the highway as a result of the proposed development. A route survey in conjunction with the highways authorities will be required.
- With reference to paragraph 10.5.1, it should be noted that the impact of the development on the highway network will need to be considered on a site specific basis and this may not comply with the guidance percentage impacts and magnitudes referred to therein. The DMRB is designed for the trunk road network and may be inappropriate and too coarse to use for the area affected by development. The magnitude and impact of the development needs to be considered therefore more appropriate assessment will need to be considered here.
- The Transport Assessment should set out mitigation, and residual impacts should be minimised. In addition to the physical mitigation measures, the Transport Assessment should demonstrate how it will manage mitigation through its travel plan to control routeing, timing of deliveries, movement of AILs and staff.

98. Additionally we note the following;

- With respect to the existing environment (paragraph 10.2); the A131 goes through Sudbury which is a declared Air Quality Management Area and is characterised by “pinch-points”. Reference should also be made to weight limits. The A134 passes through Sudbury town centre. The description of the existing environment implies a large number of B – roads, the study area is rather characterised by few A and B roads. Reference should also be made to links to the wider strategic network – for example access to the trunk road network via the A134.
- Effects on residential areas, on-street parking, deliveries to local businesses and building strike by HGVs are also possible and should be assessed (paragraph 10.3.3).
- It should be clarified whether the operational phase will include AIL movements – if so examples of typical events should be included to enable the impact to be assessed (paragraph 10.3.5).
- Highway conditions would have evolved significantly by the time decommissioning arises – criteria for assessing decommissioning would need to be agreed, with the understanding that highway issues that exist at the time will need to be included in any assessment and mitigation (paragraph 10.3.6).
- All references to the “Highways Agency” should read Highway Authorities, meaning the Highways Agency for the strategic network and SCC and Essex County Council for the rest of the highway network (paragraphs 10.4.4 and 10.8.1).
- Closures of the public highway (for example where the underground cables cross public highway) should be minimised. Any diversions would need to be discussed with the relevant highway authority. An assessment of the sensitivity of receptors affected by diverted traffic is likely to be necessary.
- Sustainable drainage should be considered as part of the permanent infrastructure.
- Clarification is needed with regard to protected lanes, if these relate to the highway it should be noted that the local highways authorities should be contacted not just the district authority (paragraph 10.2.1).

99. SCC is generally satisfied with regards to the proposals as they relate to the rights of way network. It is important that closures are properly managed, and supported with an effective communications strategy,

with parish, district and county councillors directly informed. As promoted footpaths may be affected, this should be widely publicised. Any signage needed should be appropriately placed, but should not become visually intrusive and should be removed in a timely fashion. The use of interpretation boards in conjunction the signage should be considered to inform the public about the project.

100. All the mitigation proposals should be set out in a Code of Construction Practice, a draft of which should be provided with the application. It should include details of traffic routeing, provisions for access and a travel plan. Details of a pre-construction condition survey for the highway (including public rights of way) network will need to be provided and provisions set out for the reinstatement of damage.

Flood Risk, Water Quality and Resources

101. With reference to Table 9.1, final row; SCC should also be consulted regarding consent for works in an ordinary watercourse. The baseline sources of information listed in paragraph 9.4.4 should also include SCC flood incidents maps.
102. It is proposed that Schedule 3 of the Flood and Water Management Act 2010 is commenced by April 2014. This will require National Grid to obtain drainage approval for any works affecting surface water and is in addition to planning permission. It will be an offence to construct without drainage approval. If, however development consent is granted before this time, then no drainage approval would be required.

Air Quality and Emissions

103. It not clear why there is a reference to ammonia with respect to road traffic in paragraph 11.3.2. This paragraph is not very clear as goes on to discuss eutrophication and it is not explained why construction activity would result in emissions that may impact on vegetation and ecosystems. The pollutants of concern would be NO_x, SO₂ and Ozone.

Noise and Vibration

104. Whilst the need for a noise and vibration assessment of noise on construction traffic routes has been agreed, reference is made to use of the BS5228 methodology (it is assumed that the reference in Table 12.1 to paragraph 13.4.5 is a typing error and refers to the following 12.4.5 under "Construction Assessment"). For haulage on public roads, it is suggested that the use of the Calculation of Road Traffic Noise methodology would be more relevant, together with the assessment criteria contained in DMRB Volume 11. It would also be helpful to know how many properties are likely to be affected along the routes and what the hours of HGV activity would be – for example whether haulage over night would be required.
105. With respect to vibration, it is important that the route network is well maintained to ensure a smooth running surface. As mentioned above, pre-construction works surveys will be required and should cater for this issue. Again, the methodology contained in DMRB Volume 11 would be relevant to the construction traffic routes.

I trust the above comments are helpful. If you require any clarification, please do not hesitate to contact me.

Yours sincerely

Michael Wilks
Spatial Planning Projects Manager
Economy, Skills and Environment

From: [Eve Edwards](#)
To: [Environmental Services;](#)
Date: 07 March 2013 10:58:36

Dear Sir/Madam

Proposed Bramford to twinstead tee 400kv connection (the project)
Proposal By National Grid (the applicant)

Thank you for your letter dated 18th February 2013 in relation to the above development.

We at Tendring District Council have no comments to make in relation to the proposal as it does not affect the Tendring District Area.

If you have any further questions please do not hesitate to contact me.

Kind Regards

Eve Edwards
Development Technician
Planning Services,
Council Offices,
Weeley, CO16 9AJ
Telephone 01255 686129
E-mail eedwards@tendringdc.gov.uk

[Planning Public Access](#)



UTTLESFORD DISTRICT COUNCIL

Council Offices, London Road, Saffron Walden, Essex CB11 4ER
Telephone (01799) 510510, Fax (01799) 510550
Textphone Users 18001
DX 200307 Saffron Walden
Email uconnect@uttlesford.gov.uk Website www.uttlesford.gov.uk

Chief Executive: John Mitchell

The Planning Inspectorate
3/18 Eagle Wing
Temple Quay House
2 The Square
BRISTOL BS1 6PN

Your
ref:130218_en020002_1658728
Our ref: UTT/13/0444/PE

Please ask for Jeremy Pine on 01799 510460
email: jpine@uttlesford.gov.uk

Dear Mr Ridley

PROPOSED BRAMFORD TO TWINSTEAD TEE 400KV CONNECTION BY NATIONAL GRID

Thank you for your notification letter of 18th February 2013.

I have had a look at the applicant's scoping report via the Planning Portal. The origin of the new 400kv connection is on the far side of Braintree district, extending east into Baburgh and Mid Suffolk districts. Accordingly, this Council has no comments to make.

Yours sincerely

JG Pine

Jeremy Pine
Planning Policy / Development Management Liaison Officer

From: [REDACTED]
To: [Alan Ridley](#)
Subject: RE: Your Ref 130218-EN020002-1658728
Date: 22 March 2013 11:44:05

From: [REDACTED]
Sent: Monday, March 04, 2013 5:36 PM
To: Environmental Services
Subject: Your Ref 130218-EN020002-1658728

I can confirm that the parish of greta Wenham does not have any further comments to make on the above proposal.

C. J. Clark.
parish Clerk.

From: [Board, Chris](#)
To: [Environmental Services:](#)
Subject: Ref 130218_EN020002_1658728
Date: 26 February 2013 13:59:26

Dear Sir/Madam,

I refer to your consultation 1658728.

This authority has no comments to make on the proposals.

Regards

Chris Board
Principal Planning Officer

Direct Dial 01638 719439
Email chris.board@westsuffolk.gov.uk

West Suffolk - working in partnership

Forest Heath District Council
www.forest-heath.gov.uk

St Edmundsbury Borough Council
www.stedmundsbury.gov.uk

From: [REDACTED]
To: [Environmental Services](#);
cc: Kevin.Fraser@essex.gov.uk; [REDACTED]; cllr.wscattergood@braintree.gov.uk;
newmarkb@parliament.uk; timyeomp@parliament.uk;
Subject: 130218_EN0200020_1658728 BRAMFORD TO TWINSTEAD TEE CONNECTION - SCOPING CONSULTATION
Date: 18 March 2013 17:12:16

To whom it may concern -

BRAMFORD TO TWINSTEAD TEE CONNECTION - SCOPING CONSULTATION
SUBMISSION BY THE PARISH COUNCIL FOR WICKHAM ST PAULS

We share the view of many of those in receipt of the Scoping Consultation document that its length, content, complexity and findings cannot be properly digested in a way as to enable a reasoned and meaningful response in the time given.

Responding to the Scoping document has only served to confuse the issue of responding to the National Grid's consultation exercise by 8th April.

THE PC'S MAIN POINTS RE THE SCOPING DOCUMENT ARE AS FOLLOWS -

A) The scoping assessment is flawed in that it rules out the most sensible environmental and long-term economic solution of locating the new sub-station next to the EXISTING SUB-STATION AT BRAINTREE thus enabling an integrated system providing a full capacity to a greater area than the proposed system of two separate sub-stations.

This may be a more expensive option but it is our view that within the overall budget the additional £28m quoted for such a proposal actually presents greater value for money spent.

It is unfortunate that the 'Braintree Option' has never been properly explained to local communities either in the scoping exercise nor in the National Grid's consultation exercise.

B) The Scoping document gives insufficient consideration to the issue of NOISE particularly at night/early morning when other noise sources are mainly silent. There are in fact no comparable noise sources and insufficient consideration been given to continual noise over more transient noise such as aircraft and intermittent traffic.

There has been no proper review of potential impact of continual noise on local wildlife particularly owls and bats.

C) The ENVIRONMENTAL impact has not been fully considered in terms of local communities with insufficient weight given to the potential for land and property price degradation as well as the impact on local economies.

Placing a sub-station between Butlers Wood and Waldergrave Wood makes no environmental sense whereas the 'Braintree Option' makes use of an existing location and provides an opportunity to actually improve the Twinstead/Wickham St Paul/Headingham visual environment by the eventual removal of pylons and overhead lines.

Steve Handley

Chairman

Wickham St Pauls Parish Council

APPENDIX 3

Presentation of the Environmental Statement

APPENDIX 3

PRESENTATION OF THE ENVIRONMENTAL STATEMENT

The Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009 (SI 2264) (as amended) sets out the information which must be provided for an application for a development consent order (DCO) for nationally significant infrastructure under the Planning Act 2008. Where required, this includes an environmental statement. Applicants may also provide any other documents considered necessary to support the application. Information which is not environmental information need not be replicated or included in the ES.

An environmental statement (ES) is described under the Infrastructure Planning (Environmental Impact Assessment) Regulations 2009 (SI 2263) (as amended) (the EIA Regulations) as a statement:

- a) 'that includes such of the information referred to in Part 1 of Schedule 4 as is reasonably required to assess the environmental effects of the development and of any associated development and which the applicant can, having regard in particular to current knowledge and methods of assessment, reasonably be required to compile; but
- b) that includes at least the information required in Part 2 of Schedule 4'.

(EIA Regulations Regulation 2)

The purpose of an ES is to ensure that the environmental effects of a proposed development are fully considered, together with the economic or social benefits of the development, before the development consent application under the Planning Act 2008 is determined. The ES should be an aid to decision making.

The SoS advises that the ES should be laid out clearly with a minimum amount of technical terms and should provide a clear objective and realistic description of the likely significant impacts of the proposed development. The information should be presented so as to be comprehensible to the specialist and non-specialist alike. The SoS recommends that the ES be concise with technical information placed in appendices.

ES Indicative Contents

The SoS emphasises that the ES should be a 'stand alone' document in line with best practice and case law. The EIA Regulations Schedule 4, Parts 1 and 2, set out the information for inclusion in environmental statements.

Schedule 4 Part 1 of the EIA Regulations states this information includes:

- '17. *Description of the development, including in particular—*

- (a) *a description of the physical characteristics of the whole development and the land-use requirements during the construction and operational phases;*
 - (b) *a description of the main characteristics of the production processes, for instance, nature and quantity of the materials used;*
 - (c) *an estimate, by type and quantity, of expected residues and emissions (water, air and soil pollution, noise, vibration, light, heat, radiation, etc) resulting from the operation of the proposed development.*
18. *An outline of the main alternatives studied by the applicant and an indication of the main reasons for the applicant's choice, taking into account the environmental effects.*
19. *A description of the aspects of the environment likely to be significantly affected by the development, including, in particular, population, fauna, flora, soil, water, air, climatic factors, material assets, including the architectural and archaeological heritage, landscape and the interrelationship between the above factors.*
20. *A description of the likely significant effects of the development on the environment, which should cover the direct effects and any indirect, secondary, cumulative, short, medium and long-term, permanent and temporary, positive and negative effects of the development, resulting from:*
- (a) *the existence of the development;*
 - (b) *the use of natural resources;*
 - (c) *the emission of pollutants, the creation of nuisances and the elimination of waste,*
- and the description by the applicant of the forecasting methods used to assess the effects on the environment.*
21. *A description of the measures envisaged to prevent, reduce and where possible offset any significant adverse effects on the environment.*
22. *A non-technical summary of the information provided under paragraphs 1 to 5 of this Part.*
23. *An indication of any difficulties (technical deficiencies or lack of know-how) encountered by the applicant in compiling the required information'.*

EIA Regulations Schedule 4 Part 1

- 4.13 The content of the ES must include as a minimum those matters set out in Schedule 4 Part 2 of the EIA Regulations. This includes the consideration of 'the main alternatives studied by the applicant' which the SoS recommends could be addressed as a separate chapter in the ES. Part 2 is included below for reference:

4.14 Schedule 4 Part 2

- A description of the development comprising information on the site, design and size of the development
- A description of the measures envisaged in order to avoid, reduce and, if possible, remedy significant adverse effects
- The data required to identify and assess the main effects which the development is likely to have on the environment
- An outline of the main alternatives studied by the applicant and an indication of the main reasons for the applicant's choice, taking into account the environmental effects, and
- A non-technical summary of the information provided *[under the four paragraphs above]*.

Traffic and transport is not specified as a topic for assessment under Schedule 4; although in line with good practice the SoS considers it is an important consideration *per se*, as well as being the source of further impacts in terms of air quality and noise and vibration.

Balance

The SoS recommends that the ES should be balanced, with matters which give rise to a greater number or more significant impacts being given greater prominence. Where few or no impacts are identified, the technical section may be much shorter, with greater use of information in appendices as appropriate.

The SoS considers that the ES should not be a series of disparate reports and stresses the importance of considering inter-relationships between factors and cumulative impacts.

Scheme Proposals

The scheme parameters will need to be clearly defined in the draft DCO and therefore in the accompanying ES which should support the application as described. The SoS is not able to entertain material changes to a project once an application is submitted. The SoS draws the attention of the applicant to the DCLG and the Planning Inspectorate's published advice on the preparation of a draft DCO and accompanying application documents.

Flexibility

The SoS acknowledges that the EIA process is iterative, and therefore the proposals may change and evolve. For example, there may be changes to the scheme design in response to consultation. Such changes should be addressed in the ES. However, at the time of the application for a DCO, any proposed scheme parameters should not be so wide ranging as to represent effectively different schemes.

It is a matter for the applicant, in preparing an ES, to consider whether it is possible to assess robustly a range of impacts resulting from a large number of undecided parameters. The description of the proposed development in the ES must not be so wide that it is insufficiently certain to comply with requirements of paragraph 17 of Schedule 4 Part 1 of the EIA Regulations.

The Rochdale Envelope principle (see *R v Rochdale MBC ex parte Tew (1999)* and *R v Rochdale MBC ex parte Milne (2000)*) is an accepted way of dealing with uncertainty in preparing development applications. The applicant's attention is drawn to the Planning Inspectorate's Advice Note 9 'Rochdale Envelope' which is available on the Advice Note's page of the National Infrastructure Planning website.

The applicant should make every attempt to narrow the range of options and explain clearly in the ES which elements of the scheme have yet to be finalised and provide the reasons. Where some flexibility is sought and the precise details are not known, the applicant should assess the maximum potential adverse impacts the project could have to ensure that the project as it may be constructed has been properly assessed.

The ES should be able to confirm that any changes to the development within any proposed parameters would not result in significant impacts not previously identified and assessed. The maximum and other dimensions of the proposed development should be clearly described in the ES, with appropriate justification. It will also be important to consider choice of materials, colour and the form of the structures and of any buildings. Lighting proposals should also be described.

Scope

The SoS recommends that the physical scope of the study areas should be identified under all the environmental topics and should be sufficiently robust in order to undertake the assessment. The extent of the study areas should be on the basis of recognised professional guidance, whenever such guidance is available. The study areas should also be agreed with the relevant consultees and local authorities and, where this is not possible, this should be stated clearly in the ES and a reasoned justification given. The scope should also cover the breadth of the topic area and the temporal scope, and these aspects should be described and justified.

Physical Scope

In general the SoS recommends that the physical scope for the EIA should be determined in the light of:

- the nature of the proposal being considered
- the relevance in terms of the specialist topic

- the breadth of the topic
- the physical extent of any surveys or the study area, and
- the potential significant impacts.

The SoS recommends that the physical scope of the study areas should be identified for each of the environmental topics and should be sufficiently robust in order to undertake the assessment. This should include at least the whole of the application site, and include all offsite works. For certain topics, such as landscape and transport, the study area will need to be wider. The extent of the study areas should be on the basis of recognised professional guidance and best practice, whenever this is available, and determined by establishing the physical extent of the likely impacts. The study areas should also be agreed with the relevant consultees and, where this is not possible, this should be stated clearly in the ES and a reasoned justification given.

Breadth of the Topic Area

The ES should explain the range of matters to be considered under each topic and this may respond partly to the type of project being considered. If the range considered is drawn narrowly then a justification for the approach should be provided.

Temporal Scope

The assessment should consider:

- environmental impacts during construction works
- environmental impacts on completion/operation of the development
- where appropriate, environmental impacts a suitable number of years after completion of the development (for example, in order to allow for traffic growth or maturing of any landscape proposals), and
- environmental impacts during decommissioning.

In terms of decommissioning, the SoS acknowledges that the further into the future any assessment is made, the less reliance may be placed on the outcome. However, the purpose of such a long term assessment, as well as to enable the decommissioning of the works to be taken into account, is to encourage early consideration as to how structures can be taken down. The purpose of this is to seek to minimise disruption, to re-use materials and to restore the site or put it to a suitable new use. The SoS encourages consideration of such matters in the ES.

The SoS recommends that these matters should be set out clearly in the ES and that the suitable time period for the assessment should be agreed with the relevant statutory consultees.

The SoS recommends that throughout the ES a standard terminology for time periods should be defined, such that for example, 'short term' always refers to the same period of time.

Baseline

The SoS recommends that the baseline should describe the position from which the impacts of the proposed development are measured. The baseline should be chosen carefully and, whenever possible, be consistent between topics. The identification of a single baseline is to be welcomed in terms of the approach to the assessment, although it is recognised that this may not always be possible.

The SoS recommends that the baseline environment should be clearly explained in the ES, including any dates of surveys, and care should be taken to ensure that all the baseline data remains relevant and up to date.

For each of the environmental topics, the data source(s) for the baseline should be set out together with any survey work undertaken with the dates. The timing and scope of all surveys should be agreed with the relevant statutory bodies and appropriate consultees, wherever possible.

The baseline situation and the proposed development should be described within the context of the site and any other proposals in the vicinity.

Identification of Impacts and Method Statement

Legislation and Guidelines

In terms of the EIA methodology, the SoS recommends that reference should be made to best practice and any standards, guidelines and legislation that have been used to inform the assessment. This should include guidelines prepared by relevant professional bodies.

In terms of other regulatory regimes, the SoS recommends that relevant legislation and all permit and licences required should be listed in the ES where relevant to each topic. This information should also be submitted with the application in accordance with the APFP Regulations.

In terms of assessing the impacts, the ES should approach all relevant planning and environmental policy – local, regional and national (and where appropriate international) – in a consistent manner.

Assessment of Effects and Impact Significance

The EIA Regulations require the identification of the 'likely significant effects of the development on the environment' (Schedule 4 Part 1 paragraph 20).

As a matter of principle, the SoS applies the precautionary approach to follow the Court's¹ reasoning in judging 'significant effects'. In other words

¹ See Landelijke Vereniging tot Behoud van de Waddenzee and Nederlandse Vereniging tot Bescherming van Vogels v Staatssecretaris van Landbouw (Waddenzee Case No C 127/02/2004)

'likely to affect' will be taken as meaning that there is a probability or risk that the development will have an effect, and not that a development will definitely have an effect.

The SoS considers it is imperative for the ES to define the meaning of 'significant' in the context of each of the specialist topics and for significant impacts to be clearly identified. The SoS recommends that the criteria should be set out fully and that the ES should set out clearly the interpretation of 'significant' in terms of each of the EIA topics. Quantitative criteria should be used where available. The SoS considers that this should also apply to the consideration of cumulative impacts and impact inter-relationships.

The SoS recognises that the way in which each element of the environment may be affected by the proposed development can be approached in a number of ways. However it considers that it would be helpful, in terms of ease of understanding and in terms of clarity of presentation, to consider the impact assessment in a similar manner for each of the specialist topic areas. The SoS recommends that a common format should be applied where possible.

Inter-relationships between environmental factors

The inter-relationship between aspects of the environments likely to be significantly affected is a requirement of the EIA Regulations (see Schedule 4 Part 1 of the EIA Regulations). These occur where a number of separate impacts, e.g. noise and air quality, affect a single receptor such as fauna.

The SoS considers that the inter-relationships between factors must be assessed in order to address the environmental impacts of the proposal as a whole. This will help to ensure that the ES is not a series of separate reports collated into one document, but rather a comprehensive assessment drawing together the environmental impacts of the proposed development. This is particularly important when considering impacts in terms of any permutations or parameters to the proposed development.

Cumulative Impacts

The potential cumulative impacts with other major developments will need to be identified, as required by the Directive. The significance of such impacts should be shown to have been assessed against the baseline position (which would include built and operational development). In assessing cumulative impacts, other major development should be identified through consultation with the local planning authorities and other relevant authorities on the basis of those that are:

- under construction
 - permitted application(s), but not yet implemented
 - submitted application(s) not yet determined
 - projects on the National Infrastructure's programme of projects
-

- identified in the relevant development plan (and emerging development plans - with appropriate weight being given as they move closer to adoption) recognising that much information on any relevant proposals will be limited, and
- identified in other plans and programmes (as appropriate) which set the framework for future development consents/approvals, where such development is reasonably likely to come forward.

Details should be provided in the ES, including the types of development, location and key aspects that may affect the EIA and how these have been taken into account as part of the assessment.

The SoS recommends that offshore wind farms should also take account of any offshore licensed and consented activities in the area, for the purposes of assessing cumulative effects, through consultation with the relevant licensing/consenting bodies.

For the purposes of identifying any cumulative effects with other developments in the area, applicants should also consult consenting bodies in other EU states to assist in identifying those developments (see commentary on Transboundary Effects below).

Related Development

The ES should give equal prominence to any development which is related with the proposed development to ensure that all the impacts of the proposal are assessed.

The SoS recommends that the applicant should distinguish between development for which development consent will be sought and any other development. This distinction should be clear in the ES.

Alternatives

The ES must set out an outline of the main alternatives studied by the applicant and provide an indication of the main reasons for the applicant's choice, taking account of the environmental effect (Schedule 4 Part 1 paragraph 18).

Matters should be included, such as *inter alia* alternative design options and alternative mitigation measures. The justification for the final choice and evolution of the scheme development should be made clear. Where other sites have been considered, the reasons for the final choice should be addressed.

The SoS advises that the ES should give sufficient attention to the alternative forms and locations for the off-site proposals, where appropriate, and justify the needs and choices made in terms of the form of the development proposed and the sites chosen.

Mitigation Measures

Mitigation measures may fall into certain categories namely: avoid; reduce; compensate or enhance (see Schedule 4 Part 1 paragraph 21); and should be identified as such in the specialist topics. Mitigation measures should not be developed in isolation as they may relate to more than one topic area. For each topic, the ES should set out any mitigation measures required to prevent, reduce and where possible offset any significant adverse effects, and to identify any residual effects with mitigation in place. Any proposed mitigation should be discussed and agreed with the relevant consultees.

The effectiveness of mitigation should be apparent. Only mitigation measures which are a firm commitment and can be shown to be deliverable should be taken into account as part of the assessment.

It would be helpful if the mitigation measures proposed could be cross referred to specific provisions and/or requirements proposed within the draft development consent order. This could be achieved by means of describing the mitigation measures proposed either in each of the specialist reports or collating these within a summary section on mitigation.

The SoS advises that it is considered best practice to outline in the ES, the structure of the environmental management and monitoring plan and safety procedures which will be adopted during construction and operation and may be adopted during decommissioning.

Cross References and Interactions

The SoS recommends that all the specialist topics in the ES should cross reference their text to other relevant disciplines. Interactions between the specialist topics is essential to the production of a robust assessment, as the ES should not be a collection of separate specialist topics, but a comprehensive assessment of the environmental impacts of the proposal and how these impacts can be mitigated.

As set out in EIA Regulations Schedule 4 Part 1 paragraph 23, the ES should include an indication of any technical difficulties (technical deficiencies or lack of know-how) encountered by the applicant in compiling the required information.

Consultation

The SoS recommends that any changes to the scheme design in response to consultation should be addressed in the ES.

It is recommended that the applicant provides preliminary environmental information (PEI) (this term is defined in the EIA Regulations under regulation 2 'Interpretation') to the local authorities.

Consultation with the local community should be carried out in accordance with the SoCC which will state how the applicant intends to consult on the

preliminary environmental information (PEI). This PEI could include results of detailed surveys and recommended mitigation actions. Where effective consultation is carried out in accordance with Section 47 of the Planning Act, this could usefully assist the applicant in the EIA process – for example the local community may be able to identify possible mitigation measures to address the impacts identified in the PEI. Attention is drawn to the duty upon applicants under Section 50 of the Planning Act to have regard to the guidance on pre-application consultation.

Transboundary Effects

The SoS recommends that consideration should be given in the ES to any likely significant effects on the environment of another Member State of the European Economic Area. In particular, the SoS recommends consideration should be given to discharges to the air and water and to potential impacts on migratory species and to impacts on shipping and fishing areas.

The Applicant's attention is also drawn to the Planning Inspectorate's Advice Note 12 'Development with significant transboundary impacts consultation' which is available on the Advice Notes Page of the National Infrastructure Planning website

Summary Tables

The SoS recommends that in order to assist the decision making process, the applicant may wish to consider the use of tables:

Table X to identify and collate the residual impacts after mitigation on the basis of specialist topics, inter-relationships and cumulative impacts.

Table XX to demonstrate how the assessment has taken account of this Opinion and other responses to consultation.

Table XXX to set out the mitigation measures proposed, as well as assisting the reader, the SoS considers that this would also enable the applicant to cross refer mitigation to specific provisions proposed to be included within the draft Development Consent Order.

Table XXXX to cross reference where details in the HRA (where one is provided) such as descriptions of sites and their locations, together with any mitigation or compensation measures, are to be found in the ES.

Terminology and Glossary of Technical Terms

The SoS recommends that a common terminology should be adopted. This will help to ensure consistency and ease of understanding for the decision making process. For example, 'the site' should be defined and used only in

terms of this definition so as to avoid confusion with, for example, the wider site area or the surrounding site.

A glossary of technical terms should be included in the ES.

Presentation

The ES should have all of its paragraphs numbered, as this makes referencing easier as well as accurate.

Appendices must be clearly referenced, again with all paragraphs numbered.

All figures and drawings, photographs and photomontages should be clearly referenced. Figures should clearly show the proposed site application boundary.

Bibliography

A bibliography should be included in the ES. The author, date and publication title should be included for all references. All publications referred to within the technical reports should be included.

Non Technical Summary

The EIA Regulations require a Non Technical Summary (EIA Regulations Schedule 4 Part 1 paragraph 22). This should be a summary of the assessment in simple language. It should be supported by appropriate figures, photographs and photomontages.