

BABERGH DISTRICT COUNCIL AND MID SUFFOLK DISTRICT COUNCIL

From: Strategic Director (Place)	Report Number: M50
To: Executive Committee Strategy Committee	Date of meeting: 9 July 2012 12 July 2012

**BRAMFORD TO TWINSTEAD ELECTRICITY TRANSMISSION LINE PROJECT:
CONNECTION OPTIONS REPORT - RESPONSE TO CONSULTATION**

1. Purpose of Report

2. To consider the impact of the National Grid's proposals upon the area and to provide a response to the findings of the Connection Options Report.

3. Recommendations

- 3.1 That, representatives from each Council continue to work with other local authorities together with local interest groups affected by the proposals to provide a co-ordinated and united response to the Project being:
 - (a) Councillors Jennie Jenkins and Nick Ridley as previously appointed for Babergh District Council, and,
 - (b) Subject to the agreement of the Executive Committee, Councillor John Field for Mid Suffolk District Council.
- 3.2 That, in conjunction with the other local authorities Babergh District Council and Mid Suffolk District Council urge Government to review the processes which dictate that National Grid must pursue the scheme now so as to avoid an unsatisfactory project being approved given the known delays associated with the delivery of new electricity generation capacity in the Eastern Region.
- 3.3 That, in conjunction with the other local authorities Babergh District Council and Mid Suffolk District Council urge Government to review the current arrangements concerning compensation to ensure that individuals and communities who may be negatively affected by the Project receive sufficient recompense.
- 3.4 That, subject to any amendments that the Strategy Committee/ Executive Committee may wish to make as a result of their consideration of this report, the comments set out below be approved as the formal response for each authority to National Grid. Babergh District Council and Mid Suffolk District Council:
 - (a) expect that each and every section of the line should be placed underground.
 - (b) note the limited sections of undergrounding proposed but consider that any "sealing end compounds" (the transition points between overhead and underground cables) are likely to have a significant and unacceptable impact upon the character of the countryside.
 - (c) consider that by failing to follow best practice guidance National Grid has not adequately responded to concerns about the socio-economic impact of the scheme upon the local economy.

- (d) note the frustration of local communities with the consultation process, in particular the way in which their representations have been taken into account, and strongly urge National Grid to ensure that residents are afforded every opportunity to be fully engaged as the project progresses in order to address the uncertainty that has been created.
 - (e) consider there has been a lack of clarity over the approach to route selection in the Burstall and Hintlesham area and over the need for a substation in the Twinstead area; consequently the Project is not being progressed in an holistic manner.
 - (f) consider that if a Development Consent Order is granted, National Grid should set up and finance an Environmental Improvement Fund to support local environmental initiatives to mitigate the impacts of the development.
 - (g) consider that in addition to requiring the new line to be placed beneath ground the emerging opportunities for undergrounding the existing lines through the Dedham Vale Area of Outstanding Natural Beauty (AONB) and the Stour Valley should be exploited fully with the ambition of securing and maintaining a landscape free of high voltage electricity transmission pylons.
- 3.5 That the Strategic Director (Place) in conjunction with the Chairman/Vice Chairman of the Strategy Committee/ Executive Committee be authorised to make changes and additions to the detail of this wording if necessary following further discussions with the other local authorities and interest groups.
- The Committee is able to resolve this matter.

4. Financial Implications

4.1 There are no financial implications arising directly from the content of this report.

5. Risk Management

5.1 The Significant Business Risks Register identifies one area of concern that is pertinent to the content of this report: No.1 – Political and Managerial Leadership. The key risk is set out below:

Risk Description	Likelihood	Impact	Mitigation Measures
Failure to provide community leadership at a local level.	High	Critical	Seek to influence national decision making for the benefit of local communities.

6. Consultations

6.1 In view of the nature of this report no specific consultation has been undertaken however Councillors in both Districts have previously been briefed on the matter.

7. Equality Analysis

7.1 There are no Equality and Diversity implications arising directly from the content of this report.

8. Shared Service / Partnership Implications

- 8.1 The Bramford to Twinstead project has implications for both Babergh and Mid Suffolk albeit that the extent of the project within Babergh is considerably greater. Officers from both Districts have been working jointly on the project with colleagues from Suffolk County Council and the Essex authorities. The additional resource implications will be addressed in part via the completed Planning Performance Agreement.

9. Key Information

Background

- 9.1 National Grid is proposing to construct a new 400kV power line through South Suffolk from the existing sub-station at Bramford, to Twinstead in Essex. Babergh District Council and Mid Suffolk District Council will not be the determining authorities for any subsequent Development Consent Order (DCO) application. This will fall to the Secretary of State for Energy and Climate Change following an assessment by the National Infrastructure Directorate – part of the Planning Inspectorate. The District Councils are, however, identified as relevant local authorities for the purposes of the Planning Act, 2008, and it is in that capacity that this report has been prepared for consideration.
- 9.2 Initially National Grid consulted on four different route corridor options and the response to this consultation (Stage One) was considered by Babergh's Strategy Committee on 11 February 2010 and Mid Suffolk's Planning Committee A on 3 February 2010. The resolutions from each meeting are attached as Appendix One.
- 9.3 In July 2011 National Grid announced its preferred corridor for developing a 400kV line connection between the Bramford substation and the Twinstead Tee in Essex (identified as Corridor 2 during the Stage One consultation) incorporating the route of the existing 132kV overhead line operated by UK Power Networks (UKPN). In making this announcement National Grid indicated that it would give detailed consideration to placing cables beneath ground where appropriate to mitigate the potential impact of the scheme in sensitive locations.
- 9.4 Since the announcement in July 2011 National Grid has held a series of workshops with statutory and non-statutory bodies to gather environmental baseline information for Corridor 2. This work has involved gathering evidence on landscape characteristics, cultural heritage and biodiversity. National Grid has also been holding a series of Community Forums on a monthly basis at four separate locations along the route to gain information from local people as part of Stage Two of the consultation process. This has culminated in the publication of the Connections Options Report (COR).
- 9.5 The COR was published on 29 May and sets out the approach National Grid has taken towards the selection of an interim alignment which would be a generally parallel alignment to the south of the existing 400kV overhead line. The connection would involve the construction of 21km of new overhead line and 8km of underground cable in two short sections in the Dedham Vale AONB and the Stour Valley. The overhead line would be constructed using lattice type pylons similar, but not identical in appearance, to the existing pylons. Large scale plans showing the interim alignment will be on display at the respective meetings however a small scale plan is attached for reference in Appendix Two.

- 9.6 The relevant local authorities, statutory consultees and general public have been given until 27 July to comment. Observations can however continue to be submitted after this date to National Grid. The COR can be inspected by following the link detailed at Appendix Three.

Collaboration

- 9.7 Councillors representing Babergh, Braintree, Essex, Mid Suffolk and Suffolk Councils met on 15 June to discuss areas of common concern. It is as a result of these discussions that the recommendations set out in this report have been based.
- 9.8 A similar set of recommendations is likely to be considered by the Suffolk County Council when it discusses its response to the consultation at a Cabinet Meeting on 10 July. Essex County Council will be considering the matter on 11 July and Braintree District Council on 16 July.
- 9.9 Agreement is therefore sought from Members for representatives from Babergh District Council and Mid Suffolk District Council to continue to work with other local authorities together with local interest groups to jointly advance the case set out in this report.

The need for network reinforcement

- 9.10 National Grid has produced a 'Needs Case' in support of its proposals. The need for the project was originally predicated on connecting Sizewell C to the electricity transmission network. During the course of the project a more immediate need has arisen as a result of the proposals by East Anglian Offshore Wind.
- 9.11 When National Grid receives a request to connect a new generator to the network it must provide an offer within a set period of time. That offer then forms the basis of a contract and the generator subsequently waits in a queue to be connected. It appears that, for fear of losing their place in the queue, generators are unlikely to inform National Grid officially of any slippages in their timescales. It is for this reason that National Grid continues to plan to connect Sizewell C in 2020-2021 and the majority of East Anglian Offshore Wind by the same time. This is extremely frustrating for the local authorities as the generators have made it quite clear to them that they do not intend to complete these connections until several years later.
- 9.12 The Cabinet Member for Roads and Transport at Suffolk County Council on behalf of all the affected local authorities has written to local MPs pressing for a change to the process that is driving the premature delivery of the Bramford to Twinstead Project. This change is particularly important because the drafting of the National Policy Statements, against which the Project will be determined, suggests that where the need for a project is already established it will not be a matter open to detailed discussion at any future examination.
- 9.13 Greater certainty on the future level and provision of future generation capacity and over what timescale is therefore required before the Bramford to Twinstead connection is pursued at this time. This would potentially allow technological advances to deliver a more sustainable scheme, at a lower cost in the future. Members are therefore invited in collaboration with the other local authorities to urge the Government to review the processes which dictate that National Grid must pursue the project now so as to avoid an unsatisfactory scheme receiving DCO approval.

Sustainable Development

- 9.14 The Suffolk County Council, in conjunction with local interest groups, has been working with Government and the regulator Ofgem to ensure that decisions on network planning are taken within a more strategic context and that tradeoffs between economic and environmental benefits are made within a framework of sustainable development.
- 9.15 In support of Stage One of the consultation process National Grid produced a 'Strategic Options Report' outlining the main alternatives it had considered. In response to representations made during the previous round of consultation, National Grid reviewed that document, subsequently concluding that, in its view, an overhead line from Bramford to Twinstead (with some sections placed beneath ground) remained the appropriate choice, achieving the right balance between National Grid's technical, economic and environmental obligations.
- 9.16 A number of proposals are now in place which relate to onshore and offshore electricity networks and there is a clear recognition from Government that a more coordinated approach would reduce the amount of infrastructure required. This would reduce potential environmental damage, harm to local communities and benefit the consumer. Government has therefore signed a Memorandum of Understanding with a number of European countries to investigate further the development of an offshore grid, though it is recognised that there is a range of technical, financial and regulatory obstacles to overcome to deliver this. Nevertheless, it is paramount that Government devotes significant resources to this issue given the potentially significant benefits an offshore grid could deliver.
- 9.17 As indicated in the preceding section of this report if there was greater clarity around the real timing and need for the Bramford to Twinstead Project there would be more of an opportunity for the longer term implications of these changes to be understood. While this may not rule out the need for further network reinforcement altogether, it might at least enable National Grid to deliver a more sustainable scheme with Ofgem (which authorises National Grid's spending), the Planning Inspectorate (which will examine the project) and Government (as final decision maker).
- 9.18 Despite the current proposals to place some 8km of the route underground, a significant proportion would take the form of an overhead line. As such National Grid has failed to acknowledge the additional local environmental and socio-economic benefits that could accrue from further undergrounding. For example, there are obvious links between the visual quality of the natural environment and the potential for tourism, and the economic benefits associated with that.
- 9.19 The socio-economic impacts of National Grid's current proposals have not given sufficient consideration to this point and the analysis provided fails to follow current best practice. Members are therefore invited to endorse the view that National Grid should address this point in order to respond to serious concerns that have been expressed about the impact of the project on the local economy.

Compensation

- 9.20 Only those individuals who are directly and physically affected by an electricity transmission scheme are likely to be compensated for any loss incurred. This is usually in the form of a wayleave agreement with the landowners concerned. Those people whose properties are blighted through, say, the visual intrusion of an overhead line would not generally be compensated. This position is however different for those affected by other linear development schemes, such as road and rail schemes, where compensation may be payable to individuals physically affected by a scheme.
- 9.21 The Bramford to Twinstead scheme is deemed to be a Nationally Significant Infrastructure Project, yet there are no provisions to compensate those individuals that may be affected, should an overhead line, in particular, be placed in the vicinity of, but not directly on their property. If National Grid had to factor in this additional cost (which is currently being ignored), the relative cost of undergrounding could fall further. Again, the Cabinet Member for Roads and Transport at Suffolk County Council has written to local MPs on this issue on behalf of the local authorities, and Members are invited to support this action.

Environmental Improvement Fund

- 9.22 Should National Grid achieve DCO approval it is imperative that National Grid should set up and financially support an Environmental Improvement Fund to be used on local initiatives, such as the provision of community woodlands, tree and hedgerow planting, the establishment of traditional orchards and the enhancement of wildlife habitats. The fund should cover an area of up to 5km either side of the proposed route and new substation and be used over a longer time period than National Grid are able to achieve directly by agreement with third parties during the construction of the Project.
- 9.23 Community groups, parish councils and voluntary sector organisations would be encouraged to make applications to this fund which would need to be administered by an independent board that might include representatives from National Grid, the local authorities and local communities who would be charged with assessing schemes against agreed criteria.

Consultation Process and the Community Forums

- 9.24 In line with the recommendations made by Babergh's Strategy Committee on 11 February 2010, National Grid established a series of Community Forums to support Stage 2 of its consultation process. The feedback from these forums has informed the production of the COR however it is evident from representations that have been made that there is considerable frustration with their operation within the communities they are intended to serve. In short it is claimed that the impact of the proposals upon 'people' is not being fully recognised.
- 9.25 It should be noted that National Grid had previously made a commitment to holding a separate consultation on the detailed selection of a route around Burstall and Hintlesham prior to the publication of the COR. This did not however take place and local residents consider they have been misled. Furthermore National Grid has published the COR in advance of the publication of UKPN 'needs case' in relation to the future use and operation of the existing 132kV overhead line which would be removed as part of the Bramford to Twinstead Project. As a consequence further uncertainty has been created for the communities in Braintree concerning the possible construction of a substation within the vicinity of the Twinstead Tee.

- 9.26 National Grid will continue to hold Community Forum meetings as the Project progresses towards the DCO application. In the light of representations that have been made the company should be urged to have greater regard to the well-being of individuals and the communities that are likely to be affected by the proposals. Members are accordingly invited to stress the need for National Grid to fully take into account the impact of the proposals upon people and ensure that residents are afforded every opportunity to be fully engaged in the process.

The Connections Options Report

- 9.27 The COR sets out how National Grid would prefer to form a link between Bramford to Twinstead and its proposals are based upon an appraisal of the route which has been broken down into six study areas. The following sections of this report briefly outline what is proposed in each study area and highlight some of the potential implications. In view of the complexity of the project and the limited time available to respond to the content of the COR it has not been possible to give detailed consideration to each section of the route. A table has also been prepared which summarises the options considered by National Grid for each study area and provides details of the estimated capital and lifetime costs for each section of the route. This is attached as Appendix Four.

Study Area AB – Hintlesham

- 9.28 This study area is defined by the Bramford substation to the east and the former Hadleigh branch railway line to the west. In this study area it is proposed that the line would be constructed to the south east of existing 400kV overhead line in the section between the Bramford substation to a point to the east of Primrose Farm whereupon it would adopt a parallel alignment to the south of the existing line. In order to avoid woodlands however the existing overhead line would be rerouted around the northern and western edge of Ramsey Wood. Only a small section (approximately 200 metres in length) would be situated in Mid Suffolk.
- 9.29 The eastern part of the study area is situated within the Belstead Brook Valley which is designated by the Babergh Local Plan as a Special Landscape Area. The western part of the study area also falls within a Special Landscape Area but the intervening land between Hintlesham Woods and Clay Lane is not designated. The Suffolk Landscape Character Assessment describes the area as ‘Rolling Valley Farmland’, ‘Ancient Plateau Claylands’ and ‘Ancient Estate Claylands’.
- 9.30 The COR suggests that the study area is made up of ‘unremarkable’ arable land on the plateau of higher ground between the River Gipping to the east of Belstead Brook and the River Brett. Although the predominantly agricultural landscape is considered to be broadly intact, National Grid considers the area to be of only local value in landscape terms. As such it considers the negative effects of the proposal would be limited by the presence of the existing 400kV overhead line.
- 9.31 It is however evident that the creation of additional overhead lines to the west of the Bramford substation and the formation of a new overhead line approximately 400 metres to the south east of the existing line would create a wire ‘box’ around Canes Farm, a Grade 2 listed building and the nearby residential properties. It would also cumulatively add to the already heavily despoiled landscape around the Bramford substation which is particularly noticeable from Tye Lane, Bramford to the north.

- 9.32 The proposed overhead line would also pass to the north-west of Hintlesham Hall, a Grade 1 listed building. The setting to Hintlesham Hall has already been compromised by the existing overhead line. The environment surrounding the Hall therefore has less capacity to accommodate any further change without causing substantial harm to the setting of a designated heritage asset of the highest significance.
- 9.33 In order to avoid Ramsey Wood, a Site of Special Scientific Interest, the proposals would result in the creation of a further wire 'box' to the south of the A1071 and Hadleigh Bee Farm. This in combination with the use of a different pylon design to that already used would not achieve synchronicity with the existing overhead line. As such the proposals would be visually intrusive and highly detrimental to the character of the surrounding countryside, especially when viewed from the A1071 road. As a consequence there is a very compelling case for the route to be placed beneath ground within this study area.

Study Area C - Brett Valley

- 9.34 This study area is defined by the former Hadleigh branch railway line to the east and Overbury Hill Road to the west. In this study area it is proposed that an overhead line would be constructed to the south and parallel to the existing 400kV line.
- 9.35 The Brett Valley is designated as a Special Landscape Area (SLA) by the Babergh Local Plan and the Suffolk Landscape Character Assessment describes the area as rolling valley farmlands and valley meadowlands. The predominantly agricultural landscape in the Study Area is broadly intact however some of the historic field patterns have been lost and there is a preponderance of fragmented hedgerows.
- 9.36 The COR acknowledges that valley landscapes generally have less capacity to accommodate an overhead line in comparison with an open plateau landscape. The report suggests however that because of the gently sloping sides to the valley and the presence of the existing overhead line the landscape has greater capacity to accommodate a further overhead line than might otherwise be the case.
- 9.37 Babergh Members will recall that when they considered the initial consultation on the project they were opposed to the introduction of further overhead lines in the Brett Valley because of the additional visual intrusion that would be caused within the landscape. Indeed even National Grid acknowledges that the introduction of a new overhead line on the proposed southern alignment would have a moderately negative effect.
- 9.38 The presence of the existing overhead lines, along with the other reasons advanced by National Grid, does not provide sufficient justification to support the construction of a further 400kV line through the valley which will be of a different design and appearance to those already in existence. Representations should therefore continue to be made to ensure that this section of the route is placed beneath ground in accord with the views expressed by Community Forum Members and local residents.

Study Area D - Polstead

- 9.39 This study area is defined by Overbury Hall Road to the east and the boundary to the Dedham Vale AONB to the west. In this study area it is proposed that an overhead line would be constructed to the south and parallel to the existing 400kV overhead line, following the alignment of the existing 132kV line.
- 9.40 The eastern part of the study area is situated within a Special Landscape Area designated by the Babergh Local Plan and the Suffolk Landscape Character Assessment describes the area as 'Ancient Rolling Farmlands'. This landscape character type is described in the COR as being typified by rolling plateau dissected by small streams and rivers.
- 9.41 The COR notes that the predominantly agricultural landscape in the study area is largely intact with the exception of Layham Quarry which occupies part of the route corridor. The report suggests however that the landscape is 'unremarkable' and of only local value. As such it claims that the landscape has greater capacity to accommodate a new 400kV overhead line because of this factor and the presence of the existing overhead line.
- 9.42 While it acknowledged that the character of Study Area D is not as sensitive to change to that within the adjoining Areas C and E, it does nonetheless form an intrinsic part of the South Suffolk landscape. In view of the need for the line to be placed beneath ground in Study Area C and National Grid's proposals to underground the line in Study Area E it would be perverse for such a short section (3.3km) to remain above ground. Such a solution would obviate the need for a sealing end compound to be constructed, the implications of which are discussed in the next section.

Study Area E - Dedham Vale AONB

- 9.43 This study area is defined by the eastern boundary of the AONB near Polstead Heath and the western boundary of the AONB on Brick Kiln Hill lane. In this study area it is proposed to place the line beneath ground. As a consequence it would be necessary to construct a sealing end compound to the east of Sprotts Farm at the western end of Study Area D and a further sealing end compound at a point to the west of Boxford Fruit Farm and to the east of the A134 in Study Area F.
- 9.44 Study Area E comprises the northern the extent of the statutorily protected Dedham Vale AONB which is of national significance. In view of the existing overhead line National Grid acknowledged that the capacity of the landscape to accommodate a further overhead line is low. An underground option is therefore proposed to avoid the major negative effects on the landscape associated with an overhead line.
- 9.45 While the proposed construction of the line beneath ground in Study Area E is to be welcomed, the construction of sealing end compounds in the adjoining study areas is not. Sealing end compounds are required at the interface between overhead lines and underground cables and comprise a terminal tower (pylon) set within a relatively flat area measuring approximately 50 x 85 metres. The compounds would contain electrical equipment, support structures and a small control building and are enclosed by security fencing. Permanent access is required for maintenance purposes and a tarmac road is usually constructed from the local highway network.

- 9.46 It is evident that insufficient consideration has been given to the potential consequences of locating the sealing end compounds on the margins of the AONB and adverse visual impacts associated with their construction. The scale and nature of the sealing end compounds is such that there is further justification to suggest that the entire route is placed beneath ground.
- 9.47 In addition to the above it is known that National Grid will be reviewing the location of existing overhead lines in designated landscapes with the view to establishing whether it is possible to secure environmental improvements. There is therefore a case here for the company to be urged to remove the existing 400kV line in the Dedham Vale AONB and place it beneath ground.

Study Area F - Leavenheath/Assington

- 9.48 This study area is defined to the east by the western boundary of the AONB on Brick Kiln Hill lane and to the west by Upper Road near Dorking Tye. In this study area it is proposed that a new overhead line would be constructed to the south and broadly parallel to the existing overhead line from the sealing end compound proposed between Boxford Fruit Farm and the A134 and a further sealing end compound to the west of Dorking Tye.
- 9.49 The western half of the study area is situated within the Stour Valley Special Landscape Area however the eastern half is undesignated. The Suffolk Landscape Character Assessment describes the area as predominantly 'Ancient Rolling Farmlands'.
- 9.50 The COR suggests that the study area is made up of 'unremarkable' arable land on a plateau of higher ground between the River Box and the Stour. As such the landscape is considered to be of local value, having the capacity to accommodate the proposed overhead line.
- 9.51 While it is acknowledged that the character of the study area is not as sensitive to change when compared with Study Area E, it does nonetheless form an intrinsic part of the South Suffolk landscape. The construction of a new overhead line involving the use of a different pylon design which does not achieve synchronisation with the existing overhead line would be visually intrusive. The harm to the character of the countryside would be especially noticeable when looking east from Stanton's Farm into the Special Landscape Area and from the A1071 road between Newton and Boxford. At this stage the precise location of the sealing end compound is not known and depending upon the eventual siting it could be visible from the A1071 road. There is therefore a compelling case for the route to be placed beneath ground in this study area.

Study Area G - Stour Valley

- 9.52 This study area is defined to the east by Upper Road near Dorking Tye and to the west by the existing 400kV overhead line at Twinstead Tee. In this study area it is proposed that the section of the route from Upper Road to a point approximately 1 km to the west is constructed above ground with the remainder of the route placed underground. Sealing end compounds would however be required at either end.

- 9.53 The eastern part of the study area is situated within a Special Landscape Area designated by the Babergh Local Plan. The countryside within the study area is managed by the Dedham Vale AONB and Stour Valley Project. The Joint Advisory Committee to the Dedham Vale AONB and Stour Valley Project is aiming to secure an extension of that Dedham Vale AONB into the Stour Valley. The Suffolk Landscape Character Assessment describes the majority of the study area as 'Rolling Valley Farmlands' and 'Valley Meadowlands'. The Essex Landscape Character Assessment describes the Stour Valley (west of the River Stour) as having a typically wide valley floor with floodplain meadows, riverbank willow trees and small wet woodlands.
- 9.54 The COR acknowledges that the landscape within Study Area G is of more than local value. As a result an underground option is proposed to avoid the major negative effects associated with the construction of an overhead line. While this is to be welcomed, the construction of sealing end compounds to service the underground cables is not. In addition it still remains unclear as to whether a substation will be required within the vicinity of the Twinstead Tee. As such Members are invited to support their Essex and Braintree colleagues and local interest groups in pressing National Grid for an early resolution on this point.

10. Conclusions

- 10.1 The proposals put forward in the COR are an inadequate response to the representations made by local authorities, amenity groups and residents since Stage 2 of the consultation process began in earnest in September 2011. The suggested undergrounding of two short sections through the Dedham Vale AONB and the Stour Valley does not provide acceptable mitigation for the landscape and visual impacts of the scheme. There are legitimate arguments why each section of the route identified by National Grid should be placed underground in order to overcome the significant environmental harm that would be caused.
- 10.2 As the project progresses National Grid should be strongly urged to take into account the impact of the proposals upon people and provide a comprehensive assessment of the socio-economic impacts upon the local economy, ensuring that communities and individuals are properly compensated. In the meantime Member representatives should continue to work with their colleagues from the other authorities and local interest groups affected by the proposals to press Government for a review of the regulatory framework within which National Grid has to operate.

11. Appendices

Title	Location
(a) Appendix One - Previous Committee Resolutions - attached	
(b) Appendix Two - National Grid's Interim Alignment - attached	
(c) Appendix Three - National Grid Connections Options Report 2012	http://www.nationalgrid.com/NR/rdonlyres/4CDF298A-22F5-4325-9EEA-4A4215235522/53962/BramfordtoTwinsteadTeeConnectionOptionsReport_May2012.pdf
(d) Appendix Four Summary of options considered by National Grid - attached	

12. Background Documents

None.

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Previous Committee Resolutions

Babergh District Council - Strategy Committee: 10 February 2010

That the comments as set out below be approved as Babergh District Council's formal response to the National Grid on the Bramford to Twinstead Overhead Line Project: Route Corridor Consultation Study (Stage One):

- (a) National Grid has not yet demonstrated conclusively that the current proposals are the most appropriate means of achieving the required network improvements and the District Council therefore urges that the options for offshore and underground routing should be fully explored before any consideration is given to over ground routing in any form.
- (b) In the absence of such a conclusive study the District Council cannot support any of the proposals.
- (c) Whilst not to be construed as support at this stage for any of the options under consideration, the District Council makes the following comments on the options:
 - Strongly objects to the use of Corridors 1, 3 and 4 in any form,
 - Were Corridor 2 to be selected by National Grid it is insisted that steps be taken to lessen the impact of any powerline by under grounding the cables as much as possible.
- (d) The District Council strongly encourages National Grid to pay full regard to the views of local people and their elected representatives before embarking upon Stage Two of its consultation process.
- (e) The District Council strongly encourages National Grid to set up a community forum to support Stage Two of the consultation process.

Mid Suffolk District Council - Planning Committee A: 3 February 2010

The comments of MSDC are offered on the basis of the limited information provided and the authority welcome an opportunity to comment on any further information regarding these proposals as and when it becomes available. The Council deplores the lack of certainty regarding the likely position of overhead lines within the broad corridors proposed.

MSDC strongly encourage consideration of undergrounding for any new cabling, especially in Areas of Outstanding Natural Beauty, where this would be feasible having regard to the lifetime costs of the project.

Based on an assessment of the likely impacts of each corridor option and having regard to the interests of the communities and environment of Mid Suffolk, Corridor option 2 is considered to have the lowest likelihood of adverse impacts and is MSDC's preferred option for this project.

MSDC will expect the potential impacts of each option in relation to flood risk, the historic environment, residential and countryside amenity, landscape impact and biodiversity to be addressed as appropriate in accordance with the relevant NPS's as they emerge, PPSs 1, 7, 9 and 25 (including practice guide), PPG 15 and relevant Development Plan policies (East of England Plan 2008, MSDC LDF Core Strategy 2008 and Mid Suffolk Local Plan 1998).

MSDC question the necessity of this project given the national policy encouragement given to produce power at a local level.

MSDC will expect the potential impact of the proposed overhead lines upon health to be properly evaluated and considered in relation to each corridor option.

MSDC strongly opposes corridor options 3 and 4 which will have a serious adverse impact upon that generally undeveloped ancient countryside landscape and will have a harmful impact upon the historic built environment of those localities and the settings of listed buildings thereabouts.

Key

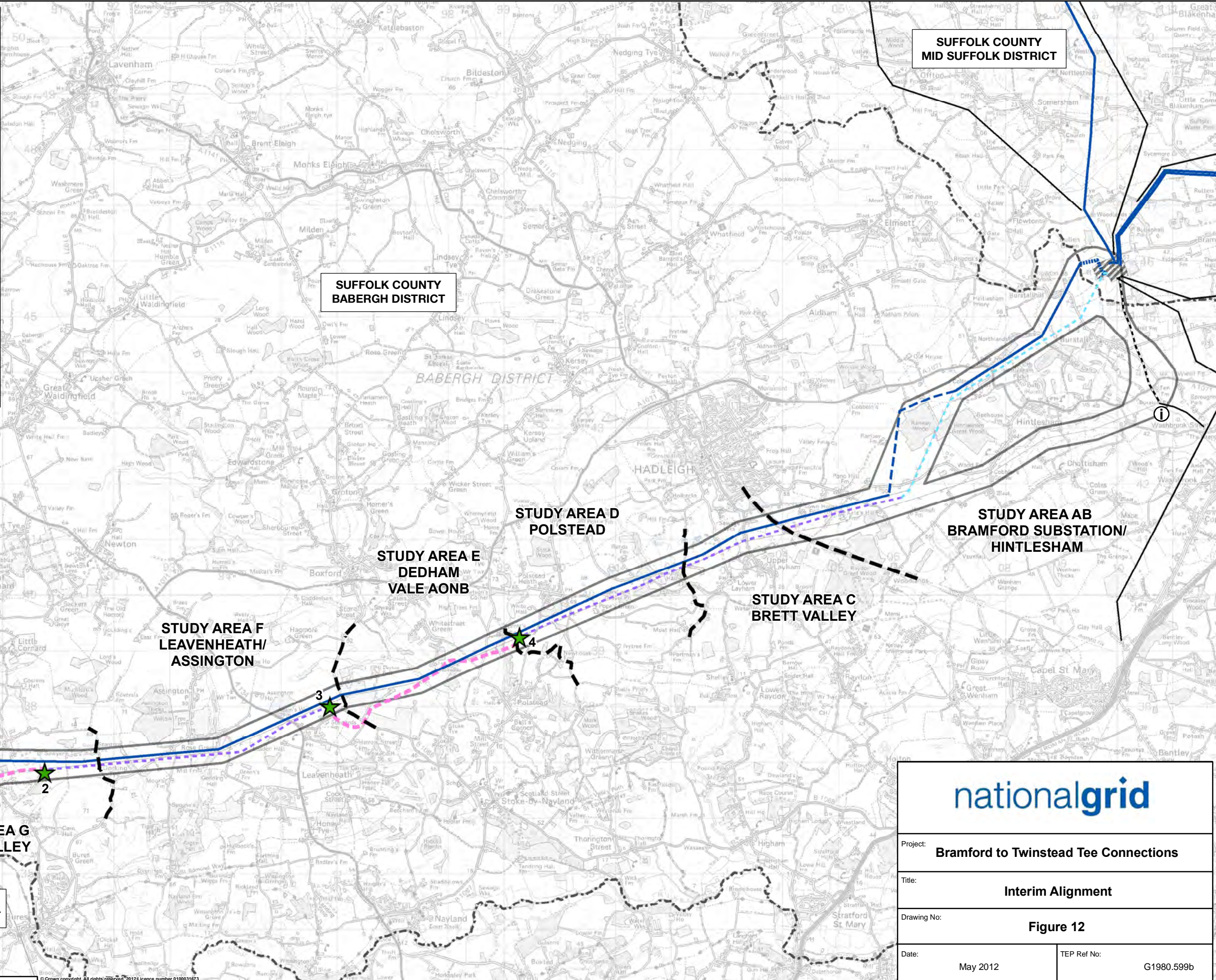
- Local Authority Boundary
- Study Area Boundaries
- Preferred Route Corridor

Existing Infrastructure

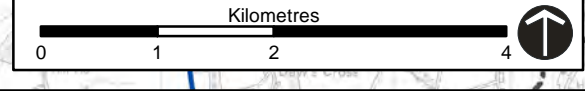
- Bramford Substation National Grid Ownership
- Existing 400kV Overhead Line
- Reconfiguration of existing 400kV Overhead Line into Bramford Substation (this is being undertaken as part of a separate project and work will be completed in 2012).
- Existing 132kV Overhead Line (to be retained east of i and west of ii)
- Existing 132kV Underground Cable (to remain in situ)

Interim Alignment and Cable Sealing End Compounds

- Underground Cable (65m swathe)
- Southern Alignment - Corridor 2B (using the existing 400kV pylon in Hintlesham Woods)
- Southern Alignment
- New Alignment for Existing 400kV Overhead Line around Hintlesham Woods
- Cable Sealing End Compound



Project:	Bramford to Twinstead Tee Connections	
Title:	Interim Alignment	
Drawing No:	Figure 12	
Date:	May 2012	TEP Ref No: G1980.599b
Drawn:	Checked:	Approved:
CB	CH	IJG



This map includes data from the following sources:
 - National Grid
 - Esri
 - OS Open Data
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SUMMARY OF OPTIONS CONSIDERED BY NATIONAL GRID

Study Area	Length (km)	Cost (£m)		National Grid's Preference
		Capital	Lifetime	
AB - Hintlesham				
Corridor 2A (Northern alignment OHL)	10.1	18.2	47	Corridor 2B Southern alignment OHL
Corridor 2A (Southern alignment OHL)	9.1	16.3	42	
Corridor 2B (Northern alignment OHL)	8.6 (+ 0.9 realignment of existing line)	17.0	44	
Corridor 2B (Southern alignment OHL)	7.9 (+ 2.6 realignment of existing line)	18.8	49	
Underground	7.8	171.8	179	
C- Brett Valley				
Northern alignment OHL	1.6	2.9	7	Southern alignment OHL
Southern alignment OHL	2.0	3.5	9	
Underground	2.6	57.6	60	
D - Polstead				
Northern alignment OHL	3.7	6.6	17	Southern alignment OHL
Southern alignment OHL	3.3	5.9	15	
Underground	4.5	98.6	103	
E- Dedham Vale AONB				
Northern alignment OHL	3.3	5.9	15	Underground. Requires a Sealing End Compound just outside both eastern and western boundaries. Total underground length is 4.2km
Southern alignment OHL	3.3	6.0	15	
Underground	3.2	70.2	73	

Study Area	Length (km)	Cost (£m)		National Grid's Preference
		Capital	Life time	
F- Leavenheath/Assington				
Northern alignment OHL	4.6	8.2	21	Southern alignment OHL
Southern alignment OHL	4.6	8.4	22	
Underground	5.1	111.8	117	
G - Stour Valley				
Northern alignment OHL	4.8	8.7	22	Southern alignment OHL (1.0km) and underground (3.8Km). Requires a Sealing End Compound to the west of Dorking Tye and near Twinstead Tee.
Southern alignment OHL	4.8	8.7	22	
Underground	4.8	105.6	110	
Totals for the preferred option	28.4	212.4	278.0	
Totals if placed entirely underground	28.0	615.6	642.0	

Notes

Capital Cost is deemed to be the cost of developing, procuring, installing and commissioning the new transmission asset.

Lifetime Cost is the sum of the Capital Cost plus the costs that are expected to be incurred during the lifetime of the new transmission assets.

Typical Capital Cost per kilometre of an overhead line is: £1.8m/km

Typical Capital Cost per kilometre of an underground cable is: £22m/km

Changes to cable manufacturing methods could result in the use of 2 cables per phase if an underground option is pursued yielding a potential reduction of £2.5m/km.