Proposed Grid Supply Point Substation

Statement of Community Involvmen April 2022

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Executive Summary

This Statement of Community Involvement has been prepared to accompany an application by National Grid Electricity Transmission plc (NGET) for planning permission under The Town and Country Planning Act (TCPA) 1990 for the proposed development of *a new 400/132 kilovolt (kV) Grid Supply Point (GSP) substation including two supergrid transformers, associated buildings, equipment, and switchgear, a single circuit cable sealing end compound, a new permanent vehicular access to the public highway, associated landscaping (including boundary fencing, an area for Biodiversity Net Gain, and landscape mounding) and drainage.* The proposed development will hereafter be referred to as 'the proposed GSP substation'.

The proposed GSP substation falls within the administrative boundary of Braintree District Council (BDC) located west of the A131. It is required to facilitate the removal of approximately 25km of existing 132kV overhead line, which forms part of the distribution network operator (DNO) network between Burstall Bridge in Suffolk and the Twinstead area of Essex. This overhead line removal is required in advance of the future reinforcement of the 400kV transmission network between Bramford Substation in Suffolk and Twinstead Tee in Essex (hereafter referred to as 'the wider reinforcement'), which will partly adopt the same route alignment as the existing 132kV overhead line.

From project inception in 2009, extensive engagement has been undertaken and this Statement of Community Involvement sets out how the engagement from the local communities specifically has influenced the proposed GSP substation. This Statement of Community Involvement should be read alongside the Planning Statement and Design and Access Statement to get a full picture of the evolution of the proposed GSP substation.

1. Introduction

1.1 **Overview**

- This Statement of Community involvement has been prepared to accompany an application by National Grid Electricity Transmission (NGET) for planning permission under the Town and Country Planning Act 1990, for the proposed development of *a new 400/132 kilovolt (kV) Grid Supply Point (GSP) substation including two supergrid transformers, associated buildings, equipment, and switchgear, a single circuit cable sealing end compound, a new permanent vehicular access to the public highway, associated landscaping (including boundary fencing, an area for Biodiversity Net Gain, and landscape mounding) and drainage.* The proposed GSP substation falls within the administrative boundary of Braintree District Council, within the parishes of Bulmer and Twinstead, located west of the A131.
- 1.1.2 The Statement of Community Involvement seeks to assist the local planning authority, statutory consultees, and other interested parties in understanding how the communities' involvement has helped shaped the proposals. This Statement of Community Involvement should be read alongside the documents and plans submitted in support of this application.
- 1.1.3 This Statement of Community Involvement is structured as follows:
 - Chapter 1: Introduction
 - Chapter 2: Public Consultation
 - Chapter 3: Summary

2. Public consultation

2.1 Overview

- 2.1.1 The design and siting of the proposed GSP substation is the result of an iterative process that commenced at project inception when the need for the wider reinforcement was identified. Environmental, engineering, and economic considerations as well as numerous rounds of consultation and pre-application discussions with BDC, have all influenced the optioneering and design evolution process.
- 2.1.2 The wider reinforcement has previously been subject to several rounds of extensive public consultation. NGET considered feedback from early rounds of public consultation on the proposals for the wider reinforcement, and confirmed a preferred route corridor, which included the removal of the new 132kV line between Burstall Bridge and Twinstead Tee and its alignment adopted for a new 400kV line. This approach gave rise to the necessity for a grid supply point, to allow the removal of the 132kV existing line without loss of UK Power Network's capacity.
- 2.1.3 The proposed GSP substation, on land off the A131, was introduced in the 2013 substation siting consultation, an early consultation related to the wider reinforcement. Although, a summary of the early consultations, before the introduction of the proposed GSP substation, is contained below at Section 2.2.

2.2 Early consultation

Figure 2.1 Early Consultation Graphic

The 2009 stage 1 consultation

(non-statutory)

The Stage 1 Consultation started in October 2009 and considered four broad corridors for a new 400kV line in the Route Corridor Study. The consultation on the route corridors identified Corridor 2 as the preferred option by a large proportion of the consultees, although in the majority of cases this was subject to the consideration of undergrounding of some or all of the entire route. The proposed GSP substation did not form part of this consultation.

The 2011 Information Events

In December 2011, NGET held three public information drop-in events as well as a separate Councillor briefing event. These were not consultation events; however, as a result of these information events, some responses were received from residents. Concerns were raised in relation to visual impacts, noise, proximity to property, property values, environmental impacts and health.

The 2012 connection option consultation (non-statutory)

NGET undertook further studies to determine whether it would be appropriate to underground sections of the connection to mitigate potential impacts on sensitive locations and consulted on its findings and on options for the Hintlesham area. The Connection Options Report explained the process by which options for overhead and underground indicative alignments have been appraised and made recommendations as to the extent of undergrounding for the wider reinforcement. The proposed GSP substation did not form part of this consultation.

2.3 The 2013 substation siting consultation

- 2.3.1 The consultation in February 2013 sought views in respect to the provision of a substation associated to support the wider reinforcement.
- 2.3.2 In respect to the substation siting options, an initial desk-based study to identify potential sites extended from Twinstead Tee to Thaxted and was focused along the 400kV overhead line; three wider study areas were taken forward for further investigation. NGET identified a total of eight locations across the three substation study areas for more detailed options appraisal. NGET consulted on these options in early 2013. The majority of representations agreed that Study Area C was the most suitable. Study

area C comprised four potential siting location options (although, please refer to the Design and Access Statement for more details). This consultation also explained why NGET and UK Power Networks consider that providing a new substation to the west of Twinstead Tee in Essex would be the most appropriate means of providing replacement capacity in the electricity distribution network

2.4 The 2021 recommencement consultation

- 2.4.1 Following a period of pause, NGET recommenced work on the wider reinforcement and held a consultation in spring 2021 to seek views from interested parties, local residents and communities. This consultation re-introduced the wider reinforcement, including the proposed GSP. The consultation explained how NGET had reviewed the previous proposals and sought the views of the public and stakeholders.
- 2.4.2 The consultation took place for a six-week period between 25 March 2021 and 6 May 2021. Information on the proposed GSP substation was presented in a separate section of the non-statutory consultation leaflet. The consultation confirmed the previous selection of the land off the A131 between Butler's Wood and Waldegrave Wood, for the proposed location of the GSP substation.
- 2.4.3 The non-statutory consultation sought to gather fresh feedback to inform the ongoing design of the project, and invited views on the proposals as a whole, including the proposed GSP substation, where further work may be needed, and whether anything further should be considered beyond that already presented on the emerging design.
- 2.4.4 Due to the Covid-19 pandemic, it was not possible to hold face-to-face events. Instead, NGET combined both digital and conventional methods of engagement, providing a range of opportunities for stakeholders to access information and take part in the consultation. However, it is worth mentioning that the consultation concerned the entire Bramford to Twinstead reinforcement,

which the proposed GSP substation is an integral part of. As such, not all of the engagement undertaken, and responses received concerned the proposed GSP substation.

- 2.4.5 Alongside the interactive project website, the project team held ten webinars, six telephone surgeries and two live chat sessions, as well as providing relevant project documents for viewing at locations along the proposed route.
- 2.4.6 To raise awareness of the consultation within the local community:
 - NGET distributed an invitation newsletter to more than 3,164 homes and businesses within 1km of the wider reinforcement, together with other identified stakeholders including elected representatives and representatives of third-party and community interest groups (there are 26 properties within a 1km radius of the proposed GSP substation site who would have received a newsletter).
 - Paid-for newspaper adverts were placed in a number of local newspapers.
 - Digital versions of these adverts ran on the websites of these publications.
 - Notices were also placed in community news publications.
 - The consultation events were further publicised through paid-for Facebook, Twitter, Instagram and Spotify advertising.
 - Briefing sessions were held with elected representatives, parish councils and third-party and community interest groups throughout the consultation period.
- 2.4.7 A total of 526 feedback responses were received from members of the public and interested parties, although the majority of these responses did not concern the proposed GSP substation. From the number of feedback forms received, 36.2% were submitted online and 63.8% were submitted as paper copy.

2.5 Analysis of feedback

2.5.1 A summary of the consultation responses received which concerned the proposed GSP substation and NGET's response is detailed in the table below:

Table 2.1: Analysis of the 2021 consultation feedback

| | Matter Raised | NGET's Response |
|----|---|--|
| 1. | Insufficient detail provided on the GSP. | NGET did not have detailed design information available at the point at which non statutory consultation was undertaken. The consultation process is designed to obtain early feedback. Further details of the proposed GSP substation were presented within the later Jan-March 2022 consultation materials. The final proposed GSP substation detail is presented with the planning application, which will be subject to public consultation as part of the determination of the application. |
| 2. | | Based on the outcomes of the NOA, optioneering is then carried out to see how the reinforcement is best carried out bearing in mind all of NGET's statutory duties. The aim of the NOA is not to provide the detail of proposed reinforcement projects. |
| 3. | Further surveys must be conducted to assess any physical impacts upon surrounding properties. | The planning application is accompanied by appropriate environmental reporting. |

¹ The Network Options Assessment (NOA) is produced by the Electricity System Operator (ESO) and make recommendations on which reinforcement projects should receive investment.

| 4. | Concerned about the impact on wildlife and environment in the woodland. | A suite of ecological surveys has been undertaken at the proposed GSP substation site, which informs the design and approach to mitigation. National Grid is also working closely with the relevant advisory bodies. |
|----|--|---|
| 5. | , , , , , , , , , , , , , , , , , , , | This location has previously been considered and discounted. The proposed location between Butler's Wood and Waldegrave Wood was preferred as it was considered to have the lowest impact on the landscape character of the area, visual amenity, ecology and the historic environment, as well as being the least constrained from a technical perspective. |
| 6. | Concerned about location of substation next to the A131 (visual impact). | Following previous consultation and study, the proposed location at Butler's Wood is considered the least environmentally constrained option, partly due to it having the lowest impact on the landscape character of the area, visual amenity, and the historic environment. There are also opportunities for screening and planting. |
| 7. | Why is the substation needed? | The wider reinforcement involves removing the existing 132kV overhead line between Burstall Bridge and Twinstead. The removal of the 132kV overhead line means that alternative arrangements must be put in place to secure the supply of the local electricity distribution network. This would be achieved by the proposed GSP substation, which would transform the voltage from 400kV to 132kV, to connect the high voltage line to the local distribution network and to replace the capacity lost through the removal of the 132kV overhead line. |
| 8. | Why the need for two SGTs? | Since restarting the wider reinforcement project in 2020, NGET has recommenced discussions with UKPN to ensure the previous proposals are still appropriate. UKPN |

has now confirmed a requirement for two transformers at the proposed GSP substation site (previously one transformer had been assumed).

- 9. Concerns that an unspecified substation The substation is a 'grid supply point' (GSP), the function of which would be to draw could at UKPN's demand include additional power from National Grid's network and step this down from 400kV to 132kV, before energy infrastructure. It is therefore feeding the power into the lower voltage network owned by UKPN, the distribution impossible to gauge the cumulative impact of network operator in this area. The specific role of the GSP substation would be to facilitate the removal of approximately 25km of existing 132kV overhead line which runs from Burstall Bridge (Suffolk) to Twinstead (Essex). The GSP substation is not being designed for the purpose of connecting tertiary connections.
- 10. The impacts of the GSP substation in terms of The environmental reporting that accompanies this application has been undertaken landscape and visual amenity in particular will following a negative Environmental Impact Assessment (EIA) Screening Opinion be severe.
 from Braintree District Council. As an EIA and associated EIA Report are not required, the Environmental Appraisal is being submitted as good practice and to reflect the pre-application discussions with Braintree District Council. At Appendix 2 of the environmental reporting is a Landscape and Visual Assessment (LVA). The LVA comprises a description of the baseline conditions together with an appraisal of the likely landscape and visual effects of the proposed GSP substation during construction and operation. Given the good practice measures and the nature of potential impacts set out therein, it is considered that the proposed GSP substation would not give rise to significant landscape or visual effects during construction or operation.

11. The ecological impact will also be of particular An Arboricultural Impact Assessment is included in Appendix 5 of the environmental importance as will the impact upon existing reporting. Butler's Wood and Waldegrave Wood are local wildlife sites and are designated for their ancient woodland habitats and the proposals preserve this. No vegetation clearance or modification of Butler's Wood or Waldegrave Wood is required during construction or operation, beyond the current wayleave for the existing 400kV overhead line. In addition, an arboricultural survey of the woodland edges has identified that the root protection zones of trees are not expected to extend into the arable field. A gap would be required in the hedgerow for the access road from the A131. The rest of the hedgerow would be provided between Butler's and Waldegrave Wood to the west as part of proposals for BNG for the wider reinforcement project.

12. Considers that the GSP substation element of Due to the relationship between the proposed GSP substation and the overhead the wider Bramford to Twinstead project lines, National Grid has the option of including the GSP substation in the application should be progressed in a coordinated way for development consent as 'associated development'. The alternative consenting within the Development Consent Order. route available is to seek planning consent for the GSP substation separately via a planning application to RDC. Although it is important that the CSP is delivered as

planning application to BDC. Although, it is important that the GSP is delivered as early as feasible, to allow the removal of the existing 132kV overhead line and commencement of the wider reinforcement once Development Consent is granted. The programme anticipates delivery of the GSP by mid-2024, following an approximate 18-month construction programme, which would allow the commencement of the wider reinforcement (subject to consent) no earlier than late 2024.

- 13. The project has the potential to impact on Protected lanes are considered as part of the environmental reporting, with the main protected lanes. Protected lanes are also assessment in the chapter on Historic Environment, but with cross references to designated for their tranquillity, and the impact other chapters such as landscape and visual and noise.
 - of noise on protected lanes and their There is no requirement to cross Old Road Protected Lane as part of the proposed tranquillity should be included. GSP substation. However, the construction of the proposed 132kV underground cable (as shown on the Accompanying Works Consenting Plan) could have the potential for direct adverse physical impacts on Old Road protected lane (BTELANE84), which would also be indirectly affected by the proposed GSP substation through construction noise.

Old Road would be crossed by the 132kV underground cables which is likely to require closure during construction as cable trenches are excavated, ducts laid and trenches backfilled. Old Road may also experience increased traffic during construction. The proposed underground cable route crosses Old Road where there is an existing gap through the hedgerows that allows for a farm access track. Crossing at this location reduces the removal of associated vegetation and avoids impacts on sloped verges.

Section 3.5 of the environmental reporting explains that the indirect effects resulting from noise associated with construction of the proposed GSP substation are anticipated to be short term and generally comparable to the baseline of a working agricultural environment.

2.6 The spring 2022 consultation

- 2.6.1 The proposed GSP substation at Butler's Wood was consulted on as part of the January to March 2022 statutory consultation on the wider reinforcement. The proposed GSP substation will form part of the DCO application and is taken into account in the Preliminary Environmental Information (PEI) Report² for the Statutory Consultation. However, all feedback received during the statutory consultation has further helped inform the application for planning permission for the proposed GSP substation.
- 2.6.2 The consultation took place for an eight-week period between 25 January 2022 and 21 March (28 March for postal responses). The statutory consultation sought feedback on the emerging design including the location and form of the proposed GSP substation.
- 2.6.3 The Statutory Consultation was undertaken in accordance with NGET's Statement of Community Consultation (SoCC) which itself had been subject to prior consultation with the host local planning authorities, including BDC.
- 2.6.4 Alongside the interactive project website, 10 online webinars sessions and 12 booked appointments to speak to the project team and technical experts on an individual basis, were held. However, it is worth mentioning again that the consultation concerned the entire Bramford to Twinstead reinforcement, which the proposed GSP substation is an integral part of. As such, not all of the engagement undertaken concerned the proposed GSP substation.
- 2.6.5 In addition, to raise awareness of the consultation within the local community:
 - 9,644 newsletters were distributed over two mailouts (there are 26 properties within a 1km radius of the site who would have received a newsletter).

² National Grid, Bramford to Twinstead, 2.1 Preliminary Environmental Information Report, Volume 1 Main Report, January 2022

- Paid-for newspaper adverts were placed in a number of local newspapers.
- Digital versions of these adverts ran on the websites of these publications.
- Notices were also placed in community news publications.
- The consultation events were further publicised through paid-for Facebook, Twitter, Instagram and Spotify advertising.
- Briefing sessions were held with elected representatives, parish councils and third-party and community interest groups throughout the consultation period.
- 2.6.6 A total of 573 feedback responses were received from members of the public and interested parties, however, the majority of these responses received concerned the proposed GSP substation. This was alongside 17,309 website visits; 2,196 document downloads; over 250 visitors to face to face events; 37 online webinar visitors and 35 booked appointments at face to face and online 'ask the expert' sessions.

2.7 Analysis of feedback

2.7.1 A summary of the consultation responses received which concerned the proposed GSP substation, alongside NGET's response, is detailed in the table below:

Table 2.2: Analysis of 2022 consultation feedback

| Number: | Matter Raised | | NGET Response |
|---------|-------------------|------------------------|--|
| 1. | Supportive of | proposal/engagement | Comment noted - NGET has responded positively to suggested changes to the design, |
| | that has taken pl | ace, feel listened to. | having regard to its statutory duties and other environmental and engineering constraints. |

2. Concern about access to pylons near No Public Rights of Way (PRoW) closures or diversions are required during construction Wickham St Paul - impact on public of the proposed GSP substation, for works falling within the scope of the planning rights of way and object to closure of application under the TCPA. However, there are a number of PRoW which are crossed by these during construction.
the accompanying works that may require a diversion while construction activities occur. Any required temporary diversions will be clearly marked at both ends with signage explaining the diversion, the duration of the diversion and a contact number for any concerns. Any temporary diversions of PRoW would be reinstated post-construction.

3. Is G-18 the site of the proposed GSP? G18 (a reference number marked on some of the consultation material) is not the Will the new 400kV cable replace the proposed site of the GSP; G18 is a viewpoint shown in the consultation materials that existing overhead lines? Where will the looks east, towards the direction of the proposed GSP substation.

access track run?

The new 400kV underground cable comprises part of the accompanying works (outside the scope of the planning application under the TCPA) and is required to connect the cable sealing end to the GSP. It does not replace the existing line. The accompanying works do include the removal of the existing 400kV pylon (Tower 81) to the southwest of the proposed GSP substation and erection of a replacement 400kV pylon (Tower 81A) approximately 63m west of the existing pylon; there will be no net increase in the number of permanent pylons at the proposed GSP substation site (these details are shown on the Accompanying Works Consenting Plan submitted with this application AAA_B2B_GSP_ConsentingPlan_Rev0).

A permanent bellmouth junction would be constructed with the A131, with the access track leading westward, connecting into the GSP and beyond this to the cable sealing end. This will provide access for the periodic maintenance activities at the proposed GSP substation.

4. Visual intrusion from the GSP Greater amounts of landscaping and screen planting have been incorporated into the Substation should be kept to a design as an embedded measure to help soften and filter views of the proposed GSP minimum/improved screening.
Substation from the surrounding areas. This includes bunding and planting to the east and west of the proposed GSP, and enhanced landscaping to the east of the A131.

The proposed screening is inadequate to mitigate adverse visual impacts of the GSP Substation on views to and from the Dedham Vale AONB.

- The GSP compound is excessively The design of the proposed GSP substation is functional in nature and appearance and 5. large - is there a reason for this? reflects the standard engineering approach necessary to deliver an operational substation. The proposed GSP substation has been designed so that it benefits from the advantageous tree screening, equipment such as the CSE are away from the road and Reduce the size of the compound and the relocating of the site access limits the visibility of the proposed GSP substation from keep destruction of trees and hedges to the site entrance. No vegetation clearance or modification of Butler's Wood or Waldegrave a minimum (e.g., reduce length of Wood is required during construction or operation, beyond the current wayleave for the gantry). existing 400kV overhead line. A gap would be required in the hedgerow for the access road from the A131. The rest of the hedgerow would be enhanced by supplementary planting and a new habitat connection would be provided between Butler's and Waldegrave Wood to the west as part of proposals for BNG for the wider reinforcement project.
- 6. Construction of GSP compound may be To help avoid or reduce potential effects of the project on the environment during disruptive concerned about disruption construction, measures and construction methodologies will be implemented by NGET's appointed contractor. These measures are set out in Appendix 1 Construction

to local residents (including mud on Environmental Management Plan (CEMP) of the environmental reporting and details how roads and road closures). environmental management would be undertaken during construction of the proposed GSP substation. In respect to mud; to reduce the effects of vehicles transporting mud and dust from the construction areas, wheel washing will be provided at the access point on to the highway and an adequate supply of water will be always made available.

Good practice measures that would reduce traffic and transport impacts during construction are set out in Appendix 1 (CEMP) of the environmental reporting and more specifically in Annex 1 (Code of Construction Practice). In addition, Section 10 of Appendix 1 (CEMP) explains measures associated with construction traffic using the local road network, traffic management during construction of the proposed bellmouth and that an Abnormal Indivisible Load (AIL) Access Study is being undertaken. The outputs of the AIL Access Study will be agreed with National Highways and Essex County Council prior to construction.

7. Good drainage is needed/concern A Flood Risk Assessment is included at Appendix 7 of the environmental reporting about flood risk.
submitted with this application. The FRA concludes that no sources of flooding are considered to pose an onerous risk to the site in the context of the proposed GSP substation. The proposed GSP substation would include permanent surface and foul drainage systems. Water collected from the SGT bunds and roofs of buildings will be routed to a soakaway. These would be protected from accidental oil discharges from the site by interceptor units. The interceptor and soakaway are proposed to be located outside of the west side fence of the substation. All remaining areas are likely to contain porous surfacing to allow surface water to naturally infiltrate without the need for formal drainage.

| 8. | Set the GSP Substation 50 metres back | Balancing landscape and visual considerations, design constraints, and feedback, the |
|----|--|--|
| | from the road to allow for mitigation. Set the GSP Substation further back from the road to enable tree planting to | proposed GSP has been designed to sit back approx. 25m from the A131 at its closest |
| | | point. Furthermore, a landscaped mound is proposed between the GSP and the road, |
| | | and the design incorporates a retaining wall whereby the eastern extent of the proposed |
| | | GSP substation is approximately 1m below the surrounding ground level. This helps to |
| | take place of deciduous/native trees. | further screen components of the GSP and soften views from the east. |
| | | The ability to relocate the GSP further west is restricted by the angle that can be achieved |
| | The substation needs to be positioned well back from the road and screened by trees/foliage. Otherwise, it will ruin the landscape. | by the proposed downleads coming from existing tower 4YL80, and by the proposed |
| | | temporary overhead line diversion to the west (required for replacing tower 4YL81) (these |
| | | details are shown on the Accompanying Works Consenting Plan submitted with this |
| | | application AAA_B2B_GSP_ConsentingPlan_Rev0). Nonetheless the location of the |
| | | proposed GSP allows effective landscape screening and the creation of bunds to both the |
| | | east of the west. |
| 9. | No benefit to local community - why is | The needs case for the proposed GSP substation is set out at length in Chapter 3 of the |
| | this needed? | Planning Statement (Statement of Need). |

 The Grid Supply Point substation There are various engineering reasons why the proposed GSP cannot be constructed should be built underground.
 underground.

> These include the requirement for appropriate ventilation for the supergrid transformers, and access for technicians so the serviceability and longevity of the assets is maintained (and to allow removal and replacement, if necessary, in the future). The position of the transformers at ground level has been carefully and accurately designed to allow the movement and transportation within the footprint of the site.

In addition to the transformers, burying the UKPN equipment (including interconnecting air insulated electrical equipment to control the connected circuits) would require a significant amount of space, requiring a disproportionately large excavation and removal of the resulting spoil.

Notwithstanding the engineering challenges, undertaking this operation would not represent good value to the bill paying consumer. Instead, to mitigate the visual impact, NGET has carefully considered the site location and has further mitigated the visual impact with screening measures.

- 11. Redesign the access track so that it is The new access road, which is 5m wide and comprises a field access gate, has been less intrusive/access track is too wide developed to reduce clear views of the proposed GSP substation from the A131 down the and needs to be narrower space for access road and avoid the need to fell trees within woodland designated as Ancient trackway when deliveries are needed. Woodland. The site access addresses the visibility restrictions of northbound traffic on the A131, while also limiting the visibility of the proposed GSP substation from the site entrance.
- 12. Preferred previous proposal for a small Material generated from excavation areas is being reused on site to provide landscape bank behind the existing hedge which mounding to the west of the proposed GSP substation and between the proposed GSP would be planted with low shrubs and substation and A131. The western mound is approximately 2.5m tall with graded west trees.
 facing slopes (approximately 1:11 gradient) while the eastern mound is approximately 1:4 gradient).
- 13. Lower the position of the GSP The design incorporates a retaining wall whereby the eastern extent of the proposed GSP substation (i.e., recessed into the substation is approximately 1m below the surrounding ground level. The lowered ground ground) so that it is less visible. level helps screen components of the GSP and soften views from the east (in addition to the landscape mounding and proposed landscaping). Furthermore, the proposed site

level drops east to west with a 1:60 gradient, such that the western extent of the proposed GSP substation is lower still (albeit embankments are incorporated to address the natural gradient of the site).

- 14. GSP should use minimal lighting except There would be low lux level light-emitting diode (LED) type luminaires with directable light when work or maintenance is being output to minimise light pollution except at each access gate where individual passive infrared sensor (PIR) motion activated lighting shall be provided to facilitate safe entry at night. The installation shall be designed to reduce visual intrusion outside the main substation periphery in accordance with the Chartered Institution of Building Services Engineers and the Institution of Lighting Professional's guidance note 08/18 on Bats and Artificial Lighting in the UK.
- 15. Mitigation planting around the GSP A new habitat connection would be provided, linking Butler's Wood and Waldegrave Wood should join Butlers Wood and to the west. Waldegrave Woods together - create continuous ecological corridor.
- 16. NG's proposals already include a new A substation design which seeks to connect both circuits from tower 4YL81 has been pylon at 4YL081 and SVU believe that discounted for various technical and landscape & visual reasons. This suggestion would both circuits can be connected via require another cable sealing end compound on the northern circuit, to the west of the downleads from 4YL081 to the two main GSP compound, outside of the woodland boundary. It would increase impact on transformers proposed for the GSP. receptors on the west including public rights of way and listed buildings and residential Such an approach can remove the need properties.

to connect one transformer to It would also increase cost to consumers (including the cost of an additional cable sealing downleads from 4YL080 and thus end compound) and extend the programme (including due to increased outage and build

sequence complexity).

enable the compound to be repositioned.

- 17. Suggest relocation to Hedingham This location has previously been considered and discounted following earlier rounds of Steam Railway museum in Sible consultation. This location would be the most complex of all options from a transport point of view with significant and costly engineering solutions likely to be required to facilitate transformer movements. There would also be impacts on local economic activity surrounding and in close proximity to the study area, including the Colne Valley Railway tourist attraction. For these reasons, NGET considered that this location should not be taken forward. The proposed location between Butler's Wood and Waldegrave Wood was preferred as it was considered to have the lowest impact on the landscape character of the area, visual amenity, ecology and the historic environment, as well as being the least constrained from a technical perspective.
- 18. Planting for screening will be required to Planting is proposed on the eastern side of the A131. Proposals include strengthening the the east of the site, possibly on the other existing hedgerow in this location. side of the A131.
- 19. We would like you to consider running a The proposed GSP substation site is currently privately owned land and is not publicly public footpath alongside/around the accessible. The site also contains existing NGET infrastructure in the form of an existing overhead line. The proposal does not, therefore, result in any severance to publicly accessible land or public rights of way. The intention is to purchase the area for BNG land with a freehold interest. There will be no public (including landowner) access across the

site from the A131. As such, it is not proposed to implement a new footpath alongside the compound.

- 20. Undergrounding the 400kV line running There has been no significant landscape and visual effects identified, therefore, additional across the landscape from the mitigation in the form of undergrounding exiting overhead lines is not required. The site is not within a designated landscape area and, therefore, there is a lack of policy support for undergrounding. Finally, there would also be significant additional cost of undergrounding the existing overhead lines.
- **21.** The GSP to be named 'Butlers Wood The application address has been amended to, '*Land adjacent to Butler's Wood and* GSP or Waldergrave Wood GSP'. *Waldegrave Wood, West Of A131 in the Parishes of Bulmer and Twinstead, Essex'*.

3. Summary

3.1.1 Environmental, engineering, and economic considerations as well as numerous rounds of consultation and pre-application discussions with BDC, have all influenced the optioneering and design evolution process. From project inception in 2009, extensive community engagement has been undertaken and this Statement of Community Involvement sets out how the engagement from the local communities specifically, has influenced the proposed GSP substation.

National Grid plc National Grid House, Warwick Technology Park, Gallows Hill, Warwick. CV34 6DA United Kingdom

Registered in England and Wales No. 4031152 nationalgrid.com