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Proposed Grid Supply Point Substation

Planning Statement

April 2022

The Town and Country Planning Act 1990

nationalgrid

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Executive Summary

This Planning Statement 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’.

In addition to the proposed GSP substation, other associated works would be required, including replacement pylons and underground cables to tie the substation into the existing 400kV and 132kV networks. These associated works however fall outside the scope of this planning application as they are permitted development, or subject to discrete consenting regimes. This is discussed further throughout this Planning Statement.

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.

This Planning Statement demonstrates that the principle and the detail of the proposed GSP substation is supported both by the National Planning Policy Framework (NPPF) and other material considerations including wider Government policy objectives in respect to electricity generation and distribution.

The Planning Statement has also considered the proposed GSP substation against BDC’s Development Plan policies. Although there are no explicit policies of BDC’s Development Plan which directly references the provision of a proposed GSP substation, the development is consistent with the objectives of local planning policy with regard to its commitment to transitioning to a low carbon economy. The development must be determined in accordance with the Development Plan unless material considerations indicate otherwise. Overall, the planning balance lies strongly in favour of the grant of planning permission for the proposed GSP substation.

1. Introduction

1.1 Overview

- 1.1.1 This Planning Statement 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. A map detailing the site's administrative context is contained in this Planning Statement (see Figure 4.1).
- 1.1.2 The Planning Statement seeks to assist the local planning authority, statutory consultees, and other interested parties in understanding the extent of the proposed development and its resultant environmental, social, and economic impacts. Ultimately the Planning Statement seeks to establish that the benefits of the proposed GSP substation would significantly and demonstrably outweigh any harm and, therefore, planning permission should be granted.

1.2 Purpose and structure

- 1.2.1 This Planning Statement describes the planning policy context for the proposed GSP substation and assesses the key planning considerations.
- 1.2.2 This Planning Statement draws upon the conclusions of many of the documents supporting the application and interprets them against the relevant planning policy. This statement should therefore be read alongside these documents, namely the Environmental Appraisal which contains discreet chapters on the relevant environmental considerations, the Design and Access Statement and the Statement of Community Involvement.
- 1.2.3 This Planning Statement is structured as follows:
- Chapter 1: Introduction
 - Chapter 2: Background
 - Chapter 3: Statement of Need
 - Chapter 4: The Proposed Development
 - Chapter 5: Pre-Application
 - Chapter 6: National Planning Policy
 - Chapter 7: Local Planning Policy
 - Chapter 8: Planning Appraisal

- Chapter 9: Post Consent
- Chapter 10: Summary
- Appendices

1.3 Submission documents

1.3.1 This application for planning permission is submitted alongside the following reports, having regard to National validation requirements and BDC's local validation requirements:

- Application Form and Ownership Certificates
- Appropriate Fee, paid via the Planning Portal
- Planning Statement, April 2022
- Environmental Appraisal, April 2022
 - Figure 1: Location Plan
 - Figure 2: Site Layout and Accompanying Works
 - Figure 3: Constraints Plan
 - Figure 4: Planting Plan
 - Appendix 1: Construction Environmental Management Plan (CEMP)
 - Appendix 2: Landscape and Visual Assessment
 - Appendix 3: Biodiversity Baseline
 - Appendix 4: Biodiversity Net Gain
 - Appendix 5: Arboricultural Assessment
 - Appendix 6: Historic Environment Baseline
 - Appendix 7: Flood Risk Assessment
 - Appendix 8: Phase 1 Contaminated Land Assessment
 - Appendix 9: Agricultural Land Classification
 - Appendix 10: Noise Assessment
- Design and Access Statement, April 2022
- Statement of Community Involvement, April 2022
- Proposed Consenting Approach, April 2022
- Biodiversity Checklist, April 2022
- Transport Statement, April 2022

1.4 Schedule of submitted plans

Table 1.1 Overall Consenting Approach

| Plan Description | National Grid Drawing Number | Plan Specifics |
|--|---------------------------------------|---|
| THE SITE LOCATION PLAN | AAA_B2B_GSP_SITEL OCATIONPLAN_REV0 | Scale 1:5000 Details the total site area in context to its surroundings |
| ACCOMPANYING WORKS CONSENTING PLAN | AAA_B2B_GSP_CONS ENTING_PLAN_REV0 | Scale 1:5000 Details the proposed GSP substation and the accompanying works required to tie the proposed GSP substation into the existing 400/132kV networks and their corresponding consenting route |
| BLOCK PLAN | PDD 21847 LAY 008 | Scale 1:1000 Drainage details provided Details of boundary treatments Surface materials detailed Mounding area detailed Parking area detailed Public Rights of Way delineated Building locations detailed |
| PROPOSED SITE LAYOUT PLAN | PDD 21847 LAY 009 | Scale 1:1000 Internal layouts of the CSE and GSP Drainage details provided Details of boundary treatments Surface materials detailed Mounding area detailed Parking area detailed Public Rights of Way delineated Building locations detailed |
| EXISTING SITE LAYOUT PLAN | PDD 21847 LAY 010 | Scale 1:1000 Existing site layout showing locations of existing pylons, field opening and tree lines |
| PROPOSED GSP SUBSTATION FLOOR PLAN | PDD 21847 ELE 011 | Scale 1:500 Floor plan/internal layout of the proposed GSP substation compound |
| PROPOSED SINGLE CIRCUIT CABLE SEALING END COMPOUND PLAN | PDD 21847 LAY 012 | Scale 1:100 and 1:500 Elevations and floor plans of the proposed CSE |
| PROPOSED SINGLE CIRCUIT CABLE SEALING END COMPOUND ELEVATIONS | PDD 21847 ELE 013 | Scale 1:100 Elevations of the Cable Sealing End Compound with the height of the fence detailed with dashed lines |

| | | |
|--|-------------------|---|
| FINISHED FLOOR LEVELS PLAN | PDD 21847 LAY 014 | Scale 1:500 Internal layout of the proposed GSP substation compound with spot height data included |
| FINISHED FLOOR LEVELS SECTION | PDD 21847 ELE 015 | Scale 1:100 and 1:200 Sections/elevations through the proposed GSP substation compound |
| PROPOSED BUILDINGS ELEVATIONS, FLOOR PLANS AND ROOF PLANS SHEET 1 | PDD 21847 ELE 016 | Scale 1:100 and 1:200 Illustrative cross sections through the proposed GSP substation compound Scale 1:100 Elevations of the Portable Relay Room, Workshop and Amenity Block |
| PROPOSED BUILDINGS ELEVATIONS, FLOOR PLANS AND ROOF PLANS SHEET 2 | PDD 21847 ELE 017 | Scale 1:100 Elevations of the Storage Room, LVAC Room and Telecoms Room |
| TOPOGRAPHICAL SURVEY PLAN | PDD 21847 LAY 018 | Scale 1:1000 Topographical survey data |
| PROPOSED SECTIONAL DRAWINGS | PDD 21847 ELE 019 | Scale 1:100 and 1:500 Cross sections/elevations through the site, detailing the height of the equipment against the height of the woodland |
| PROPOSED ACCESS AND PARKING ARRANGEMENTS | PDD 21847 LAY 020 | Scale 1:1000 New access Parking shown Visibility splays shown |
| TYPICAL FENCE DETAILS PLAN | PDD 21847 LAY 021 | Scale: 1:10 and 1:20 Typical fence details |

1.5 Community Infrastructure Levy

- 1.5.1 The proposed GSP substation is not liable for the Community Infrastructure Levy (CIL) as the proposed buildings do not result in 100sqm of net additional floorspace and the buildings primarily comprise standalone constructions which people only intermittently go into for the purpose of inspecting or maintaining fixed plant or machinery. However, in any event BDC have yet to adopt a CIL Charging Schedule.

2. Background

2.1 Role of National Grid

2.1.1 National Grid Electricity Transmission plc (here after referred to as 'NGET') owns, builds and maintains the electricity transmission network in England and Wales. Under the Electricity Act 1989, National Grid holds a transmission licence, under which it is required to develop and maintain an efficient, coordinated and economical electricity transmission system. National Grid is also required to consider ways to preserve amenity under Schedule 9 of the Act. This obligation is set out in greater detail at Appendix 1 of this Statement (Legislative Framework).

2.1.2 The key role of this transmission system is to connect electricity generators with substations, which transform the power from 400kV or 275kV (NGET's main operating voltages) to lower voltages for onward distribution by regional Distribution Network Operators (DNOs) who then supply businesses and homes. NGET sits at the heart of Great Britain's energy system, connecting millions of people and businesses to the energy they use every day, delivering a clean, fair, and affordable energy future.

2.1.3 NGET is a statutory undertaker as defined under the Electricity Act. UK Power Networks, the DNO in the application area, is also a statutory undertaker.

2.1.4 Within the National Grid Group there are distinctly separate legal entities, each with their individual responsibilities and roles. This is illustrated in Figure 2.1 below. The proposed GSP substation is being promoted by NGET.

National Grid Electricity Transmission (NGET)

2.1.5 NGET holds the transmission licence for England and Wales under the Electricity Act 1989. NGET owns, builds and maintains the high voltage electricity transmission system in England and Wales; the overhead lines, buried cables and substations that carry power around the country.

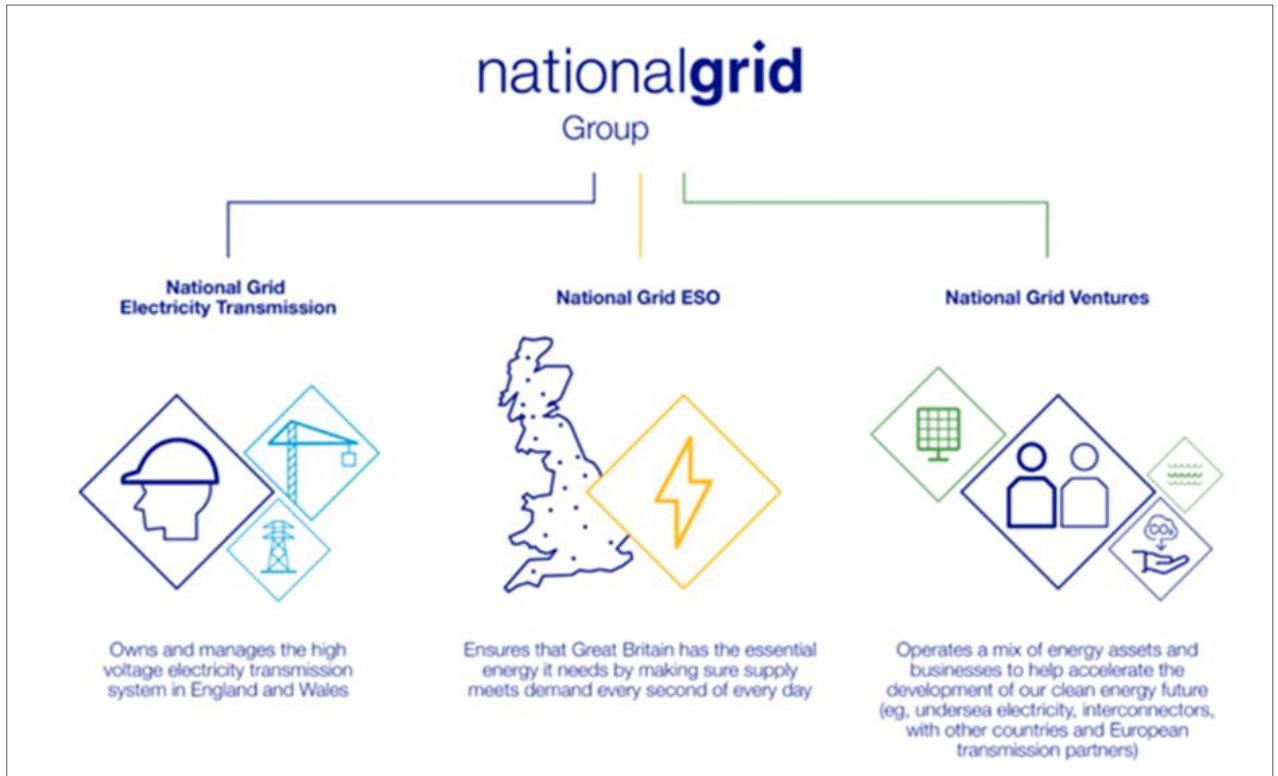
National Grid Electricity System Operator (National Grid ESO)

2.1.6 National Grid ESO controls the movement of electricity around the country, transporting power from generators (such as wind farms) to local distribution network operators, such as UK Power Networks, ensuring that supply meets demand.

National Grid Ventures

2.1.7 National Grid Ventures sits outside the core regulated businesses, investing in technologies and partnerships that help accelerate their move to a clean energy future. That includes interconnectors - connecting the UK with countries across the North Sea, allowing trade between energy markets and efficient use of renewable energy resources.

Figure 2.1 – National Grid Group of companies



2.1.8 Both NGET and NGESO are licensed by the Government as electricity transmission companies, and are regulated by Ofgem, the electricity and gas markets regulator, which sets price controls and monitors how the companies develop and operate their networks on behalf of consumers.

2.2 The Horlock Rules

2.2.1 National Grid devised the Horlock Rules¹ in 2003, and these were subsequently updated in 2009. The Horlock Rules provide guidelines for the siting and design of new substations, or substation extensions, to avoid or reduce the environmental effects of such developments. They facilitate consideration of the environment and amenity during the design and siting of new substation infrastructure. These were considered during the identification of potential locations for the proposed GSP substation and details as to how the Horlock Rules have influenced the siting and design of the proposed GSP substation are set out in the table contained in the Design and Access Statement.

¹ National Grid, Horlock Rules: National Grid Company Substations and the Environment – Guidelines on Siting and Design, 2009

3. Statement of Need

3.1 Moving towards net-zero

- 3.1.1 Tackling climate change is the biggest challenge facing our generation. The UK Government's Energy White Paper 2020² sets a world-leading target to tackle climate change, committing to cleaning up the UK energy system and reaching net-zero carbon emissions by 2050. The transition to clean energy is critical to help us achieve this goal.
- 3.1.2 The UK has the largest offshore wind capacity in the world. Increasing the amount of energy generated from offshore wind is a key part of achieving net-zero. The Energy White Paper sets a further and equally, ambitious target, reaffirmed in the Prime Minister's Ten Point Plan for a 'Green Industrial Revolution', to deliver 40 gigawatts (GW) of offshore wind connected to the network by 2030. More recently, on 7 April 2022 the government published the British Energy Security Strategy³ which sets the ambition to deliver up to 50GW of offshore wind by 2030.
- 3.1.3 NGET is investing heavily into 'reconfiguring' the electricity network in the East of England, in order to facilitate this energy transition. This includes various upgrades to existing parts of the network, such as installing power control devices at substations, increasing the voltages of certain lines, and re-wiring others with larger conductors that carry more power.
- 3.1.4 Where more capacity is required beyond what upgrades to existing infrastructure can provide, NGET needs to construct completely new parts of the network. Examples of this include proposed new reinforcements between Bramford (Suffolk) and Twinstead (Essex), between North East Anglia and South East Anglia, and a new subsea link between East Anglia and Kent. These all comprise a network of interconnected reinforcements which will contribute towards meeting the green energy requirements of the future.

3.2 The process for identifying need on the network

- 3.2.1 National Grid ESO leads an annual cycle which looks at how much energy needs to be carried on the network in the future, and where network capability needs to be improved to accommodate that. The overall effect of that process is to ensure that the right efficient, coordinated, and economical proposals are brought forward to deliver what the country requires from the electricity transmission system in a way that represents best value to electricity consumers.
- 3.2.2 The Network Options Assessment (NOA) is an annual report published by National Grid ESO which outlines their recommendations as to which reinforcement projects should be taken forward during the coming year.

² Secretary of State for Business, Energy and Industrial Strategy, The Energy White Paper Powering our Net Zero Future, December 2020

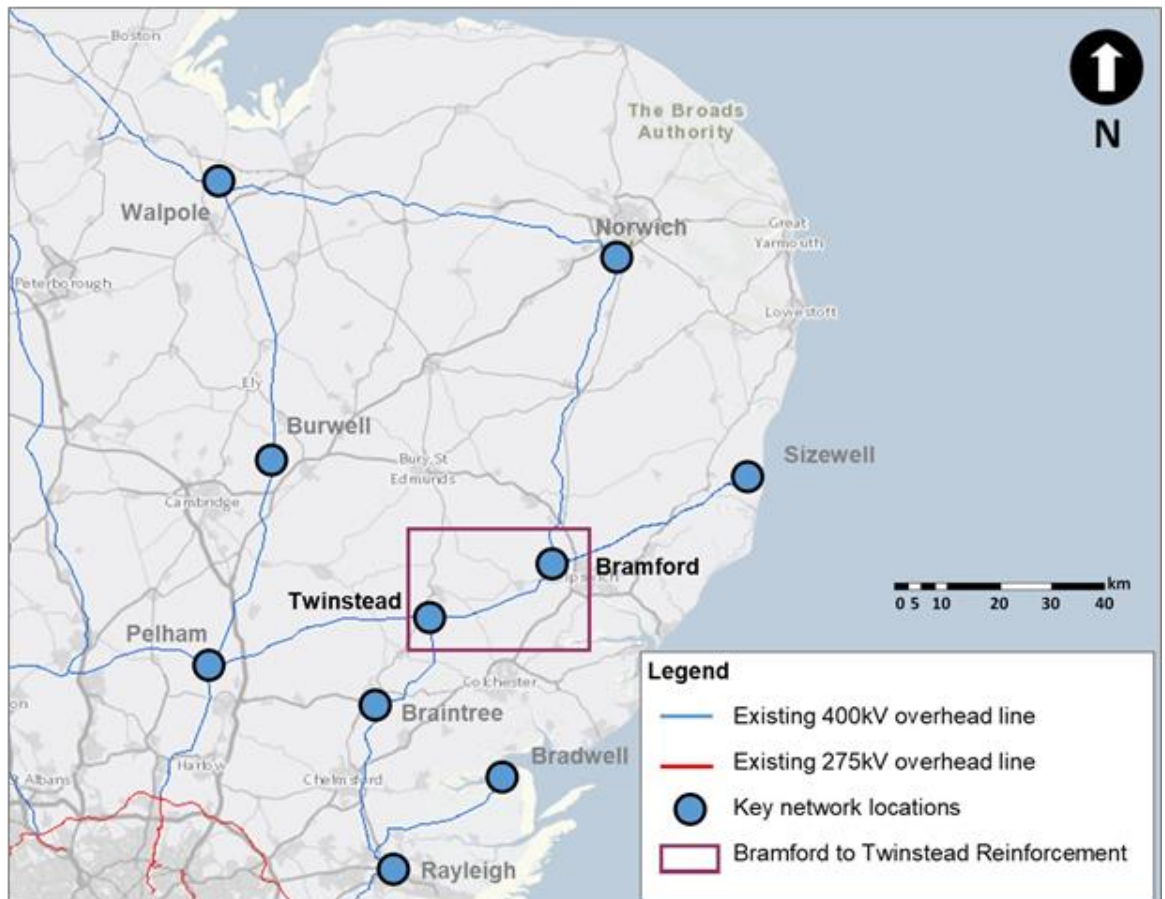
³ Secretary of State for Business, Energy and Industrial Strategy and Prime Minister's Office, British energy security strategy, April 2022

3.3 Why does the existing transmission system need reinforcing?

3.3.1 The level of generation and interconnection capacity expected to connect in East Anglia is significant and is largely driven by new nuclear, offshore wind and interconnection capacity as the UK drives towards net-zero. The limited number of physical routes for electrical power to flow in and out of the region limits the amount of additional generation that can be incorporated to the National transmission system without further reinforcement. This is because:

- There are currently three double circuit overhead transmission lines carrying power into Bramford – one from Norwich and two from Sizewell. To the west of Bramford however, out to Twinstead Tee, there is currently only one double circuit line carrying power out of the region. With substantial new sources of energy connecting in the region by the end of the decade, the existing overhead line west of Bramford would be overloaded.
- Beyond Twinstead Tee there are two routes out of the region – one west to Pelham and one south to Braintree-Rayleigh-Tilbury.
- Adding a double circuit route between Bramford to Twinstead will remove the current bottleneck on the network and make efficient use of the capacity available in those two routes – one west and one south of Twinstead Tee. This bottleneck is detailed at Figure 3.1 below.
- Reinforcing the network between Bramford and Twinstead will create two independent double circuit transmission routes west of Bramford – one from Bramford to Pelham and one from Bramford to Braintree to Rayleigh to Tilbury.

Figure 3.1: Key Existing Electrical Transmission Infrastructure Within East Anglia



- 3.3.2 At present, the network is capable of transferring 3.5GW of power out of the region. By 2030, around 24.5GW of generation is contracted to connect from offshore wind farms, new nuclear and interconnectors with countries across the North Sea.
- 3.3.3 The need to reinforce the network between Bramford and Twinstead has been identified as 'critical' in all future energy scenarios in the 2020, 2021 and 2022 editions of the Network Options Assessment report and concludes that the reinforcement needs to be in place by Autumn 2028. Hence, this reinforcement must now be taken forward to help make the transition to a cleaner greener energy future as we strive towards net-zero by 2050.

3.4 Relationship between Bramford to Twinstead Reinforcement and proposed GSP substation.

- 3.4.1 Having identified that a network reinforcement was needed, National Grid considered potential route corridors between the connection points at Bramford and Twinstead Tee.
- 3.4.2 Four route corridors were identified, all of which would be technically feasible, and all would have connection points at Bramford Substation and the existing tee at Twinstead. The existing 132kV and 400kV overhead lines offered the potential to be used as 'opportunity corridors', where a new overhead line in addition to or replacing the existing could lead to a lesser scale of change than a new overhead line in a location where no line presently exists. Two of the four corridors considered used the 'opportunity corridor', while two used new corridors further north.
- 3.4.3 Each of the four corridors was assessed against how it performed against National Grid's obligations set out in Sections 9 and 38 and Schedule 9 of the Electricity Act 1989 (see Appendix 1) and also how well each corridor performed against the Holford Rules⁴.
- 3.4.4 Extensive consultation was undertaken in 2009 with stakeholders, local authorities, and the general public (see the Statement of Community Consultation for more details).
- 3.4.5 The outcome was that a corridor which largely paralleled the existing 400kV overhead line between Bramford and Twinstead, and which largely adopted the current alignment of an existing 132kV overhead line, was the preferred option. This will result in the least scale of change to the existing environment and includes the benefit of removing the existing 132kV overhead line between Burstall Bridge and Twinstead Tee. This is the corridor used by the wider Bramford to Twinstead Reinforcement.
- 3.4.6 Before the removal of the 132kV overhead line, additional work is required to maintain the local connection and the current security of supply to local homes and businesses via the DNO in this location, UK Power Networks (UKPN). In consultation with UKPN, the development of a grid supply point (GSP) substation west of Twinstead Tee has been identified as the preferred means of replacing the capacity lost by the removal of the 132kV line. More details on the rationale for the GSP, its site selection and design evolution are set out in the Design & Access Statement.
- 3.4.7 Construction sequencing**
- 3.4.8 In order to construct the wider Bramford to Twinstead Reinforcement in the future, three key stages must happen in sequential order.

⁴ The Holford Rules are guidelines which form the basis for decisions of siting overhead transmission lines. They were set out in 1959 but still remain a valuable tool in selecting and assessing potential route options as part of the environmental assessment process.

- Firstly, the GSP west of Twinstead Tee must be constructed and operational. This is a technical necessity, required to replace distribution network capacity.
- Only once the GSP is operational can the 25km stretch of existing 132kV line between Burstall Bridge and Twinstead Tee be removed.
- Once the existing 132kV line between Burstall Bridge and Twinstead Tee is removed, the new 400kV reinforcement between Bramford Substation and Twinstead Tee can be constructed.

3.4.9 As discussed earlier in this Planning Statement, the wider Bramford to Twinstead reinforcement is required to be operational by 2028, in order to support the Government objectives for 40GW by 2030, tackling climate change and cleaning up the UK energy system, and reaching net-zero carbon emissions by 2050.

3.4.10 Therefore, 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 for this is secured from the Secretary of State. 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.

3.4.11 Should planning permission for the proposed GSP substation not be secured by summer 2022 and the construction not commenced in early 2023, the GSP cannot be delivered by mid-2024. Instead, it would be consented as part of the Development Consent Order (DCO) for the wider reinforcement as associated development (see below), meaning commencement of the GSP no earlier than late 2024, pushing commencement of the wider reinforcement back approximately 18-months to mid-2026.

3.4.12 This places an increased risk that the required in-service date of 2028 is not achieved, and consequently that the clean energy objectives outlined above are not met.

3.5 Relationship with the NSIP

3.5.1 The consenting route for the proposed GSP substation infrastructure is sought via a planning permission granted pursuant to the TCPA. Accordingly, planning permission is being sought for the proposed GSP substation from the local planning authority, BDC.

3.5.2 The TCPA route will be used in parallel to other consenting regimes for the works to tie the GSP into the existing network, including consenting routes pursuant to the Electricity Act 1989. This is discussed further in the Consents Approach at Paragraph 4.5.

3.5.3 The proposed GSP substation is not an Environmental Impact Assessment (EIA) development, as confirmed by a formal screening opinion adopted by Braintree District Council on the 23 December 2021 (see Section 4.4). Non-statutory environmental reporting is contained in the Environmental Appraisal and submitted with this planning application which explains the information gathered from desktop and site-based surveys, and describes the measures taken to avoid and reduce environmental effects resulting from the proposed GSP substation. This includes consideration of any cumulative effects (including from the wider reinforcement).

3.5.4 Unlike the proposed GSP substation, the wider reinforcement is a Nationally Significant Infrastructure Project (NSIP) under the Planning Act, as it comprises an electric line in excess of 2km in length. An application for a Development Consent Order (DCO) is currently being prepared, and it is anticipated that this will be submitted to the Secretary of State in late 2022/early 2023. The wider reinforcement is an EIA development, and an

Environmental Statement (ES) will be submitted with the application for Development Consent (the DCO).

- 3.5.5 It is likely that the proposed GSP substation will also be included within the application for Development Consent as 'associated development'⁵. Accordingly, a 'twin track' planning strategy is being progressed for the proposed GSP element. This is an accepted approach to the early delivery of enabling works in advance of DCOs.

⁵ Section 115 of the Planning Act provides that, in addition to the development for which development consent is required ('the principal development'), consent may also be granted for associated development. Associated development is defined in the Planning Act as development which is associated with the principal development.

4. The Proposed Development

4.1 The proposed development description

4.1.1 This Planning Statement has been prepared to accompany an application by NGET for planning permission under the TCPA 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.

4.1.2 The proposed GSP substation works are described in the following terms:

'...400/132 kV GSP substation'

- The proposed GSP substation would include a fenced compound with an approximate area of 10,900 sqm, located between Butlers Wood and Waldegrave Wood.
- The proposed GSP substation would have a 2.4m high palisade security/safety fence with 3.4m high electric pulse fence installed to the rear of the palisade to secure the site and avoid trespass.
- There would be ten small modular container type buildings installed on-site to house electrical equipment including office/welfare units for both NGET and UK Power Networks:
 - Welfare Room x 2 (one for UK Power Networks and one for National Grid): comprising a single prefabricated modular building with mess room, WC, shower and office area.
 - Battery Room x 1: battery Room for 110V and 48VDC battery/chargers which supply DC power to the equipment.
 - Low Voltage Alternating Current (LVAC) Room x 1: housing LVAC board which supplies 450V AC to site. LVAC systems play a critical role in normal transmission operation and provide power to essential equipment in a substation such as transformer tap changers, air compressors, switchgear drive motor circuits and battery chargers.
 - Telecoms Control Room x 1: for housing telecommunication equipment, multiplexer, routers, switches and LAN network equipment.
 - Relay Room x 1: for housing relay panels mainly for protection and control.
 - Portable Relay Room x 2: To accommodate electrical protection equipment. This is the same as relay room, but this is modular and potable and generally used for a single bay.
 - Workshop/Storage Room x 2: comprising two discrete modified ISO standard steel shipping containers.

- The proposed GSP substation would include two supergrid transformers (SGTs), to convert the voltage from 400kV to 132kV, for onward transmission and distribution by the DNO. Reinforced concrete bunds would be installed for each SGT. These bunds would comprise a perimeter concrete wall, a base slab continuous with the wall and a central plinth for supporting the SGT. The bunds act as a secondary oil containment measure for the air insulation oil in the transformers.
- There would also be a noise enclosure around the transformers to reduce operational noise. Other equipment and features include protection isolation equipment, switching devices, cooler banks for each transformer, a diesel generator for emergency back-up power and a water tank for emergency firewater supply.
- Within the substation, the majority of electrical equipment is mounted on steel posts fixed to concrete foundations. The top of the electrical equipment, and busbars connecting equipment, are typically up to 9m above ground level. There would be one taller steel line landing gantry structure within the GSP substation, which supports the downloads from the adjacent existing 400kV overhead line pylon to the southeast; this would be approximately 13m high.
- There would also be low lux level light-emitting diode (LED) type luminaires with directable light 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.

‘...single circuit cable sealing end compound’

- The 400kV single circuit sealing end enclosure to the west of Waldegrave Wood would be separately fenced outside of the proposed GSP substation. The 400kV single circuit sealing end enclosure would be approximately 33m by 30m in area, would contain a gantry approximately 12.5m high and high voltage equipment approximately 8m high. The enclosure would be installed to enable a new underground 400kV cable connection.

‘...a new permanent vehicular access to the public highway’

- A permanent bellmouth junction would be constructed with the A131 to local highway authority standards. This will connect to a surfaced track and would provide access for the periodic maintenance activities at the proposed GSP substation.

‘... associated landscaping (including an area for BNG and landscape mounding)’

- The proposals include landscape planting around the proposed GSP substation which is considered to be an embedded measure within the design to help soften and filter views of the proposed GSP substation from the surrounding areas. In addition, a new habitat connection would be provided, linking Butler's Wood and Waldegrave Wood to the west as part of proposals for BNG for the wider reinforcement project.

- In addition, an area for BNG has been identified within the site boundary, to meet NGETs 10% target for BNG. The area for BNG would comprise a mix of native trees, shrubs, and wildflower grassland.
- Landscape mounding is also proposed within the design, and this will help integrate the proposed GSP substation into the landscape and soften views from the west. The western mound is approximately 2.5m tall with graded west facing slopes (approximately 1:11 gradient) while the eastern mound is approximately 1.5m tall with graded east facing slopes (approximately 1:4 gradient).

‘... associated drainage’

- 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.
- There would be no permanent discharges required but a waste/foul water system would be used on site, comprising short pipes from the two amenities buildings to two separate cesspools that would be periodically emptied as required. Wastewater generated would be very limited given the site would be unmanned during operation and the wastewater would only come from use of facilities in the amenity buildings.

4.2 Site location

- 4.2.1 The proposed development site is located within the administrative boundary of BDC who would be the determining authority for the TCPA application. Grid Reference: (X) *Easting* 584495 and (Y) *Northing* 237113.
- 4.2.2 The northern and western extents of the proposed GSP substation lie within the parish boundary of Bulmer Parish, meanwhile the southern and eastern extents lie within Twinstead Parish. The parish boundaries dissect the site as shown on Figure 4.4 below.

Figure 4.1: Parish Boundaries



- 4.2.3 The site is located between Butler's Wood and Waldegrave Wood measuring approximately 7ha, approximately 5km south of Sudbury and 1km northeast of Wickham St Paul. Both Butler's Wood and Waldegrave Wood are ancient woodlands and are identified by BDC as Local Wildlife Sites. The site is accessed via the A131 to the east.
- 4.2.4 There is currently an existing 400kV overhead line passing through the site boundary, which is owned and operated by NGET. There is also an existing 132kV overhead line to the south of the proposed GSP substation, that is operated by the DNO, UK Power Networks, who distributes electricity at lower voltages to industrial, commercial and domestic users.
- 4.2.5 The proposed site between Butler's Wood and Waldegrave Wood was identified following consideration of a range of influencing factors including technical & engineering requirements and environmental impacts, for further details on this, please refer to the Design and Access Statement.

4.3 Site planning history

- 4.3.1 According to BDC's online planning records and pre-application response, the application site has no planning history apart from its inclusion in various consultations, reports and assessments associated with the wider reinforcement.

4.4 Environmental Impact Assessment (EIA) Screening Opinion (21/03343/SCR)

- 4.4.1 On 23 December 2021, BDC adopted a Screening Opinion under Part 2, Regulation 5 of the Town and Country Planning (Environmental Impact Assessment) Regulations 2017 confirming that the proposed GSP substation and accompanying works are not EIA development. In reaching this decision, BDC concluded that:
- The proposal is not a Schedule 1 development.
 - The proposal is not a Schedule 2 development.
 - Despite not being considered a Schedule 1 or 2 development, BDC recognised that NGET has '*taken a robust approach and sought a screening opinion for the sake of completeness.*'
 - BDC, therefore, considered the proposals against Schedule 3, which outlines the criteria in determining whether a development falling under Schedule 2 will require an EIA.
 - The Screening Opinion concluded on this basis that, '*the Local Planning Authority would not require an EIA and that an Environmental Statement will not be required to be submitted to support the planning application for this development... features of the development would not have unusually complex and potentially hazardous environmental effects, and would not occur within a particularly environmentally sensitive or vulnerable location.*'
- 4.4.2 A copy of this Screening Opinion is contained at Appendix 3. It is worth mentioning in this context, however, that the wider reinforcement is an EIA development and the application for development consent would be accompanied by an Environmental Statement.

4.5 Consenting approach

- 4.5.1 This application seeks planning permission under the TCPA, 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.*
- 4.5.2 A suite of further works will also be undertaken to tie the proposed GSP substation into the existing network, for which planning permission from BDC is not required. These works largely comprise electric line works of various types, such as works to existing overhead lines (including pylons), the construction of new downloads off existing overhead lines, and the construction of new underground cables, alongside temporary construction-phase overhead line diversions.
- 4.5.3 Planning permission will not be sought from BDC for these works because, where consent is required, different consenting routes apply. These include the following, where applicable (see Appendix 1 and 2 for more details on the consenting legislative framework):
- Electricity Act 1989, Section 37
 - General Permitted Development Order 2015, Schedule 2, Part 15

- The Overhead Lines (Exemption) (England and Wales) Regulations 2009

4.5.4 The overall consenting approach is set out in the table below and the reference number also relates to the Accompanying Works Consenting Plan (AAA_B2B_GSP_Consenting_Plan_Rev0) submitted with this application.

Table 4.1 Overall Consenting Approach

| Ref: | Description of Works | Proposed Consenting Route |
|------|--|---|
| 1. | 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 | Planning permission (pursuant to TCPA 1990) & S278 agreement for bellmouth (pursuant to Highways Act 1980). |
| 2. | Connection into the proposed GSP substation from the existing 400kV pylon in the southeast of the site boundary via downloads and reconfigured cross arms on the pylon. | Permitted development via GPDO (Schedule 2, Part 15, Class B(a)). Electricity Act consent not required (NGET land) (Electricity Act, S.37(2)(b)). |
| 3. | 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. The existing pylon is 50.04m above ground level while the replacement tower would be approximately 55.00m above ground level. | Permitted development via GPDO (Schedule 2, Part 15, Class B(a)) Electricity Act consent not required (NGET land) (Electricity Act, S.37(2)(b)). |
| 4. | Downloads installed on the replacement 400kV pylon to the new 400kV single circuit sealing end enclosure. | Permitted development via GPDO (Schedule 2, Part 15, Class B(a)). Electricity Act consent not required (NGET land) (Electricity Act, S.37(2)(b)) |
| 5. | A new 400kV underground cable connecting the proposed GSP substation to the 400kV single circuit sealing end enclosure. | Permitted development via GPDO (Schedule 2, Part 15, Class B(a)). |
| 6. | Two new 132kV underground cables connecting the proposed GSP substation with a new cable sealing end (CSE) platform pylon on the existing 132kV overhead line east of Wickham St Paul. | Permitted development via GPDO (Schedule 2, Part 15, Class B(a)). |
| 7. | Removal of an existing 132kV pylon (PCB98) and erection of a new 132kV CSE platform pylon (PCB98A), approx. 29.3m in height, in the same location. | PD via GPDO (Schedule 2, Part 15, Class B(a)) in combination with Electricity Act (S.37(2)(c)) relying upon an exemption set out in the OHL Exemption Regs (3(1)(e)). |
| 8. | 132kV cable running from below ground electric line to the tower mounted cable sealing end unit. Cable attached to the base part of PCB98A for its entire length. | PD via GPDO (Schedule 2, Part 15, Class B(a)) in combination with Electricity Act (S.37(2)(c)) relying upon an exemption set out in the OHL Exemption Regs (3(1)(a)). |
| 9. | Air insulated electricity conductor running from the tower mounted cable sealing end unit to the horizontal electricity conductors. | Section 37 Consent. |

-
- 10.** Temporary diversion of the existing 400kV overhead line to facilitate installation of the new replacement pylon. The temporary diversion may be in place for approximately 1 year and be approximately 700m long. It would include two temporary pylons with a height of between approximately 44m and 48m above ground level. Section 37 Consent will be required due to length of time in situ.
-
- 11.** Temporary diversion of the existing 132kV overhead line for approximately 650m (for approximately three months), including a temporary pylon to facilitate installation of the new 132kV CSE platform pylon. PD via GPDO (Schedule 2, Part 15, Class B(a)) in combination with Electricity Act (S.37(2)(c)) relying upon an exemption set out in the OHL Exemption Regs (3(1)(c)).
-
- 12.** Other associated temporary enabling construction phase works including temporary access tracks, temporary compounds, and diversion of fibre optic wire. Permitted Development under GPDO (2015) Schedule 2, Part 4, Class A.
-

5. Pre-Application

5.1 The evolution of the proposed GSP substation

5.1.1 The design and siting of the proposed GSP substation is the result of an iterative process that commenced when the need for the wider reinforcement was identified in 2009. Environmental, engineering, and economic considerations as well as numerous rounds of consultation and pre-application discussions with Braintree District Council, have all influenced the optioneering and design evolution process. This process has been set out in detail in the Design and Access Statement and the Statement of Community Involvement, although a summary is provided below:

- Work undertaken in 2013 concluded that the provision of a new substation to the west of Twinstead would represent the most efficient, co-ordinated, and economical means of providing replacement distribution capacity and that it would have limited environmental effects (please refer to the Design and Access Statement for a full explanation).
- Further work undertaken in 2013 assessed different potential substation locations for this option and concluded that the location at Butler's Wood should be preferred (please refer to the Design and Access Statement for a full explanation).
- The location at Butlers Wood was preferred over other substation locations because, of all the potential locations considered it was assessed as having the least impact overall on the landscape character of the area, visual amenity, ecology and the historic environment (please refer to the Design and Access Statement for a full explanation).
- The proposed GSP substation has since undergone two further rounds of consultation and has remained the preferred option (please refer to the Statement of Community Involvement for more details on how the consultations with the community has helped shape the proposals).

5.2 Evolution of proposals: pre-application feedback

5.2.1 As the proposals for the proposed GSP substation were emerging, NGET entered into pre-application discussions with BDC to seek more precise feedback on the emerging design. The timeline and format of the pre-application discussions were as follows:

- Request for pre-application advice submitted on 7 July 2021
- Pre-application meeting (virtual) held with BDC and Essex Place Services on 11 August 2021
- Written pre-application advice issued by BDC on 6 September 2021
- Pre-application meeting (virtual) held with Braintree District Council on 22 February 2022
- Pre-application meeting (virtual) held with BDC and Essex Place Services on 5 April 2022

The table below provides a summary of the advice received from BDC and details how this advice has influenced the submitted application.

Table 5.1: Pre-application advice

| Topic | You Said | We Did |
|--------------------------------|--|--|
| Facilitating low carbon | Provide further information on how the proposal would help facilitate 'low carbon energy'. | This is considered throughout this Planning Statement, although more notably in Chapter 3. |
| Principle | <p>Provide further information and justification on the following:</p> <p>a. Why are National Grid departing from the NSIP process to submit a planning application for the substation?</p> <p>b. Why is the substation proposed more generally?</p> <p>c. Why this location – and discounted locations?</p> | <p>These questions are considered in the following sections of the application documents:</p> <p>Question 'a': please refer to Chapter 3 (Statement of Need).</p> <p>Question 'b': please refer to Chapter 3 (Statement of Need).</p> <p>Question 'c': please refer to the Design and Access Statement.</p> |
| Sectional drawings | Any application should be supported with sectional drawings indicating the height of the equipment comparatively to an accurate survey of the adjacent woodlands. Further details should also be provided around boundary treatments, surfacing materials etc. | <p>Cross sections indicating the height of the equipment comparatively to an accurate survey of the adjacent woodlands can be seen on Drawing Number PDD-21847-ELE-019 (Proposed Site Sections).</p> <p>Surface details are annotated on Drawing Number PDD-21847-LAY-008 and example fence details can be seen on Drawing Number PDD 21847 LAY 021.</p> |
| Transport Statement | A transport statement should set out how many vehicles are intending to visit the site during construction and then post construction during its operation. Details of parking should be included within the application plans. | This application is accompanied by a Transport Statement and Appendix 1 (Construction and Environmental Management Plan) of the Environmental Appraisal sets out the good practice measures that will be implemented in relation to works to the road network and to avoid or reduce impacts of the extra traffic that will be generated during construction. Finally, the parking arrangements are shown on Drawing Number PDD-21847-LAY-020. |
| Highways | Consider/undertake a pre-application submission with Essex County Council with regard to highway matters. | Discussions have been undertaken with the County Highway Authority. They have requested the submission of a standalone Transport Statement. As such, a Transport Statement has been submitted alongside this application. |

| | | |
|---|---|--|
| Arboricultural Impact Assessment | Carry out an Impact Assessment of the area particularly the northern boundary of the site, in order to assess and potentially avoid conflict or detrimental impact to the woodland. | An Arboricultural Impact Assessment is included in Appendix 5 of the Environmental Appraisal. In addition, following receipt of pre-application advice from BDC, the proposed GSP substation has been moved approximately 3m south and the perimeter fence, which requires foundations, has been moved south of the access road. |
| Negative Condition Survey | Carry out a Negative Condition survey for both ancient woodlands. The Arboricultural report should also focus on all trees within the periphery of the site; health, roots protection areas etc. | The Arboricultural Impact Assessment (Appendix 5 of the Environmental Appraisal) reports on a survey undertaken that assessed the woodland resilience to climatic and biotic factors. |
| Landscape and Visual | <p>a) The Landscape Officer's requested a number of additional viewpoints (as part of the wider NSIP project) but also for the substation.</p> <p>b) Agree a methodology with the LPA prior to the assessment being undertaken.</p> <p>c) All visual representation with any submitted LVA should also be in line with The Visual Representation of Development Proposals Technical Guidance Note</p> | <p>The landscape and visual appraisal is presented in Appendix 2 of the Environmental Appraisal.</p> <p>a) The landscape and visual appraisal is accompanied by wireframes and associated assessment from the viewpoints recommended in the pre-application advice.</p> <p>b) The methodology has been agreed with the Council during the pre-application meeting held on Tuesday 5 April 2022.</p> <p>c) As explained in Appendix 2 (Landscape and Visual Appraisal) of the Environmental Appraisal, visualisations are in accordance with the Landscape Institutes (2019) 'Visual Representation of Development Proposals', Technical Guidance Note (TGN) 06/19.</p> |
| | Given that the LCA Assessment is 15 years old, a detailed landscape analysis and review of impacts on the landscape fabric and the character of the local landscape would be welcomed. | A detailed analysis of the landscape and review of impacts is provided in Appendix 2 (Landscape and Visual Appraisal) of the Environmental Appraisal. |
| Noise | A noise assessment should also be provided; this should cover the operation of the substation at all times including the back-up diesel generator. | A noise assessment is included in Appendix 10 of the Environmental Appraisal. |
| Flooding | A flood risk assessment would be required to ascertain whether the area is at risk of flooding. This should also include drainage measures, including any possible SUDS as necessary, so | A Flood Risk Assessment is included in Appendix 7 of the Environmental Appraisal. |

that surface water can be sufficiently dealt with.

Planting details

- a) Given the proximity of the development to adjacent woodland, details of mitigation planting, implementation and on-going maintenance should be considered and submitted.
 - b) Planting proposals should reflect the existing field pattern network and woodland structure, especially those areas proposed to the west of the existing woodlands.
- a) Figure 4 (Landscape and Planting Plan) of the Environmental Appraisal shows the proposed planting. Section 4 of Appendix 1 (Construction and Environmental Management Plan) explains the maintenance and monitoring regime.
 - b) Planting plans have been modified to follow the field pattern adopting straight edges. Figure 4 (Landscape and Planting Plan) of the Environmental Appraisal shows how the planting would fit with planting proposals for the wider reinforcement project.

Access Design

The potential for the existing access from the A131 to be used to facilitate this development should be explored.

NGET investigated the possibility of using the existing field opening to create a vehicular access to the site, instead of inserting a new access point, which would require additional loss of the roadside boundary hedgerow. This option has previously been disregarded in discussions due to highway visibility concerns associated with the existing northern field opening. In addition, if the existing access was used the existing pylon and new substation would be more visible from the A131.

Mitigation

Measures such as additional hedgerow and hedgerow trees and enhancements on the eastern boundary of the A131 would be supported.

Figure 4 (Landscape and Planting Plan) of the Environmental Appraisal shows the planting proposals for the proposed GSP substation including hedgerow enhancement on the eastern boundary of the A131.

Proximity of GSP to woodland

A buffer zone should be at least 15 metres to avoid root damage, full details of mitigation will be needed on how any adverse impacts to the non-statutory designated sites & ancient woodland can be avoided.

The design has been developed so no felling of trees is required within Butler's Wood or Waldegrave Wood to facilitate construction and operation of the proposed GSP substation. Appendix 5 (Arboricultural Impact Assessment) of the Environmental Appraisal explains that the need for tree protection measures, typically provided to afford protection from plant or storage, within a root protection area is unnecessary because of the topographical protection provided by deep wide ditches lining the woodlands. These ditches offer equivalent protection as fencing as they

prevent vehicular access and storage of materials within the woodlands. The application of a standard buffer distance to ancient woodland, in relation to rooting, is unnecessary in the face of the topographical evidence. The distances between the proposed GSP substation and areas of ancient woodland are set out in the Design and Access Statement.

Lighting

Any Lighting Design Scheme for either the construction or operation phases will need to be wildlife friendly to be secured via a condition of any consent.

There will be low lux level light-emitting diode (LED) type luminaires with directable light 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.

BNG

a) A Biodiversity Net Gain design stage report should also be submitted.

Appendix 4 of the Environmental Appraisal is a Biodiversity Net Gain report and planting proposals are shown in Figure 4 (Landscape and Planting Plan) of the Environmental Appraisal. They set out the species mixes, and biodiversity enhancements proposed. The shape of the planting has been formed following feedback that it should follow existing field patterns.

b) Recommend that the wildflower grassland uses pollinator mixes with species which could tolerate shade from the adjacent Waldegrave Wood.

c) Suggest that the actual boundary of woodland is irregular/sinuuous to maximise the edge habitat and buffer the arable land with some wildflower grassland on the edges.

a) The proposals should consider biodiversity enhancements.

6. National Planning Policy

6.1 Context

- 6.1.1 Section 38(6) of the Planning and Compulsory Purchase Act 2004 (hereafter referred to as the 'PCPA') provides the principal basis in law for the determination of planning applications, namely that they must be determined in accordance with the Development Plan unless material considerations indicate otherwise. The Section 38 definition of what comprises a Development Plan includes Regional Plans, Development Plan Documents (DPDs) and Neighbourhood Development Plans (NPDs).
- 6.1.2 DPDs are in turn defined by Section 37 of the PCPA 2004, which states, '*a development plan document is a local development document which is specified as a development plan document in the local development scheme*'.
- 6.1.3 A Local Development Scheme (LDS) is established in Section 15 of the PCPA which requires the DPDs to be specified in the LDS and the proposals must be in accordance with the Statement of Community Involvement.
- 6.1.4 Essentially, therefore, to form part of the Development Plan, documents must be defined in the LDS and carried out in accordance with the Statement of Community Involvement.
- 6.1.5 Supplementary Planning Guidance (SPDs) are not part of the Development Plan but are normally material considerations in conventional decision making.
- 6.1.6 National planning policy, which is set out in the National Planning Policy Framework (NPPF) (2021) is a material consideration when determining a planning application. Central to national planning policy is a '*presumption in favour of sustainable development*'. Paragraph 11 of the NPPF highlights that, for the determination of planning applications, this means:
- approving development proposals that accord with an up-to-date Development Plan without delay; and
 - where there are no relevant Development Plan policies, or the policies which are most important for determining the application are out-of-date, granting permission unless:
 - the application of policies in this Framework that protect areas or assets of particular importance provides a clear reason for refusing the development proposed; or
 - any adverse impacts of doing so would significantly and demonstrably outweigh the benefits, when assessed against the policies in this Framework taken as a whole.'
- 6.1.7 The Government introduced Planning Practice Guidance (PPG) to supplement the NPPF in March 2014. The PPG provides information that may be considered 'important' and 'relevant' to the proposed GSP substation.

7. Local Planning Policy

7.1 BDC's Development Plan

7.1.1 The current adopted Development Plan for BDC is made up of the following policy documents, including:

- Local Development Scheme (LDS)
- Local Plan, Section 1 (2013-2033)
- Core Strategy (2011-2026)
- Braintree District Local Plan Review (2005) (Saved Policies)
- The Essex Minerals Local Plan (2014)
- Essex and Southend-On-Sea Waste Local Plan (2017)
- Supplementary Planning Documents (SPDs) & Neighbourhood Plans

7.1.2 The Core Strategy sets out the key strategic vision and objectives for the District and allocates strategic sites. BDC adopted its Core Strategy in September 2011.

7.1.3 The Local Plan Review was adopted in July 2005. In July 2008 the SoS for Communities and Local Government decided that the majority of the policies contained in the Local Plan Review remain in force (with the exception of 11 policies). In addition, when the Core Strategy was adopted, it superseded a further 12 policies of the Local Plan Review.

7.1.4 The New Local Plan (2013-2033) is a two-part document which sets out the strategy for development of the District up to 2033. Section 1 is shared with Colchester and Tendring Councils and covers all three authorities. The formal adoption of the Section 1 Local Plan by BDC on 22 February 2021 has the effect of further replacing a number of remaining policies in the Core Strategy and the Local Plan Review.

7.1.5 The emerging New Local Plan Section 2 contains the proposed policies, maps and sites for development, housing, employment, regeneration etc. The Section 2 Local Plan has yet to be adopted, but when it does, it will supersede the remaining saved policies in the Local Plan Review and Core Strategy.

7.2 Relevant Local Planning Policy

Local Plan Review (2005)

- Policy RLP2 – Town Development Boundaries and Village Envelopes
- Policy RLP36 – Industrial and Environmental Standards
- Policy RLP40 – Minor Industrial and Commercial Development in the Countryside
- Policy RLP49 – Pedestrian Networks
- Policy RLP50 – Cycleways
- Policy RLP56 – Vehicle Parking

- Policy RLP63 – Air Quality
- Policy RLP 65 – External Lighting
- Policy RLP 69 – Sustainable Drainage
- Policy RLP64 – Contaminated Land
- Policy RLP 76 – Renewable Energy
- Policy RLP80 – Landscape Features and Habitats
- Policy RLP81 – Trees, Woodlands, Grasslands and Hedgerows
- Policy RLP84 – Protected Species
- Policy RLP90 – Layout and Design of Development
- Policy RLP95 – Preservation and Enhancement of Conservation Areas
- Policy RLP 87 – Protected Lanes
- Policy RLP10 – Alterations and Extensions and Changes of Use to Listed Buildings and their Settings
- Policy RLP161 – Utilities Development

Braintree District Core Strategy (2011)

- Policy CS5 – The Countryside
- Policy CS7 – Promoting Accessibility for All
- Policy CS8 – Natural Environment and Biodiversity

Local Plan, Section 1 (2013-2033)

- SP1 – Presumption in Favour of Sustainable Development
- SP7 – Place Shaping Principles

Local Plan, Section 1 (2013-2033)

- SP1 – Presumption in Favour of Sustainable Development
- SP7 – Place Shaping Principles

Emerging Local Plan, Section 2 (2013-2033)

- LPP 1 – Development Boundaries
- LPP 44 – Sustainable Transport
- LPP 45 - Parking Provision
- LPP 49 – Built and Historic Environment
- LPP 49 – Built and Historic Environment
- LPP 54 – Layout and Design of Development

- LPP 55 – Conservation Areas
- LPP 56 – Demolition in Conservation Areas
- LPP 59 – Heritage Assets and their Settings
- LPP 63 – Local Communities Facilities and Services
- LPP 66 – Protected Sites
- LPP 67 – Natural Environment and Green Infrastructure
- LPP 67 – Tree Protection
- LPP 68 – Protection, Enhancement, Management and Monitoring of Biodiversity
- LPP 69 – Landscape Character and Features
- LPP 71 – Protected Lanes
- LPP 72 – Protecting and Enhancing Natural Resources, Minimising Pollution and Safeguarding from Hazards
- LPP 73 – Climate Change
- LPP 76 – Flooding Risk and Surface Water Drainage
- LPP 76 – Renewable Energy Schemes
- LPP 79 – External Lighting
- LPP 82 – Infrastructure Delivery and Impact Mitigation

7.3 Neighbourhood Planning Policy

7.3.1 The northern and western extents of the GSP Substation site lie within the parish boundary of Bulmer Parish, meanwhile the southern and eastern extents lie within Twinstead Parish. The parish boundaries, therefore, dissect the site. However, neither Bulmer or Twinstead have adopted or are preparing a neighbourhood plan.

8. Planning Appraisal

8.1 Principle of the proposed development

8.1.1 Paragraph 1.2.1 of EN-1 states that, *'In England and Wales this NPS is likely to be a material consideration in decision making on applications that fall under the Town and Country Planning Act 1990 (as amended).'* While the same can be said about EN-5.

8.1.2 In respect to EN-1:

- Paragraph 2.1.2 recognises that *'energy is vital to economic prosperity and social well-being and so it is important to ensure that the UK has secure and affordable energy. Producing the energy, the UK requires and getting it to where it is needed necessitates a significant amount of infrastructure, both large and small scale'*.
- Paragraph 2.2.20 notes that it is critical that the UK continues to have secure and reliable supplies of electricity as we transition to a low carbon economy.
- Paragraph 3.7.2 states that both demand and supply of electricity will increase in the coming decades and that existing transmission networks will have to evolve and adapt to handle increases in demand.

8.1.3 In respect to EN-5:

- Paragraph 2.2 states that the general location of electricity network projects is often determined by the location, or anticipated location, of a particular generating station and the existing network infrastructure distributing electricity.

8.1.4 BDC, the determining authority for the GSP substation, have been engaged extensively throughout the evolution of the proposed GSP substation and the wider reinforcement. Most recently, BDC provided their feedback to the statutory consultation for the wider reinforcement, which also included the proposed GSP substation as associated development. In their response to the consultation, contained at Appendix 3 of this Planning Statement, BDC commented that:

- BDC understand the continued need for this network reinforcement project between Bramford and Twinstead Tee.
- BDC, like many other councils, have declared a Climate Change Emergency and have, therefore, produced a Climate Change Strategy (2021-2023).
- BDC acknowledge that this network reinforcement will help achieve the aims set out in the Climate Change Strategy as the proposals enable a greater proportion of new renewable energy to be connected to the network for the district and beyond.

8.1.5 Fundamentally, BDC accept the principle of the proposed GSP substation, and this has remained their position throughout the pre-application discussions for the proposed GSP substation and engagement on the wider reinforcement, acting as a prescribed consultee for the latter.

8.1.6 The provision of a proposed GSP substation within the administrative boundaries of BDC does not benefit from a specific policy or site allocation within an adopted Development Plan Document (DPD). However, the wider reinforcement is cited in the BDC Infrastructure Delivery Plan (June 2021) (hereafter referred to as 'the IDP'). BDC's IDP is

a live document which details the strategic infrastructure required to underpin the planned growth as set out in the Local Plan, over the plan period 2013 – 2033.

- 8.1.7 In respect to the wider reinforcement, the IDP considers that this infrastructure item is not directly related to any of the outstanding site allocations within the Local Plan; however, acknowledges that the wider reinforcement will *'help to maintain a long-term steady energy supply throughout the District and wider region'*.
- 8.1.8 The proposed GSP substation site falls outside of a defined development boundary and is, therefore, considered to fall within the countryside for planning policy purposes. Policy RLP2 (Town Development Boundaries and Village Envelopes) details that *'new development will be confined to the areas within Town Development Boundaries and Village Envelopes. Outside these areas countryside policies will apply.'* Policy CS5 (The Countryside) builds upon this principle and prescribes that, *'development in the countryside will be strictly controlled to uses appropriate to the countryside, in order to protect and enhance the landscape character and biodiversity, geodiversity and amenity of the countryside.'*
- 8.1.9 Policy RLP 161 (Utilities Development), would likely be considered the most relevant policy in respect to the proposed GSP substation and states:
- 'Proposals for development required for the operational needs of utilities serving the public will be supported and approved where applicable, subject to their acceptability on environmental and amenity grounds in terms of the other policies in this Plan. In considering proposals the Council will take into account existing levels of infrastructure, technical and operational requirements, and opportunities for the sharing of sites, facilities and installations.'*
- 8.1.10 Policy RLP 161, therefore, provides general policy support for this type of infrastructure, subject to more precise considerations such as landscape impact, amenity impact and impact on protected species etc. The policy also advocates 'shared facilities'; as such, the fact the proposed GSP substation site already includes two electricity pylons weighs in the schemes favour.
- 8.1.11 In addition, Policy RLP 40 (Minor Industrial and Commercial Development in the Countryside) may also be relevant and considers the siting of such uses outside of defined settlement boundaries being acceptable subject to amenity considerations such as *'visual impact, noise, smell, or other pollution, or excessive traffic generation, health or safety or loss of nature conservation interests'*.
- 8.1.12 Similarly, Policy RLP36 (Industrial and Environmental Standards) lists relevant amenity and pollution constraints that new development in industrial uses should not give rise to.
- 8.1.13 Crucially, none of the mentioned local plan policies preclude a countryside setting for similar types of development.
- 8.1.14 Paragraph 152 of the NPPF acknowledges planning's key role in the transition to a low carbon future and the delivery of renewable and low carbon energy schemes as well as the provision of 'associated infrastructure'. As such, the NPPF identifies the role of associated infrastructure in achieving this transitional aim. While policy RLP 161 is likely to be considered the most relevant adopted development plan policy in the determination of the application, the proposed GSP substation is more akin to infrastructure associated with the delivery of renewable energy.

- 8.1.15 Therefore, in this context, emerging Policy LPP 76 (Renewable Energy Schemes) of the Section 2 Local Plan provides in principle policy support for renewable energy schemes which align with the aim of providing low carbon energy.
- 8.1.16 Whilst not a 'renewable energy scheme' by definition, the proposed GSP substation and wider reinforcement is intrinsically linked to such schemes in the East of England as it facilitates the distribution of low carbon electricity across the region and beyond. The proposed GSP substation is required as part of the necessary network reinforcements borne out of the systemic shift away from fossil fuels and commitment to achieving 40GW of offshore wind connected to the network by 2030.
- 8.1.17 In this context and as stated above, BDC declared a Climate Change Emergency in July 2019 and announced a target to be carbon neutral as far as practical by 2030, as well as supporting their local communities to reduce the impacts of climate change. BDC acknowledge in their response to the statutory consultation for the wider reinforcement, that the proposals will help achieve the aims set out in the Climate Change Strategy.
- 8.1.18 In combination, these local and national aims, alongside NGET's statutory obligations to connect any new generation to the transmission system while maintaining an efficient, co-ordinated, and economical system of electricity transmission and Policies RLP 161 and RLP 40, results in a development which is overall, considered acceptable in principle in accordance with Policy CS5. Meanwhile, the following sections in this Appraisal will assess the relevant amenity and environmental considerations which will confirm the proposals are acceptable in detail.
- 8.1.19 The following sections will also set out how the development meets the three strands of sustainable development in accordance with Policy SP1 (Presumption in Favour of Sustainable Development) of the Section 1 Local Plan.

8.2 Material planning considerations

- 8.2.1 The most relevant material planning considerations, as set out below, are considered to be:
- Landscape impact
 - Biodiversity impact (including BNG)
 - Arboricultural impact
 - Impact on the built and natural historic environment
 - Agricultural land classification
 - Contaminated land
 - Noise and vibration
 - Flood risk
 - Highway impact
 - Layout, design and external appearance
 - Other matters

Landscape impact

- 8.2.2 In respect to landscape impact, a number of adopted development plan policies are engaged and relevant.
- Policy RLP81 (Trees, Woodlands, Grasslands and Hedgerows) encourages the retention, maintenance, and planting of locally native trees, woodlands, grasslands and hedgerows and requires new planting to replace the loss of the like.
 - Policy RLP 84 (Protected Species) considers the protection of native species and states that planning conditions and or obligations will be imposed to supplement habitats (amongst others).
 - Policy RLP 36 (Industrial and Environmental Standards) requires all new development to not give rise to unacceptable visual impacts.
 - Policy RLP 90 (Layout and Design of Development) requires development to: be of an appropriate scale; high standard of design and materials; reflect local distinctiveness and be sensitive to its context.
 - Policy CS8 (Natural Environment and Biodiversity) requires development to have regard to the character of the landscape and its sensitivity to change and enhance locally distinctiveness in accordance with the Landscape Character Assessment.
- 8.2.3 Emerging Policy LPP 71 (Landscape Character and Features) recognises the intrinsic character and beauty of the countryside and requires any development to be suitable for the local context. The Policy requires new development to be informed by, and be sympathetic to, the character of the landscape as identified in the District Council's Landscape Character Assessments. It also requires larger schemes to assess their impact on the landscape resulting in development which is not detrimental to the distinctive landscape features of the area such as trees, hedges, woodlands, grasslands, ponds and rivers. Where development is proposed close to existing features, it should be designed and located to ensure that the condition and future retention/management will not be prejudiced but enhanced where appropriate. Finally, additional landscaping including planting may be required to maintain and enhance these features.
- 8.2.4 Paragraph 130 of the NPPF requires Planning policies and decisions to ensure they are visually attractive as a result of good architecture, layout and appropriate and effective landscaping; meanwhile, sympathetic to local character and history, including the surrounding built environment and landscape setting.
- 8.2.5 In addition, Paragraph 174 requires planning policies and decisions to contribute to and enhance the natural and local environment by: *'a) protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils... and b) recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland...'*
- 8.2.6 A Landscape and Visual Impact Assessment is contained at Appendix 2 of the Environmental Appraisal.

Landscape

- 8.2.7 The Stour Valley Project Area lies approximately 1.1km to the east of the site boundary. While not a designated landscape in itself, the Stour Valley Project Area has been described as having similar picturesque landscape qualities to the Dedham Vale Area of

Outstanding Natural Beauty (AONB), which lies approximately 7.7km to the east of the site boundary.

- 8.2.8 At a County scale, the proposed GSP substation site lies within the Blackwater and Stour Farmlands character area in the Essex Landscape Character Assessment (LCA).
- 8.2.9 The LCA description notes the presence of pylons being strong features within this landscape and this includes the existing 400kV overhead line running to Pelham west of the Twinstead Tee and the existing 132kV overhead line between Burstall Bridge and Pelham which crosses the application site.
- 8.2.10 There is an overlap between the Essex Landscape Character Assessment and the Suffolk Landscape Character Assessment with the landscape also being characterised as Ancient Rolling Farmlands in the Suffolk Landscape Character Assessment (updated 2011).
- 8.2.11 At a District scale the proposed GSP substation lies in a landscape characterised as Wickham Farmland Plateau in the Landscape Character Assessment (Braintree District Council, 2006),
- 8.2.12 The landscape around the proposed GSP substation is generally consistent with the published County scale character descriptions but less so with regard to the District scale description. The proposed GSP substation is on arable farmland between two of the larger parcels of woodland (Butler's Wood and Waldegrave Wood). Although the published landscape character assessments state that tranquillity is a key landscape characteristic, this does not directly apply to the location of the proposed GSP substation which has the A131 passing close to its eastern boundary in addition to the existing 400kV overhead line which passes through the site between the two parcels of woodland.
- 8.2.13 It would not be necessary to remove any vegetation from the two woodlands to accommodate the proposed GSP substation and it would likely be integrated into the landscape through the pattern of existing vegetation. Landscape and planting proposals are shown on Figure 4 of the Environmental Appraisal and would further assist in integrating the proposed GSP substation into the landscape. As proposed planting establishes, the proposed GSP substation would become more integrated into the landscape, reducing impacts over time. Therefore, the proposed GSP substation is not expected to be harmful to the landscape qualities of the area in accordance with Policies RLP81, RLP 84, RLP 36, RLP 90 and CS8

Visual

- 8.2.14 Small parts of the local community within northern extents of the hamlet of Twinstead Green lie approximately 300m southeast of the proposed GSP substation. There are also a few individual farmsteads and other groups of houses approximately 500m away to the northeast and northwest. The nearest villages are Wickham St Paul (to the southwest) and Twinstead (to the east), both approximately 1km away from the site boundary. Views toward the proposed GSP substation from these locations are generally limited by intervening hedgerows and mature trees and also the existing woodland parcels.
- 8.2.15 There are no long-distance footpaths or regional or National Cycle Networks (NCNs) in the landscape and visual study area. There are however a number of PRoW in the area, some of which have views towards the gap between Butler's and Waldegrave Woods, particularly from PRoW in close vicinity to the west. Views towards the proposed GSP substation from public footpaths to the north and south are generally restricted by woodland, although there are some views possible from public footpaths to the south.

- 8.2.16 Unrestricted views of the field between the woods are possible from a very short section of the A131 immediately adjacent to the site. Views towards the proposed GSP substation from other roads in the area are generally limited, as minor roads and lanes are characteristically sunken and/or hedge-lined and the two woodlands screen most views.
- 8.2.17 Overall, views of the site between Butler's Wood and Waldegrave Wood tend to be restricted to a localised area. More distant views toward the site are largely screened by the existing woodland, becoming increasingly less discernible in longer distance views.
- 8.2.18 Whilst planting establishes, the proposed GSP substation is likely to be visible to recreational receptors within close proximity to the GSP substation. These relate to people walking along one PRow which is within close proximity to the west of the GSP substation; albeit these receptors already have close up views of the existing 400kV overhead line. However, with the combination of intervening existing vegetation and as the landscape planting matures (at year 15 of operation), these views would become softened. Details of the proposed landscape planting is set out in the Design and Access Statement and shown on Figure 4 of the Environmental Appraisal.
- 8.2.19 Overall, with the supplementation of habitats such as native trees, woodlands, grasslands and hedgerows the proposed GSP substation is not expected to give rise to unacceptable visual impacts. Meanwhile, it is considered that embedded design measures have sought to reflect local distinctiveness and be sensitive to its context in accordance with the Landscape Character Assessment(s) and Policies RLP81, RLP 84, RLP 36, RLP 90 and CS8.

Biodiversity impact (including BNG)

- 8.2.20 Policy CS8 (Natural Environment and Biodiversity) requires all new development to ensure the protection and enhancement of the natural environment, habitats and biodiversity and geo-diversity. Such issues are ever more pertinent in light of the climate emergency and the need to restore the UK's natural habitats which have been in decline over recent decades. This is further considered in Policy SP7 (Place Shaping Principles) which requires new development to reflect a number of 'place shaping' principles such as, incorporating biodiversity measures and protecting and enhancing natural assets.
- 8.2.21 Policy RLP80 (Landscape Features and Habitats) requires all new development to mitigate its impact upon wildlife through the creation of new appropriate habitats.
- 8.2.22 In addition, emerging Policy LPP 68 (Protection, Enhancement, Management and Monitoring of Biodiversity) requires development proposals to provide for the protection of biodiversity and the mitigation or compensation of any adverse impacts. Additionally, it states that '*biodiversity should be included in all proposals, commensurate with the scale of the development*'. The Policy goes on to detail biodiversity enhancement examples such as habitat creation and wildlife links. This is also reflected in emerging Policy LPP 71 (Landscape Character and Features) which advocates for the restoration and enhancement of the natural environment. Finally, emerging Policy LPP 66 (Protected Sites) comments that proposals which result in a net gain in priority habitat will be supported in principle.
- 8.2.23 Paragraph 174 of the NPPF requires that '*planning policies and decisions should contribute to and enhance the natural and local environment by protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils and minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures*'. In terms of

habitats and biodiversity, when determining planning applications, local planning authorities should apply the principles set out at Paragraph 180 (a – d) of the NPPF.

- 8.2.24 This application is accompanied by a Biodiversity Net Gain Report (Appendix 4 of the Environmental Appraisal) and Biodiversity Check List.
- 8.2.25 Recently, the delivery of BNG has been encouraged in national planning policy. However, it is soon to become mandatory on many development projects in England, enshrined in legislation. The timeline for the introduction of a mandatory BNG is dependent on a number of factors and the Government is currently consulting on how BNG will be applied to TCPA applications.
- 8.2.26 Despite not yet being a mandatory provision in respect to the GSP substation, NGET has committed to achieving a 10% BNG at the site using Biodiversity Metric 3.0 (Defra, 2021). This commitment means that the proposed GSP substation will deliver a net improvement to biodiversity. Figure 4 of the Environmental Appraisal details the proposed landscape and planting proposals included in the site boundary within which planting for BNG is proposed (as well as embedded landscape planting) which, once established, contributes to filtering and softening views of the proposed GSP substation.
- 8.2.27 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, alongside planting proposed for the wider reinforcement, a new habitat connection would be provided between Butler's Wood and Waldegrave Wood.
- 8.2.28 The proposed GSP substation goes beyond the local planning policy requirements to 'mitigate' impacts to biodiversity and proposes an overall BNG, as set out in Appendix 4 of the Environmental Appraisal. This is in addition to BNG proposed to be secured at this site as part of the wider reinforcement which is outside of the red line boundary for the proposed GSP substation. As such, the proposed GSP substation is considered acceptable in accordance with adopted development plan policies CS8, SP7 and RLP80 and consistent with emerging legislation in relation to providing a BNG, weighing in the schemes favour.
- 8.2.29 Policy RLP 84 (Protected Species) and emerging Policy LPP 66 (Protected Sites) reflects wider national and European legislation in respect to the protection of badgers and other native species. The policies advocate for full ecological assessment, where appropriate, and states that planning conditions and or obligations will be imposed to facilitate the survival of protected species, minimise disturbances and supplement habitats.
- 8.2.30 Paragraph 179 of the NPPF promotes '*the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species; and identify and pursue opportunities for securing measurable net gains for biodiversity.*'
- 8.2.31 The potential impact of the proposed GSP substation on protected species is considered in Section 3.3 of the Environmental Appraisal which draws on Appendix 3 (Biodiversity Baseline) of the Environmental Appraisal.
- 8.2.32 In summary, no protected species or notable species were identified within the site during the surveys. However, protected species are present in the wider environment, some in close proximity to the proposed GSP substation. Notable results from field surveys and their resultant impact are summarised below.
- eDNA GCN surveys confirmed presence of GCN within 250m of the site.
 - Trees with the potential to support roosting bats were identified within 50m of the site. Bat surveys identified two bat roosts within Waldegrave Wood: one roost supporting

a minimum of two Natter's bat (*Myotis nattereri*) within 10m of the site; and a second roost supporting a single soprano pipistrelle (*Pipistrellus pygmaeus*) approximately 200m southeast of the site.

- Badger setts were identified within 30m of the site these were either disused or were outlier setts with entrances and tunnel directions heading into the woodland away from the site.
- Hazel dormouse are assumed to be present within suitable habitats.

8.2.33 Aside from the bat roosts, there are no known significant or notable populations of protected species within 50m of the site (a precautionary distance where disturbance impacts could occur on sensitive species during construction). Where individuals of protected species may be present, potential disturbance impacts would be managed through the good practice measures in the Code of Construction Practice in Annex 1 of Appendix 1 (Construction and Environmental Management Plan) of the Environmental Appraisal. As such, the development can proceed in accordance with Policy RLP 84 and national and international legislation.

Arboricultural impact

8.2.34 Policy RLP81 (Trees, Woodlands, Grasslands and Hedgerows) encourages the retention, maintenance, and planting of locally native trees, woodlands, grasslands and hedgerows and requires new planting to replace the loss of any protected trees, woodland or hedgerow.

8.2.35 Policy RLP80 (Landscape Features and Habitats) requires new development to assess its impact on wildlife and considers that development should not be detrimental to any distinctive landscape features. Meanwhile, all new development will be required to mitigate its impact upon wildlife through the creation of new appropriate habitats.

8.2.36 Emerging Policy LPP 67 (Tree Protection) requires trees, which contribute to the character of the local landscape and are considered to have reasonable life expectancy, to be protected by tree preservation orders and retained. The policy goes on to consider that '*where trees are to be retained on new development sites there must be a suitable distance provided between the established tree and any new development to allow for its continued wellbeing...*' Meanwhile, emerging Policy LPP 65 (Natural Environment and Green Infrastructure) advocates for the protection and enhancement of the natural environment, habitats, biodiversity and geodiversity in Braintree.

8.2.37 Butler's Wood and Waldegrave Wood are local wildlife sites and are designated for their ancient woodland habitats. Government standing advice in relation to ancient woodlands prescribes that planning decisions should be made in line with paragraph 180(c) of the NPPF which requires, '*development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons and a suitable compensation strategy exists*'.

8.2.38 In addition, Government guidance in relation to development in the vicinity of ancient woodlands, advises the need for a buffer zone of at least 15m to avoid root damage.

8.2.39 This application is accompanied by an Arboricultural Impact Assessment in Appendix 5 of the Environmental Appraisal.

8.2.40 No vegetation clearance or modification of Butler's Wood or Waldegrave Wood is required, beyond that of the existing wayleaves already in place at the site. While the design seeks to maintain a 15m buffer from Butler's Wood or Waldegrave Wood, it will

be necessary for elements such as the access road and the security fence to be within 15m of Butler's Wood. However, 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, this is because the presence of ditches in excess of 1m depth on the boundaries of the woodlands will constrain root growth to within the woodland.

- 8.2.41 Throughout the recent design evolution of the GSP substation, the bulk of the built development has been moved approximately 3m further south of Butler's Wood and the perimeter fence, which requires foundations, has been moved south of the access road. The proposals now reflect the largest separation distance achievable at this site between the ancient woodland habitat and the GSP substation, having regard to the engineering specifications and constraints. The design change to relocate the proposed GSP substation reduces the risk of damage to tree roots and removes the need for trimming existing trees that are not currently subject to management under existing wayleaves.
- 8.2.42 The arboricultural surveys conducted in May 2021 concerned detailed surveys of the edge trees, which have the potential to be impacted by the GSP substation. In response to a pre-application request from BDC to undertake a Negative Condition Survey, an assessment of the woodland interiors was also undertaken to consider their long-term resilience in respect to the provision of visual screening of the proposed GSP substation.
- 8.2.43 The Negative Condition Survey result and an assessment of impacts of the proposed GSP substation on arboricultural features is set out in Appendix 5 (Arboricultural Impact Assessment) of the Environmental Appraisal.
- 8.2.44 Due to the careful siting design of the proposed GSP substation and preferential root growth within the woodland; the proposed GSP substation is not expected to be detrimental to the ancient woodland habitats adjacent to the site, in accordance with Policies RLP81 and RLP80. Some evidence of decline was observed of individual oak trees within the woodlands. However, this had not developed significantly and was not considered substantial in relation to the resilience of the woodland to climatic and biotic stresses. The intimate mixture of tree species reinforces the resilience of the woodlands to individual tree losses and the affected trees were irregularly scattered and there was no clear evidence of disease.

Impact on the built and natural historic environment

- 8.2.45 Paragraph 194 of the NPPF states that when determining applications, local planning authorities should require applicants to describe the significance of any heritage assets affected, including any contribution made by their setting. The level of detail should be proportionate to the assets' importance and sufficient to understand the potential impact of the proposal on their significance. Policy RLP100 (Alterations and Extensions and Changes of Use to Listed Buildings and their settings) is relevant in this context.
- 8.2.46 Emerging Policies LPP 49 (Built and Historic Environment), LPP 55 (Conservation Areas), LPP 56 (Demolition in Conservation Areas) and LPP 59 (Heritage Assets and their Settings) are also relevant.
- 8.2.47 Section 3.4 of the Environmental Appraisal provides an assessment of potential impacts on the historic environment, and this is supported by Appendix 6 (Historic Environment Baseline) which provides a proportionate level of detail to assess the GSP substation's impact on the natural and built historic environment.
- 8.2.48 The site would be screened through the existing vegetation and through the planting and mounding proposed. As the proposed planting shown on Figure 4 establishes, views of

the proposed GSP substation would become softened, reducing impacts on the setting of archaeological remains, historic buildings and the historic landscape over time. As such, the proposed GSP substation can proceed in accordance with Paragraph 194 of the NPPF.

Agricultural land classification

- 8.2.49 Policy CS8 (Natural Environment and Biodiversity) requires development to protect the best and most versatile agricultural land. This is derived from national planning policy and Paragraph 174 requires that '*Planning policies and decisions should contribute to and enhance the natural and local environment by: recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land...Where significant development of agricultural land is demonstrated to be necessary, areas of poorer quality land should be preferred to those of a higher quality*'.
- 8.2.50 Appendix 9 of the Environmental Appraisal provides an assessment of Agricultural Land Classification. Agricultural land in England and Wales is graded between 1 and 5, depending on the extent to which physical or chemical characteristics impose long-term limitations on agricultural use. Grades 1, 2 and 3a are defined as the best and most versatile (BMV) land. Grade 3a land covers the entire proposed GSP substation site; this is considered to be BMV land resulting in Policy CS8 and Paragraph 174 of the NPPF being engaged.
- 8.2.51 There would be disturbance to soils associated with the construction of the GSP substation. The GSP footprint totals an area of 10,893sqm, and the soil would not be replaced in this location. These soil materials would be reused in landscaping areas around the GSP substation, such that they would continue to be capable of providing many of the ecosystem services.
- 8.2.52 In addition, in order to avoid and mitigate any loss to this resource, measures are included in Appendix 1 of the Environmental Appraisal (Construction Environmental Management Plan) to manage soils during construction. Meanwhile, it is not considered likely that soils will be affected during operational use of the GSP substation.
- 8.2.53 The majority of agricultural land within BDC is classified as Grade 2 or 3, with 65.8% of agricultural land classified as Grade 2, and 29.9% as Grade 3. It would appear due to this resource being so abundant in the administrative boundaries of BDC, it is difficult to avoid when proposing new development. The Development Plan tolerates the fact that not all of this resource can be retained for agriculture. The proposed GSP substation proposes a small loss of Grade 3a land overall.
- 8.2.54 For these reasons, it is not considered that the proposed GSP substation would be in conflict with Policy CS8 and Paragraph 174 of the NPPF.

Contaminated Land

- 8.2.55 Policy RLP 36 (Industrial and Environmental Standards) requires all new development to not give rise to unacceptable impacts in terms of contamination to air, land or water (amongst other considerations). Policy RLP 64 (Contaminated Land) sets out the steps required when proposing development on or near a site where contamination may exist.
- 8.2.56 In addition, emerging Policy LPP 72 (Protecting and Enhancing Natural Resources, Minimising Pollution and Safeguarding from Hazards) requires all new development to

not give rise to unacceptable impacts in terms of contamination to air, land or water (amongst other considerations).

8.2.57 Paragraph 174 of the NPPF advocates for planning decisions contributing to and enhancing the natural and local environment ‘*by remediating and mitigating despoiled, degraded, derelict, contaminated and unstable land, where appropriate.*’

8.2.58 Appendix 8 (Phase 1 Contaminated Land Assessment) of the Environmental Appraisal concludes that no noteworthy source of contamination is currently present at the site or within the immediate vicinity based on the current and historical land uses and, therefore, the contamination potential of the site is considered to be very low. As no current source has been identified a source-pathway-receptor linkage has also not been identified and, therefore, there is not considered to be a contaminated land risk at this site and the proposed GSP substation can proceed in accordance with Policies RLP 36, RLP 64 and Paragraph 174 of the NPPF.

Noise and vibration

8.2.59 A number of local plan policies have regard to the impact of noise arising from new development, particularly in more sensitive countryside locations. Policy RLP 34 (Buffer Areas between Industry and Housing) requires adequate buffer zones between industrial areas and residential receptors. Policy RLP 36 (Industrial and Environmental Standards) requires all new development to not give rise to unacceptable impacts in terms of noise (amongst other considerations) similarly to Policy RLP 40 (Minor Industrial and Commercial Development in the Countryside). Finally, Policy CS8 (Natural Environment and Biodiversity) recognises that noise can have a detrimental impact on the natural environment and biodiversity.

8.2.60 Similarly, emerging Policy LPP 72 (Protecting and Enhancing Natural Resources, Minimising Pollution and Safeguarding from Hazards) requires all new development to not give rise to unacceptable impacts in terms of contamination to air, land or water (amongst other considerations).

8.2.61 The NPPF requires noise to be considered in the planning process. Paragraph 174 of the NPPF indicates that the planning system should contribute to and enhance the natural and local environment by, ‘*preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability.*’ Paragraph 185 requires new development to mitigate, and reduce to a minimum, potential adverse impact resulting from noise and to protect areas of tranquillity from new sources of noise.

8.2.62 A Noise Assessment is contained at Appendix 10 of the Environmental Appraisal.

8.2.63 A baseline noise survey has been conducted to inform the assessment. The results of the survey indicate that ambient and background sound levels in the vicinity of the proposed GSP substation and nearby Noise Sensitive Receptors are generally low, particularly during night-time periods, and are typical of a rural area.

8.2.64 With regards to operational noise, the proposed GSP substation would include noise enclosures around the SGT transformers. The noise enclosure is a good practice design measure that would provide a barrier around the transformers and reduce the operational noise levels at the boundary of the site. The inclusion of the noise enclosures would also reduce potential disturbance to sensitive species around the SGTs. The noise assessment indicates that a low impact is expected during normal operation, and during

atypical situations, such as when the SGT cooling plant is in use, or when back-up generators may be required during emergency conditions.

- 8.2.65 As a result, the development can proceed in accordance with Policies RLP 34, RLP 36, RLP 40 and CS8 of the adopted development plan and NPPF Paragraph 174, as the proposed GSP substation will not have an unacceptable adverse impact in respect to noise.

Flood risk

- 8.2.66 As per the NPPF and NPG, flood risk must be considered at all stages of the planning process, avoiding inappropriate development in areas at risk of flooding and directing development away from those areas where risks are highest. Emerging Policy LPP 76 (Flooding Risk and Surface Water Drainage) is relevant in this context.
- 8.2.67 All applications for development proposals covering an area equal to or greater than 1 ha in Flood Zone 1 should be accompanied by a Flood Risk Assessment (FRA). As such, an FRA is included at Appendix 7 of the Environmental Appraisal 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.

Highway impact

- 8.2.68 A number of the adopted local plan policies seek to ensure that development promotes sustainable transport and incorporates pedestrian and cycle networks in the locality (RLP 49 Pedestrian Networks, RLP 50 Cycleways and CS 7 Promoting Accessibility for All) Similarly to emerging Policies LPP 44 Sustainable Transport and LPP 45 Parking Provision. However, not all accessible principles are appropriate to apply to the GSP substation as the site is seldom accessed by authorised personnel and access by members of the public is not encouraged.
- 8.2.69 Paragraph 111 of the NPPF considers that, *'development should only be prevented or refused on highways grounds if there would be an unacceptable impact on highway safety, or the residual cumulative impacts on the road network would be severe.'*
- 8.2.70 The site is bounded to the east by the A131, which links Sudbury and Halstead to the A120 and A12 to the south (the Strategic Road Network). The remainder of the roads near to the site comprise of B-roads and lanes providing access to towns, villages and individual properties and farms. Old Road is a minor road linking Wickham St Paul to the A131 to the south of the site.
- 8.2.71 This application is accompanied by a Transport Statement and Appendix 1 (Construction and Environmental Management Plan) of the Environmental Appraisal sets out the good practice measures that will be implemented in relation to works to the road network and to avoid or reduce impacts of the extra traffic that will be generated during construction.
- 8.2.72 Once constructed, the proposed GSP substation and the new access will be seldom used for maintenance by authorised personnel only and would be unmanned during operation. The routine maintenance would be undertaken on a three-year cycle. This involves electrical isolation of the equipment and checks to the equipment. In addition, there would be maintenance of the auxiliary systems, which would be tested monthly and maintained as required. As such, typically, one light good vehicle is expected to visit the site per month, therefore, operation traffic movements would be very low, and this would remain the case in perpetuity.

- 8.2.73 There are no changes anticipated to the pedestrian network or PRow during construction or operation.
- 8.2.74 A permanent bellmouth junction would be constructed with the A131. This will connect to a surfaced track and would provide access for the periodic maintenance activities at the proposed GSP substation.
- 8.2.75 It is noted that BDC requested that the use of the existing access/field opening from the A131 should be explored due to the new access requiring some loss to the roadside boundary hedgerow. It is likely that in order to achieve the minimum visibility splays required to create an access at the existing field opening, the proposals would require more substantial trimming of the ancient woodland habitat and/or possible felling at Waldegrave Woods. Therefore, on balance, the proposed new access is considered to have the least harmful environmental impact, while maintaining highway safety. Thus, the development can proceed in accordance with Paragraph 111 of the NPPF.

Layout, design and external appearance

- 8.2.76 Policy RLP 90 (Layout and Design of Development) sets out BDC's expected standard of layout and design for all developments. It requires development to be of an appropriate scale; high standard of design and materials; not harmful to neighbouring amenity; reflect local distinctiveness; sensitive to its context; incorporate sustainability measures; promote sustainable transport; reduce crime; enhance biodiversity and propose lighting appropriate to the site's context. This is largely duplicated in the recently adopted Policy SP 7 (Place Shaping Principles), in addition to the following requirements: protect and enhance historical assets; include integrated parking, prioritise sustainable transport and enhance the public realm whilst promoting inclusiveness.
- 8.2.77 Emerging Policy LLP 54 (Layout and Design of Development) requires development to be of a scale, layout and height sensitive to the character of the area; buildings and structures should be of the highest architectural quality; result in no unacceptable impact on neighbouring amenity; be sensitive to the need to conserve and enhance local features of historic and landscape importance; climate change resilient and with landscape proposals consisting of native plant species.
- 8.2.78 A key aim of the NPPF, under the social objective of achieving sustainable development, is fostering well-designed, beautiful and safe places.
- 8.2.79 While both development plan policies are engaged as they relate to 'all development', some policy requirements are not relevant to the proposed GSP substation due to the fact the site will have restricted access for health and safety reasons, does not provide much flexibility in terms of architecture and materials and is situated in a relatively remote location. Nevertheless, where appropriate, the proposed GSP substation has had regard to these design principles as detailed in the Design and Access Statement accompanying this application.

Other Matters

- Air quality and emissions - Policy RLP63 (Air Quality) considers that in circumstances where air quality objectives are likely to be prejudiced, as a result of development proposals or significant traffic movements given rise to air quality concerns, an Air Quality Assessment will be required. The emissions associated with the construction of the proposed GSP substation would be short-term and there would be no construction traffic through the centre of Sudbury, where there is an Air Quality

Management Area. During the operational use of the proposed GSP substation there is limited potential for emissions of air pollutants to be generated by the proposed GSP substation associated with routine inspection and maintenance purposes, as such, an Air Quality Assessment is not required in accordance with Policy RLP63.

- Neighbouring amenity impact - The nearest residential property to the site is approximately 325m to the southeast, located off Whitelands Road, while the nearest non-residential property is approximately 270m east of the site. Due to this significant separation distance, there is not expected to be any harm to neighbouring amenity.

9. Post Consent

9.1 Planning conditions

9.1.1 Anticipated planning conditions to be imposed on the decision notice for the proposed GSP substation (summarised) are detailed below.

- Implementation within three years.
- Development to be carried out in accordance with submitted plans.
- All planting and seeding and/or turfing shall be carried out in the first planting season following substantial completion of the GSP substation.
- Any trees, shrubs or plants which within a period of five years of the completion of the development die shall be replaced in the next planting season with others of similar size and species.
- Development to be carried out in accordance with the Flood Risk Assessment, Code of Construction Practice and Construction Environmental Management Plan.
- In respect to external lighting, low lux level light-emitting diode (LED) type luminaires passive infrared sensor (PIR) motion activated lighting shall be provided.

9.1.2 It is considered that the application provides sufficient details in respect to drainage, hard and soft landscaping including maintenance, archaeology, biodiversity, lighting, parking and construction to avoid the need for any such pre-commencement conditions.

10. Summary

10.1 Presumption in favour of sustainable development

10.1.1 Central to national planning policy is a ‘*presumption in favour of sustainable development*’. Achieving sustainable development means that the planning system has three overarching objectives, which are interdependent and need to be pursued in mutually supportive ways (so that opportunities can be taken to secure net gains across each of the different objectives):

- **‘Economic objective** – *to help build a strong, responsive and competitive economy, by ensuring that sufficient land of the right types is available in the right places and at the right time to support growth, innovation and improved productivity; and by identifying and coordinating the provision of infrastructure.*
- **Social objective** – *to support strong, vibrant and healthy communities, by ensuring that a sufficient number and range of homes can be provided to meet the needs of present and future generations; and by fostering well-designed, beautiful and safe places, with accessible services and open spaces that reflect current and future needs and support communities’ health, social and cultural well-being.*
- **Environmental objective** – *to protect and enhance our natural, built and historic environment; including making effective use of land, improving biodiversity, using natural resources prudently, minimising waste and pollution, and mitigating and adapting to climate change, including moving to a low carbon economy.’*

10.1.2 In respect to the proposed GSP substation, the three strands to sustainable development are met:

- **Economic objective** – The proposed GSP substation and wider reinforcement needs case is intrinsically linked to a number of renewable energy infrastructure schemes in the East of England as it facilitates the distribution of low carbon electricity across the region and beyond. The proposed GSP substation is required as part of the necessary shift away from fossil fuels and commitment to achieving 40GW or more of offshore wind connected to the network by 2030.
- **Social objective** – The proposed GSP substation will contribute to maintaining essential infrastructure for electricity supply and thus results in public benefits. The proposed GSP substation and wider network reinforcement will help achieve the aims set out in BDC’s Climate Change Strategy as the proposals enable a greater proportion of new renewable energy to be connected to the network for the district and beyond. In addition, the proposed GSP substation is required as part of the necessary shift away from fossil fuels and commitment to achieving 40GW of offshore wind connected to the network by 2030. The key role of NGET’s transmission system is to connect the electricity generators’ power stations with regional Distribution Network Operators who then supply businesses and homes. This means that more homes and businesses can be powered by renewable and sustainable energy sources to meet the needs of present and future generations. Meanwhile, the proposed GSP substation seeks to preserve the intrinsic and spatial qualities of the local landscape, whilst not impacting or severing public spaces or having an unacceptable impact on local roads or neighbouring amenity.

- **Environmental objective** – BDC declared a Climate Change Emergency in July 2019 and announced a target to be carbon neutral as far as practical by 2030, as well as supporting their local communities to reduce the impacts of climate change. The proposed GSP substation is a key step in this direction for BDC and the rest of the UK’s commitments to achieving net zero carbon emissions by 2050. In respect to the siting of the GSP substation, robust environmental work has been undertaken to provide BDC and statutory consultees with reassurance that the development would; not be harmful to the landscape and visual character of the area, not cause unacceptable impacts to protected and priority species, preserve amenity in respect to noise, air quality, pollution and traffic generation; preserve the natural and built historic environment; not give rise to concerns of flooding or highway safety; meanwhile the development secures a 10% overall BNG weighing in the schemes favour.

10.1.3 It is for these reasons, alongside a very strong needs case for the GSP substation, that the development is considered acceptable and should be supported.

11. Appendices

Appendix 1

1. Legislative framework

In the consenting and operation of the GSP substation, a number of pieces of legislation are engaged and relevant. These are as follows:

| Legislation | Description and Relevance |
|---|---|
| The Town and Country Planning Act 1990 | The Town and Country Planning Act 1990 ('the TCPA') is a key piece of legislation central to regulating the development of land in England and Wales. This planning application is made pursuant to the provisions of the TCPA. |
| The General Permitted Development Order 2015 | The General Permitted Development Order 2015 (hereafter referred to as 'the GPDO') grants planning permission from the SoS for certain types of development in specified circumstances. These permissions are usually subject to certain limitations and conditions, although often do not require an express grant of planning permission from the local planning authority. |
| The Planning Act 2008 | <p>The Planning Act 2008 (hereafter referred to as 'the Planning Act') prescribed a new development consent regime for major infrastructure projects in the sectors of energy, transport, water, wastewater, and waste.</p> <p>Section 104(2) of the Planning Act sets out the matters to which the SoS must have regard in deciding an application submitted in accordance with the Planning Act. In summary, the matters set out in section 104(2) include any relevant NPSs, any local impact report; and any other matters the SoS thinks are both important and relevant to the decision.</p> <p>Consequently, as the wider reinforcement meets the threshold for a NSIP, the application for development consent will be decided by the relevant SoS, which in this case will be the SoS for the Department of Business, Energy and Industrial Strategy (BEIS), in accordance with the following applicable NPSs:</p> <ul style="list-style-type: none">• NPS for Overarching Energy (EN-1)• NPS for Electricity Networks (EN-5) <p>Paragraph 1.2.1 of EN-1 states that, '<i>In England and Wales this NPS is likely to be a material consideration in decision making on applications that fall under the Town and Country Planning Act 1990 (as amended).</i>'</p> |
| The Electricity Act 1989 | <p>Transmission of electricity is a licensable activity in England and Wales under the Electricity Act 1989 (as amended) (hereafter referred to as 'the Electricity Act').</p> <p>NGET owns and operates the transmission system within England and Wales and is licensed under Section 6(1)(b) of the Electricity Act. As</p> |

such, it is bound by legal obligations set out in the Electricity Act and the licence.

Under Section 9(2) of the Electricity Act 1989, NGET has a duty:

- to develop and maintain an efficient, coordinated, and economical system of electricity transmission.
- to facilitate competition in the supply and generation of electricity.

This includes a statutory obligation to offer to connect any new generating stations or interconnectors applying to connect to the transmission system.

NGET is also required, under Section 38 of the Electricity Act 1989, to comply with the provisions of Schedule 9 of the Act. Schedule 9 requires licence holders, in the formulation of proposals to transmit electricity, to preserve amenity by:

- Schedule 9(1)(a) '*...have regard to the desirability of preserving natural beauty, of conserving flora, fauna and geological or physiographical features of special interest and of protecting sites, buildings and objects of architectural, historic or archaeological interest;*' and
- Schedule 9(1)(b) '*...do what [it] reasonably can mitigate any effect which the proposals would have on the natural beauty of the countryside or on any such flora, fauna, features, sites, buildings or objects*'.

In addition, and relevant to the GSP substation, consent is usually required from the SoS for new electricity lines, which legal definition also includes supports such as pylons under Section 37 of the Electricity Act. However, there are a number of exemptions to this set out in the Electricity Act itself, GPDO 2015 and Overhead Lines (Exemption) (England and Wales) Regulations (2009) subject to certain criteria.

The Overhead Line Exemption Regulations 2009

The Overhead Line Exemption Regulations 2009 (hereafter referred to as 'the OHL Regulations') replaces earlier legislation and introduces wider circumstances where consent under Section 37 of the Electricity Act for new electricity lines, is not required.

The Environment Act 2021

The Environment Act 2021 (hereafter referred to as the 'Environment Act') makes statutory provisions for targets, plans and policies for protecting and enhancing the natural environment in England and Wales. The Environment Act mandated a biodiversity net gain (BNG) for developments under the TCPA and Planning Act. The Act sets out the following key components to mandatory BNG:

- A minimum 10% net gain calculated using the latest Biodiversity Metric.
- Habitat must be secured for at least 30-years via legal agreement.
- Habitat can be delivered on-site, off-site or via statutory biodiversity credits.
- The provisions also apply to NSIPs.

The timeline for the introduction of a mandatory BNG is dependent on a number of factors and the Government has recently consulted on how BNG will be applied to TCPA applications and NSIPs. How the proposed GSP substation has had regard to the relevant provisions of the Environment Act, and in particular BNG as detailed above.

Appendix 2

2. Details of other consents and licences

The table below details a list of other consents that may be required to facilitate the proposed GSP substation.

| Topic | Description and Relevance |
|---------------------------|--|
| Protected Species | Natural England have confirmed that a separate Great Crested Newt District Level Licence (GCN DLL) would be required for the GSP substation. No other protected species licences are required. |
| Overhead Lines | Consent for new overhead electricity lines will also be sought under Section 37 of the Electricity Act 1989 for some works associated with the GSP Substation, where they do not qualify for an exemption. |
| Overhead Lines (2) | The Overhead Line Exemption Regulations 2009; some of the works required to tie the proposed GSP substation into the existing networks will benefit from an Exemption under these Regulations. |
| Highways | A Section 278/Section 38 agreement under the Highways Act 1980 would be required before modifications to the A131 for the proposed site access is carried out. |

Appendix 3

3. EIA Screening Opinion adopted by BDC (overleaf)

Our ref: 21/03343/SCR
Direct Dial: 01376 552525 ext. 2512
Ask for: Mathew Wilde
Date: 23.12.2021



Mr Sebastian Stevens
National Grid Electricity Transmission
National Grid House
Warwick Technology Park
Gallows Hill
Warwick
CV34 6DA

Development Management
Causeway House Braintree
Essex CM7 9HB

Tel: 01376 557779
Email: planning@braintree.gov.uk

Dear Mr Stevens

APPLICATION NO: 21/03343/SCR

DESCRIPTION: Town & Country Planning Act 1990 (as amended), Town & Country Planning (Environmental Impact Assessment) Regulations 2017 - Screening Request (Regulation 6) - GSP Substation

LOCATION: Land West Of Hedingham Road, Bulmer, Essex

I write in response to your request for a Screening Opinion in relation to the above site, received on 10th November 2021.

Following such a request, the Local Planning Authority are required to provide an Opinion on the requirement for an Environmental Impact Assessment to be undertaken under the terms of Part 2, Regulation 5 of the Town and Country Planning (Environmental Impact Assessment) Regulations 2017 (as amended).

This letter constitutes the Council's formal Screening Opinion as to whether the proposed development requires formal Environmental Impact Assessment (EIA).

Description of Development Site

The site is located in a gap between two ancient woodlands (Butlers Wood and Waldergrave Wood) in the Bulmer Parish area. Historical maps show both wooded areas were previously joined, but there is now (and has been for some time) a clear 100m gap between the two.

The site is approximately 5km south of Sudbury and 1km northeast of Wickham St Paul. It is accessed directly from the A131 to the East. The site is currently arable land, however it does contain two 400kv Pylons and an overhead line.

The site is not located within any 'sensitive areas' as defined by the EIA Regulations (SSSIs and European sites (which include SPAs), National Parks, the Broads and Areas of Outstanding Natural Beauty (AONBs), World Heritage Sites and scheduled monuments).

History

The site has no planning history per se; however the substation proposal forms part of a wider Nationally Significant Infrastructure Proposal (NSIP) which seeks to erect a new 400kV electricity transmission connection (part overhead and part underground) spanning

approximately 27km from Bramford substation to Twinstead Tee. The substation itself is not directly required to enable the erection of the new 400kV line and is located some distance away from the new 400kV connection.

The substation is however considered to be necessary by National Grid to facilitate the removal of 25km of existing 132 kV overhead line operated by UK Power Networks and around 1 km of existing 400 kV overhead line. The substation is required to enable the conversion of electricity from 400kV to 132kV in order for it to be distributed into the local network and replace the capacity lost through the removal of the 132kV overhead line.

Proposal

A request for a Screening Opinion has been submitted to the Local Planning Authority for a proposed substation development. It would include a fenced compound approximately 270m by 50m in size. The fencing would likely consist of a 2.4m palisade fence with a 3.4m high electric pulse fence positioned behind it in order to secure the site. The compound would comprise two Super Grid Transformers (SGTs) to convert the voltage from 400kV to 132kV, for onward transmission and distribution by the District Network Operator (UKPN). The compound would also contain other associated equipment including switching devices, cooler banks for each transformer, a diesel generator for emergency back-up power and a water tank for emergency firewater supply. A steel gantry would also be required to receive the down leads from the 400kv line, measuring approximately 13m in height. The other structures in the compound are understood to be lower than this, although heights have not been confirmed. The proposals also include an adjacent 400Kv single circuit sealing end enclosure measuring 33m x 30m in area and containing a 12.5m high gantry and high voltage equipment measuring 8m in height. The enclosure would enable a new underground 400Kv connection.

The development also includes additional land within the red line for landscape planting proposals.

To facilitate the substation development, there would be a number of associated works to the existing infrastructure network around the site. In summary the associated works would; remove and relocate one existing pylon on the site, introduce a new underground cable to connect into an existing 132kv network and remove an existing 132kv pylon (approximately 60m west of the site) and replace it with a 132kv Cable Sealing End pylon (where the new undergrounded line would be routed to). Some temporary diversions of cables would also be required.

It is noted that some of these works are not considered to require planning permission such as works to existing overhead lines or new overhead lines on National Grid Assets, underground cables and temporary enabling/construction phase works, but have been included in the screening request for transparency so that the overall extent of associated work involved can be considered

Maintenance is limited for the use of the sub-station as it is to be fully automated. Construction would introduce HGVs to carry the equipment to site however this would cease following the completion of construction.

Legislative Background

The Town and Country Planning (Environmental Impact Assessment) (England and Wales) Regulations 2017 ('EIA Regulations') are applicable to the assessment of this submission which came into force in May 2017. These regulations transpose the European Union Council's Directive on the assessment of the effects of certain projects on the environment (the EIA Directive) into UK law.

The requirement for EIA is either mandatory or conditional, depending on the classification of the project. This is based, in turn, on the likelihood of significant impacts arising. EIA applications are divided into 'Schedule 1 development' (major developments) and 'Schedule 2 development' (other developments likely to have significant effects on the environment by virtue of factors such as its nature, size or location).

Regulation 6 permits an application for planning permission to submit a request to the Local Planning Authority for a Screening Opinion as to whether or not an EIA will be required for a development that will be the subject of a planning application. In making a decision on this request the Local Planning Authority must have regard to the EIA Regulations. These set out the categories of development for which environmental impact assessment is required.

In the event that a development does fall within the list set out in Schedule 2, the Local Planning Authority must assess the likely impacts of the development having regard to the provision of Schedule 3 of the Regulations.

Where a relevant authority has to decide under these Regulations whether supplementary information is required to enable it to determine a subsequent application it must take into account in making that decision –

(a) such of the selection criteria set out in Schedule 3 as are relevant to the development;

(b) whether information that was available to the decision-maker when it decided to grant development consent for the development has changed since it made that decision;

(c) whether new information on the likely environmental effects of the development has become available since the decision-maker decided to grant development consent; and

(d) whether the new information referred to in paragraphs (b) and (c) is material to the decision as to whether the proposed development is likely to have significant effects on the environment, or as to the particular nature or extent of those effects.

Assessment

Assessment Against Schedule 1

The development of the site for a sub-station would not fall within any of the categories set out in Schedule 1. The wider Bramford - Twinstead NSIP proposal does however fall within Schedule 1, and an EIA process is currently being undertaken, which includes the substation element as an associated part. It should be noted however that if it is granted planning permission under the Town and Country Planning Act (as opposed to receiving consent through the NSIP process), the substation element would be removed from the Bramford – Twinstead NSIP and the associated EIA.

In any case, as stated above, as a standalone proposal, the substation would not fall within Schedule 1.

Assessment Against Schedule 2

If a proposed development is listed in Schedule 2 of the EIA regulations and exceeds the relevant 'exclusion thresholds and criteria' set out in the second column the proposal needs to be screened by the local planning authority to determine whether significant effects are likely and hence whether an assessment is required.

In this case, it is considered that the proposed sub-station does not fall within Schedule 2 of the EIA regulations. The only comparable category is 3(a) which states:

“Industrial installations for the production of electricity, steam and hot water (unless included in Schedule 1);”

The proposed substation would not produce electricity in this case as its primary function; it would instead convert electricity generated elsewhere into a lower voltage for use on the local electricity network. There would be a back-up diesel generator on the site which would plug some of the gap if electricity stopped being received, however it is understood that this would only be utilised on very rare occasions. The threshold for category 3(a) is a development exceeding 0.5ha in area. The proposed application red line site area would measure approximately 12ha and exceeds the 0.5ha threshold meaning that were it considered to be

category 3 development an EIA screening opinion would be compulsory (although this does not necessarily mean that it would then be deemed EIA development, simply that an opinion on this matter from the LPA must be sought). Whilst it is not considered that the proposal falls within category 3, and the Regulations are clear that this category is only for industrial installations which *generate* electricity, it is noted that the Applicant has taken a robust approach and sought a screening opinion for the sake of completeness.

It is also noted that the other associated works identified, such as replacing existing pylons, would not fall within any of the categories listed in Schedule 2.

Is the proposal in a sensitive area?

The local planning authority does not consider this to be a sensitive site within the meanings of the regulations.

Certain designated sites are defined in regulation 2(1) as sensitive areas – namely:

- Sites of Special Scientific Interest (SSSI) and European sites;
- National Parks, the Broads and Areas of Outstanding Natural Beauty; and
- World Heritage Sites and scheduled monuments.

The application is not within such a designated area and is sufficiently removed from any designated sensitive area that the proposed development would not adversely impact a sensitive area. The guidance states that the more environmentally sensitive the location, the more likely it is that the effects will be significant and will require an EIA.

The site is currently used for arable purposes. Given the sensitive edge of the site with surrounding ancient woodland, any future planning application submitted to the Local Planning Authority could be accompanied by an arboricultural report and ecology survey which would identify the health and protection of trees, and highlight any sensitive habitats or protected species on the site respectively.

Schedule 2 Assessment

Schedule 2 of the Regulations identifies those developments that may require an EIA.

Where a development exceeds the 'exclusion thresholds' the regulations go on to set out further thresholds which are intended to provide local planning authorities with further guidance in determining whether significant effects are likely. These thresholds are indicative only and need to be considered in the context of the location of the proposed development.

As stated above, the development in this case is not considered to fall within Schedule 2 of the EIA Regulations. Notwithstanding the above, the screening request for the development has been received. Officers therefore consider it would still be appropriate to consider the impacts of the development under Schedule 3 of the Regulations.

Schedule 3

Schedule 3 outlines the criteria to consider in determining whether development falling under Schedule 2 will require an EIA. The test to be applied in each case is whether the proposed development and its specific impacts are likely, in that particular location, to result in significant effects on the environment. The potential for significant effects should be considered against the situation (i.e. baseline condition) that would exist should the proposed development not be implemented. These constitute three broad criteria as follows:

- 1) the characteristics of development (e.g. its size, cumulation with other development, use of natural resources, the production of waste, quantities of pollution and waste generated, the risk of accidents having regard to particular substances or technologies and the risks to human health);
- 2) the environmental sensitivity of the location; and
- 3) the characteristic of the potential impact (e.g. its magnitude and duration)

These factors are considered below.

Characteristics of the Development

a) The size of the development

The substation equipment would be located within a compound of 270m by 50m in size with an adjacent sealing end enclosure measuring 33m by 30m. The size of the substation is not considered to be significant. The site as a whole would measure approximately 12ha. However a large proportion of this would consist of landscape planting.

b) The cumulation with other existing development and/or approved development

The need for the sub-station has arisen primarily due to the wider NSIP project for the new 400kv electricity line from Bramford to Twinstead Tee. The substation is included within the NSIP submission as associated development to enable the removal of the existing 132kv cable line and the replacement with a new 400kv powerline. The 132kv line is however controlled by UKPN which serves homes and businesses in the area. The 400kv lines by comparison are to transfer power to different substations across the country. Therefore to compensate for the loss of the 132kv line, a new substation is required to convert the 400kv electricity into 132kv electricity, so that it can be distributed on the local network. The substation therefore seeks to reduce the overall impact of the NSIP by removing the existing 132kv line, as opposed to having three lines (the existing 400kv, new 400kv and existing 132kv).

The substation in this case would not be located in close proximity to the new 400kv powerline; it would be located further away from Twinstead Tee (where the new line would join the existing 400kv line) at a distance of approximately 2km. The substation would instead serve the existing 400kv powerline to convert electricity into 132kv.

The Bramford – Twinstead Tee NSIP project meets criteria in Schedule 1 and therefore does not require an Environmental Impact Assessment to be completed and this is underway. This is because it proposes new overhead powerlines over 15km in length (Approximately 19km overhead and 10km underground) which would have an environmental impact that requires assessment. At this time, the EIA for the NSIP is to include impacts of the substation as this is included within the NSIP proposal. However, if planning permission is granted for the substation through the Town and Country Planning Act via a freestanding planning application, then the substation element would be removed from the NSIP proposal, and the relevant parts of the associated EIA.

The EIA for the NSIP would still however need to scope in the substation in its cumulative impacts assessment, meaning that the substation would not be discounted from the NSIP EIA process entirely and its cumulative impact with the NSIP project would still be considered. .

Overall, taking into account the nature of the substation as described in the 'Proposal' section, the fact that the NSIP is neither existing nor approved development, and taking into account the substations overall purpose and location as discussed above, it is considered that the cumulative impacts of the proposed substation development would not be significant. The NSIP process would still require its own EIA to assess these impacts. The substation proposal however wouldn't introduce such significant impacts as to warrant its own individual EIA outside of the cumulative impact assessment which it would be included within for the wider NSIP project.

c) The use of natural resources

The development would result in the loss of an arable field. It is not expected that the development proposals for the substation would result in excessive consumption of natural resources.

d) The production of waste

It is expected that some waste would be produced during the construction phase, for example materials packaging and during the installation of required infrastructure. Once the development is in operation there would be very little waste owing to the nature of the substation.

e) Pollution and nuisances

The development would result in additional traffic generation with associated noise and air quality impact during construction. The submitted supporting statement sets out however that construction traffic vehicles would be low, with approximately 20 workers and only 1 HGV vehicle per day. After this, the site is self-sufficient and only requires maintenance every so often. In terms of impacts:

Noise

The construction of the site would increase noise levels at the site but could be addressed via the use of a Construction Management Plan. The transformers would also create noise and this is proposed to be mitigated by noise enclosures. The nearest noise sensitive receptor would be approximately 290m away from the outer edge of the development. The site is also immediately adjacent to the A131, which is a main route with its own associated noise levels. An assessment of noise impact would be made within the course of a normal planning application and it is not considered that the impacts would be likely to be more than local.

Air Quality

The site is not located in an Air Quality Management Area. The site has the potential to cause air quality impacts as a result of dust and road traffic emissions during construction and road traffic exhaust emissions associated with vehicles travelling to and from the site during operation. However, these impacts could also be assessed via a separate assessment with the submission of any planning application.

Furthermore, a Construction Management Plan could be sought by way of planning condition and it is considered that this could control or mitigate pollution and nuisances during the construction phase.

Contamination

The site itself is greenfield land and is not identified as being contaminated on the Council's contaminated land register. However, a preliminary assessment could be carried out with any planning application to allow further assessment of this at the planning application stage.

f) The risk of accidents, having regard to substances or technologies used

There would be some risks to workers and others during the construction of the project. Environmental accidents are considered to be more likely than simply residential development, however adequate measures could be put in place to ensure that any such accidents can be appropriately contained.

Overall, it is considered the characteristics of the proposed development do not raise issues of more than local importance, and are not so unusual that their effect on the local environment that they cannot be adequately assessed during the course of the planning application.

g) The risks to human health

The proposed scheme is for an electricity substation. As with all such substations measures would be put in place by the applicant to prevent public access to the site which is standard practice. With regard to contamination, the site is not identified as being contaminated land on the Local Planning Authority register and the proposed development would not result in harmful substances occurring. The future planning application would need to be accompanied by a Contaminated Land Assessment which would identify any previously unknown potential sources of contamination on site or from any nearby off-site sources. A planning condition could be utilised to require any further investigations in this regard.

Location of the Development

(a) The existing land use

The existing land use is an arable field with ancient woodland either side (but outside of the red line area of the site). The site did previously form part of the ancient woodland, however sometime after the 1960s the tree cover in the central section of woodland was removed. The PPG defines an ancient woodland as any area that's been wooded continuously since at least 1600 AD. It goes on to define 'wooded continuously' advising that it does not mean there's been continuous tree cover across the whole site. Not all trees in the woodland have to be old. Open space, both temporary and permanent, is an important component of ancient woodlands.

The site in this case is an established 100m gap between the two wooded areas which is in well-established use as an arable field and could not be considered to be part of the adjacent ancient woodland. The ancient woodland would however still need to be protected during construction and operation. The planning application would be accompanied by an arboricultural report and tree protection plan to ensure that this does not happen. Similarly, an ecological survey would be required to assess likely impacts on ecology.

(b) The relative abundance, quality and regenerative capacity of natural resources in the area

The proposal is unlikely to have a significant impact on the use of natural resources other than those normally associated with similar scale substation projects.

The screening opinion is not supported by an agricultural land classification report. However, the land is understood to be predominantly classified as Grade 2 (very good). The development of the site would therefore lead to the loss of this agricultural land. Braintree is however primarily a rural district with many sites of high agricultural classification. As such, while there would be a degree of harm caused by the loss of the application site land, the loss would be small in the context of the amount of such agricultural land in the district. Further details could be submitted within an agricultural land classification report as part of any planning application for more detailed assessment however it is not considered that the impact would be more than local.

Overall, Officers consider the proposal is unlikely to result in a significant impact on the environment in this regard.

c) The absorption capacity of the natural environment, paying particular attention to the following areas – (i) wetlands; (ii) coastal zones; (iii) mountain and forest areas; iv) nature reserves and parks; (v) areas classified or protected under Member States' legislation; areas designated by Member States pursuant to Council Directive 79/409/EEC on the conservation of wild birds and Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora; (vi) areas in which the environmental quality standards laid down in Community legislation have already been exceeded; (vii) densely populated areas; (viii) landscapes of historical, cultural or archaeological significance

The site is not located within or in close proximity to any 'Sensitive Areas' as defined by the EIA Regulations. It is however adjacent to ancient woodlands which provide arboricultural and ecological benefits. There are local walking routes through these wooded areas. The development is for a substation and therefore would not be occupied in the way in which a residential development would be, therefore it is not expected that the frequency of use of these footpaths would be increased by the development. Furthermore, the development would provide notable biodiversity enhancements.

The site is not located within a Conservation Area but is located within 450m of a Listed Building. However due to this distance and the size of the equipment it is considered the likely impact on this heritage asset would be very limited. It is considered that the impacts of the development could be adequately assessed through a normal planning application.

Essex County Council Place Services would be consulted during the course of any such planning application. Should the site be found to be of possible archaeological interest a condition requiring the securing of the implementation of a programme of archaeological work prior to the commencement of development could be utilised. It is however considered unlikely that the

impact of the development on archaeological remains would be of such a significant impact as to require an EIA.

Characteristics of the Potential Impact

(a) The extent of the impact (geographical area and size of the affected population)

The proposal is not considered to result in a significant impact on the environment. There would be a localised impact but this is not considered to be significant with reference to the regulations.

(b) The nature of the impact

The nature of the impact would be local and would include the loss of areas of greenfield/agricultural land but this is not considered to be significant when assessed against the EIA Regulations.

(c) The transboundary nature of the impact

There is no international boundary affected by the proposal, all boundaries are local. Some equipment may need to be shipped in via the ports from other countries; however owing to the scale of the development this would be minimal.

(d) The intensity and complexity of the impact

The impacts are not considered to be of a magnitude that results in significant environmental impacts. The development is of no more than local interest in the context of the EIA Regulations.

(e) The probability of the impact

The impacts will occur if the development is granted planning permission and constructed. Any potential effects would however be low providing that such effects were controlled or mitigated through established and recognised planning measures or procedures.

The development of a substation of this size is well understood and the impacts of the development are not considered to be significant. The impacts that would occur can be predicted with a reasonable degree of accuracy and the normal planning process is capable of ensuring that well proven measures could be implemented to avoid significant effects. Furthermore, there is no reason to believe that the development would result in unusually complex and potentially hazardous environmental effects.

(f) The duration, frequency and reversibility of the impact

The proposed development would be permanent and therefore the impacts arising from the development would in the most part have the potential to remain for the life of the development. Conditions could be imposed regarding decommissioning if the substation ever ceases to be required.

(g) The cumulation of the impact with the impact of other existing and/or approved development

As discussed in the Characteristics of the Development (b) section above, from an EIA perspective, Officers do not consider that the cumulative impact of the current proposal with other existing or approved development is considered to be significant or to constitute development which is of more than local importance.

(h) The possibility of effectively reducing the impact

There will be opportunities to reduce the impact of the development through mitigation measures, planning conditions and planning obligations.

Conclusion

The National Planning Practice Guidance (PPG) is clear that '*... it should not be presumed that developments above the indicative thresholds should always be subject to assessment, or those falling below these thresholds could never give rise to significant effects, especially where the development is in an environmentally sensitive location. Each development will need to be considered on its merits*'. (Paragraph: 018).

'Only a very small proportion of Schedule 2 development will require an assessment'. (Paragraph: 018).

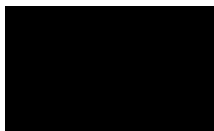
In this case, the development falls outside of Schedule 2 development. Having regard to the above matters, it is concluded that with reference to the scale, nature and location of the development the Local Planning Authority **would not require an EIA** and that an Environmental Statement will not be required to be submitted to support the planning application for this development.

In reaching this conclusion the Council consider that features of the development would not have unusually complex and potentially hazardous environmental effects, and would not occur within a particularly environmentally sensitive or vulnerable location. A range of technical reports would be required to support a formal planning application to assess the impacts of the development.

This screening opinion is made with specific regard to the context provided by the Town and County Planning (Environmental Impact Assessment) Regulations 2017, and does not prejudice the Local Planning Authority's consideration of the other planning matters relating to the development of this site.

If I can provide any clarification of these points or be of assistance in any other manner, please do not hesitate to contact me.

Yours Sincerely



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