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Norwich to Tilbury

Volume 5: Reports and Statements

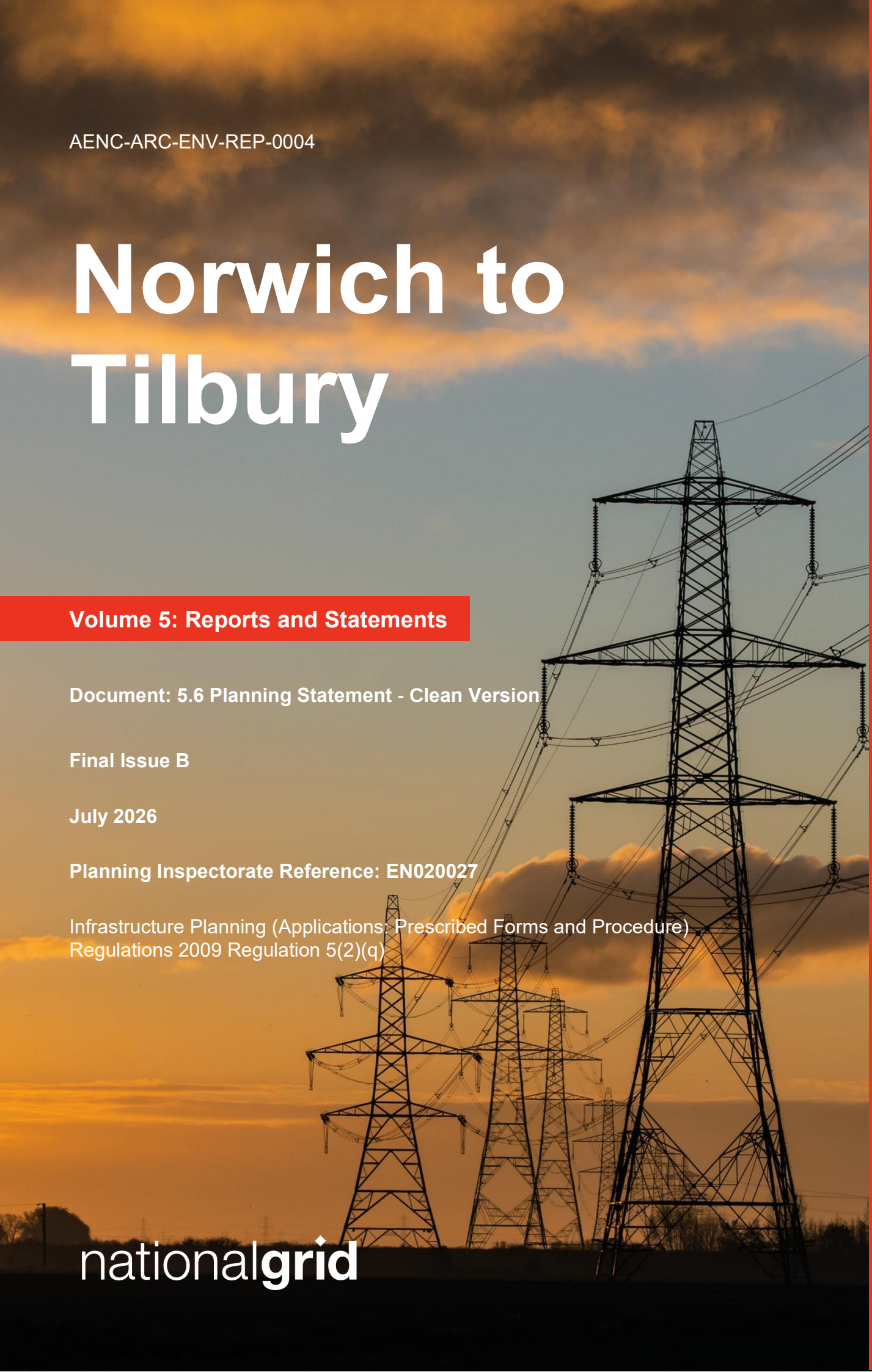
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nationalgrid

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Executive Summary

Overview of the Project and Purpose of this Report

National Grid Electricity Transmission plc (NGET) referred to as 'National Grid' within this Planning Statement is applying for a Development Consent Order (DCO) for the Norwich to Tilbury Project.

In 2019 the Committee on Climate Change (CCC) published its Net Zero report setting out recommendations to the UK Government on long-term emissions targets for the UK. The Government subsequently adopted the Climate Change Act 2008 (2050 Target Amendment) Order 2019, which increased its pledge to achieve 100% reduction in emissions by 2050. One of the ways this will be achieved is through decarbonisation, including moving away from fossil fuels providing energy to homes and businesses. Consistent with the Government's Net Zero target[1], there has been, and continues to be, growth in the volume of renewable and zero carbon generation that is seeking to connect to the electricity transmission system in the East Anglia and South East regions. UK Government policy clearly sets out the critical requirement for significant reinforcement of the transmission system to facilitate the connection of renewable energy sources and to transport electricity to where it is used. In particular, the British Energy Security Strategy (HM Government, 2022) sets targets for the connection of up to 50 GW of offshore wind by the 2030s as a key part of a strategy for secure, clean and affordable British energy for the long term.

The Project subject to this application for development consent comprises:

- A new 400 kilovolt (kV) electricity transmission connection of approximately 180 km overall length from Norwich Main Substation to Tilbury Substation via Bramford Substation, a new East Anglia Connection Node (EACN) Substation and a new Tilbury North Substation, including:
  - Approximately 159 km of new overhead line supported on approximately 509 pylons, either standard steel lattice pylons (approximately 50 m in height) or low height steel lattice pylons (approximately 40 m in height) and some of which would be gantries (typically up to 15 m in height) within proposed Cable Sealing End (CSE) compounds or existing or proposed substations
  - Approximately 21 km of 400 kV underground cabling, some of which would be located through the Dedham Vale National Landscape (formerly known as an Area of Outstanding Natural Beauty (AONB))
- Up to seven new CSE compounds (with permanent access) to connect the overhead lines to the underground cables
- Modification works to connect into the existing Norwich Main Substation and a substation extension at the existing Bramford Substation

[1] The Climate Change Act 2008 and the Climate Change Act 2008 (2050 Target Amendment) Order 2019: these set a new target to cut greenhouse gas emissions by 100% (against the 1990 baseline) and achieve net zero by 2050.

- A new 400 kV substation on the Tendring Peninsula, referred to as the EACN Substation (with a new permanent access). This is proposed to be an Air Insulated Switchgear (AIS) substation
- A new 400 kV substation to the south of Orsett Golf Course in Essex, referred to as the Tilbury North Substation (with a new permanent access). This is proposed to be a Gas Insulated Switchgear (GIS) substation
- Modifications to the existing National Grid Electricity Transmission overhead lines to facilitate the connection of the existing network into the new Tilbury North Substation to provide connection to the Tilbury Substation
- Ancillary and/or temporary works associated with the construction of the Project.

In addition, third-party utilities diversions and/or modifications would be required to facilitate the construction of the Project. There would also be land required for environmental mitigation and Biodiversity Net Gain (BNG).

As well as the permanent infrastructure, land would also be required temporarily for construction activities including, for example, working areas for construction equipment and machinery, site offices, welfare, storage and temporary construction access.

This Planning Statement has been prepared to support National Grid's DCO application which is submitted to the Planning Inspectorate, with the decision whether to grant a DCO being made by the Secretary of State for Energy Security and Net Zero ('the SoS') pursuant to the Planning Act 2008 (PA 2008). The Planning Statement provides an assessment of the Project against the policies in the relevant National Policy Statements (NPSs) for Energy, (Overarching NPS for Energy (EN-1) (Department for Energy Security and Net Zero (DESNZ), 2024a), NPS for Electricity Networks Infrastructure (EN-5) (DESNZ, 2024b) and the NPS for Renewable Energy Infrastructure (EN-3) (DESNZ, 2024c) as well as the other provisions of the legislation and policies considered important and relevant to the SoS's decision relevant policy and legislative framework. Where appropriate, it references relevant application documents which together form the comprehensive and detailed evidence base produced in support of this Application and its benefits.

The Need

Like much of the high voltage electricity transmission network across the country, the network in East Anglia was largely developed in the 1960s. It was built to supply regional demand, centred around Norwich and Ipswich, and fed from our Bramford Substation.

Although the network in East Anglia can accommodate the level of generation and demand that there is today, this situation will change over the next decade. Growth in offshore wind generation and interconnectors to Europe has seen a significant number of connections planned in the East Anglian and south-east coastal areas of England.

The existing transmission network infrastructure in the East Anglian and south-east areas was not originally designed to accommodate such large volumes of generation capacity.

As such the network will require significant reinforcements both in the form of new substations and transmission circuits to provide connections for these new customers and to ensure that power can be transferred securely to the onshore demand centres to meet the needs of electricity consumers in Britain.

Before building new parts of the electricity transmission network, National Grid has considered whether it can achieve more capability by upgrading and strengthening the existing network. In East Anglia National Grid is:

- Installing power control devices at main substations in the region – at Pelham, Rye House and Waltham Cross, to make more use of an existing route to the west of the region
- Increasing the voltage of a section of line from Waltham-Cross south into London to 400 kV to increase the capability of that part of the network into the capital
- Rewiring existing overhead lines with conductors that can carry more power – for example, on the existing overhead lines from Bramford to Braintree, Rayleigh to Tilbury, Twinstead and Pelham, and between Norwich and Bramford.

In addition to the Norwich to Tilbury Project, National Grid is developing two new reinforcements in East Anglia:

- Bramford to Twinstead Reinforcement – a new 400 kV double circuit overhead line between Bramford in Suffolk and Twinstead Tee in Essex
- Sea Link – a new offshore high voltage direct current (DC) link between Suffolk and Kent.

Whilst making these improvements will increase the capability of the existing network, but it is still insufficient to deliver the capability required under the Security and Quality of Supply Standards (SQSS) which ensures that the electricity transmission network is planned and operated under a set of standards to ensure that there are no widespread electricity supply interruptions.

In November 2024, the National Energy System Operator (NESO) published Clean Power 2030: Advice on achieving clean power for Great Britain by 2030 (NESO, 2024). This report states that '*Three projects have been identified as critical to delivering a network which supports the clean power pathways, but at present have delivery dates after 2030. Support is therefore needed to bring these projects forward for 2030 delivery. These are projects in East Anglia and in the southeast that are critical for connecting offshore wind in the North Sea and supporting the flow of clean power. Our assessment suggests that without these projects, the clean power objective would not be achieved, leaving the clean power target short by around 1.6% in 2030 (assuming a typical weather year) and consumers could face extra constraint costs of around £4.2 billion in 2030*.' The Project is specified as two of those three projects. The critical and urgent nature of the project is therefore also recognised in the strongest terms in a recent report in achieving Clean Power 2030 objectives.

Planning Appraisal

The principle of development for the Project is established through its need case and through the identification of the preferred location for the Project following a robust routeing and siting process.

Chapter 7 of this Planning Statement provides a detailed assessment of Project against the relevant NPSs, and other policies which are likely to be important and relevant to the Secretary of State's decision. This should be read alongside the Policy Compliance Report (document reference 5.7) which also sets out compliance with individual relevant policies.

Through careful design, the Project seeks to avoid and mitigate impacts on the environment and sensitive receptors. In line with the approach set out in ES Chapter 5: EIA Approach and Method (document reference 6.5) (Revision B) and in accordance with NPS EN-1 (DESNZ 2024a) the mitigation hierarchy has been applied during the iterative design process to, in the first instance, avoid creating adverse effects, prevent, reduce and finally, if possible, offset adverse effects.

In addition to embedded, standard and additional mitigation measures National Grid has committed to deliver 10% BNG with wider environmental and societal benefits on all construction projects requiring formal planning or consent, including Norwich to Tilbury.

National Grid has a duty to seek to further the purpose of the Dedham Vale National Landscape, which is to '*conserve and enhance natural beauty'* in accordance with section 85 of the Countryside and Rights of Way Act 2000 (CRoW Act). This duty was introduced in 2023 and strengthens the previous version of section 85 of the CRoW Act which required relevant authorities to '*have regard'* to the statutory purpose of National Landscapes. National Grid has prepared a report: National Landscapes – Duty to Seek to Further the Purposes Report (s85 Countryside and Rights of Way Act 2000) (document reference 5.10) submitted with this application for development consent, which sets out how National Grid has taken the National Landscape into consideration through all stages of the Project design and identified potential additional measures which would deliver enhancements for one or more of the special qualities and natural beauty indicators and help to support delivery of the Dedham Vale National Landscape and the Dedham Vale AONB and Stour Valley Project Area Management Plan 2021-2026.

The need for the Project is clear and urgent. The Strategic Options Backcheck Review (document reference 7.17) provides more information on the projects to be served and the needs case.

Decision Making and Planning Balance

Chapter 8 of the Planning Statement provides a summary of the planning balance following a detailed assessment of the Project and its likely effects.

This Planning Statement has demonstrated that the Project is in accordance with NPS EN-1 and NPS EN-5. Paragraph 4.1.3 of NPS EN-1 sets out a presumption in favour of granting consent for energy Nationally Significant Infrastructure projects (NSIPs).

EN-1 provides that there is a critical national priority (CNP) for the provision of nationally significant low carbon infrastructure. Paragraph 3.3.63 of EN-1 states the following:

'Subject to any legal requirements, the urgent need for CNP Infrastructure to achieving our energy objectives, together with the national security, economic, commercial, and net zero benefits, will in general outweigh any other residual impacts not capable of being addressed by application of the mitigation hierarchy. Government strongly supports the delivery of CNP Infrastructure and it should be progressed as quickly as possible'.

Paragraph 3.3.68 then states that '*The volume of onshore reinforcement works needed to meet decarbonisation targets is substantial*...' with reference to '...*substantial reinforcement in East Anglia to handle increased power flows from offshore wind generation*'.

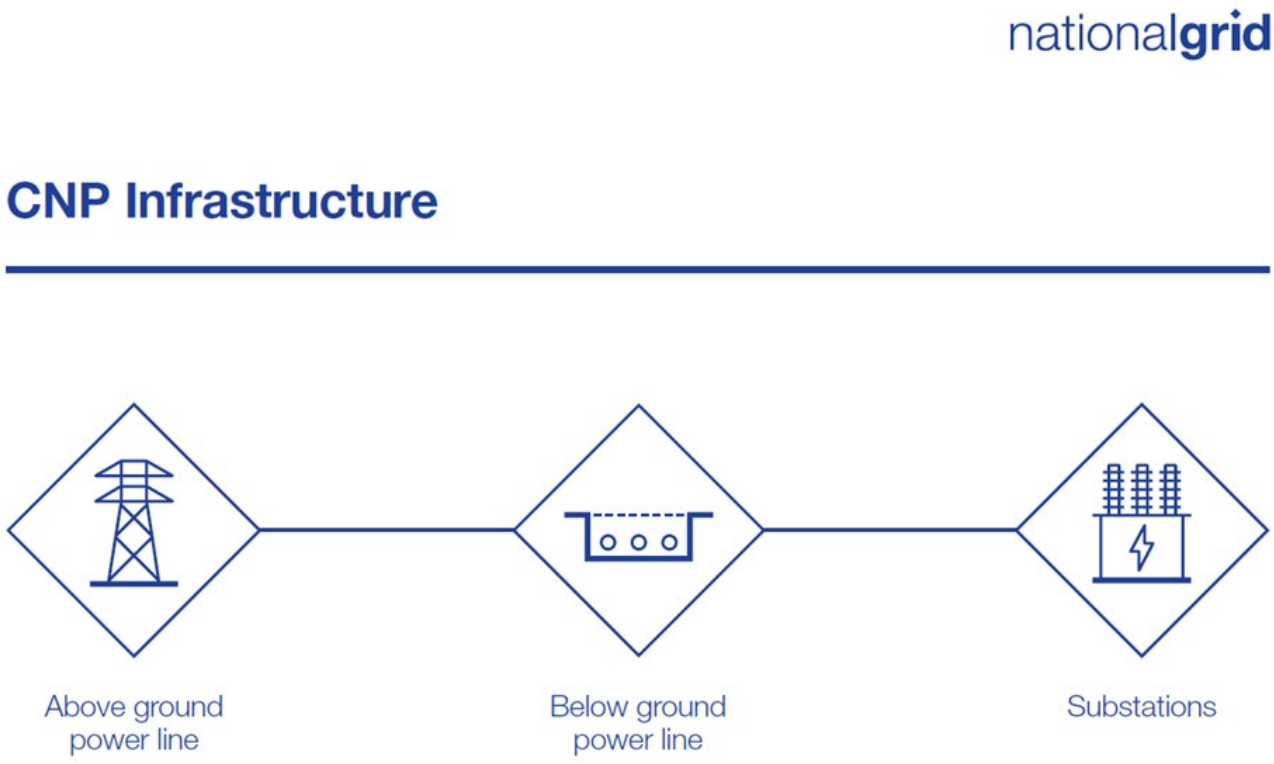
Paragraph 4.11.4 of the EN-1 also confirms that transmission network infrastructure, and related network reinforcement and upgrade works, associated with nationally significant low carbon infrastructure is considered as CNP Infrastructure.

CNP is referred to again in Paragraph 2.12.7 of NPS EN-5 (DESNZ 2024b):

'As highlighted in EN-1 government has concluded that there is a CNP for the provision of nationally significant low carbon infrastructure. This includes for electricity grid infrastructure, all power lines in scope of EN-5 including network reinforcement and upgrade works, and associated infrastructure such as substations. This is not limited to those associated specifically with a particular generation technology, as all new grid projects will contribute towards greater efficiency in constructing, operating and connecting low carbon infrastructure to the National Electricity Transmission System. This includes infrastructure identified in the Holistic Network Design and subsequent strategic network design exercises…'

The Project is CNP Infrastructure. Reflecting the level and urgency of need for energy infrastructure, paragraph 4.1.3 of NPS EN-1 states that the SoS should start with a presumption in favour of granting consent to applications for energy NSIPs. The presumption applies unless any more specific and relevant policies set out in relevant NPSs clearly indicate that consent should be refused, subject to the provisions of the PA 2008.

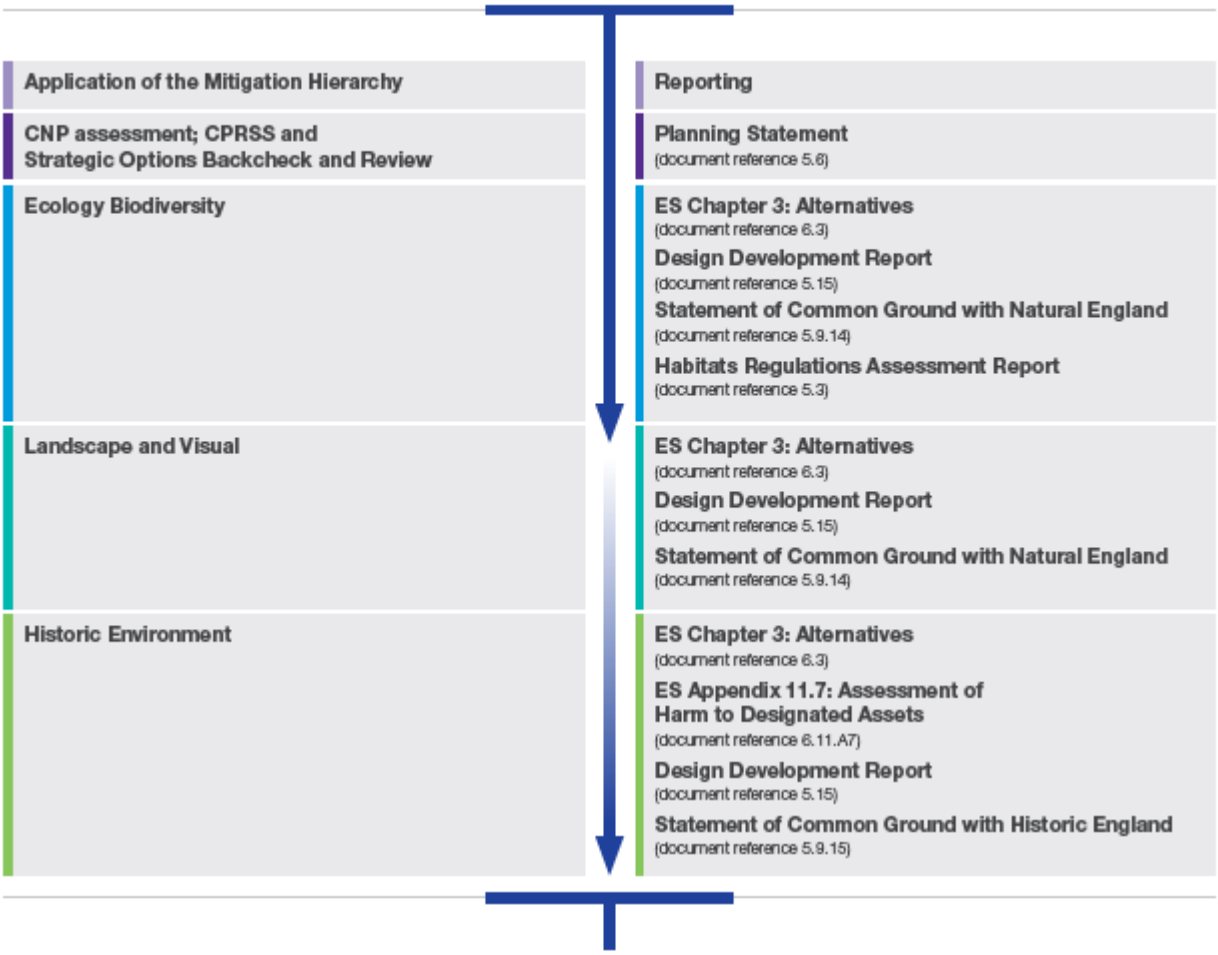
Image ES1 Critical national priority infrastructure



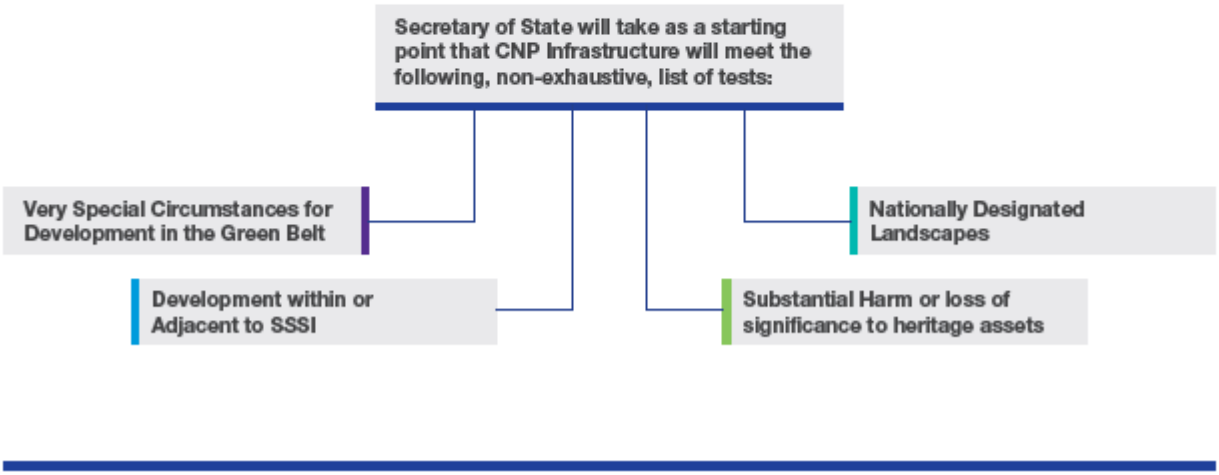
Paragraph 4.1.7 of NPS EN-1 goes on to provide guidance to the SoS in making decisions on CNP infrastructure such as the Project, stating (our emphasis): '*Where this NPS or the relevant technology specific NPSs require an applicant to mitigate a particular impact as far as possible, but the Secretary of State considers that there would still be residual adverse effects after the implementation of such mitigation measures, the Secretary of State should weigh those residual effects against the benefits of the proposed development.* ***For projects which qualify as CNP Infrastructure, it is likely that the need case will outweigh the residual effects in all but the most exceptional cases****. This presumption, however, does not apply to residual impacts which present an unacceptable risk to, or interference with, human health and public safety, defence, irreplaceable habitats or unacceptable risk to the achievement of net zero. Further, the same exception applies to this presumption for residual impacts which present an unacceptable risk to, or unacceptable interference offshore to navigation, or onshore to flood and coastal erosion risk*.'

This Planning Statement shows that none of the exceptions to the presumption in paragraph 4.1.7 of NPS EN-1 apply in this case. The need for the Project is clear and urgent and effects have been mitigated through the mitigation hierarchy. It is National Grid's case that the need and benefits of the Project significantly outweigh the residual effects.

Image ES2 Critical national priority infrastructure



Referencing paragraph 4.2.7 EN-1: The CNP policy does not create an additional or cumulative need case or weighting to that which is already outlined for each type of energy infrastructure. The above "gateway" should be given consideration by the Examining Authority when making its recommendation to the SoS.



None of the limited exceptions in Section 104(4)-(8) of the PA 2008 apply to the decision to be made by the SoS to grant development consent for the Project. In particular, the adverse impacts that should be afforded weight against the Project do not outweigh the benefits of the Project which include:

- The Project is required particularly to support offshore wind projects, which in turn are required to meet the Government's targets for the connection of up to 50 GW of offshore wind by 2030. This offshore generation is a key part of a strategy for secure, clean and affordable British energy for the long term
- Despite BNG not yet being a mandatory requirement for NSIPs, National Grid has committed to deliver 10% BNG with wider environmental and societal benefits for the Project
- National Grid's has a duty to seek to further the purpose of the Dedham Vale National Landscape. National Grid has taken the National Landscape into consideration through all stages of the Project design and identified potential additional measures which would deliver enhancements for one or more of the special qualities and natural beauty indicators and help to support delivery of the Dedham Vale National Landscape and the Dedham Vale AONB and Stour Valley Project Area Management Plan 2021-2026.

It is considered that the adverse impacts are significantly outweighed by the very substantial public interest benefits of the Project.

As identified in national policy and the Government's energy strategy there is an urgent and critical need to bring forward low carbon infrastructure to meet targets for decarbonisation and net zero. The Project will contribute to the delivery of these policy aims, by improving the existing electricity transmission network to accommodate the connection of proposed new power sources in East Anglia.

There is a compelling case and established need for the Project and that it will deliver national economic, social and environmental benefits in line with the Government's clear objectives of delivering sustainable development.

The analysis of planning policy compliance demonstrates that the need for the Project is supported by national planning policy, other national energy and environmental policy, and that the Project addresses relevant national and local planning policies through its design routeing and limiting adverse impacts where practicable.

In terms of the overall planning balance, the clear and substantial benefits of the Project clearly outweigh any adverse impacts. The presumption in favour of consent in NPS EN-1 sets out that these residual impacts are unlikely to outweigh the urgent need for this type of infrastructure and that any tests set out in the NPS or other planning policy are to be treated as if they have been met.

This Planning Statement has demonstrated that the Project, which is CNP infrastructure, is in accordance with the relevant national policy statements and local policy considered to be important and relevant and that substantial weight should be given to need when considering applications for consent under the PA 2008. Given the above, there is a clear and compelling case for the Norwich to Tilbury DCO to be made.

1. Introduction

1.1 Introduction

1.1.1 National Grid Electricity Transmission plc (National Grid) owns and maintains the national high voltage electricity transmission network throughout England and Wales.

1.1.2 The transmission network connects the power from where it is generated to the regional Distribution Network Operators who then supply businesses and homes.

1.1.3 National Grid holds the Transmission Licence for England and Wales, and its statutory duty is to develop and maintain an efficient, coordinated and economical system of electricity transmission and to facilitate competition in the generation and supply of electricity, as set out in the Electricity Act 1989.

1.1.4 The Norwich to Tilbury Project (hereafter referred to as 'the Project') is a proposal by National Grid Electricity Transmission (NGET) referred to as 'National Grid' for reinforcement of the transmission network between the existing Norwich Main Substation in Norfolk and Tilbury Substation in Essex, via Bramford Substation, the new East Anglia Connection Node (EACN) Substation and the new Tilbury North Substation.

1.2 Purpose of the Planning Statement

1.2.1 This Planning Statement has been prepared to support National Grid's application ('the Application') for a Development Consent Order (DCO) which is submitted to the Planning Inspectorate, with the decision whether to grant a DCO being made by the Secretary of State for Energy Security and Net Zero ('the SoS') pursuant to the PA 2008.

1.2.2 This Planning Statement has been prepared in compliance with the requirements of Regulation 5(2)(q) of the Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009 (the APFP Regulations) and in accordance with the Planning Act 2008: Application Form Guidance (Department for Communities and Local Government (DCLG), 2013) and Nationally Significant Infrastructure Projects: Advice on the Preparation and Submission of Application Documents (Planning Inspectorate 2025). Consideration has also been afforded to:

- Planning Act 2008: Pre-application stage for Nationally Significant Infrastructure Projects (Ministry of Housing, Communities and Local Government (MHCLG, 2024a))
- Planning Act 2008: Acceptance Stage for Nationally Significant Infrastructure Projects (MHCLG, 2024b).

1.2.3 The APFP Regulations do not specifically require a Planning Statement to accompany an application for development consent. However, the Planning Act 2008: Pre-Application stage for Nationally Significant Infrastructure Projects (MHCLG, 2024a) sets out that the Examining Authority will normally require a planning statement which provides a description of the proposed development and summary of the main impacts, the policy context for the proposed development and

how the project relates to the requirements of a designated NPS. National Grid considers that a Planning Statement would assist the Examining Authority in their consideration of the application, and the SoS with the determination of the application, by bringing together relevant policies and their requirements in one statement.

1.2.4 This Planning Statement describes the planning policy context for the Project and reviews the planning issues considering the Overarching National Policy Statement for Energy (EN-1) (Department for Energy Security and Net Zero (DESNZ), 2024a)) (referred to herein as NPS EN-1); the National Policy Statement for Electricity Networks Infrastructure (EN-5) (DESNZ, 2024b) (referred to herein as NPS EN-5); and other important and relevant planning policy. National Policy Statement for Renewable Energy Infrastructure (EN-3) (DESNZ, 2024c) (referred to herein as NPS EN-3) is also of relevance to this Project insofar as it gives express support for the onshore infrastructure required to deliver new offshore wind developments.

1.2.5 This Planning Statement draws upon the conclusions of many of the documents supporting the application and assesses them against relevant planning policy considerations. This Planning Statement should, therefore, be read alongside these documents, namely the Environmental Statement (ES) (document reference 6.1-6.18) (Revision B-C) and draft DCO (document reference 3.1) (Revision G).

1.2.6 In addition to this Planning Statement, a Policy Compliance Document (document reference 5.7) has been produced which assesses the Project's compliance with the policy requirements established within NPS EN-1 (DESNZ, 2024a) and NPS EN-5 (DESNZ, 2024b) are satisfied by the application.

1.2.7 The Planning Statement seeks to assist the Examining Authority and the SoS in applying provisions of the Planning Act 2008 (PA 2008) that require an application for development consent to be decided in accordance with the relevant NPS (Section 104(3)) except to the extent that one of stated exceptions applies (Section 104(4)-(8). The stated exemptions are:

'(4) This subsection applies if the Secretary of State is satisfied that deciding the application in accordance with any relevant national policy statement would lead to the United Kingdom being in breach of any of its international obligations.

(5) This subsection applies if the Secretary of State is satisfied that deciding the application in accordance with any relevant national policy statement would lead to the Secretary of State being in breach of any duty imposed on the Secretary of State by or under any enactment.

(6) This subsection applies if the Secretary of State is satisfied that deciding the application in accordance with any relevant national policy statement would be unlawful by virtue of any enactment.

(7) This subsection applies if the Secretary of State is satisfied that the adverse impact of the proposed development would outweigh its benefits.

(8) This subsection applies if the Secretary of State is satisfied that any condition prescribed for deciding an application otherwise than in accordance with a national policy statement is met.'

1.2.8 Chapter 8 of this Planning Statement deals specifically with s104(7) by considering any adverse effects arising from the Project against its benefits. There is no evidence that Subsections 4-6 (inclusive) and 8 will be triggered by this application.

1.3 Need for the Project

1.3.1 East Anglia's 400 kV electricity transmission network was built in the 1960s. It was built to supply regional demand, centred on Norwich and Ipswich. For many years, the only significant power stations generating in the East Anglia region were the Sizewell A and the Sizewell B nuclear power stations, Spalding North and Sutton Bridge gas fired power stations, and some further smaller 132 kV connected gas fired power stations.

1.3.2 The existing transmission infrastructure requires reinforcement for the following main reasons:

- The existing transmission network was not designed to transport electricity from where it is increasingly being generated (largely offshore)
- The growth in offshore wind, interconnectors and nuclear power means that more electricity will be generated in the years ahead than the current network is able to securely and reliably transport
- In the UK, electricity demand is forecasted to at least double by 2050, increasing the amount of energy we need to transport to homes and businesses
- upgrading the existing network as it is today (such as through replacing cables to carry more power) will not be enough to carry the amount of future power whilst operating to required standards.

1.3.3 This generation capacity has recently been added to by several offshore windfarms with the existing generation totalling 6,552.4 MW of installed capacity. This is expected to grow substantially in coming years. In the East Anglia region, connection agreements have been signed for 26,919.9 MW of new generation (total generation of 33,472.3 MW minus existing generation of 6,552.4 MW). These future connection agreements comprise a large volume of offshore wind generation (including East Anglia Offshore Wind), gas-fired generation, energy storage projects, and a nuclear power station (at Sizewell C).

1.3.4 The need for the Project is clear and urgent. Chapter 4 of this Planning Statement and The Strategic Options Backcheck Review (document reference 7.17) provides more information on the projects to be served and the needs case.

1.4 Overview of the Project

1.4.1 The Project would include the following elements:

- A new 400 kilovolt (kV) electricity transmission connection of approximately 180 km overall length from Norwich Main Substation to Tilbury Substation via Bramford Substation, a new East Anglia Connection Node (EACN) Substation and a new Tilbury North Substation, including:
  - Approximately 159 km of new overhead line supported on approximately 509 pylons, either standard steel lattice pylons (approximately 50 m in height) or low height steel lattice pylons (approximately 40 m in height) and some of which would be gantries (typically up to 15 m in height) within proposed Cable Sealing End (CSE) compounds or existing or proposed substations

- Approximately 21 km of 400 kV underground cabling, some of which would be located through the Dedham Vale National Landscape (an Area of Outstanding Natural Beauty (AONB[2]))

- Up to seven new CSE compounds (with permanent access) to connect the overhead lines to the underground cables
- Modification works to connect into the existing Norwich Main Substation and a substation extension at the existing Bramford Substation
- A new 400 kV substation on the Tendring Peninsula, referred to as the EACN Substation (with a new permanent access). This is proposed to be an Air Insulated Switchgear (AIS) substation
- A new 400 kV substation to the south of Orsett Golf Course in Essex, referred to as the Tilbury North Substation (with a new permanent access). This is proposed to be a Gas Insulated Switchgear (GIS) substation
- Modifications to the existing National Grid Electricity Transmission overhead lines to facilitate the connection of the existing network into the new Tilbury North Substation to provide connection to the Tilbury Substation
- Ancillary and/or temporary works associated with the construction of the Project.

1.4.2 In addition, third-party utilities diversions and/or modifications would be required to facilitate the construction of the Project. There would also be land required for environmental mitigation and Biodiversity Net Gain (BNG).

1.4.3 As well as the permanent infrastructure, land would also be required temporarily for construction activities including, for example, working areas for construction equipment and machinery, site offices, welfare, storage and temporary construction access.

1.4.4 The Project would be designed, constructed and operated in accordance with applicable health and safety legislation. The Project will need to comply with design safety standards including the Security and Quality of Supply Standard (SQSS), which sets out the criteria and methodology for planning and operating the National Electricity Transmission System (NETS). This informs a suite of National Grid policies and processes, which contain details on design standards required to be met when designing, constructing and operating assets such as those proposed for the Project.

1.5 Role of National Grid

National Grid Group

1.5.1 National Grid Group companies sit at the heart of Great Britain's energy system, connecting millions of people and businesses to the energy they use every day. National Grid Group's operations in the UK include: National Grid Electricity Transmission, which owns the high voltage transmission system in England and Wales; National Grid Electricity Distribution (formerly Western Power Distribution), which owns and operates electricity distribution networks in the Midlands, the South West and Wales, and National Grid Ventures, which owns and operates energy businesses in competitive markets, including sub-sea interconnectors. The Applicant for this project is National Grid Electricity Transmission.

[2] National Landscape is the rebranded name of an Area of Outstanding Natural Beauty (AONB) from 22 November 2023

National Grid Electricity Transmission plc (National Grid)

1.5.2 National Grid Electricity Transmission plc sits within the wider National Grid Group; within the Group there are distinctly separate legal entities, each with their individual responsibilities and roles. National Grid Group sit at the heart of Great Britain's energy system, connecting millions of people and businesses to the energy they use every day. The Project is being promoted by National Grid Electricity Transmission plc.

1.5.3 National Grid holds the Transmission Licence for England and Wales, and its statutory duty is to develop and maintain an efficient, coordinated and economical system of electricity transmission and to facilitate competition in the generation and supply of electricity, as set out in the Electricity Act 1989.

1.5.4 National Grid, as the regulated provider of electricity transmission services in England and Wales, is regulated by the Office of Gas and Electricity Markets (Ofgem). Transmission services include maintaining reliable electricity supplies and offering to construct new transmission system assets for new connections to the National Electricity Transmission System (NETS).

1.5.5 In accordance with Transmission Licence requirements, National Grid ensures that the transmission system in England and Wales meets the requirements in respect of transmission system security and quality of service at all times. As part of this requirement, National Grid must ensure that sufficient transmission system capability is provided to meet demand and generator customer requirements and wider transmission system needs that exist and/or are expected. As a licence holder National Grid has specific duties to uphold in relation to the desirability of preserving amenity of certain aspects of the environment and to mitigate the effects of its activities on the environment under Section 38 and Schedule 9 of the Electricity Act 1989. National Grid is also required, under Section 38 of the Act, 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;*'
- Schedule 9(1)(b) '…*do what* [it] *reasonably can to mitigate any effect which the proposals would have on the natural beauty of the countryside or on any such flora, fauna, features, sites, buildings or objects*'.

1.6 National Energy System Operator (NESO)

1.6.1 The National Energy System Operator (NESO) is the electricity system operator for Great Britain. NESO ensures electricity is always where it is needed, and the transmission network remains stable and secure in its operation.

1.6.2 As of 1 October 2024, NESO became a public body and is wholly owned by the Secretary of State. It was formerly part of National Grid plc and called the National Grid Electricity System Operator (ESO).

1.6.3 NESO has been established to act as the independent organisation responsible for planning Great Britian's energy system, looking after and operating the electricity and gas networks while also offering expert advice to the sector's decision-makers.

1.6.4 The National Grid ESO (as it was named) published the Holistic Network Design (HND) report in July 2022 (ESO, 2022a), accompanied by a '*Network Options Assessment (NOA) Refresh*' document (ESO, 2022b). The HND sets out a single integrated transmission network design that supports the large-scale delivery of electricity generated from offshore wind, with the NOA Refresh indicating which options are 'HND critical'.

1.6.5 Ofgem (Ofgem, 2022) has subsequently published the Accelerated Strategic Transmission Investment (ASTI) decision, which aims to facilitate the achievement of government targets by streamlining the regulatory approval for the HND critical projects.

1.7 Requirement for a Development Consent Order

1.7.1 The Project is defined as a Nationally Significant Infrastructure Project (NSIP), under s14(1)(b) and s16 of the PA 2008, and as amended by the Planning Act 2008 (Nationally Significant Infrastructure Projects) (Electric Lines) Order 2013, as it involves the installation of a new electric line above ground of more than 2 km, which would operate at 400 kV in England.

1.7.2 For an NSIP, the grant of development consent is required by the making of a DCO under the PA 2008. A DCO may include a range of consents and powers.

1.7.3 The proposed new above ground electricity line would be an NSIP by virtue of the definitions in the PA 2008. Other development, such as underground cables, may be granted development consent as associated development within the meaning of s115 of the PA 2008.

1.7.4 For the Project, 'associated development' includes (but is not limited to):

- Approximately 22 km of 400 kV underground cable
- Seven CSE compounds associated with the 400 kV cable
- Substations
- Permanent access to assets
- Modifications to the existing YYJ and ZB 400 kV overhead lines including the removal of approximately 0.55 km of National Grid's existing ZB 400 kV overhead line
- Removal of approximately 23 km of UK Power Networks (UKPN) 132 kV overhead line and replacement with approximately 26 km of underground cable
- Modifications to UKPN 33 / 11 kV and Openreach wood pole infrastructure
- YYJ and ZB 400 kV overhead line reconfiguration works
- Temporary pylons and overhead line during construction
- Temporary bridges and culverts for watercourse crossings during construction
- Various construction activities
- Temporary amendments to the highway
- Mitigation, compensation and enhancement of the environment.

1.7.5 The above list outlines some of the key elements of the Project and it is not intended to be an exhaustive list. Furthermore, a detailed list of associated development work types can be found in Schedule 1 to the DCO (document reference 3.1) (Revision G).

1.7.6 S104(2) and (3) of the PA 2008 provides that, in deciding applications for development consent, the Secretary of State must have regard to and decide the application in accordance with the relevant NPSs.

1.7.7 The PA 2008 was amended through the adoption of the Localism Act 2011. Under the Localism Act 2011, the Planning Inspectorate is responsible for the NSIP planning process. The Planning Inspectorate will allocate a panel of examiners (known as the 'Examining Authority') which will examine the DCO application for the Project and make a recommendation to the Secretary of State to either grant or refuse consent.

1.8 Environmental Impact Assessment

1.8.1 The Project constitutes Environmental Impact Assessment (EIA) development as defined in the Infrastructure Planning EIA Regulations 2017 (the 'EIA Regulations'). The Project falls within Schedule 1 paragraph 20 of the EIA Regulations, '*Construction of overhead electrical power lines with a voltage of 220 kV or more and a length of more than 15 km*'. Consequently, an assessment of the impacts of the Project on the environment is required. The Planning Inspectorate was notified on 17 October 2022 that National Grid intended to provide an ES in accordance with Regulations 6(1), 6(2)(a) and 8(1)(b) of the EIA Regulations.

1.8.2 An EIA Scoping Report (document reference 6.19) for the Project was submitted to the Planning Inspectorate on 4 November 2022. This set out the parameters of the Project, the proposed methodology for undertaking the environmental assessment and the proposed scope of the EIA. It also identified potentially significant environmental effects (as identified at that time) that would be assessed in more detail (i.e. scoped in), as well as those that were unlikely to be significant and could therefore be scoped out of the assessment.

1.8.3 The Planning Inspectorate provided a Scoping Opinion on behalf of the Secretary of State on 10 December 2022 (document reference 6.20). This included a number of items that National Grid should consider when producing the ES (Volume 6 of the DCO application). This Scoping Opinion has been taken into account in the preparation of the ES (Volume 6 of the DCO application). A summary of all of the matters raised in the Scoping Opinion, together with National Grid's response to each matter raised, is provided in Appendix 5.1: National Grid's response to the EIA Scoping Opinion (document reference 6.5.A1) (Revision B).

1.8.4 As part of the DCO process, applicants are required to undertake consultation with relevant consultees about the Project proposals. This feedback is then used to shape the final proposals within the Application for Development Consent. As part of this, applicants are required to provide preliminary environmental information, typically in the form of a Preliminary Environmental Information Report (PEIR). In accordance with the EIA Regulations a PEIR must set out the information referred to in Regulation 14(2) that '*is reasonably required for the consultation bodies to develop an informed view of the likely significant environmental effects of the development*'. A PEIR was prepared by National Grid as part of the statutory pre-application consultation process required under sections 42 and 47 of the PA 2008. The PEIR was published in April 2024, enabling consultees and interested parties to develop an informed view of the environmental effects of the Project and provide comments on that basis.

1.8.5 The ES (Volume 6 of the DCO application) forms part of the DCO application for the Project under the PA 2008 and provides an assessment of the likely significant residual effects in accordance with the EIA Regulations. Further details on the EIA process and methodology can be found in Chapter 5: EIA Approach and Method (document reference 6.5) (Revision B).

1.8.6 In addition to the EIA, the Project is subject to other regulatory regimes, including for example, the Conservation of Habitats and Species Regulations 2017 ('the Habitats Regulations'). The following documents have been prepared in parallel to the ES and where relevant are referenced within the ES (Volume 6 of the DCO application):

- Habitats Regulations Assessment (HRA) Report (document reference 5.3)
- Statement of Statutory Nuisance (document reference 5.4)
- Flood Risk Assessment (FRA) (document reference 7.9)
- Water Framework Directive Assessment (document reference 7.10)
- Transport Assessment (document reference 7.11) (Revision B).

1.9 Local Planning Authorities

1.9.1 The Project is located in the ceremonial counties of Norfolk, Suffolk and Essex and the unitary authority of Thurrock. The northernmost extent of the Project comprises the connection with the existing Norwich Main Substation in the district of South Norfolk. The Project extends south through the districts of South Norfolk, Mid Suffolk, Babergh, Colchester and through to Tendring where the new EACN Substation would be constructed. From the EACN, the Project crosses back into Colchester and then continues south through Braintree, Chelmsford, Basildon, Brentwood and into Thurrock connecting into the existing Tilbury Substation.

1.9.2 The Project has also been broken down into eight geographical sections (referenced throughout this Planning Statement), based largely on Local Authority boundaries. These are presented on the Site Location Plan and Project Sections within ES Figure 1.1 (document reference 6.1.F1) and comprise:

- Section A – South Norfolk Council and Breckland District Council
- Section B – Mid Suffolk District Council
- Section C – Babergh District Council, Colchester City Council and Tendring District Council
- Section D – Colchester City Council
- Section E – Braintree District Council
- Section F – Chelmsford City Council and Brentwood Borough Council
- Section G – Basildon Borough Council and Brentwood Borough Council (and part of Chelmsford City Council)
- Section H – Thurrock Council.

1.9.3 National Grid has undertaken extensive engagement with the Local Planning Authorities during the pre-application process which has included the sharing of draft application documents. Details of the meetings between National Grid and the respective Local Planning Authorities are identified in the relevant Statement of Common Ground.

1.9.4 Host authorities in respect of the Project will have the opportunity to prepare Local Impact Reports (LIR) to inform the examination of the Application for Development Consent. The LIR will be considered by the SoS in determining the Application. With reference to Section 60 of the PA 2008 the LIR would also address relevant local planning policies. The PA 2008 states that in deciding an application for development consent, the Secretary of State must have regard to any LIR submitted to the Secretary of State by the deadline specified.

1.10 Relationship of the Planning Statement to the Application for Development Consent

1.10.1 In assessing the Project against relevant policy and demonstrating the overall planning case for the Project, this Planning Statement draws upon the conclusions of other documents accompanying the Application for Development Consent, assessing them as necessary within the context of relevant policy and planning considerations. This Planning Statement, therefore, draws upon and should be read alongside the following documents:

- **Draft DCO** (document reference 3.1) (Revision G): if approved, it is this document that will grant development consent for the powers and provisions required to construct, operate and maintain the Project
- **Explanatory Memorandum** (document reference 3.2) (Revision G): this explains the purpose of the draft DCO, and the powers sought
- **Plans and Drawings** (document reference 2.0-2.7): there are a number of different types of plans, each showing a different element of the Project including Works Plans, Trees and Hedgerows to be Removed and or Managed, Traffic Regulation Order Plans, Access, Rights of Way and Public Rights of Navigation Plans, Design and Layout Plans. A Guide to the Plans (document reference 2.0) (Revision B) accompanies the submission
- **Consents and Licences Required Under Other Legislation** (document reference 5.5) (Revision D): this provides information on the additional consents and licences that are, or may be, required to construct and operate the Project
- **Strategic Options Backcheck Review** (document reference 7.17): sets out the Need Case for the Project provides an overview of how the Project has evolved and developed during the pre-application stage up to the submission of the application. The document sets out the overarching approach which has been taken to develop the project and provides summary explanations for why decisions were made in relation to key matters raised within stakeholder feedback
- **Draft Statements of Common Ground** (document reference 5.9.1 to 5.9.32): the draft Statement of Common Ground seeks to identify matters on which parties agree and to track progress towards the resolution of any matters where agreement has not yet been reached
- **Design Development Report** (document reference 5.15) (Revision B): this report provides an overview of the design rationale for the Project and explains where design choices have sought to reduce the environmental effects of the Project
- **Environment Statement** (document reference 6.1-6.18) (Revision B-C): the application is accompanied by an ES which provides the final assessment of likely significant effects, associated with the Project during its construction and

operation. The assessment provides decision makers and statutory consultees with the environmental information they require to determine the Project. The early identification of potential significant adverse environmental effects enables consideration of appropriate mitigation measures (i.e. following the mitigation hierarchy – avoid, prevent or reduce, and if possible, offset likely significant adverse effects on the environment) to be considered and where appropriate identified and incorporated into the design of the Project

- **Design and Access Statement** (document reference 7.15) (Revision D): provides an overview of the relevant national and local policy and physical context within which the design proposals have evolved. It sets out the design principles applied by National Grid and summarises its approach to good design. The report sets out the proposals and how the design has evolved through public consultation with a focus on the overhead lines
- **Design Approach for Site-Specific Infrastructure** (document reference 7.16) (Revision E): the Design Approach for Site-Specific Infrastructure (DASSI) relates to the details of the site-specific infrastructure of the non-linear works included in the Project, such as the substations and CSE compounds. This document outlines the design principles that can be taken forward into the detailed design stage, sets out an approach to the design of site-specific infrastructure of non-linear works, and details those elements of the design which have some flexibility in their appearance
- **Consultation Report** (National Grid, 2022a, 2023c and document reference 5.1) (Revision B): provides a detailed account of the pre-application consultation activities carried out by National Grid prior to the submission of the DCO application. It demonstrates that National Grid has complied with the statutory requirements and explains how relevant responses received were taken account of prior to the DCO application being submitted
- **Guide to the Application** (document reference 1.3) (Revision L) and **Section 55 Acceptance of Application** (document reference 1.8): set out the structure of the Application for Development Consent and how it satisfies the relevant requirements and submission of applications, including:
  - The Infrastructure Planning (Compulsory Acquisition) Regulations 2010
  - The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (the EIA Regulations)
  - Planning Act 2008: Application form guidance (DCLG, 2013)
  - Planning Act 2008: Guidance on the pre-application process (DCLG, 2015)
  - Nationally Significant Infrastructure Projects: Advice on the Preparation and Submission of Application Documents (Planning Inspectorate, 2024a)
  - Planning Act 2008: Pre-application stage for Nationally Significant Infrastructure Projects (MHCLG, 2024a)
  - Planning Act 2008: Content of a Development Consent Order required for Nationally Significant Infrastructure Projects (MHCLG, 2024c)
  - Planning Act 2008: Acceptance stage for Nationally Significant Infrastructure Projects (MHCLG, 2024b)
  - Nationally Significant Infrastructure Projects: Advice on the Consultation Report (Planning Inspectorate, 2024b).

1.10.2 The full schedule of documents submitted with this application is set out in the Planning Inspectorate Electronic Application Index (document reference 1.6) and Guide to the Application (document reference 1.3) (Revision L).

1.11 Structure of the Planning Statement

1.11.1 The remainder of the Planning Statement is structured as follows:

- Chapter 2: Legislation and Policy Context: provides an overview of the decision-making framework, legislation and policy context as well as other important and relevant considerations
- Chapter 3: Need for the Project: describes the need for, and the benefits of the Project
- Chapter 4: The Project: provides a summary of the Project and its components
- Chapter 5: The Order Limits and Surrounding Area: describes the Order Limits and summarises the relevant planning history within the Order Limits
- Chapter 6: Project Evolution and Design: sets out National Grid's approach to Options Appraisal and includes a summary of the Project Evolution
- Chapter 7: Planning Policy Assessment: provides an assessment of the project-wide effects against the relevant legislative and policy context as well as other important and relevant considerations
- Chapter 8: Decision-making and Planning Balance: provides an assessment of the overall planning balance of the Project and overall conclusion in terms of the Project's compliance with relevant legislation and policy
  - Appendix A: identifies Committed Developments Overlapping with Order Limits
  - Appendix B: Open Space Assessment Table
  - Figure 1 Open Space Assessment.

2. Legislation and Policy Context

2.1 Introduction

2.1.1 This Chapter outlines the legislative framework and the planning policy context for the Project. Section 2.2 sets out the relationship of the Project with the PA 2008 and introduces the national and local planning policy and other documents that the SoS may consider to be important and relevant.

2.1.2 This Chapter of the Planning Statement is supported by Policy Compliance Document (document reference 5.7), which identify the relevant policies of the NPSs for Energy and local planning policies that the SoS may consider to be important and relevant to their decision and presents an appraisal of compliance with these policies.

2.2 The Planning Act 2008

2.2.1 The Project is defined as a NSIP, under s14(1)(b) and s16 of the PA 2008, and as amended by the Planning Act 2008 (Nationally Significant Infrastructure Projects) (Electric Lines) Order 2013, as it involves the installation of a new electric line above ground of more than 2 km, which would operate at 400 kV in England.

2.2.2 For an NSIP, the grant of development consent is required by the making of a DCO under the PA 2008. A DCO may include a range of consents and powers.

2.2.3 The proposed new above ground electricity line would be an NSIP by virtue of the definitions in the PA 2008. Other development, such as underground cables, may be granted development consent as associated development within the meaning of s115 of the PA 2008.

2.2.4 Part 6 of the PA 2008 is to be applied when determining an application for a DCO. Sections 103 to 107 of the PA 2008 provide the framework for decision making of an Application for Development Consent. Section 104(2) provides that, in deciding applications for development consent, the SoS must have regard to the relevant NPSs. Section 104(3) states the SoS must decide such applications in accordance with any relevant NPSs unless the exceptions at Section 104(4) to (8) apply. The application of Section 104(3) and Section 104(4) to (8) is discussed in full details in Section 7 of this Planning Statement.

2.2.5 Section 104(2) of the PA 2008 requires the SoS to have regard to the following, in deciding an Application for Development Consent:

- Any Local Impact Report (Section 104(2)(b) of the PA 2008)
- Any matters prescribed (Section 104(2)(c) of the PA 2008)
- Any other matters which the SoS thinks are both important and relevant to the SoS decision (Section 104(2)(d) of the PA 2008).

2.2.6 As detailed above, Section 104(2) of the PA 2008 sets out that the primary policy considerations for NSIPs include any relevant NPS. The NPSs are produced by the Government, pursuant to specific legislative requirements under the PA 2008 to set out policy for nationally significant development in a particular sector and provide the framework for decisions on applications for NSIPs in that sector.

2.2.7 In this case, the Energy NPSs are of relevance to the Project, therefore Section 104 of the PA 2008 applies. The relevant Energy NPSs are set out in the following section.

2.2.8 Schedule 1 of the draft DCO (document reference 3.1) (Revision G) sets out the description of the works for which consent is sought. Further detail is provided ES Chapter 4: Project Description (document reference 6.4) (Revision B).

2.3 Electricity Act 1989

2.3.1 Section 9(2) of the Electricity Act 1989 places general duties on National Grid as a licence holder '*to develop and maintain an efficient, co-ordinated and economical system of electricity transmission…*'. In addition, s38 and Schedule 9 of the Electricity Act 1989 require National Grid, when formulating proposals for new lines and other works, to:

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

2.3.2 National Grid's Stakeholder, Community and Amenity Policy (National Grid, 2016) sets out how the company will meet the Schedule 9 duty placed upon it by the legislation.

2.3.3 National Grid duties are also determined by the terms of its Transmission Licence. As part of National Grid's Transmission Licence requirements, the transmission infrastructure needs to be capable of providing and maintaining a minimum level of security and quality of supply and of transporting electricity from and to customers. National Grid is required to ensure that the transmission system remains capable as customer requirements change. The transmission system must accommodate changes in demand, generation, and interconnectors.

2.3.4 Generators apply to the NESO for connections to the NETS in Great Britain. NESO ensures the relevant onshore or offshore transmission owner undertakes generation connection process studies via the relevant process and makes a connection offer to the customer for a connection point and identifies the relevant infrastructure work needed to make the connection. Once this offer is signed the connection is recorded on the Transmission Entry Capacity Register and forms a contractually binding connection location and timescale within which the transmission owner, such as National Grid, is required to connect the generation customer or undertake the works to facilitate their connection.

2.4 Relevant Policy Documents Relating to the Energy Sector and Climate Change and the Project

National Planning Policy

2.4.1 NPSs are produced by the government through a parliamentary approval process, and they present the planning policy framework for all decision making for NSIPs. They also include the government's objectives for the development of NSIPs and are produced for different types of infrastructure development.

2.4.2 In deciding an application for development consent, Section 104 of the PA 2008 requires the Secretary of State to decide the application in accordance with any relevant NPS, except to the extent the Secretary of State is satisfied that to do so would:

- Lead to the UK being in breach of its international obligations (Section 104(4))
- Be in breach of any statutory duty that applies to the Secretary of State (Section 104(5))
- Be unlawful by virtue of any enactment (Section 104(6))
- Result in adverse impacts from the development outweighing the benefits (Section 104(7))
- Any condition prescribed for deciding an application otherwise than in accordance with a NPS (Section 104(8)).

2.4.3 Therefore, it is necessary for Applicants to ensure that their applications, and any accompanying supporting documents, are consistent with the instructions and guidance in NPSs that are relevant to the application in question.

2.4.4 The following NPSs which came into force on 17 January 2024 are relevant to the Project:

- Overarching National Policy Statement for Energy (EN-1) (DESNZ, 2024a)
- National Policy Statement for Electricity Networks Infrastructure (EN-5) (DESNZ, 2024b)
- National Policy Statement for Renewable Energy Infrastructure (EN-3) (DESNZ, 2024c).

2.4.5 The Overarching National Policy Statement for Energy (EN-1) (DESNZ, 2024a) sets out national policy for energy infrastructure in combination with the relevant technology-specific NPS which in this case is National Policy Statement for Electricity Networks Infrastructure (EN-5). EN-1 (DESNZ, 2024a) emphasises the need for new energy projects to contribute to a secure, diverse, reliable and affordable energy supply.

2.4.6 The National Policy Statement for Electricity Networks Infrastructure (EN-5) (DESNZ, 2024b) sets out the government's policy for nationally significant electricity transmission networks and, together with EN-1, identifies the information that should be provided alongside any application for development consent to satisfy their requirements.

2.4.7 The National Policy Statement for Renewable Energy Infrastructure (EN-3) (DESNZ, 2024c) is also relevant in so far as the NPS includes support for the onshore infrastructure required to deliver new offshore wind developments.

Overarching National Policy Statement for Energy (EN-1) (2024)

2.4.8 NPS EN-1 (DESNZ, 2024a) sets out the government's overarching policy about the development of NSIPs in the energy sector. It emphasises the need for new energy projects to contribute to a secure, diverse, and affordable energy supply. It emphasises the need for new energy projects to contribute to a secure, diverse, reliable and affordable energy supply.

2.4.9 It has effect for the decisions by the Secretary of State on applications for energy developments that are nationally significant under the PA 2008. For such applications this NPS, combined with any technology specific energy NPS where relevant, provides the primary policy for decisions by the Secretary of State. Paragraph 1.1.2 states that '*It has effect for the decisions by the Secretary of State on applications for energy developments that are nationally significant under the Planning Act 2008. For such applications this NPS, combined with any technology specific energy NPS where relevant, provides the primary policy for decisions by the Secretary of State*.'

2.4.10 Paragraph 2.1.3 of EN-1 recognises that to '*produce the energy required for the UK and ensure it can be transported to where it is needed, a significant amount of infrastructure is needed at both local and national scale. High quality infrastructure is crucial for economic growth, boosting productivity and competitiveness*'. Paragraph 3.3.65 states, '*There is an urgent need for new electricity network infrastructure to be brought forward at pace to meet our energy objectives*'.

2.4.11 Section 3.3 recognises that the volume of onshore reinforcement works needed to meet decarbonisation targets is substantial. NESO forecasts that over the next decade, a doubling of north–south power transfer capacity will be required. Specific mention is made of the need for '*substantial reinforcement in East Anglia to handle increased power flows from offshore wind generation'* (Paragraph 3.3.68).

2.4.12 Given the level and urgency of need for infrastructure of the types covered by the energy NPSs set out in Part 3 of this NPS, the Secretary of State will start with a presumption in favour of granting consent to applications for energy NSIPs. That presumption applies unless any more specific and relevant policies set out in the relevant NPSs clearly indicate that consent should be refuse

2.4.13 Section 4.2 sets out the critical national priority (CNP) for low carbon infrastructure: '*Government has committed to fully decarbonising the power system by 2035, subject to security of supply, to underpin its 2050 net zero ambitions. More than half of final energy demand in 2050 could be met by electricity, as transport and heating in particular shift from fossil fuel to electrical technology'* (Paragraph 4.2.1). Paragraph 4.2.4 concludes that there is a CNP for the provision of nationally significant low carbon infrastructure.

2.4.14 The second bullet point of paragraph 4.2.5 goes on to explain, '*for electricity grid infrastructure, all power lines in scope of EN-5 including network reinforcement and upgrade works, and associated infrastructure such as substations*' are CNP low carbon infrastructure.

2.4.15 Paragraph 3.6.63 provides clear direction that the urgent need for CNP Infrastructure to achieving the UK's energy objectives, together with the national security, economic, commercial, and net zero benefits, will in general outweigh any other residual impacts not capable of being addressed by application of the mitigation hierarchy. '*Subject to any legal requirements, the urgent need for CNP Infrastructure to achieving our energy objectives, together with the national security, economic, commercial, and net zero benefits, will in general outweigh any other residual impacts not capable of being addressed by application of the mitigation.'*

2.4.16 Paragraph 4.11.4 is clear that transmission network reinforcement falls within the definition of CNP Infrastructure '*Transmission network infrastructure, and related network reinforcement and upgrade works, associated with nationally significant low carbon infrastructure is considered as CNP Infrastructure*.'

2.4.17 Part 5 of EN-1 also sets out guidance on generic impacts that arise from development of any of the types of energy infrastructure covered by the energy NPSs in respect of matters such as air quality and emissions, biodiversity, dust and odour, flood risk, historic environment, landscape, land use, noise and vibration, socio-economics, traffic and transport, and waste management.

National Policy Statement for Electricity Networks Infrastructure (EN-5) (2024)

2.4.18 NPS EN-5 (DESNZ, 2024b) specifically relates to electricity networks.

2.4.19 Paragraph 1.1.1 of NPS EN-5 recognises that the '*security and reliability of the UK's current and future energy supply is highly dependent on having an electricity network which will enable the new electricity generation, storage, and interconnection infrastructure that our country needs to meet the rapid increase in electricity demand required to transition to net zero, while maintaining energy security*.'

2.4.20 Paragraph 2.1.5 of EN-5 notes that, as identified in EN-1, the government has concluded that there is a CNP for the provision of nationally significant low carbon infrastructure:

'As stated in Section 4.2 of EN-1, to support the urgent need for new low carbon infrastructure, all power lines in scope of EN-5 including network reinforcement and upgrade works, and associated infrastructure such as substations, are considered to be CNP infrastructure'.

2.4.21 Paragraph 2.1.6 of EN-5 goes on to note that, '*The assessment principles outlined in Section 4 of EN-1 continue to apply to CNP infrastructure*'.

2.4.22 Paragraphs 2.2.1 and 2.2.2 note that:

'*The Secretary of State should bear in mind that the initiating and terminating points – or development zone – of new electricity networks infrastructure is not substantially within the control of the applicant.*' (Paragraph 2.2.1)

'*Siting is determined by:*

- *the location of new generating stations or other infrastructure requiring connection to the network, and/or*
- *system capacity and resilience requirements determined by the Electricity System Operator*.' (Paragraph 2.2.2)

2.4.23 Paragraph 2.2.6 recognises that '*...the locational constraints identified above do not, of course, exempt applicants from their duty to consider and balance the site-selection considerations set out below, much less the policies on good design and impact mitigation…*'

2.4.24 Paragraph 2.2.10 of EN-5 reiterates the duties of transmission and distribution licence holders under Section 9 of the Electricity Act 1989, in relation to developing and maintaining an economical and efficient network, and under Schedule 9, in formulating proposals for new electricity networks infrastructure, to '*have regard to the desirability of preserving natural beauty, of conserving flora, fauna and geological or physiographical features of special interest*…'.

2.4.25 Paragraph 2.4.1 notes that '*The Planning Act 2008 requires the Secretary of State to have regard, in designating an NPS, and in determining applications for development consent to the desirability of good design*'.

2.4.26 Section 2.7 of EN-5 deals with holistic planning:

'...the government envisages that, wherever reasonably possible, applications for new generating stations and their related infrastructure should be contained in a single application to the Secretary of State. However a consolidated approach of this kind may not always be possible...' (Paragraph 2.7.2).

'This could be, for example, due to the differing lengths of time needed to prepare the applications for submission to the Secretary of State, or because a network application relates to multiple generation projects (which could be onshore or offshore), or because the works involved are strategic reinforcements required for a number of reasons' (Paragraph 2.7.3).

2.4.27 Section 2.8 deals with strategic network planning and Paragraph 2.8.1 sets out that, '*A more strategic approach to network planning will ensure that network development keeps pace with renewable generation and anticipates future system needs*'. (This is also referred to in Paragraphs 2.13.1 to 2.13.13.)

2.4.28 Paragraph 2.9.7 recognises that '*the government does not believe that the development of overhead lines is incompatible in principle with applicants' statutory duty under Schedule 9 to the Electricity Act 1989, to have regard to visual and landscape amenity and to reasonably mitigate possible impacts thereon' in practice new overhead lines can give rise to adverse landscape and visual impacts*'.

2.4.29 Paragraph 2.9.14 states that '*Where the nature or proposed route of an overhead line will likely result in particularly significant landscape and visual impacts, as would be assessed through landscape, seascape and visual impact assessment, the applicant should demonstrate that they have given due consideration to the costs and benefits of feasible alternatives to the overhead line. This could include – where appropriate – rerouting, underground or subsea cables and the feasibility e.g. in cost, engineering or environmental terms of these.*'

2.4.30 Paragraph 2.9.16 recognises the importance of the guidelines provided in the Holford Rules. These guidelines, '*intended as a common sense approach to overhead line design, were reviewed and updated by the industry in the 1990s and they should be embodied in the applicants' proposals for new overhead lines*'.

2.4.31 Paragraph 2.9.18 refers to the Horlock Rules (guidelines for the design and siting of substations), advising that '*these principles should be embodied in applicants' proposals for the infrastructure associated with new overhead lines*'.

2.4.32 Paragraph 2.9.20 covers undergrounding:

'Although it is the government's position that overhead lines should be the strong starting presumption for electricity networks developments in general, this presumption is reversed when proposed developments will cross part of a nationally designated landscape (i.e. National Park, The Broads, or Area of Outstanding Natural Beauty)'.

2.4.33 Subsequent paragraphs go on to say:

'However, undergrounding will not be required where it is infeasible in engineering terms, or where the harm that it causes (see section 2.11.4) is not outweighed by its corresponding landscape, visual amenity and natural beauty benefits. Regardless of the option, the scheme through its design, delivery, and operation, should seek to further the statutory purposes of the designated landscape. These enhancements may go beyond the mitigation measures needed to minimise the adverse effects of the scheme.' (Paragraph 2.9.22)

'Additionally, cases will arise where – though no part of the proposed development crosses a designated landscape – a high potential for widespread and significant adverse landscape and/or visual impacts along certain sections of its route may result in recommendations to use undergrounding for relevant segments of the line.' (Paragraph 2.9.23).

2.4.34 CNP is referred to again in Paragraph 2.12.7:

'As highlighted in EN-1 government has concluded that there is a CNP for the provision of nationally significant low carbon infrastructure. This includes for electricity grid infrastructure, all power lines in scope of EN-5 including network reinforcement and upgrade works, and associated infrastructure such as substations. This is not limited to those associated specifically with a particular generation technology, as all new grid projects will contribute towards greater efficiency in constructing, operating and connecting low carbon infrastructure to the National Electricity Transmission System. This includes infrastructure identified in the Holistic Network Design and subsequent strategic network design exercises…'

National Policy Statement for Renewable Energy Infrastructure (EN-3) (2024)

2.4.35 NPS EN-3 (DESNZ, 2024c) includes support for the onshore infrastructure required to deliver new offshore wind developments.

2.4.36 Section 2.8 deals with offshore wind. Paragraph 2.8.1 states:

'As set out in the British Energy Security Strategy, the Government expects that offshore wind … will play a significant role in meeting demand and decarbonising the energy system. The ambition is to deploy up to 50GW of offshore wind capacity (including up to 5GW floating wind) by 2030, with an expectation that there will be a need for substantially more installed offshore capacity beyond this to achieve net zero carbon emissions by 2050'.

2.4.37 Paragraphs 2.8.34 to 2.8.43 (inclusive) reiterate the position set out in EN-1 and EN-5 that a coordinated approach to onshore-offshore transmission is required. Paragraph 2.8.35 states, '*The previous standard approach to offshore-onshore connection involved a radial connection between single wind farm projects and the shore. A coordinated approach will involve the connection of multiple, spatially close, offshore wind farms and other offshore infrastructure, wherever possible, as relevant to onshore networks'*.

2.4.38 EN-3 also includes references to CNP infrastructure, stating that:

'The assessment principles outlined in Section 4 of EN-1 continue to apply to CNP infrastructure. Applicants must show how any likely significant negative effects would be avoided, reduced, mitigated or compensated for, following the mitigation hierarchy. Early application of the mitigation hierarchy is strongly encouraged, as is engagement with key stakeholders including SNCBs [Statutory Nature Conservation Bodies]*, both before and at the formal pre-application stage.'* (Paragraph 2.1.8)

2.4.39 A more detailed review of the policies contained within the NPSs is set out Chapter 6 of this Planning Statement and the Policy Compliance Document (document reference 5.7).

2025 Revisions to National Policy Statements

2.4.40 In April 2025, the government launched a consultation on proposed changes to EN-1, EN-5 and EN-3 that ended on 29 May 2025. The consultation covers updates to all three NPSs for new energy infrastructure:

- Draft: Overarching National Policy Statement for Energy (EN-1) (DESNZ, 2025a)
- Draft: National Policy Statement for Electricity Networks Infrastructure (EN-5) (DESNZ, 2025b)
- Draft: National Policy Statement for Renewable Energy Infrastructure (EN-3) (DESNZ, 2025c).

2.4.41 Changes consulted upon in the draft 2025 updates to the energy infrastructure NPSs include alignment with Clean Power 2030 targets and endorsement of the Centralised Strategic Network Plan. The 2025 revisions have strengthened the process for delivering major new infrastructure, reinforcing the government's ambition to deliver clean power by 2030.

2.4.42 The transitional arrangements on the status of the 2025 revisions identified as part of the consultation[3] say:

'While the review is undertaken, the current suite of energy NPS remain relevant government policy and EN-1 to EN-5 have effect for the purposes of the Planning Act 2008.

The Secretary of State has decided that for any application accepted for examination before amending the energy NPSs, the current suite of energy NPS, published in 2024, should have effect. The amended energy NPSs will therefore only have effect in relation to those applications for development consent accepted for examination after the publication of the final amended energy NPSs. However, any emerging draft energy NPSs (or those amended but not having effect) are potentially capable of being important and relevant considerations in the decision-making process. The extent to which they are relevant is a matter for the relevant Secretary of State to consider within the framework of the Planning Act 2008 and with regard to the specific circumstances of each development consent order application'.

[3] Planning for new energy infrastructure: revised draft National Policy Statements for energy infrastructure (HM Government 2025). Available On-Line at: https://www.gov.uk/government/consultations/planning-for-new-energy-infrastructure-2025-revisions-to-national-policy-statements/planning-for-new-energy-infrastructure-revised-draft-national-policy-statements-for-energy-infrastructure-accessible-webpage (accessed 06/08/2025)

2.4.43 At the point of submission of the Project, the NPSs designated in January 2024 were government policy. The Application is accompanied by an ES (document reference 6.1 to 6.18) (Revision B – C) which provides the final assessment of the likely significant effects, associated with the Project during its construction and operation (including maintenance), after the mitigation hierarchy has been applied. The ES was prepared in accordance with the relevant requirements of NPSs EN-1 and EN-5 in force as of 1 April 2025.

2.4.44 The emerging draft of the Overarching National Policy Statement for Energy (EN-1) reinforces the approach taken in the ES. The draft revised EN-1 and EN-5 reiterate the government's commitment to the Clean Power Action Plan 2030, which aims for at least 95% of the UK's electricity generation to come from clean sources by 2030 and emphasises the urgency and CNP of developing low-carbon infrastructure, thereby supporting the need case established in the ES.

2.4.45 The draft revised EN-1 and EN-5 maintain the assessment principles and generic impact considerations outlined in the current EN-1 and EN-5, ensuring continuity in evaluating environmental effects. They also introduce enhanced guidance on biodiversity, flood risk, and climate resilience and the mitigation hierarchy. The ES is considered to be in compliance with these emerging draft NPSs.

2.4.46 If the revised NPSs are designated prior to a decision being made on the application for development consent, the ES and Planning Statement will be reviewed for consistency with the newly-designated NPSs, and any additional requirements would be captured within an additional submission for consideration. It was confirmed in Section 51 advice received from the Planning Inspectorate that if the new NPSs are designated after the application has been submitted, the Examining Authority can issue procedural decisions to ask all parties for views on the impacts of new NPSs.

2.4.47 Where the Draft NPS EN-1 (DESNZ, 2025a) and Draft EN-5 (DESNZ, 2025b) introduces proposed policy that is materially different to the policy wording contained in the extant NPS EN-1 (DESNZ, 2024a) and EN-5 (DESNZ, 2024b) this is referred to in Tables 2.1 to 2.6 (inclusive).

2.4.48 The following tables provide a high-level summary under the following main headings:

- Table 2.1: Introduction
- Table 2.2: Government Policy on energy and energy infrastructure development
- Table 2.3: The urgent need for the provision of nationally significant low carbon infrastructure as a critical national priority (CNP) to achieve Clean Power 2030
- Table 2.4: Assessment principles.

2.4.49 Commentary is then provided on how the Project aligns with the materially different policy sections set out in Draft NPS EN-1 and Draft NPS EN-5.

Table 2.1 Introduction

Theme	NPS EN-1 (DESNZ, 2024a)	Draft NPS EN-1 (DESNZ, 2025a)	How the Project Aligns with the Consultation Policy
Policy Context	Sets out the legislation underpinning Net Zero by 2050 as per 2019 legislation (the Climate Change Act 2008 (2050 Target Amendment) Order 2019) and established the framework for ongoing updates. Paragraph 3.3.68 confirms the volume of onshore reinforcement works needed to meet decarbonisation targets is substantial and them refers to substantial reinforcement in East Anglia to handle increased power flows from offshore wind generation.	Introduces the Clean Power 2030 Action Plan, as one of the five missions set out by the government, with a transition for power sector decarbonisation as a prelude to 2050 net zero and the explicit reference to the Clean Power 2030 Action Plan. The policy narrative through EN-1 has been updated to bring Clean Power 2030 front and centre as the primary policy that the NPSs enable. It points towards the Clean Power 2030 Action Plan, which contains the capacity ranges for technologies in 2030 that the NPSs support. Successfully delivering Clean Power 2030 will require rapid deployment of new clean energy capacity.	The National Energy System Operators Clean Power 2030 report (NESO, 2024) identifies the Project as critical to delivering a network which supports the clean power pathways, but at present has a delivery date after 2030. Support is therefore needed to bring the Project forward for 2030 delivery. NESO's Clean Power 2030 report also states that the Project (AENC and ATNC – the NOA code for Norwich to Tilbury) and Sea Link are critical for connecting offshore wind in the North Sea and supporting the flow of clean power. Constraint costs arise when NESO has to manage this problem by paying generators to reduce (turn-down) their electricity output in areas that are congested and switch on (turn-up) in locations closer to electricity users. The specific reference to the Project in the Clean Power 2030 report and the significant introduction in the draft NPS EN-1 provides additional recognition of the need for the Project to what is stated on the need for new electricity networks in the extant NPS EN-1.

Table 2.2 Government policy on energy infrastructure development

Theme	NPS EN-1 (DESNZ, 2024a)	Draft NPS EN-1 (DESNZ, 2025a)	How the Project Aligns with the Consultation Policy
Net Zero Legal Framework & Targets	Sets out the target to achieve net zero by 2050 with 68% greenhouse gas reduction by 2030, the sixth carbon budget – CB6 (greenhouse gas reduction by 78% compared to 1990 levels) by 2035 and references Net Zero Strategy and the British Energy Security Strategy.	Introduces the Clean Power Action Plan 2030 as a Statutory intermediate delivery step towards net zero by 2050. States that by 2030, at least 95% of GB generation should come from clean sources, with capacity targets for offshore wind (43-50GW), onshore wind (27-29GW), solar (45-47GW). Draft NPS EN-1 states there is a CNP for the provision of nationally significant low carbon infrastructure to meet the Clean Power 2030 Mission and net zero.	The increased capacity being provided by the Project is critical to delivering a network which supports the clean power pathways as set out in the Clean Power Action Plan 2030, including the capacity targets for offshore wind, onshore wind and solar.
Policy Emphasis	Balances decarbonisation, energy security, affordability, using wide suite of documents (e.g. Energy white paper: Powering our net zero future (Department for Business, Energy & Industrial Strategy (BEIS), 2020); Net Zero Strategy (DESNZ, BEIS, 2021) etc.). Introduces the CNP for low carbon infrastructure for the provision of nationally significant low carbon infrastructure.	Maintains those policies and drivers set out previously, but with greater emphasis on driving the 'mission' for clean energy, and sees 2030 as the clean power milestone as critical in the wider net zero trajectory set out by government. In the context of CNP, the draft policy specifically cites that meeting the Clean Power 2030 Action Plan's objectives will require a 'step change' in the rate of low carbon generation, flexibility infrastructure and electricity transmission infrastructure, stating 'We need to rapidly increase deployment of all relevant infrastructure to meet capacity ranges and decarbonise the power sector.'	Delivers against the assertion in EN-1 that there is an urgent need for new electricity network infrastructure to be brought forward at pace, and supports holistically planned energy infrastructure which is required for the decarbonisation targets established by Clean Power Action Plan 2030 and net zero by 2050. Given the Project is directly relevant to Clean Power 2030, it can be deemed CNP infrastructure, with a presumption in favour of consent.

Table 2.3 The urgent need for the provision of nationally significant low carbon infrastructure as a CNP to achieve Clean Power 2030

Theme	NPS-EN1 (DESNZ, 2024a)	Draft NPS EN-1 (DESNZ, 2025a)	How the Project Aligns with the Consultation Policy
Urgency and Scale	States that the need for large quantities of new power infrastructure is urgent because demand is likely to double by 2050; electricity to dominate as heating/transport sectors electrify. Government strongly supports the delivery of CNP Infrastructure and it should be progressed as quickly as possible.	Continues to support the policies set out previously but places greater emphasis on the urgency and scale of progress required, particularly citing the Clean Power 2030 Mission and explicit 'Clean Power Capacity' ranges for each major technology; supports the acceleration of developments necessary to deliver cleaner generation and transmission of power, enhancing diversity and flexibility, reiterating that the pace and emphasis of the development of the technologies will be market led.	The Project responds to previously established policies and by coming forward as it is, also addresses the urgency and pace required to move towards delivering the necessary improvements to power infrastructure to respond to the challenges of meeting the obligations of the Clean Power Action Plan, and thereafter, net zero, making a significant contribution to both regional and national requirements.

Table 2.4 Assessment principles

Theme	NPS EN-1 (DESNZ, 2024a)	Draft NPS EN-1 (DESNZ, 2025a)	How the Project aligns with the Consultation Policy
Rising to the Clean Power 2030 Mission	NPS EN-1 (2024a) came into effect prior to the Clean Power 2030 Action Plan.	The draft NPS EN-1 includes a new section on *'Rising to the Clean Power 2030 Mission'.* This section recognises that the pace of planning delivery needs to significantly increase to allow the government to meet its 2030 Clean Energy targets. It therefore recognises that proportionality and focus on all stages of the project preparation, examination and decision making are vital.	Support is needed to bring the Project forward for 2030 delivery without the Project, the clean power objective would not be achieved, and consumers could face extra constraint costs of around £4.2 billion in 2030. To bring delivery forward to 2030, urgent and significant action is needed on removing the key challenges to delivery - including accelerated planning processes.

Theme	NPS EN-1 (DESNZ, 2024a)	Draft NPS EN-1 (DESNZ, 2025a)	How the Project aligns with the Consultation Policy
		This section is broken down into the following sub-sections: • Pre-application consultation • Applications • Environmental Statement • Working together • Residual Impacts	
Pre-application consultation	Strongly encourages early engagement both before and at the formal pre-application stage between the applicant and key stakeholders. Does not specify the exact areas where the applicant can gain benefit from early engagement with specific consultees.	Paragraph 4.2.7 recommends '…*that applicants consider additional consents, licences and permit requirements at the earliest possible stage*' and undertake early engagement with the Environment Agency regarding permitting services.	The Consents and Licences Required Under Other Legislation (document reference 5.5) (Revision D) sets out the details of additional consents and licences likely to be required for this Project (including those from the Environment Agency), along with details including the licensing body; the likelihood of the permit/ consent being required; the proposed timing of submission; and the current status. The Consents and Licences Required Under Other Legislation also outlines where acts or parts of acts have been disapplied together with which Internal Drainage Boards protective provisions within the DCO are being agreed to do works to their watercourses. In addition, the Draft Statement of Common Ground between National Grid and the Environment Agency (document reference 5.9.16) details the extensive engagement undertaken between both parties, including regarding future permits likely to be required.

Theme	NPS EN-1 (DESNZ, 2024a)	Draft NPS EN-1 (DESNZ, 2025a)	How the Project aligns with the Consultation Policy
Pre-application (continued)	NPS EN-1 (2024a) came into effect prior to the Adequacy of Consultation Milestone requirement under the Planning Inspectorate Standard Tier Pre-application service. Refers to Part 5 of the PA 2008 that sets out the requirements for consultation and publicity before any application for a Development Consent Order is made, including a duty to consult the local community.	Paragraph 4.2.10 states *'Objections to the adequacy of pre-application consultation must be fair, accurate and not based on the objector's view of the underlying scheme. So long as an applicant has acted reasonably and met the statutory requirements there should be no objections to the adequacy of the consultation process'.*	As per the Adequacy of Consultation Milestone document (Planning Inspectorate reference EN020027), National Grid has consulted with the host and neighbouring LPAs regarding the adequacy of consultation undertaken. The Planning Inspectorate has issued the following response in Section 51 advice issued on 30/06/25: '*Having reviewed the applicant's AoCM statement, the Inspectorate considers that it clearly explains the applicant's consultation activities undertaken to date and the approaches set out in its Statement of Community Consultation (SoCC). As such, the Inspectorate does not consider the consultation to be seriously adrift (as described in guidance).*'
Pre-application (continued)	NPS EN-1 (2024a) came into effect prior to the Planning Inspectorate Standard Tier Pre-application service. Nevertheless, the extant NPS strongly encourages early engagement both before and at the formal pre-application stage between the applicant and key stakeholders. Does not refer to the Planning Inspectorate pre-application advice service.	Paragraph 4.2.11 refers to the Planning Inspectorate pre-application advice service. To meet the Clean Energy challenge applicants must engage with and take note of this guidance and advice.	National Grid has undertaken extensive pre-application engagement with the Planning Inspectorate, starting formally in April 2022 with an inception meeting, followed by numerous meetings throughout 2023, 2024 and 2025. The Project formally entered into the Planning Inspectorate Pre-application Standard Tier service in July 2024, as set out under the Nationally Significant Infrastructure Projects: 2024 Pre-application Prospectus (Planning Inspectorate, 2025).

Theme	NPS EN-1 (DESNZ, 2024a)	Draft NPS EN-1 (DESNZ, 2025a)	How the Project aligns with the Consultation Policy
			This has resulted in the production of the Pre-application Programme Document (document reference 1.5) that sets out the six project update meetings the Project team has had with the Planning Inspectorate within one year of DCO submission.
Applications	No direct reference to a front-loaded approach to drive up the quality of applications.	Greater emphasis placed on taking a front-loaded approach. Paragraph 4.2.12 of the draft NPS EN-1 highlights that the application process should be front-loaded, and *'…applications should not enter the statutory system if they not ready to be consented…'.* The examination period *'should be focussed on considering the planning merits of an application, and not using time during the examination and decision-making stages seeking to address deficiencies in an application.*'	National Grid have front-loaded the application through extensive engagement with all relevant parties, as detailed in the Consultation Report (document reference 5.1) (Revision B). The planning merits of the application are clearly set out in this Planning Statement.
Environmental Statement	Includes a section on environmental effects/considerations – '*All proposals for projects that are subject to the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (the EIA Regulations) must be accompanied by an Environmental Statement (ES)*'.	Paragraph 4.2.13 requires applicants and their consultants to *'…ensure that their applications are clear and accessible to both the public and decision makers…'* Applications must be *'…concise whilst still containing the necessary, high quality, information the Examining Authority, statutory consultees and the Secretary of State expect to see in order to make an informed decision…'*	National Grid consider that the submitted application is clear, proportionate and focussed. The geographical scale of the Project means that inevitably a large amount of information has been submitted as part of the application, however this information is deemed necessary for decision makers to make an informed decision. The use of tables, bullet points and summaries seek to make the information submitted accessible to the end user.

Theme	NPS EN-1 (DESNZ, 2024a)	Draft NPS EN-1 (DESNZ, 2025a)	How the Project aligns with the Consultation Policy
Working Together	Strongly encourages early engagement both before and at the formal pre-application stage between the applicant and key stakeholders.	Paragraph 4.2.14 highlights the need for applicants, LPAs and statutory advisors to work together, and for applicants to provide high quality, accessible information so they can identify and focus on the key issues.	As per the Consultation Report (document reference 5.1) (Revision B) and relevant Draft Statements of Common Grounds (document references 5.9.1 to 5.9.32), National Grid has engaged extensively with relevant LPAs and statutory consultees. Regular thematic meetings and workshops have been held to explain the project from inception through to the final DCO design. National Grid will continue to engage with LPAs and statutory advisors as relevant throughout the examination process, and should consent be granted, through the construction period.
Residual Impacts	With regard to 'compensation' and the mitigation hierarchy paragraph 4.2.25 states *'However, applicants should set out how residual impacts will be compensated for as far as possible. Applicants should also set out how any mitigation or compensation measures will be monitored and reporting agreed to ensure success and that action is taken. Changes to measures may be needed e.g. adaptive management. The cumulative impacts of multiple developments with residual impacts should also be considered.'*	Further clarification is now provided on 'compensation' and the mitigation hierarchy with the addition of the following sentence added to paragraph 4.2.25: *'Compensation, by definition, does not reduce an adverse effect resulting from a development...'*	National Grid can confirm that compensation has not been applied within the ES to 'reduce' an adverse effect.

Theme	NPS EN-5 (DESNZ, 2024b)	Draft NPS EN-5 (DESNZ, 2025b)	How the Project aligns with the Consultation Policy
Assessment and Technology-Specific Information	NPS EN-1 (2024a) came into effect prior to any reference to Electricity Transmission Design Principles (ETDP).	Paragraph 2.9.20 refers to Electricity Transmission Design Principles (ETDP) which will be developed by NESO.	As per the associated footnote, projects that have been through the front-end design stage prior to the Principles being published will not be expected to have regard to them. This applies to this Project. However, 'good design' has been considered as part of the development of this Project, as detailed within the Design and Access Statement (document reference 7.15) (Revision D).

2.5 Other Important and Relevant Matters

Introduction

2.5.1 Other national and local policy may also be considered 'important and relevant' to the decision-making process by the SoS. It is considered likely that some parts of the National Planning Policy Framework (NPPF) (MHCLG, 2025) (and associated guidance within the Planning Practice Guidance (PPG) (MHCLG, 2016) particularly pertaining to heritage, flood risk and local plans, will be important and relevant to decision making on the Project.

2.5.2 There is a long-standing position that planning applications cannot consider private interests such as the effect on the value of nearby properties.

2.5.3 This is evidenced by Suffolk County Council's published Getting to Grips with NSIPs: Advice for Town and Parish Councils on Nationally Significant Infrastructure Projects (Suffolk County Council, 2023) which states '*Things that aren't material considerations and therefore aren't relevant for town and parish councils to feedback to the Examining Authority might include: Loss of value to private individual property…'*

2.5.4 Paragraph 008 in the PPG on 'Determining a planning application' states '*The scope of what can constitute a material consideration is very wide and so the courts often do not indicate what cannot be a material consideration. However, in general they have taken the view that planning is concerned with land use in the public interest, so that the protection of purely private interests such as the impact of a development on the value of a neighbouring property or loss of private rights to light could not be material considerations.*'

2.5.5 There is no mention of effects on property prices in NPS EN-1 or NPS EN-5.

2.5.6 In the Hinkley Point C Connection Project the ExA Report notes that several parties raised concerns on property value but made a point that property price impacts were not considered as a separate planning consideration. At 5.7.43 it details that '*The effect on property prices is not a factor which can normally be given weight in planning considerations*'.

National Planning Policy Framework

2.5.7 Paragraph 5 makes it clear that the NPPF (MHCLG, 2025) does not contain specific policies for developments requiring development consent and that applications in relation to developments requiring development consent are to be determined in accordance with the decision-making framework set out in the PA 2008:

'The Framework does not contain specific policies for nationally significant infrastructure projects. These are determined in accordance with the decision-making framework in the Planning Act 2008 (as amended) and relevant national policy statements for major infrastructure, as well as any other matters that are relevant (which may include the National Planning Policy Framework)'.

2.5.8 While the NPSs remain the primary decision-making documents, regard must also be had to any other matters of importance and relevance, which may include relevant policies in the NPPF.

2.5.9 The NPPF is supported by the PPG and NPS EN-1 (DESNZ, 2024) does include footnote references to the PPG. Reference to the NPPF and PPG is made in respect of relevant matters within Sections 6 of this Planning Statement.

Local Planning Policy

2.5.10 Although the relevant NPSs provide the primary policy against which NSIP proposals should be decided, regional and local policy documents may also be considered important and relevant to decision-making. The weight attached to them is likely to depend on their consistency with NPS policies given the national significance of the infrastructure.

2.5.11 The ES (Volume 6 of the DCO application) has considered current and emerging local policy documents relevant to the Project which are likely to inform the local impact reports prepared by the Local Planning Authorities, and which may be relevant and important in their own right.

2.5.12 The relevant adopted and emerging local plans (as of 1 April 2025) for the Project are set out below.

South Norfolk Council:

Adopted:

- Greater Norwich Local Plan (adopted 2024)
- South Norfolk Local Plan Site Specific Allocations and Policies Document (adopted 2015)
- South Norfolk Local Plan Development Management Policies Document (adopted 2015)
- South Norfolk Local Plan Wymondham Area Action Plan (adopted 2015)
- Shaping the future of Long Stratton, Long Stratton Area Action Plan, South Norfolk Council (adopted 2016)
- Diss & District Neighbourhood Plan 2021-2038 (adopted 2023)
- Mulbarton Neighbourhood Plan 2015 – 2030 (adopted 2016)
- Tasburgh Neighbourhood Plan 2023-2038 (adopted 2024)
- Norfolk County Council, Norfolk Minerals and Waste Development Framework: Core Strategy and Minerals and Waste Development Management Policies Development Plan Document 2010-2026 (adopted 2011)
- Norfolk County Council Community and Environmental Services, Norfolk Minerals and Waste Development Framework: Minerals Site Specific Allocations Development Plan Document (adopted 2013, amendments adopted 2017)
- Norfolk County Council Environment, Transport and Development Department, Norfolk Minerals and Waste Development Framework: Waste Site Specific Allocations Development Plan Document (adopted 2013)
- Norfolk County Council Local Transport Plan 4 Strategy 2021-2036 [Combined with Local Transport Plan 4 Implementation Plan] (adopted 2022)

- Guidance for the delivery of a Food and Agriculture Hub for Broadland and South Norfolk, Supplementary Planning Document (adopted 2014)
- South Norfolk Council Guidelines for Recreation Provision in New Residential Developments Supplementary Planning Document (adopted 2018)
- Norwich Research Park Development Framework Supplementary Planning Document South Norfolk Council (adopted 2009)
- South Norfolk Place-Making Guide Supplementary Planning Document (adopted 2012)
- South Norfolk landscape character assessments (published 2001 and updated in 2012)
- Norfolk County Council Parking Guidelines for new developments in Norfolk Supplementary Planning Document (revised 2022).

Emerging:

- Emerging Norfolk Minerals and Waste Local Plan – this document was due to be adopted in May 2025
- Swainsthorpe Neighbourhood Plan (plan area designated in February 2024)
- Newton Flotman Neighbourhood Plan (plan consulted on between March and April 2025).

Breckland District Council:

Adopted:

- Breckland Local Plan (adopted 2023)
- Norfolk County Council, Norfolk Minerals and Waste Development Framework: Core Strategy and Minerals and Waste Development Management Policies Development Plan Document 2010-2026 (adopted 2011)
- Norfolk County Council Community and Environmental Services, Norfolk Minerals and Waste Development Framework: Minerals Site Specific Allocations Development Plan Document (adopted 2013, amendments adopted 2017)
- Norfolk County Council Environment, Transport and Development Department, Norfolk Minerals and Waste Development Framework: Waste Site Specific Allocations Development Plan Document (adopted 2013)
- Norfolk County Council Local Transport Plan 4 Strategy 2021-2036 [Combined with Local Transport Plan 4 Implementation Plan] (adopted 2022)
- Breckland Council, Adopted Site Specific Policies and Proposals Development Plan Document (Saved Policies) (adopted in 2012)
- Breckland Council, Adopted Thetford Area Action Plan DPD: Historic Past, Healthy Future (adopted July 2012)
- Croxton, Brettenham and Kilverstone Neighbourhood Plan (Adopted 2019).

Emerging:

- Emerging Norfolk Minerals and Waste Local Plan – this document was due to be adopted in May 2025.

Mid-Suffolk District Council:

Adopted:

- Babergh and Mid Suffolk Joint Local Plan: Part 1 (adopted 2023)
- Suffolk County Council, Suffolk Minerals and Waste Local Plan (adopted 2020)
- Suffolk County Council, Suffolk Local Transport Plan 2011-2031 Part 1 - Transport Strategy (adopted 2011)
- Stowmarket Area Action Plan, Mid Suffolk's New Style Local Plan, Mid Suffolk District Council (adopted 2013)
- Ashes Farm Development Brief and Delivery Framework, Mid Suffolk District Council (adopted 2016)
- Chilton Leys Development Brief Supplementary Planning Document, Babergh District Council and Mid Suffolk District Council (adopted 2013)
- Mill Lane, Stowmarket (The Proposed Stowmarket Business and Enterprise Park) Development Brief Supplementary Planning Document Mid Suffolk District Council (adopted 2014)
- Edgecomb Park, Stowmarket Development Brief Supplementary Planning Document Mid Suffolk District Council (adopted October 2014)
- Land South of Union Road Development Brief April 2016 Mid Suffolk District Council (adopted 2016)
- Mid Suffolk Local Development Framework Supplementary Planning Document for Social Infrastructure Including Open Space, Sport and Recreation (adopted 2010)
- Babergh and Mid Suffolk District Councils Housing Supplementary Planning Document, (adopted 2024)
- Babergh and Mid Suffolk Intensive Livestock and Poultry Supplementary Planning Document (adopted 2024)
- Beyton Neighbourhood Plan (adopted 2024)
- Botesdale and Rickinghall Neighbourhood Plan (adopted 2020)
- Debenham Neighbourhood Plan (adopted 2019)
- Diss and District Neighbourhood Plan (adopted 2023)
- Drinkstone Neighbourhood Plan (adopted 2021)
- Elmswell Neighbourhood Plan (adopted 2023)
- Eye Neighbourhood Plan (adopted 2021)
- Fressingfield Neighbourhood Plan (adopted 2020)

- Haughley Neighbourhood Plan (adopted 2019)
- Laxfield Neighbourhood Plan (adopted 2022)
- Mendlesham Neighbourhood Plan (adopted 2022)
- Needham Market Neighbourhood Plan (adopted 2022)
- Redgrave Neighbourhood Plan (adopted 2022)
- Stradbroke Neighbourhood Plan (adopted 2019)
- Stowupland Neighbourhood Plan (adopted 2019)
- Thorndon Neighbourhood Plan (adopted 2022)
- Thurston Neighbourhood Plan (adopted 2019)
- Walsham le Willows Neighbourhood Plan (adopted 2023)
- Wilby Neighbourhood Plan (adopted 2021)
- Woolpit Neighbourhood Plan (adopted 2022).

Emerging:

- Babergh and Mid Suffolk Joint Local Plan Review 2024-2044 (adoption anticipated April 2029)
- Babergh and Mid Suffolk Biodiversity and Trees Supplementary Planning Document (consultation May 2024)
- Baylham Neighbourhood Plan (plan area designated in May 2023).

Babergh District Council:

Adopted:

- Babergh and Mid Suffolk Joint Local Plan: Part 1 (adopted 2023)
- Saved policies from the Babergh Local Plan Alteration No.2 (adopted 2006)
- Saved policies from the Babergh Local Plan 2011-2031 Core Strategy (adopted 2014)
- Suffolk County Council, Suffolk Minerals and Waste Local Plan (adopted 2020)
- Suffolk County Council, Suffolk Local Transport Plan 2011-2031 Part 1 - Transport Strategy (adopted 2011)
- Babergh and Mid Suffolk Housing Supplementary Planning Document (adopted 2024)
- Babergh and Mid Suffolk Intensive Livestock and Poultry Supplementary Planning Document (adopted 2024)
- Babergh and Mid Suffolk Biodiversity and Trees Supplementary Planning Document (adopted March 2025)
- Aldham Neighbourhood Plan (adopted 2020)

- Assington Neighbourhood Plan (adopted 2022)
- Bentley Neighbourhood Plan (adopted 2022)
- Boxford Neighbourhood Plan (adopted 2022)
- Chelmondiston Neighbourhood Plan (adopted 2022)
- East Bergholt Neighbourhood Plan (adopted 2016)
- Elmsett Neighbourhood Plan (adopted 2019)
- Great Waldingfield Neighbourhood Plan (adopted 2023)
- Holbrook Neighbourhood Plan (adopted 2023)
- Lavenham Neighbourhood Plan (adopted 2016)
- Lawshall Neighbourhood Plan (adopted 2024)
- Leavenheath Neighbourhood Plan (adopted 2023)
- Little Cornard Neighbourhood Plan (adopted 2022)
- Little Waldingfield Neighbourhood Plan (adopted 2022)
- Long Melford Neighbourhood Plan (adopted 2022)
- Newton Neighbourhood Plan (adopted 2022)
- Sproughton Neighbourhood Plan (adopted 2023)
- Stutton Neighbourhood Plan (adopted 2023)
- Whatfield Neighbourhood Plan (adopted 2022)
- Wherstead Neighbourhood Plan (adopted 2023).

Emerging:

- Babergh and Mid Suffolk Joint Local Plan Review 2024-2044 (adoption anticipated April 2029)
- Copdock & Washbrook Neighbourhood Plan (Reg 17 Examination Report received in March 2025)
- Capel St Mary Neighbourhood Plan (consulted on between February and March 2025).

Colchester City Council:

Adopted:

- Colchester City Local Plan 2013-2033: North Essex Authorities' Shared Strategic Section 1 Plan, adopted February 2021
- Colchester City Local Plan 2017-2033 Section 2 (adopted July 2022)
- Essex and Southend-on-Sea Waste Local Plan (adopted 2017)
- Essex Minerals Local Plan (adopted 2014)

- Copford and Easthorpe Neighbourhood Plan (adopted 2023)
- Tiptree Neighbourhood Plan (adopted 2023)
- Boxted Neighbourhood Plan (adopted 2016)
- Eight Ash Green Neighbourhood Plan (adopted 2019)
- Marks Tey Neighbourhood Plan (adopted 2022)
- Myland and Braiswick (adopted 2023)
- Wivenhoe Neighbourhood Plan (adopted 2019)
- West Bergholt Neighbourhood Plan (adopted 2019)
- West Mersea Neighbourhood Plan (adopted 2022).

Emerging:

- Colchester Local Plan Review 2024 (preferred Options Draft Plan Consultation anticipated spring 2025)
- Emerging Replacement Essex Minerals Local Plan 2025 to 2040 (Regulation 18 Consultation completed April 2024)
- Tendring Colchester Borders Garden Community Development Plan Document (Consultation on modifications completed October 2024)
- Great Horkesley Neighbourhood Plan (plan area designated in June 2022)
- Great Tey Neighbourhood Plan (submitted to the Independent Neighbourhood Plan Examiner).

Tendring District Council:

Adopted:

- Tendring District Local Plan 2013-2033 and Beyond, comprising:
  - Tendring District Local Plan 2013-2033 and Beyond: North Essex Authorities' Shared Strategic Section 1 (adopted 2021)
  - Tendring District Local Plan 2013-2033 and Beyond: Section 2 (adopted 2022)
- Essex and Southend-on-Sea Waste Local Plan (adopted 2017)
- Essex Minerals Local Plan (adopted 2014)
- Alresford Neighbourhood Plan (adopted 2021)
- Ardleigh Neighbourhood Plan (adopted 2024)
- Elmstead Neighbourhood Plan (adopted 2024).

Emerging:

- Emerging Replacement Essex Minerals Local Plan 2025 to 2040 (Regulation 18 Consultation completed April 2024)
- Tendring Colchester Borders Garden Community Development Plan Document (Consultation on modifications completed October 2024)
- Review of the Tendring District Local Plan (Issues and Options Consultation and Call for Sites completed April 2025)
- Brightlingsea Neighbourhood Plan (Neighbourhood Plan area designated May 2021).

Braintree District Council:

Adopted:

- Braintree District Council Local Plan 2033 Section 1 (adopted 2021)
- Braintree District Council Local Plan 2033 Section 2 (adopted 2022)
- Essex and Southend-on-Sea Waste Local Plan (adopted 2017)
- Essex Minerals Local Plan (adopted 2014)
- Braintree District Council Local Development Framework Affordable Housing Supplementary Planning Document (adopted 2006)
- Braintree District Council Local Development Framework Essex Coast RAMS Supplementary Planning Document (adopted 2020)
- Braintree District Council Local Development Framework External Artificial Lighting Supplementary Planning Document (adopted 2009)
- Braintree District Council Local Development Framework Open Space Supplementary Planning Document (adopted 2009)
- Bradwell with Pattiswick Neighbourhood Plan (adopted 2019)
- Coggeshall Neighbourhood Plan (adopted 2021)
- Cressing Neighbourhood Plan (adopted 2020)
- Feering Neighbourhood Plan (adopted 2023)
- Hatfield Peverel Neighbourhood Plan (adopted 2019)
- Kelvedon Neighbourhood Plan (adopted 2022)
- The Salings Neighbourhood Plan (adopted 2021).

Emerging:

- Emerging Replacement Essex Minerals Local Plan 2025 to 2040 (Regulation 18 Consultation completed April 2024)
- Braintree District Local Plan 2013-2033 Review (Issues and Options Consultation ended on 7 March 2025).

Chelmsford City Council:

Adopted:

- Chelmsford Local Plan: Our Planning Strategy 2013 to 2036 (adopted 2020)
- Chelmsford Town Centre Public Realm Strategy Supplementary Planning Document Chelmsford Borough Local Development Framework 2001-2021 (adopted 2011)
- Essex and Southend-on-Sea Waste Local Plan (adopted 2017)
- Essex Minerals Local Plan (adopted 2014)
- Little Baddow Neighbourhood Plan (adopted 2023)
- Broomfield Neighbourhood Plan (adopted 2025)
- Sandon Neighbourhood Plan (adopted 2023)
- South Woodham Ferrers Neighbourhood Plan (adopted 2021)
- Writtle Neighbourhood Plan (adopted 2021)
- Chelmsford West End Vision 2017 (adopted 2017).

Emerging:

- Chelmsford Local Plan Review (Regulation 19 consultation completed March 2025)
- Emerging Replacement Essex Minerals Local Plan 2025 to 2040 (Regulation 18 consultation completed July 2024)
- Boreham Neighbourhood Plan (plan area amended in May 2024)
- Danbury Neighbourhood Plan (plan area designated in March 2016)
- East Hanningfield Neighbourhood Plan (plan area designated in September 2019).

Basildon Borough Council:

Adopted:

- Basildon District Council Local Plan Saved Policies (adopted 2007)
- Basildon District Council Compliance Review of the Saved 1998 Local Plan Policies with the Revised 2023 (adopted 2024)
- Basildon Borough Planning Obligations Strategy Supplementary Planning Document (adopted 2015)
- Basildon District Council Billericay Conservation Area Shop Front and Design Guide Supplementary Planning Document (adopted 2015)
- Essex and Southend-on-Sea Waste Local Plan (adopted 2017)
- Essex Minerals Local Plan (adopted 2014).

Emerging:

- Basildon Local Plan Review (Regulation 18 consultation completed January 2025)
- Basildon Local Plan Review (Regulation 18 Part 2 Consultation completed April 2025)
- Emerging Replacement Essex Minerals Local Plan 2025 to 2040 (Regulation 18 Consultation completed April 2024).

Brentwood Borough Council:

Adopted:

- Brentwood Borough Council Local Plan 2016-2033 (adopted 2022)
- Essex and Southend-on-Sea Waste Local Plan (adopted 2017)
- Essex Minerals Local Plan (adopted 2014)
- Brentwood Local Plan Planning Obligations Supplementary Planning Document (adopted 2023)
- Brentwood Borough Council Dunton Hills Garden Village Supplementary Planning Document (adopted 2023)
- Essex Coast Recreational Disturbance Avoidance and Mitigation Strategy Supplementary Planning Document (adopted 2020)
- Brentwood Town Centre Design Guide Supplementary Planning Document (adopted 2019)
- Brentwood Borough Council Appendix 2 Vehicle Parking Standards Supplementary Planning Document (adopted 2011)
- Shopfront guidance for Brentwood Town Centre Supplementary Planning Document, (adopted 2010)
- Essex Design Guide Urban Place Supplement Supplementary Planning Document (adopted 2007)
- Ingatestone and Fryerning Neighbourhood Plan (adopted 2022).

Emerging:

- Emerging Replacement Essex Minerals Local Plan 2025 to 2040 (Regulation 18 Consultation completed July 2024).

Thurrock Council:

Adopted:

- Thurrock Local Development Framework, Core Strategy and Policies for management of Development (adopted 2015)
- Thurrock Borough Local Plan 1997 Saved Policies (adopted 1997).

Emerging:

- The Thurrock Council Local Plan is currently under review and a new plan is set to be adopted in summer 2026 (Regulation 18 consultation completed February 2024).

2.6 Other Policy and Documents Considered to be Important and Relevant

International Climate Policy Context

2.6.1 The Government's energy policy is driven by a global need, and international commitments, to move towards net zero emissions, and achieving this through developing new sources of renewable energy and transmitting it from where it is generated to where it is needed.

2.6.2 Although there had been previous international agreements, most recent policy derives from the Paris Agreement which was adopted under the auspices of the United Nations Framework Convention on Climate Change in 2015. This had as an objective, the holding of the increase in global average temperature to well below 2°C above pre-industrial levels and to pursue efforts to limit the temperature increase to 1.5°C above pre-industrial levels, recognising that this would significantly reduce the risks and impacts of climate change.

2.6.3 The Conference of Parties (COP26) held in Glasgow in 2021 agreed on accelerated action on climate change this decade and reaffirmed the long-term goal to limit global warming to 1.5°C above pre-industrial levels and resolved to pursue efforts to achieve this, recognising that limiting global warming to 1.5°C '*requires rapid, deep and sustained reductions in global greenhouse gas emissions, including reducing global CO2 emissions by 45% by 2030 relative to the 2010 level and to net zero around mid-century'*.

2.6.4 COP27 held in Sharm el-Sheikh in 2022 again reaffirmed the commitment to limiting global warming to 1.5°C and agreement to provide 'loss and damage' funding to vulnerable countries hit hard by climate disasters.

2.6.5 COP28 held in Dubai in 2023 closed with an agreement that signals the '*beginning of the end'* of fossil fuels by outlining a '*just and equitable transition'*, underpinned by deep emissions cuts and financial commitments.

2.6.6 At the 2024 United Nations Climate Change Conference (COP29) held in Baku, Azerbaijan, the United Kingdom (UK) made significant commitments to address climate change which included:

- Enhanced Emission Reduction Target: The UK announced a new Nationally Determined Contribution (NDC), pledging to reduce greenhouse gas emissions by 81% by 2035 compared to 1990 levels. This target reflects an increase from the previous goal of a 78% reduction. The UK's NDC is aligned with the advice from the Climate Change Committee, which suggests that this level of ambition is consistent with limiting warming to 1.5^{O}C

- Climate Finance Commitment: Developed nations, including the UK, agreed to triple climate finance to developing countries, setting a new target of $300 billion annually by 2035. This funding aims to assist developing nations in mitigating and adapting to the impacts of climate change.

2.6.7 COP29 maintained the process of international climate diplomacy, negotiating key agreements on finance and carbon markets. However, it deferred several other decisions until COP30 in Brazil in November 2025.

National Climate and Energy Legislation and Policy Context

2.6.8 The Climate Change Act 2008 forms the basis for the UK's approach to tackling and responding to climate change. It requires that emissions of carbon dioxide and other greenhouse gases are reduced and that climate change risks are adapted to. The Act also establishes the framework to deliver on these requirements.

2.6.9 Through the Climate Change Act, the UK Government set a target to significantly reduce UK greenhouse gas emissions by 2050 and a path to get there. The Act also established the Committee on Climate Change (CCC) to ensure that emissions targets are evidence-based and independently assessed. In addition, the Act requires the Government to assess the risks and opportunities from climate change for the UK, and to adapt to them. The CCC's Adaptation Committee advises on these climate change risks and assesses progress towards tackling them.

2.6.10 The Climate Change Act originally committed the UK to reducing its greenhouse gas emissions by 80% by 2050, compared to 1990 levels. However, in 2019 this was changed to a target to reduce greenhouse gas emissions by 100% by 2050, compared to 1990 levels; this is commonly known as '*net zero'*.

2.6.11 In recent years there have been a succession of reports, strategies, policy and statements released by the Government aiming to support the realisation of the 2050 net zero target and enable the transition to clean, green and home-grown energy. The Project would contribute to fulfilling the aims of these strategies, demonstrating its national importance and need. The technical need case for the Project has received further support by strategic policy developed through successive UK governments:

2.6.12 These include:

- **November 2000:** The Countryside and Rights of Way Act 2000: this act contains measures to improve public access to the open countryside and registered common land and provides a basis for the conservation of biological diversity and for better management of AONBs
- **January 2018**: A Green Future: Our 25 Year Plan to Improve the Environment (HM Government, 2018) is the Government's long-term strategy, first published in January 2018 and updated in February 2023, the plan sets out ambitious goals across air, water, land biodiversity and waste
- **March 2020**: Net Zero: Opportunities for the Power Sector (2020) (National Infrastructure Commission, 2020): this paper sets out updated evidence and analysis of the electricity system in the context of the 2050 net zero greenhouse gas emissions target

- **November 2020**: The Ten Point Plan for a Green Industrial Revolution (HM Government, 2020) is a £12 billion government backed drive aiming to help create up to 250,000 green jobs and accelerate the UK's transition to net zero. Measures included in the plan include advancing offshore wind, promote electric vehicles and boost green transport
- **November 2020**: National Infrastructure Strategy (2020) (H.M Treasury, 2020): this paper sets out the Government's plan to deliver on its ambition to '*deliver an infrastructure revolution: a radical improvement in the quality of the UK's infrastructure to help level up the country* […] *and put the UK on the path to net zero emissions by 2050'*
- **December 2020**: Energy White Paper: Powering our Net Zero Future (BEIS, 2020) outlines the Government's plan to support the UK in becoming a net zero greenhouse gas emitting country by 2050
- **October 2021**: Net Zero Strategy: Build Back Greener (HM Government, 2021) this strategy sets out policies and proposals for decarbonising all sectors of the UK economy to meet our net zero target by 2050
- **April 2022**: British Energy Security Strategy (HM Government, 2022). This document is built on the Net Zero Strategy and was published in response to the Russian invasion of Ukraine and the 2022 energy price crisis. The Strategy sets out the key actions to accelerate delivery of clean energy, recognising the importance in delivering our climate goals whilst simultaneously providing energy security and securing greater energy independence
- **September 2022**: The Growth Plan (HM Treasury, 2022) included measures to support energy market and supply reform and price relief to stabilise bills, strengthen energy security and support sustainable economic growth
- **January 2023**: Mission Zero – the Skidmore Review (January 2023) (DESNZ, 2023): this independent review considered how the net zero target could maximise economic growth while also increasing energy security and affordability for consumers and businesses
- **February 2023**: Environmental Improvement Plan 2023 (H.M Government, 2023): this plan is the government's first revision of the 25 Year Environment Plan, and it provides a comprehensive delivery plan for the government's approach to halting and then reversing the decline in nature
- **March 2023**: Powering Up Britain (HM Government, 2023a) and Powering Up Britain: Energy Security Plan (HM Government, 2023b). These documents provide an update of the strategy for secure, clean and affordable British energy for the long-term future.
- **June 2023**: Progress Report to Parliament Climate Change Committee 2023 (Climate Change Committee, 2022): this statutory report provides a comprehensive overview of the UK Government's progress to date in reducing greenhouse gas emissions
- **October 2023**: The Energy Act 2023 established the Independent System Operator and Planner, now named National Energy System Operator (NESO) to oversee system planning and integrate net zero objectives into energy operations. NESO is tasked with strategic planning across electricity and gas systems, co-ordinating transmission projects, planning system expansion and embedding net-zero objectives into network development

- **October 2023**: Section 245 (Protected Landscapes) of the Levelling-up and Regeneration Act 2023 amends Section 85 of the Countryside and Rights of Way Act 2000 (CRoW Act) in relation to the duty placed on relevant authorities in respect of their functions which affect land in National Landscapes in England This duty is now to 'seek to further' the purpose of the AONBs and replaces the former duty to 'have regard' to the purpose of AONBs. The purpose of AONBs is to conserve and enhance the natural beauty of the AONB
- **January 2024**: DESNZ designated revised National Policy Statements (NPSs) for energy. The two most relevant NPSs are:
  - Overarching National Policy Statement for Energy (EN-1) (DESNZ, 2024a) (NPS EN-1)
  - National Policy Statement for Electricity Networks Infrastructure (EN-5) (DESNZ, 2024b) (NPS EN-5)
- **March 2024**: Beyond 2030: A national blueprint for a decarbonised electricity system in Great Britain (ESO, 2024). This transitional plan is a stepping-stone before NESO develops the fully Centralised Strategic Network Plan which will be published in 2026
- **July 2024**: Future Energy Scenario: ESO Pathways to Net Zero (NESO, 2024a)
- **November 2024**: NESO Clean Power 2030: Advice on achieving clean power for Great Britain by 2030 (NESO, 2024b). This identifies Norwich to Tilbury (AENC and ATNC – the NOA code for Norwich to Tilbury) and Sea Link as critical to delivering a network which supports the clean power pathways, but at present have delivery dates after 2030
- **December 2024**: Clean Power 2030 Action Plan: A new era of clean electricity (UK Government, 2025). This report provides the strategic initiative aimed at transitioning to cleaner energy sources and reducing carbon emissions and was issued following NESO's Clean Power 2030: Advice on achieving clean power for Great Britain by 2030 publication
- **June 2025**: The UK's Modern Industrial Strategy (Department for Business and Trade) provides a ten-year roadmap to unlock £25.6 billion in British Business Bank Funding. It identifies eight high growth sectors including clean energy. The Strategy also identifies that high electricity prices and grid connection delays are a barrier to electrification in the UK's energy-intensive industries and to the delivery of net zero commitments. The Industrial Strategy references new powers in the Planning and Infrastructure Bill, currently before Parliament, to amend regulatory processes and accelerate connections for strategically important projects. This will include a power to 'designate' government strategic documents, including the Industrial Strategy, to inform allocation of connections, enabling the Government to reserve future capacity on the grid, reducing waiting times for businesses with major investments in Great Britain.

2.6.13 All the above national drivers stress the importance of transforming the energy generation of the UK to renewables so that the country can meet its legal target of net zero greenhouse gas emissions by 2050.

2.6.14 More recently HM Government has an ambition for Great Britain to be supplied with clean power by 2030. This forms part of a plan to Make Britain a Clean Energy Superpower. To achieve the Clean Power 2030 goal the National Energy System

Operator (NESO) was formally commissioned by the Secretary of State and the DESNZ to provide independent advice on the pathway towards the 2030 ambition. The following reports have subsequently been released:

- Clean Power 2030 (NESO, 2024)
- Clean Power 2030 Action Plan: A New Era of Clean Electricity (DESNZ, 2024).

Clean Power 2030

2.6.15 In November 2024 the UK's National Energy System Operator (NESO) published its independent analysis on how DESNZ can achieve its ambitious Clean Power (CP2030) goal.

2.6.16 In the Clean Power 2030 report, NESO lay out pathways for how Great Britain can reach a clean power system by 2030. The report identifies that offshore wind will provide over half of Great Britain's generation, with onshore wind and solar providing another 29%. New dispatchable low carbon technologies, such as using carbon capture and storage (CCS) or hydrogen, add significant value to the system, with even relatively small levels of operational capacity materially reducing the overall challenge for the rest of the programme.

2.6.17 Associated with the new energy generation the report identifies the need for a major network expansion, in line with published plans for the transmission network and with further strengthening at distribution level.

2.6.18 The report identifies the Project as critical to delivering a network which supports the clean power pathways, but at present has a delivery date after 2030. Support is therefore needed to bring the Project forward for 2030 delivery. The report also states that the Project (AENC and ATNC – the NOA code for Norwich to Tilbury) and Sea Link are critical for connecting offshore wind in the North Sea and supporting the flow of clean power. Constraint costs arise when NESO has to manage this problem by paying generators to reduce (turn-down) their electricity output in areas that are congested and switch on (turn-up) in locations closer to electricity users.

2.6.19 The report notes the need to accelerate these transmission projects to ensure that they can help to deliver the new sources of clean power generation by 2030. There is a need for Norwich to Tilbury to be delivered at pace to achieve the Clean Power 2030 target and realise the benefits.

2.6.20 NESO's (2024b) Clean Power 2030 report identifies the need for the Project to be delivered by 2030. National Grid has, in conjunction with NESO, undertaken the necessary exercises/studies and it is now important the Project makes progress at pace to ensure NESO's ambition for Clean Power 2030 is realised.

2.6.21 Given the specific circumstances of the Project identified in the Clean Power 2030 report (NESO, 2024) as critical to delivering the Clean Power 2030 pathways then great material weight and importance should be applied in the decision-making process, as suggested by the transitional arrangements of the draft new NPSs.

Clean Power 2030 Action Plan: A New Era of Clean Electricity

2.6.22 Following the publication of the NESO Clean Power 2030 Report, the Government published the Clean Power 2030 Action Plan setting out the Government's view of the pathway to 2030 and sets targets required to achieve clean power by 2030. The Clean Power 2030 Action Plan outlines strategies to accelerate the transition to a cleaner energy system by 2030, focusing on reducing greenhouse gas emissions, increasing renewable energy use, and promoting energy efficiency.

2.6.23 The Action Plan identifies that in a typical weather year, the 2030 power system will see clean sources produce at least as much power as Great Britain consumes in total over the whole year, and at least 95% of Great Britain's generation; reducing the carbon intensity of our generation from 171gCO_2e/kWh in 2023 to well below 50gCO_2e/kWh in 2030.

2.6.24 To achieve this, the Action Plan outlines the ambition to secure the following generation mix:

- 42-50 GW of offshore wind
- 27-29 GW of onshore wind
- 45-47 GW of solar power.

2.6.25 These will be complemented by flexible capacity, including 23-27 GW of battery capacity, 4-6 GW of long-duration energy storage.

2.6.26 The Action Plan identifies a series of challenges which need to be addressed to secure the 2030 targets and in particular the need for construction of generation and transmission projects to commence by 2026 if they are to be operational by 2030. The Action Plan notes that around twice as much new transmission infrastructure will be needed in the nation's grid by 2030 as has been built in the past decade.

- April 2025: in response to the above policy drivers, the government launched a consultation on proposed changes to the Overarching National Policy Statement for Energy (EN-1) (DESNZ, 2025a) and National Policy Statement for Electricity Networks Infrastructure (EN-5) (DESNZ, 2025b).

2.6.27 Through these updates, the current government is seeking to strengthen the process for delivering major new energy infrastructure in England and Wales, reinforcing the government's ambition to deliver Clean Power by 2030 and net zero.

A Green Future: Our 25 Year Plan to Improve the Environment (2018)

2.6.28 A Green Future: Our 25 Year Plan highlights the previous Government's support for the reduction in the UK's carbon footprint. The Project is critical to the rapid decarbonisation of the National Grid and the principle of the Project is therefore supported by the Plan.

2.6.29 The Plan provides the Government's plan to improve the environment. The Plan is relatively high level, is not planning policy, was not written for the energy sector and is six years old.

2.6.30 NPS EN-1 (DESNZ, 2024a)) states in paragraph 5.4.39 that '*The government's 25 Year Environment Plan and the Environment Act 2021 mark a step change in ambition for wildlife and the natural environment. The Secretary of State should have regard to the aims and goals of the government's Environmental Improvement Plan 2023* […] *and any relevant measures and targets, including statutory targets set under the Environment Act or elsewhere*.'

2.6.31 The Applicant considers that the Project is compliant with the Plan insofar as it is relevant to the Project. The Plan sets out 10 goals which include the achievement of: clean air; clean and plentiful water; thriving plants and wildlife; reduced risk of harm from environmental hazards like flooding and drought; the more sustainable and efficient use of resources from nature; enhanced beauty, heritage and engagement

with the natural environment; mitigation and adaption to climate change; minimisation of waste; management of exposure to chemicals; and enhanced biosecurity. Where relevant to the Project, all these topics are covered in full in the ES. Policy on these topics is provided in the NPSs, which provide policy directly relevant to the development of NSIPs. Under Section 104 of the PA 2008, the SoS must have regard to the relevant NPSs.

2.7 Pre-Application Consultation

2.7.1 Sections 42 and 47 of the PA 2008 requires applicants for development consent to carry out formal (statutory) pre-application consultation on their proposals. There are several requirements on how this consultation must be undertaken that are set out in the PA 2008 and related regulations.

2.7.2 National Grid has undertaken extensive consultation throughout the development of the Project, and this is ongoing. This is described in the Consultation Report (document reference 5.1) (Revision B) and its supporting appendices, and includes the stages listed below:

Table 2.5 Key engagement activities carried out up to DCO submission

Activity	Timeframe (status)
Non-Statutory Consultation	21 April – 22 June 2022 (Complete)
EIA scoping request	November 2022 (Complete)
Scoping Opinion	December 2022 (Complete)
Further Non-Statutory Consultation	27 June – 21 August 2023 (Complete)
Statutory Consultation	10 April 2024 – 26 July 2024 (Complete)
Project Update Meeting with Planning Inspectorate following Statutory Consultation	23 October 2024 (Complete)
Project Update Meetings with Local Planning Authorities (including key stakeholders) to discuss approach to Targeted Consultations	November 2024 – present date (ongoing)
Project Update Meeting with Planning Inspectorate prior to Targeted Consultations	14 January 2024 (Complete)
Further targeted consultations - a combination of statutory and non-statutory (community) consultations. • Norfolk and Suffolk targeted non-statutory consultation was held between 30 January 2025 and 3 March 2025; • Essex and Thurrock targeted non-statutory consultation was held between 25 February 2025 and 27 March 2025; and	30 days consultations, starting 30 January up to April 2025

Activity	Timeframe (status)
• Thurrock 3 targeted statutory consultation was held between 18 March 2025 and 17 April 2025.	
Submission of draft emerging DCO documents for Planning Inspectorate review	10 March 2025 (Complete)
Project Update Meeting with Planning Inspectorate	19 March 2025 (Complete)
Adequacy of Consultation Milestone Submission (AoCM)	11 June 2025 (Complete)
Project Update Meeting with Planning Inspectorate	30 June 2025 (Complete)
Project Update Meeting with Planning Inspectorate	July/August 2025 (Planned)
DCO submission	Late August 2025 (Planned)

2.7.3 At the 2022 non-statutory consultation, National Grid presented information on how the Project was evolving from the evaluation of strategic options to a preliminary preferred graduated swathe within which new infrastructure (pylons and underground cables) could be located as well as a proposed new substation site on the Tendring Peninsula. Following the conclusion of this consultation, National Grid analysed the feedback received and, along with further technical studies and design work, developed the Project design ahead of the 2023 non-statutory consultation.

2.7.4 At the 2023 non-statutory consultation, National Grid presented a preferred draft alignment showing indicative pylon positions, routes of underground cables, and potential locations of CSE compounds and connection substations. The feedback received at this consultation was considered alongside the findings of National Grid's ongoing environmental assessments and technical studies to help identify the proposals presented at statutory consultation.

2.7.5 At the 2024 statutory consultation, National Grid presented a preferred draft alignment showing indicative pylon positions, routes of underground cables, new CSE compound locations and new connection substations. The feedback received at this consultation was considered alongside the findings of environmental and engineering studies to help identify the proposals presented at targeted consultation.

2.7.6 At the 2025 targeted consultations, National Grid presented proposed changes to the proposals in specific areas. At the Norfolk and Suffolk non-statutory targeted consultation, National Grid presented proposed changes to the location of temporary construction laydown areas, minor changes to the Order Limits, and a new temporary construction compound. At the Essex and Thurrock non-statutory targeted consultation, National Grid presented proposed minor changes to the Order Limits and changes to the location of temporary construction compounds and laydown areas. At the Thurrock 3 statutory targeted consultation, National Grid presented proposed changes to the substation connection point at the southern end of the route, including proposals to construct a new substation. Each round of targeted consultation included proportionate and appropriate information on the environmental

implications of any changes. The feedback received during each targeted consultation has been considered as part of the design of the Project before submission of the DCO Application. Changes made as a result of this feedback are detailed in the Consultation Report (document reference 5.1) (Revision B)submitted as part of the DCO Application.

2.7.7 National Grid has had regard to all feedback it has received in response to its consultations when developing the Project. This is described in the Consultation Report (document reference 5.1) (Revision B).

2.8 Details of Other Consents and Licences

2.8.1 A number of other consents, licences, and permits are expected to be required for the Project which will be sought outside the DCO. These include:

- Licences from Natural England in relation to affected European Protected Species pursuant to regulation 53 of the Conservation of Habitats and Species Regulations 2010
- Licences from National England to affect protected species under section 16 of the Wildlife and Countryside Act 1981
- Permits from the Environment Agency pursuant to the Environmental Permitting (England and Wales) Regulations 2016
- Consents from the relevant local authority pursuant to section 61 of the Control of Pollution Act 1974
- Permit from National Highways Local Highway Authority, the police and/or structures authority (if necessary) for the transport of abnormal indivisible loads pursuant to Road Traffic Act 1988 and The Road Vehicles (Authorisation of Special Types) (General) Order 2003.

2.8.2 A full schedule of the other consents and licences required for the Project is set out in Consents and Licences Required Under Other Legislation (document reference 5.5) (Revision D).

2.9 Statements of Common Ground

2.9.1 National Grid has commenced developing statements of common ground (Statement of Common Ground) with a number of statutory consultees, statutory undertakers and interested parties during the preparation of the DCO. The Statements of Common Ground (document reference 5.9.1 to 5.9.32) seek to identify matters on which parties agree and to track progress towards the resolution of any matters where agreement has not yet been reached.

2.9.2 As per the Consultation Report (document reference 5.1) (Revision B) and relevant Draft Statements of Common Grounds (document references 5.9.1 to 5.9.32), National Grid has engaged extensively with relevant LPAs and statutory consultees. Regular meetings and workshops have been held to explain the project from inception through to the final DCO design. National Grid will continue to engage with LPAs and statutory advisors as relevant throughout the examination process, and should consent be granted, through the construction period.

2.10 Prescribed Matters

2.10.1 The prescribed matters referred to in Section 104(2)(c) of the PA 2008 are set out in the Infrastructure Planning (Decisions) Regulations 2010 (as amended) (the Decisions Regulations). The Decisions Regulations that are of relevance to the Project are:

- Regulation 3 – Having regard to the desirability of preserving listed buildings, conservation areas and scheduled monuments and their settings where a development would affect these matters. This is considered in Section 7.3.320 of this Planning Statement, ES Chapter 11: Historic Environment (document reference 6.11) (Revision D) and ES Appendix 11.2 Historic Environment Assessment Tables (document reference 6.11.A2) (Revision D)
- Regulation 7 – Having regard to the United Nations Environmental Programme Convention on Biological Diversity of 1992 which is a legally binding international treaty that aims to conserve biodiversity, promote the sustainable use of its components, and ensure the fair and equitable sharing of benefits from genetic resources. It was adopted at the 1992 Earth Summit in Rio de Janeiro and has been ratified by the UK. This is discussed in Section 7.3.42 to 7.3.177 of this Planning Statement, ES Chapter 8: Ecology and Biodiversity (document reference 6.8) (Revision C) and HRA Report (document reference 5.3).

3. Need for the Project

3.1 The Need Case

3.1.1 This section provides a summary of the need case for the Project.

3.1.2 Consistent with the Government's Net Zero target, there has been, and continues to be, growth in the volume of renewable and zero carbon generation that is seeking to connect to the electricity transmission system in the East Anglia and South East regions. UK Government policy clearly sets out the critical requirement for significant reinforcement of the transmission system to facilitate the connection of renewable energy sources and to transport electricity to where it is used. In particular, the British Energy Security Strategy (HM Government, 2022) sets targets for the connection of up to 50 GW of offshore wind by the 2030s as a key part of a strategy for secure, clean and affordable British energy for the long term.

Need for Future Reinforcement of the East Anglia and South East Transmission System

3.1.3 The technical need case is fully set out in the Strategic Options Backcheck Review (document reference 7.17).

3.1.4 East Anglia's 400 kV electricity transmission network was built in the 1960s. It was built to supply regional demand, centred around Norwich and Ipswich. For many years, the only significant power stations generating in the East Anglia region were the Sizewell A and the Sizewell B nuclear power stations, Spalding North and Sutton Bridge gas fired power stations, and some further smaller 132 kV connected gas fired power stations.

3.1.5 This generation capacity has recently been added to by several offshore windfarms with the existing generation totalling 6,552.4 MW of installed capacity. This is expected to grow substantially in coming years. In the East Anglia region, connection agreements have been signed for 26,919.9 MW of new generation (total generation of 33,472.3 MW minus existing generation of 6,552.4 MW). These future connection agreements comprise a large volume of offshore wind generation (including East Anglia Offshore Wind), gas-fired generation, energy storage projects, and a nuclear power station (at Sizewell C).

3.1.6 Without reinforcement, the capacity of the East Anglia and South East existing network is insufficient to accommodate the connection of the proposed new power sources. The 'Thermal Boundary Export Limit' – the physical maximum energy capacity the system can accommodate during planned system faults – would be exceeded, preventing export of power to demand centres beyond East Anglia. In these circumstances, generators connecting in the area would be required to reduce their output and would be compensated via a 'constraint' payment. These costs would be passed on to end consumers. National Grid ESO (now NESO) analysis shows that, in this case, predicted constraint costs are likely to significantly exceed those of reinforcement.

The Network for Reinforcement in East Anglia and South East

3.1.7 To understand current and future demands on the electricity network, the concept of network boundaries is used - 'boundary capacity and capability' plays an important role in system planning. A boundary notionally splits the system into two parts, crossing critical circuit paths that carry power between the areas where power flow limitations may be encountered. Where 'boundary capacity' – the capacity of the circuit(s) across the boundary – is exceeded, the capacity shortfall must be resolved. The standards against which National Grid assesses these shortfalls are set out in the NETS System Security and Quality of Supply Standard (SQSS).

3.1.8 Also relevant are 'generation groups', which are groups of existing generating stations and / or proposed generating stations connecting in a particular geographical area of the transmission system. These are considered when assessing the network for compliance with the generation connection criteria of the NETS SQSS.

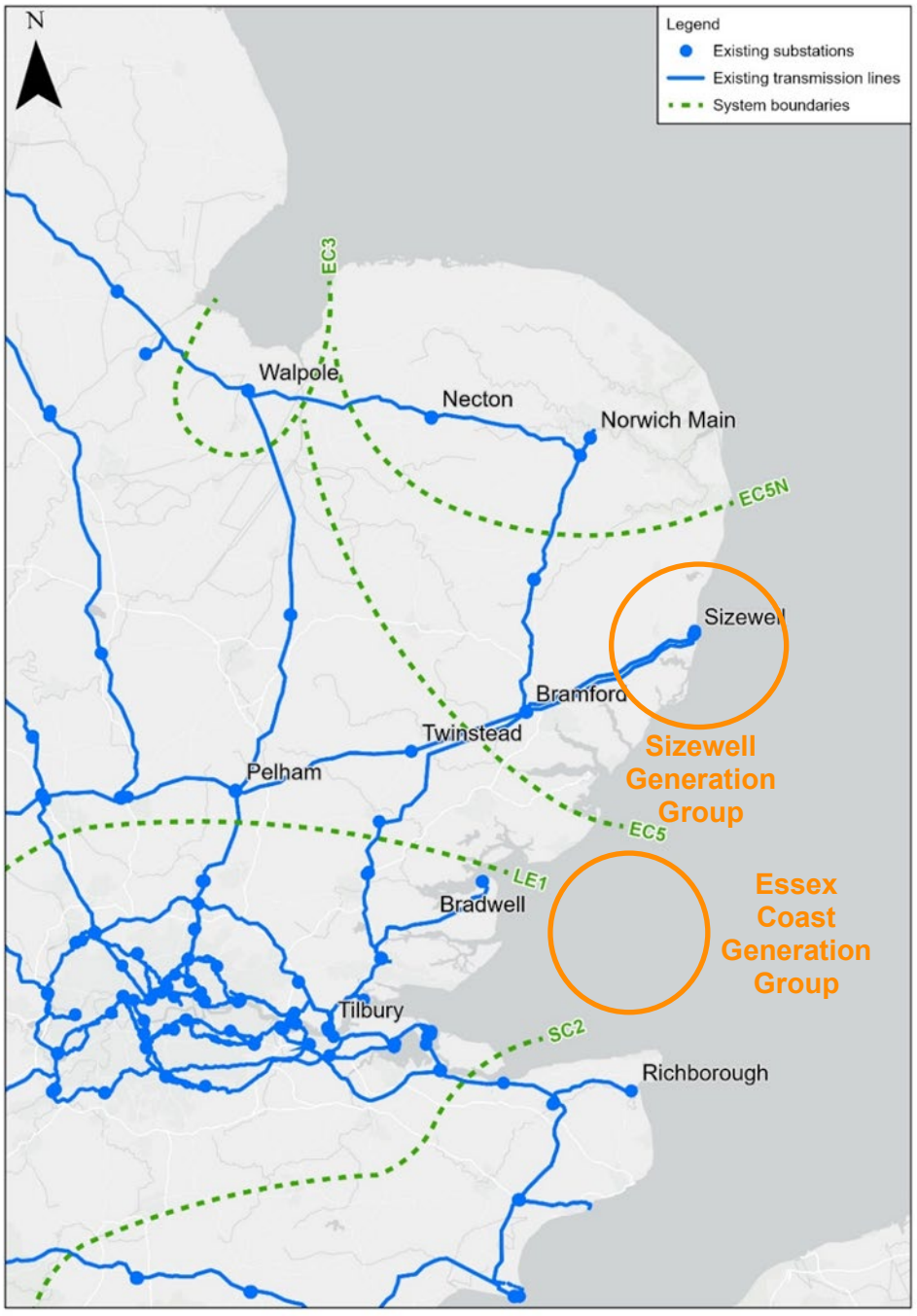
3.1.9 National Grid also has contracted connections for new generation and interconnectors located off the Essex Coast (Essex Coast Generation Group) with proposed connections between the EC5 boundary and the LE1 boundary. The 3 proposed connections are as follows:

- Tarchon Energy Limited Interconnector (1,400 MW By 2030)
- North Falls offshore Windfarm (1,000 MW by 2030)
- Five Estuaries Offshore Windfarm (1,080 MW by 2030).

3.1.10 These connections are proposed to be made to the network at a location which can accommodate the combined 3,480 MW of total generation. This requires a minimum of 3 transmission circuits to connect the generation to meet the requirements of the NETS SQSS.

3.1.11 The relevant boundaries in East Anglia and the South East are EC3, EC5N, EC5, LE1 and SC2. The relevant generation groups are Sizewell and Essex coast. These are illustrated in the network diagram in Image 3.1 below. This image includes the Bramford to Twinstead Reinforcement project, which was granted development consent in September 2024, and which is now under construction.

Image 3.1 East Anglia and South East region transmission system and system boundaries



3.1.12 National Grid has assessed the possible impacts associated with the connection of the total volume of new generation on these boundaries. National Grid is required to assess power flows between regions of the transmission system at Average Cold Spell Peak Demand (known as 'Planned Transfers'). Studies show the Planned Transfer required in 2031 to accommodate contracted generation up to 2037 would be between 23,232.4 MW and 24,834.7 MW export across EC5.

3.1.13 This is presented as a range given that the contribution of fossil fuel-based generators will gradually reduce as renewable sources are connected – the top of the range assumes maximum availability of gas turbine generation, and the bottom of the range assumes no contribution from fossil fuelled stations such as gas fired stations. Both the maximum and minimum forecast planned transfers are significant increases on the existing Planned Transfer export condition of 4365.0 MW and the NETS SQSS requires National Grid to design to the higher of these conditions.

3.1.14 Studies show that there are significant boundary deficits across these boundaries. There are five distinct issues that need to be resolved by system reinforcement:

- Provision of 9,928 MW of capacity across East Anglia EC5 Boundary and 7,520 MW of capacity across EC5N Boundary
- Provision of 7,476 MW of capacity across the LE1 Boundary
- Provision of 352.1 MW of capacity to the Sizewell Generation Group
- Provision of 3,480 MW of connection capacity from the Essex Coast Generation Group
- Provision of 8,470 MW of capacity from the SC2 Boundary Group.

3.1.15 In summary, this analysis shows that without reinforcement, the capacity of the East Anglia and South East existing network is insufficient to accommodate the connection of proposed new power sources connecting in the area. This need is emphasised by the analysis of the National Grid ESO, which has recommended consecutive 'proceed' signals to new 400 kV circuits in East Anglia and South East, meaning that it considers the Project as essential to meet the UK Government's 2030 offshore wind targets.

National Policy Statements and Need

3.1.16 As set out in Section 2.4 of this Planning Statement, the Project is nationally significant and is to be treated as development for which development consent is required.

3.1.17 Section 104(3) of the PA 2008 requires that the SoS must decide an application for development consent in accordance with any relevant NPS, except to the extent that the SoS is satisfied that, in summary:

(i) (Section 104(4)) Doing so would lead to the UK being in breach of its international obligations

(ii) (Section 104(5)) Doing so would lead to the SoS being in breach of any duty imposed on him under any enactment

(iii) (Section 104(6)) Doing so would be unlawful under any enactment

(iv) (Section 104(7)) The adverse impact of the proposed development would outweigh its benefits

(v) Section 104(8)) That any prescribed condition for deciding the application otherwise than in accordance with the NPS would be met.

3.1.18 Section 104(2) of the PA 2008 sets out the matters to which the SoS must have regard in deciding an application submitted in accordance with the PA 2008. In summary, the matters set out in section 104(2) include any relevant NPS, any local impact report (LIR); and any other matters the SoS thinks are both important and relevant to the decision.

3.1.19 The need for new nationally significant energy infrastructure projects is set out in Part 3 of NPS EN-1 (DESNZ, 2024a). Paragraph 3.2.6 of NPS EN-1 states '*The Secretary of State should assess all applications for development consent for the types of infrastructure covered by this NPS on the basis that the Government has demonstrated that there is a need for those types of infrastructure which is urgent, as described for each of them in this Part*.' Paragraph 3.2.7 goes on to state that '*In addition, the Secretary of State has determined that substantial weight should be given to this need when considering applications for development consent under the Planning Act 2008'*.

Transmission of Energy Legislative Controls

3.1.20 As part of National Grid's Transmission Licence requirements, the transmission infrastructure needs to be capable of providing and maintaining a minimum level of security and quality of supply and of transporting electricity from and to customers. National Grid is required to ensure that the transmission system remains capable as customer requirements change. The transmission system must accommodate changes in demand, generation, and interconnectors.

3.1.21 National Grid must comply with Standard Condition D3 (Transmission system security standard and quality of service) of its Transmission Licence. This means that where the boundary capacity of the Main Interconnected Transmission System (MITS) is exceeded against the standards, National Grid must resolve the capacity shortfall under the terms of its Transmission Licence. The standards against which National Grid assesses these shortfalls are set out in the 'Design of the Main Interconnected Transmission System' section of the NETS SQSS.

3.1.22 The NETS SQSS also sets out in 'Generation Connection Criteria Applicable to the Onshore Transmission System' that connections to the transmission system must be secured to meet the identified requirements. Where the SQSS applies, the generator(s) are considered part of a 'generation group' for assessment against these criteria.

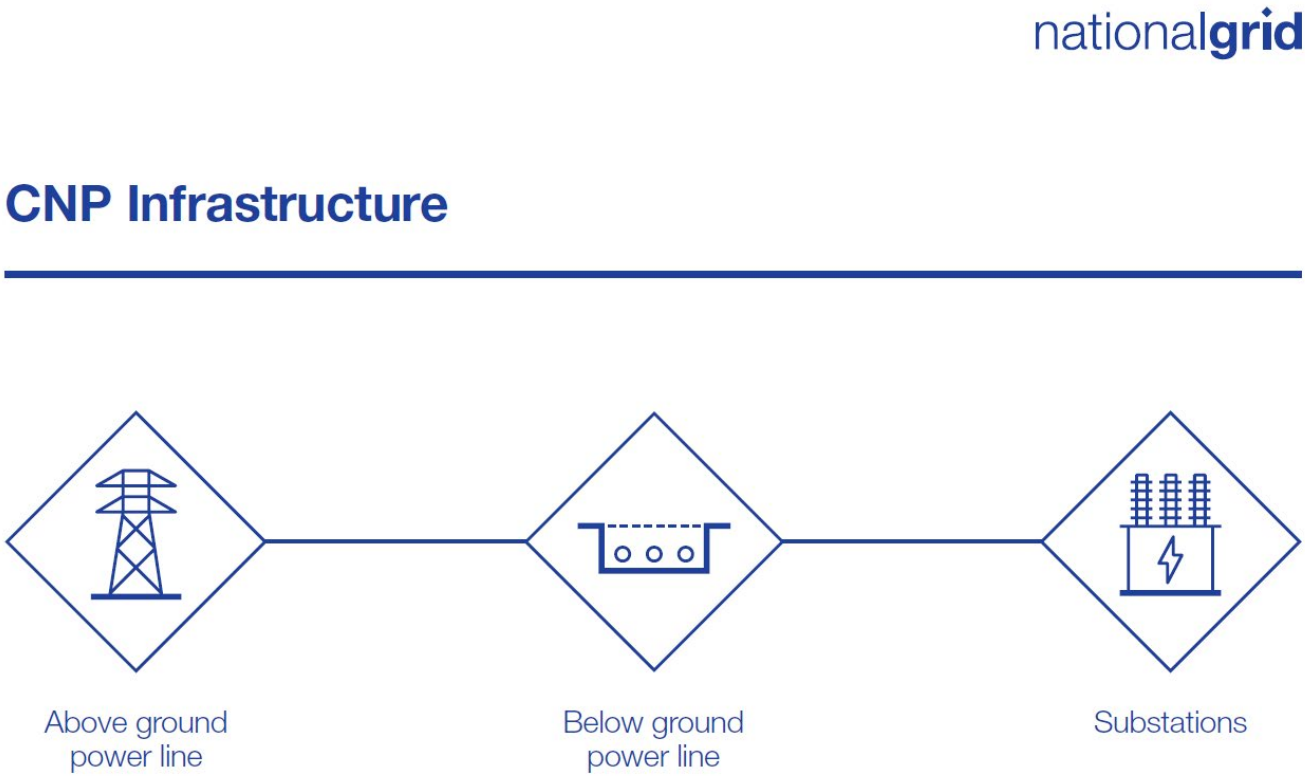
3.1.23 Generators apply to the National Energy System Operator (NESO) for connections to the NETS in Great Britain. NESO ensures the relevant onshore or offshore transmission owner undertakes generation connection process studies via the relevant process and makes a connection offer to the customer for a connection point and identifies the relevant infrastructure work needed to make the connection. Once this offer is signed the connection is recorded on the Transmission Entry Capacity (TEC) Register and forms a contractually binding connection location and timescale within which the transmission owner, such as National Grid, is required to connect the generation customer or undertake the works to facilitate their connection.

Critical National Priority (CNP) Infrastructure

3.1.24 Section 4.2 of EN-1 (DESNZ, 2024a) sets out the urgent need for low carbon infrastructure. This section of policy recognises that ensuring the UK is more energy independent, resilient and secure requires a smooth transition to abundant, low carbon energy.

3.1.25 Paragraph 4.2.4 of NPS EN-1 confirms there is a CNP for the provision of nationally significant low carbon infrastructure. The types of projects considered as low carbon infrastructure are defined at paragraph 4.2.5 and in the Section 6 Glossary of NPS EN-1. Image 3.2 shows the elements of the Project that comprise the electricity grid infrastructure classified as CNP infrastructure.

Image 3.2 CNP infrastructure



3.1.26 Paragraph 3.3.63 states that (emphasis added): '*Subject to any legal requirements, **the urgent need for CNP Infrastructure to achieving our energy objectives, together with the national security, economic, commercial, and net zero benefits, will in general outweigh any other residual impacts** not capable of being addressed by application of the mitigation hierarchy. Government strongly supports the delivery of CNP Infrastructure and it should be progressed as quickly as possible.*'

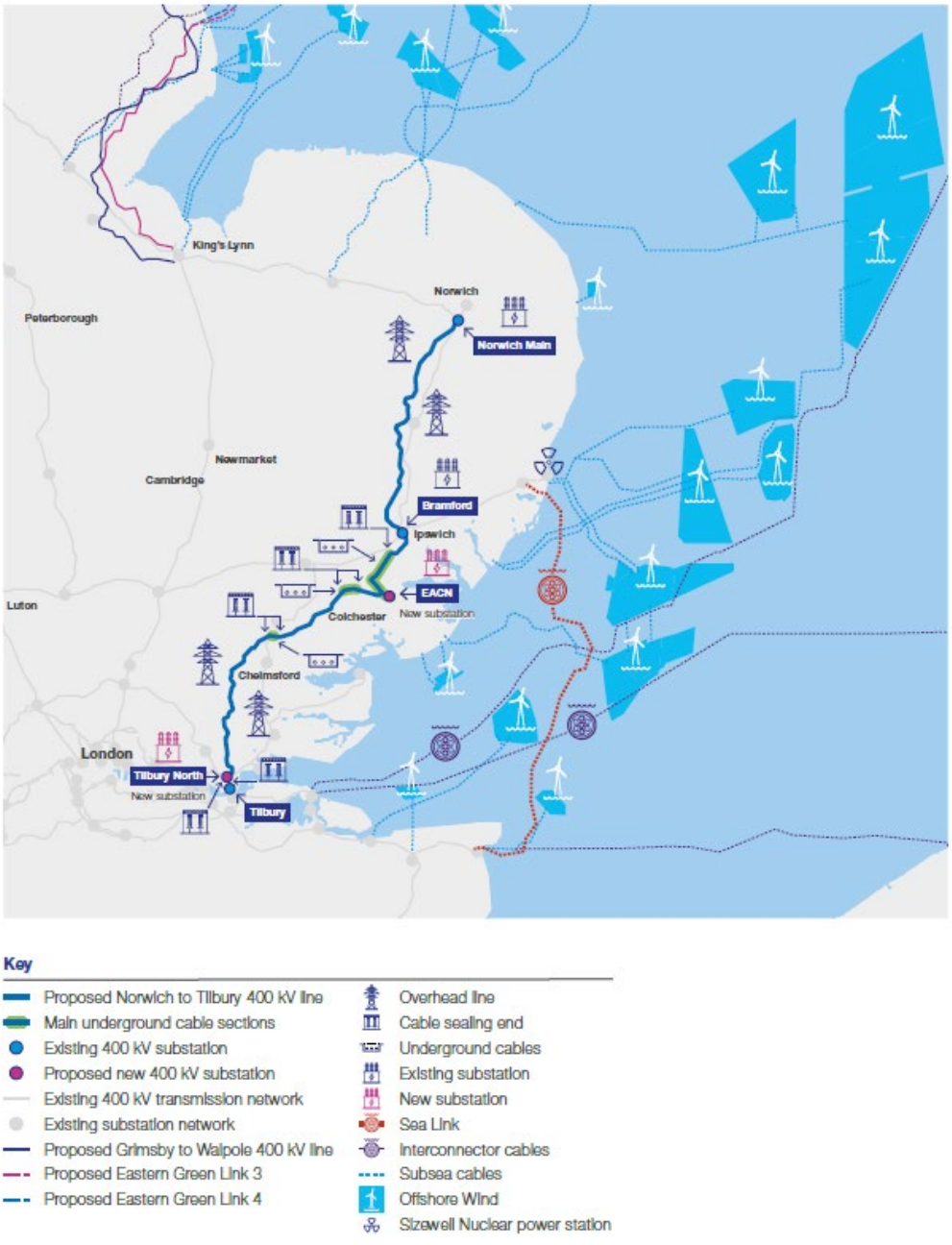
3.1.27 The paragraph 3.3.65 goes on to state '*There is an urgent need for new electricity network infrastructure to be brought forward at pace to meet our energy objectives*' and paragraph 3.3.66 notes that '*The security and reliability of the UK's current and future energy supply is highly dependent on having an electricity network which will enable new renewable electricity generation, storage, and interconnection infrastructure that our country needs to meet the rapid increase in electricity demand required to transition to net zero while maintaining energy security. The delivery of this important infrastructure also needs to balance cost to consumers, accelerated timelines for delivery and the minimisation of community and environmental impacts*'.

3.1.28 Under the section on new electricity networks in NPS EN-1, the document specifically recognises at paragraph 3.3.68 that over the next decade the onshore and offshore transmission network will require '… *substantial reinforcement in East Anglia to handle increased power flows from offshore wind generation (this may also require additional offshore connections coming to land in England)*.'

3.1.29 Reflecting the level and urgency of need for energy infrastructure, paragraph 4.1.3 of NPS EN-1 states that the SoS should start with a presumption in favour of granting consent to applications for energy NSIPs. The presumption applies unless any more specific and relevant policies set out in relevant NPSs clearly indicate that consent should be refused, subject to the provisions of the PA 2008. Image 3.3 shows a schematic drawing of the Project and the inter-relationship with other low carbon infrastructure in the context of CNP and the need case drivers supported in NPS EN-1, EN-3 and EN-5.

3.1.30 National policy is therefore clear that in general CNP infrastructure is urgent and there is a strong presumption in favour of development consent being granted for those projects. The project team have applied the mitigation hierarchy to minimise residual impacts and the need for the project strongly outweighs those impacts. In addition, the need for reinforcement in East Anglia is also mentioned in NPS EN-1 (paragraph 3.3.68). The Project will help to meet that need.

Image 3.3 Geographical context – schematic map



3.2 Conclusions on the Need for the Project

3.2.1 Consistent with the Government's Net Zero target, there has been, and continues to be, growth in the volume of renewable and zero carbon generation that is seeking to connect to the electricity transmission system in the East Anglia and South East regions. UK Government policy clearly sets out the critical requirement for significant reinforcement of the transmission system to facilitate the connection of renewable energy sources and to transport electricity to where it is used. In particular, the British Energy Security Strategy (HM Government, 2022) sets targets for the connection of up to 50 GW of offshore wind by the 2030s as a key part of a strategy for secure, clean and affordable British energy for the long term.

3.2.2 East Anglia's 400 kV electricity transmission network was built in the 1960s. It was built to supply regional demand, centred on Norwich and Ipswich. For many years, the only significant power stations generating in the East Anglia region were the Sizewell A and the Sizewell B nuclear power stations, Spalding North and Sutton Bridge gas fired power stations, and some further smaller 132 kV connected gas fired power stations.

3.2.3 This generation capacity has recently been added to by several offshore windfarms with the existing generation totalling 6,552.4 MW of installed capacity. This is expected to grow substantially in coming years. In the East Anglia region, connection agreements have been signed for 26,919.9 MW of new generation (total generation of 33,472.3 MW minus existing generation of 6,552.4 MW). These future connection agreements comprise a large volume of offshore wind generation (including East Anglia Offshore Wind), gas-fired generation, energy storage projects, and a nuclear power station (at Sizewell C).

3.2.4 Without reinforcement, the capacity of the East Anglia and South East existing network is insufficient to accommodate the connection of the proposed new power sources. The 'Thermal Boundary Export Limit' – the physical maximum energy capacity the system can accommodate during planned system faults – would be exceeded, preventing export of power to demand centres beyond East Anglia. In these circumstances, generators connecting in the area would be required to reduce their output and would be compensated via a 'constraint' payment. These costs would be passed on to end consumers. National Grid ESO (now NESO) analysis shows that, in this case, predicted constraint costs are likely to significantly exceed those of reinforcement.

3.2.5 The planning policy support for the Project is very strong. The PA 2008 requires that the application is determined in accordance with the relevant NPS unless certain exceptions apply. The identification of the Project as CNP in NPS EN-1 (DESNZ, 2024a) means that in determining the application the Secretary of State will need to consider the particular circumstances of an application, but will take as a starting point for decision making where non-Habitats Regulations residual impacts remain that such infrastructure is to be treated as if it has met any test requiring a clear outweighing of harm, exceptionally, or very special circumstances within NPS EN-1 (DESNZ, 2024a), NPS EN-5 (DESNZ, 2024b) or any other planning policy. NPS EN-1 and NPS EN-5 establish the urgency of the need for electricity infrastructure. These will be examined elsewhere in this Planning Statement and discussed in the planning balance contained at Chapter 7 of this Planning Statement and within the Policy Compliance Document (document reference 5.7).

3.2.6 In the Clean Power 2030 report, NESO lays out pathways for how Great Britain can reach a clean power system by 2030. The report identifies that offshore wind will be the bedrock of that system, providing over half of Great Britain's generation, with onshore wind and solar providing another 29%. New dispatchable low carbon technologies, such as using carbon capture and storage or hydrogen, add significant value to the system, with even relatively small levels of operational capacity materially reducing the overall challenge for the rest of the programme.

3.2.7 Associated with the new energy generation, the report identifies the need for a major network expansion, in line with published plans for the transmission network and with further strengthening at distribution level.

3.2.8 The report identifies the Project as critical to delivering a network which supports the clean power pathways, but at present has a delivery date after 2030. Support is therefore needed to bring the Project forward for 2030 delivery.

3.2.9 Given the PA 2008 requirements set out in section 104, the clear statements in the NPS (which are reinforced in the consultation draft EN-1 (DESNZ 2025a) and EN-5 (DESNZ, 2025b) weigh strongly in favour of granting development consent for all energy projects in general and highlights the urgent need for new electricity transmission projects, and that need has been established.

3.2.10 Chapters 7 and 8 of this Planning Statement consider the planning balance and identifies those residual impacts identified following the application of the mitigation hierarchy, the policy presumption in favour of granting development consent based on the need case is relevant to the Project.

4. The Project

4.1 Overview

4.1.1 A description of the Project has been provided in Section 1.4 of this Planning Statement. This Section provides a summary of the main components of the Project, in the context of the Draft DCO (document reference 3.1) (Revision G) and the proposed construction and operational activities.

4.1.2 The design is shown on the Works Plans (document reference 2.3) (Revisions A-C), Figure 4.1: Proposed Project Design (document reference 6.4.F1) (Revision B) and Figure 4.2: Proposed Project Design – Permanent Features (document reference 6.4.F2) (Revision B).

4.2 Definition of the Project in the DCO

4.2.1 Article 3 of the Draft DCO (document reference 3.1) (Revision G) provides that, subject to the provisions of the Order including the requirements in Schedule 3, development consent is granted for the 'authorised development'.

4.2.2 For this purpose, 'authorised development' is defined in Article 2 of the Draft DCO (document reference 3.1) (Revision G) meaning '*development described in Part 1 of Schedule 1 (authorised project), including any related development authorised by this Order, which is development within the meaning of section 32 of the 2008 Act'*.

4.2.3 Schedule 1 of the Draft DCO (document reference 3.1) (Revision G) applies the following Works Numbers (No.) to the works:

- Work No.1 – Norwich Main Substation modifications and line entries
- Work No. 2 – overhead transmission electric line (Route RG) from Norwich Main Substation to Bramford Substation
- Work No. 3 – Bramford Substation modifications and Line Entries (North) (Route RG)
- Work No. 4 – Bramford Substation Extension and Line Entries (Route JC)
- Work No. 5 – overhead transmission electric line (Route JC) from Bramford Substation to the Wenham Grove Cable Sealing End Compound
- Work No. 6 – Wenham Grove Cable Sealing End Compound
- Work No. 7 – underground transmission electric line (Route JC) from the Wenham Grove Cable Sealing End Compound to the East Anglia Connection Node Substation
- Work No. 8 – East Anglia Connection Node Substation
- Work No. 9 – overhead transmission electric line (Route TB) from the East Anglia Connection Node Substation to the Great Horkesley (EACN side) Cable Sealing End Compound
- Work No. 10 – Great Horkesley (EACN side) Cable Sealing End Compound

- Work No. 11 – underground transmission electric line (Route TB) from the Great Horkesley (EACN side) Cable Sealing End Compound to the Great Horkesley (Tilbury side) Cable Sealing End Compound
- Work No. 12 – Great Horkesley (Tilbury side) Cable Sealing End Compound
- Work No. 13 – overhead transmission electric line (Route TB) from the Great Horkesley (Tilbury side) Cable Sealing End Compound to the Fairstead (EACN side) Cable Sealing End Compound
- Work No. 14 – Fairstead (EACN side) Cable Sealing End Compound
- Work No. 15 – underground transmission electric line (Route TB) from the Fairstead (EACN side) Cable Sealing End Compound to the Fairstead (Tilbury side) Cable Sealing End Compound
- Work No. 16 – Fairstead (Tilbury side) Cable Sealing End Compound
- Work No. 17 – overhead transmission electric line (Route TB) from the Fairstead (Tilbury side) Cable Sealing End Compound to the Tilbury North Substation
- Work No. 18 – Tilbury North Substation
- Work No. 19 – reconfiguration of the existing overhead transmission electric line (Route YYJ)
- Work No. 20 – modifications to the existing overhead transmission electric line (Route ZB)
- Work No. 21 – reconfiguration of the existing overhead transmission electric line (Route ZB)
- Work No. 22 – Tilbury North (Tilbury side – West) Cable Sealing End Compound (Route ZB or Route YYJ)
- Work No. 23 – underground transmission electric line from the Tilbury North (Tilbury side – West) Cable Sealing End Compound to either—
  - the Tilbury North (Tilbury side – East) Cable Sealing End Compound (as part of Route ZB); or
  - the Tilbury North (Tilbury site – East) Cable Sealing End Compound (as part of Route YYJ)
- Work No. 24 – Tilbury North (Tilbury side – East) Cable Sealing End Compound (Route ZB or Route YYJ)
- Work No. 25 – replacement of existing overhead distribution electric line (Route PKF)
- Work No. 26 – replacement of existing overhead distribution electric line (Route EEPK)
- Work No. 27 – replacement of existing overhead distribution electric line (Route PI)
- Work No. 28 – replacement of existing overhead distribution electric line (Route PHB)
- Work No. 29 – replacement of existing overhead distribution electric line (Route PLD)

- Work No. 30 – replacement of existing overhead distribution electric line (Route PCB)
- Work No. 31 – replacement of existing overhead distribution electric line (Route PSB)
- Work No. 32 – replacement of existing overhead distribution electric line (Route PUB)
- Work No. 33 – replacement of existing overhead distribution electric line (Route PSC)
- Work No. 34 – Basildon Grid Extension Compound (Route PSC and PAB)
- Work No. 35 – replacement of existing overhead distribution electric line (Route PAB)
- Work No. 36 — replacement of existing overhead distribution electric line (Route PAB)
- Work No. 37 – Temporary construction compounds
- Work No. 38 – Temporary construction compounds with batching plant
- Work No. 39 – Temporary highway mitigation compounds
- Work No. 40 – Temporary construction compounds.

4.3 Description of Project Components

4.3.1 This section provides a high-level description of the key Project components required to implement the Project. Further details can be found in ES Chapter 4: Project Description (document reference 6.4) (Revision B).

Pylons

4.3.2 The National Grid standard for overhead lines operating at 400 kV is for pylons carrying two circuits, one each side of the pylon each of three phases i.e., double circuit configuration.

4.3.3 Pylons are designed to provide safe support of the electrical conductor system and earth wire. The Project consists of approximately 159 km of overhead lines comprising approximately 509 pylons, either standard steel lattice pylons or low height steel lattice pylons and gantries (typically up to 15 m in height) within proposed CSE compounds. The new overhead line proposes triple Araucaria conductors (or alternative technology that performs to the same or better standard in relation to noise on standard lattice pylons). Three types of pylon are proposed as part of the alignment:

- Suspension pylons – used in straight line positions to suspend the conductor on vertical suspension insulator strings. These pylons have a standard maximum deviation angle of two degrees, sometimes referred to as ‘D2’ type structures (presented in Image 4.1)
- Tension (also called angle) steel lattice pylons – which support the overhead line where the line changes direction. Tension pylons may also be used in a straight-

line situation to break up a long section of suspension pylons for loading and stringing purposes (presented in Image 4.2)

- Terminal pylons – a type of tension pylon used at the ends of overhead lines where they connect to substations or to underground cables via a CSE compound or substation.

4.3.4 Additionally, to facilitate the overhead line connection at the new Tilbury North Substation to the existing network, modifications to the existing YYJ and ZB overhead line are required. Eleven new pylons are required, and eight existing pylons would be removed. Additionally, two CSE compounds are required to facilitate the short section of underground cable on the ZB route.

4.3.5 The current design assumes standard steel lattice pylons which would be approximately 50 m in height (compared to approximately 30 m for the existing 132 kV pylons in the area) and would be of a similar size to the existing 275 / 400 kV pylons in the area. Pylon extensions would be required in some locations to allow extra height to clear existing features and maintaining electrical clearance to the ground. The intention is to use glass insulators as standard across the Project, however porcelain or polymeric insulators remain an option for the Main Works Contractor(s), subject to procurement and / or site-specific needs.

4.3.6 In two locations low height steel lattice pylons (Image 4.3) are proposed. These have only two cross arms as opposed to three on a standard lattice pylon, thus enabling a reduction in height of approximately 10 m (approximately 40 m) but widening them by approximately 10 m. Low height steel lattice pylons are proposed:

- Between Great and Little Waltham as mitigation for Langleys House (Grade I Listed Building), and to a lesser extent Langleys Registered Park and Garden (Grade II) and Great and Little Waltham Conservation Areas (refer to ES Chapter 11: Historic Environment) – pylon reference TB140 – TB142
- To the east of Thurrock Airfield to provide overflight clearance mitigation – pylon reference TB238 – TB243.

Image 4.1 Typical suspension steel lattice pylon



Image 4.2 Typical tension/angle lattice pylon



Image 4.3 Typical low height lattice pylon (suspension (left) and tension pylon (right))





400 kV Underground Cables

4.3.7 Underground cables are proposed in four locations, including through the Dedham Vale National Landscape. The Dedham Vale National Landscape is a nationally important and designated landscape. With the proposed underground cable, the effects on views and setting would be reduced. This would also reduce effects on the setting of heritage assets located within the National Landscape.

4.3.8 There would be approximately 21 km of 400 kV underground cables with associated joint bays and above ground link pillars. The rationale behind the decision to underground in these locations is described Chapter 6 of this Planning Statement.

Table 4.1 Proposed underground cable requirements

Cable Section	Project Section	Approximate Length (km)	Associated CSE Compounds
Dedham Vale National Landscape	Section C	16.8 (approximately 5.7 km is within the National Landscape designation)	Wenham Grove CSE Compound[4]
Great Horkesley	Section D	3.9	Great Horkesley (EACN side) and Great Horkesley (Tilbury side)
Fairstead	Section E	0.15	Fairstead (EACN side) and Fairstead (Tilbury side)
North Tilbury (related to the ZB/YYJ route)	Section H	0.6	Tilbury North (Tilbury side) and Tilbury North (Warley side)
Approximate total length		**21**	

4.3.9 The standard means of installing underground cables is using open cut techniques. Typically, for open cut construction, a construction corridor of 120 m wide is required for a double circuit 400 kV underground cable alignment. The 120 m width includes the temporary haul road, soil storage, pre-construction drainage areas, communications cables and typically six cable trenches for 18 cables (three cables per phase) assumed to be to a typical minimum depth of 1.2 m and suitably spaced apart to allow for the required heat dissipation between cables and circuit phases. This is presented in the Design and Layout Plans (document reference 2.6).

4.3.10 The underground cables would typically comprise 18 transmission cables. Each cable within the corridor would be approximately 150 mm diameter and buried within a series of six trenches excavated to a typical minimal depth of 1.2 m and would be surrounded by cement bound sand to provide to aid dissipation of heat from the cables. This is then topped with protective warning tiles and tape which aids protection of the cables from accidental mechanical damage. One or more of the cable trenches also include small diameter communication cables (typically two communications cables in total).

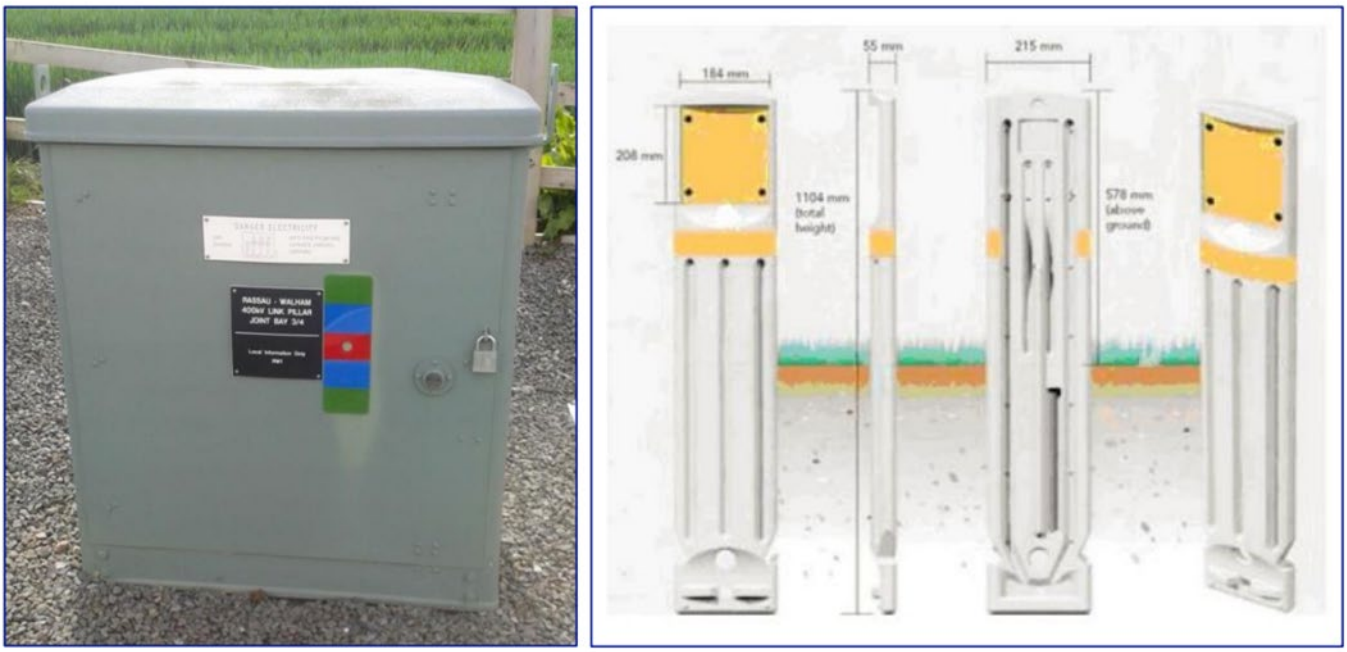
4.3.11 Depending on the cable manufacturer and availability of cable lengths, joint bays would be required every 500 m to 1 km. At these locations, above ground link pillars and marker posts would be required. The dimensions, frequency and specific locations of the link pillars are to be confirmed through detailed design, however where practicable they would be located near field boundaries, with typical dimensions of 2 m x 0.7 m x 1.5 m plus for example a timber fenced area around them, typically 3 m x 4 m.

[4] Southern end of the cable alignment connects into the EACN Substation, therefore only one CSE compound required.

4.3.12 Above ground marker posts are required where cables run across a railway, across agricultural land, change direction, at joint positions and at other locations where required by the cable design.

4.3.13 A below ground chamber would also be required, at every or every other joint bay, for communications cables.

Image 4.4 Typical above ground link pillar and marker post



4.3.14 Where open trench is not feasible, for example where the alignment crosses an existing live railway line, or other drivers such as for environmental mitigation, trenchless installation may be required. An example of this is horizontal directional drilling (HDD). Typically, for HDD, a construction corridor approximately 200 m wide is required. The underground cable would typically be at a depth of 10 m below ground level; however, the depth would depend on the methodology employed and local constraints.

4.3.15 The underground cable would be installed using a drilling or boring method (or a suitable alternative method) to pass beneath features. There are different trenchless methods that could be used, and each method would have a different construction footprint (all of which could be accommodated within the Order Limits). Depending on the technique, there may be a need to undertake several passes to make the hole wide enough to allow the ducts (pipes) to be pulled through.

4.3.16 There are up to five trenchless crossings proposed to construct the Project. A summary of the trenchless crossings is provided in Table 4.2, and they are labelled, on Figure 4.1: Proposed Project Design (document reference 6.4.F1) (Revision B). The locations and number of the trenchless crossings presented in Table 4.2 are subject to further micro-siting / engineering design which would be informed by ground investigation.

Table 4.2 Proposed trenchless installation locations

Trenchless Section	Project Section(s)	Approximate Length (m)
Higham Road	Section C	320
River Stour (north part)	Section C	230
River Stour (south part)	Section C	190
A12 highway crossing	Section C	150
Railway crossing (east of Ardleigh)	Section C	100

CSE Compounds

4.3.17 There are seven new CSE compounds required to facilitate the transition between the overhead line and underground cable. The CSE compounds typically occupy a footprint of approximately 90 m x 64 m for a 400 kV double circuit. Each CSE compound would have two gantries (typically 26 m wide by 15 m tall) within the CSE compound which then connect to the CSEs via high voltage busbars and other high voltage electrical equipment. In addition, a small portable relay room may be required in each compound. Each compound would be surrounded by security fencing typically up to 4 m high, to protect the equipment. Operational lighting is not required. Task lighting may be required when undertaking specific maintenance activities.

4.3.18 Image 4.5 below provides an illustration of an indicative CSE Compound layout and elevation.

Image 4.5 Example CSE compound with gantry[5]



4.3.19 There would be a permanent access road installed to connect each CSE compound to the local road network providing access for operation (and maintenance) activities which would be up to 4 m wide (increasing locally for passing places and for tracking of larger vehicles on bends). It is assumed in the ES (Volume 6 of the DCO application) that these would be constructed using a bound solution (asphalt or concrete pavement as a worst-case), however, this would be determined at the detailed design stage. Vegetation planting would be provided around each CSE compound to help screen the site, further details are provided within the Outline Landscape and Ecological Management Plan (LEMP) (document reference 7.4) (Revision G) and presented on ES Figure 4.2: Proposed Project Design – Permanent Features (document reference 6.4.F2) (Revision B).

4.3.20 Drainage would also be required and is assumed to comprise an attenuation pond (or alternative feature) and outfall as presented on Figure 4.2: Proposed Project Design – Permanent Features (document reference 6.4.F2) (Revision B).

Proposed New East Anglia Connection Node (EACN) Substation

4.3.21 A new 400 kV connection node substation would be located on the Tendring Peninsula where the customers would connect (customer connections are subject to separate consents).

4.3.22 The operational footprint of the substation is likely to be approximately 550 m x 230 m with heights of approximately up to 15 m excluding any requirement for landscaping and cable / overhead line connections.

[5] Gantries, and compound sizes and/or layouts, within the Project may differ from that presented in this image.

4.3.23 In addition, several small buildings would be constructed to house electrical equipment, battery storage, workshops, together with suitably sized office / amenity buildings. The site would be surrounded by security fencing typically up to 4 m in height to protect the equipment. There would be a minimum 2 m clear zone around the perimeter of the fence to allow maintenance and access.

4.3.24 Exterior and interior lighting would be provided at the site to allow for safe movement and the operation of equipment. All lighting would be designed in accordance with the appropriate design standards.

4.3.25 Vegetation planting would be provided at the new EACN Substation to help screen the site, and any surplus spoil would be incorporated into landscaping proposals as detailed within the Outline LEMP (document reference 7.4) (Revision G).

4.3.26 Improvements to the public highway along the Primary Access Route (PAR) (carriageway widening and associated works to Bentley Road and Ardleigh Road) and the proposed permanent private site access road between Bentley Road and Ardleigh Road, to the south-west of Little Bromley would be retained permanently. These would be retained to provide permanent access to the EACN Substation for Heavy Goods Vehicles (HGVs) and Abnormal Indivisible Loads (AILs) during operation. The permanent site access road would remain private and be gated to prevent unauthorised access.

4.3.27 Drainage would also be required and is assumed to comprise an attenuation pond (or alternative feature) and outfall as presented on Figure 4.2: Proposed Project Design – Permanent Features (document reference 6.4.F2) (Revision B).

4.3.28 Directly to the south of the new EACN Substation a UKPN Substation is required to provide Low Voltage Alternating Current (LVAC) supply from the local DNO network to the new EACN Substation. It would be approximately 25 m by 25 m with a maximum height of 5 m. It would include a distribution transformer, enclosure, and a distribution board, along with underground cables. The UKPN Substation would be consented as part of the Project.

Image 4.6 EACN Substation illustrated with planting at full maturity



4.3.29 It should be noted the vegetation shown on Image 4.6. is for illustrative purposes only. Outline landscaping proposals are presented in Appendix D of the Outline LEMP (document reference 7.4.D) (Revision D).

Proposed New Tilbury North Substation

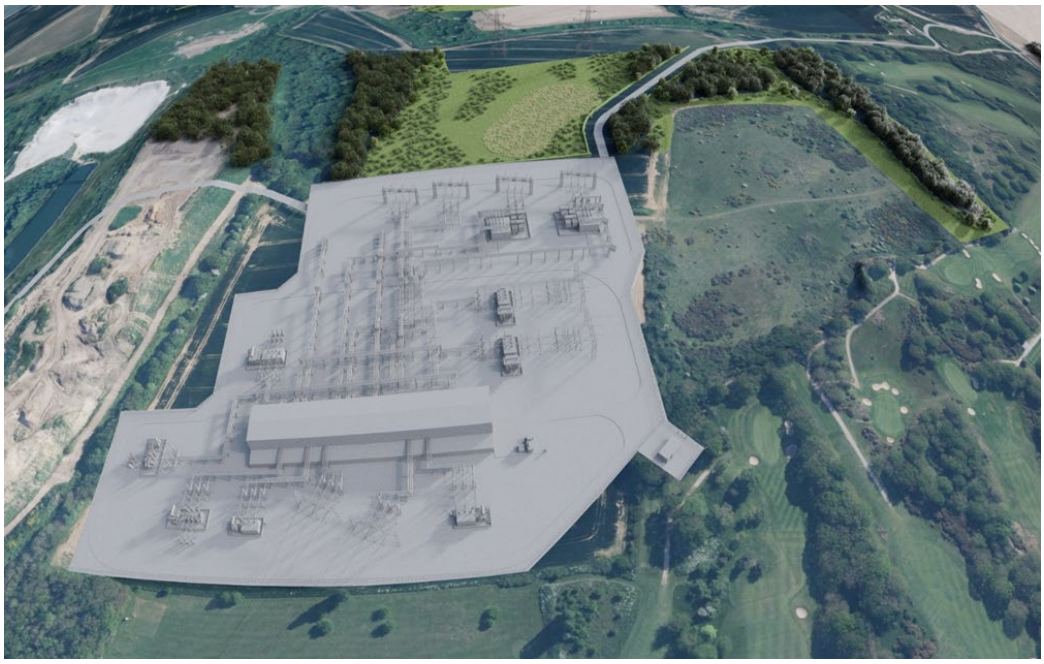
4.3.30 The operational footprint of the proposed new GIS Tilbury North Substation is proposed to be approximately 340 m x 300 m with heights of approximately 15 m excluding any requirement for landscaping and cable / overhead line connections. A new GIS hall building is proposed, which would be approximately 135 m x 20 m x 15 m (length x width x height). GIS halls are required for GIS substations to contain the specialist equipment, this is a different technology to what is proposed at the new EACN Substation, which would use AIS. GIS equipment can be positioned closer together as they are it is not reliant on just air for insultation, as a result the footprint of the substation can be reduced. An associated annex would also be required with dimensions of approximately 135 m x 12 m x 15 m. These buildings would typically be steel framed with a metal sheet cladding finish. The site would be surrounded by security fencing typically up to 4 m in height and other security features to protect the equipment. There would be a minimum 2 m clear zone around the perimeter of the fence to allow maintenance and access.

4.3.31 Exterior and interior lighting would be as per the proposed new EACN Substation.

4.3.32 Drainage would also be required and is assumed to be as per the proposed new EACN Substation comprise an attenuation pond (or alternative feature) and outfall as presented on Figure 4.2: Proposed Project Design – Permanent Features (document reference 6.4.F2) (Revision B).

4.3.33 The permanent access would be up to 4 m wide (increasing locally for passing places and for tracking of larger vehicles on bends). It is assumed in the ES (Volume 6 of the DCO application), that this would be constructed using a bound solution (asphalt or concrete pavement as a worst case), however, this would be determined at the detailed design.

Image 4.7 Tilbury North Substation illustrated with planting at full maturity



4.3.34 It should be noted the vegetation shown on Image 4.7. is for illustrative purposes only. Outline landscaping proposals are presented in Appendix D of the Outline LEMP (document reference 7.4.D) (Revision D).

Modifications to Existing Substations

4.3.35 Modifications to existing substations are required as part of the Project. The details of the likely works required at existing substations are outlined below.

Norwich Main Substation

4.3.36 Connection works are required to allow the Project to connect into the Norwich Main Substation, which is being extended through a separate project. National Grid secured planning permission from South Norfolk Council (planning application reference 2024/1336) for the substation extension. Additional works required for the implementation of the Project would comprise:

- Two new 400 kV full line tension gantries (up to 15 m in height) within Norwich Main Substation
- Installation of new and modifications to existing apparatus within the footprint of Norwich Main Substation.

Bramford Substation

4.3.37 An extension would be needed at the existing Bramford Substation. The extension would comprise:

- Extension of the existing site compound with use of existing site access arrangements
- Modifications of the existing external retaining structure
- Equipment up to a maximum typical height of 15 m
- Mix of impermeable concrete ground surfaces surrounded by permeable stone chippings
- Electrified palisade fence typically up to 4 m high
- Exterior and interior lighting to allow for safe movement and the operation (and maintenance) of equipment. Lighting would be designed in accordance with the appropriate design standards
- Vegetation planting which would be provided to help screen the site. Any surplus spoil would be incorporated into landscaping proposals
- Installation of new, and modifications to existing, apparatus within the footprint of Bramford Substation.

4.4 Flexibility

4.4.1 Paragraph 4.3.18 of NPS EN-1 states that the worst-case impacts should be considered in order to provide some flexibility in the consent to account for uncertainties in specific project details. This is also reflected in paragraph 2.61 of NPS EN-3.

4.4.2 To maintain flexibility in the design and layout at this stage in the process, and ensure maximum effects are assessed in the EIA and considered by the SoS, the Project has adopted the Rochdale Envelope approach in accordance with Planning Inspectorate's Advice Note Nine (The Planning Inspectorate, 2025). This involves specifying parameter ranges, including details of the maximum, and where relevant minimum, size (footprint, width, height), technology, and locations of the different elements of the Project where flexibility needs to be retained. The use of the Rochdale Envelope has therefore been adopted to ensure that the likely worst-case scenario is presented in the assessment of potential environmental effects from the Project.

4.4.3 To accommodate unexpected issues in the routeing and siting of infrastructure when more detailed ground investigation information is available, or even during construction, a spatial tolerance has been incorporated into the documents and plans to allow small changes to the location of linear elements of the infrastructure be made; the extent of this tolerance is known as the 'limits of deviation' or LoD. The Order Limits for the Project include areas required for these LoD, which provide the flexibility necessary for project delivery.

4.4.4 Sufficient flexibility within the design is allowed to provide the future detailed design and build Main Works Contractor(s) with sufficient scope for 'value engineering' through innovative design and/or construction techniques and to respond to unknown information such as ground conditions. As such, the Project design presented in this ES (Volume 6 of the DCO application) and the accompanying assessment reflects the need for this flexibility and the requirements of Advice Note Nine: Rochdale Envelope (Planning Inspectorate, 2025) to ensure that the likely significant effects of the Project are assessed. Furthermore, the design has been informed by the EIA with the design reflecting iterative working between the designers and the environmental specialists.

4.4.5 The Order Limits include LoD, which represent the maximum locational flexibility for permanent features, such as the overhead line, pylons, underground cables, CSE compounds, the proposed new EACN Substation and the proposed new Tilbury North Substation.

4.4.6 The assessment of likely significant effects in this ES (Volume 6 of the DCO application) is based on the description of the design, construction, and operation (and maintenance) of the Project presented in this chapter and on Figure 4.1: Proposed Project Design (document reference 6.4.F1) (Revision B) and Figure 4.2: Proposed Project Design – Permanent Features (document reference 6.4.F2) (Revision B). Consideration has also been given to the potential for variation in the description of individual components of the Project.

4.4.7 The environmental topic chapters consider sensitivity testing/flexibility in design that may be adopted to see if there would be new or different significant effects. Sensitivity testing/flexibility in design is assessed within Section 9 of each environmental topic chapter (Chapters 6 to 16 (documents references 6.6 to 6.16)) and includes:

- Flexibility in construction programme
- Assessment of delays to the construction schedule: Each environmental topic chapter provides an assessment to determine if the environmental effects would be different if the construction programme was delayed

- Flexibility in design:
  - Flexibility within the LoD, for example changes to the location or height of permanent features, such as pylons, within the LoD (other than where locations of pylons are committed to as detailed within the Outline CoCP (document reference 7.2) (Revision G))
  - Flexibility within Order Limits, for example there are elements of the Project where uncertainty remains, and design flexibility has been identified. To assess the potential effects of these elements, a single scenario is assessed within Section 7 with an assessment of the flexibility presented in Section 9 of each environmental topic chapter. Further detail is presented in Table 4.4 of ES Chapter: Project Description (document reference 6.4) (Revision B) as to how each element has been assessed within the ES (Volume 6 of the DCO application).

4.5 Order Limits

4.5.1 The Works Plans (document reference 2.3) (Revisions A-C) delineate the Order Limits, which is the anticipated maximum extent of land in which the Project would take place. If approved, the DCO would provide consent for the Project to take place within the Order Limits (subject to DCO Requirements) including all the temporary construction works such as access routes and temporary construction bridges (etc), as well as land for environmental mitigation and enhancement. Therefore, in effect, the Order Limits form the site boundary for the works.

4.6 Limits of Deviation

4.6.1 Limits of Deviation (LoD) are a common feature of NSIPs. The LoD represent the maximum deviation for permanent features, such as the overhead line, pylons, CSE compounds, new substations and underground cables. This allows for adjustment to the final positioning of Project features to avoid localised constraints or unknown or unforeseeable issues that may arise.

4.6.2 The assessment presented within the ES (Volume 6 of the DCO application) is based on the design, LoD and parameters as shown on the Works Plans (document reference 2.3) (Revisions A-C), Figure 4.1: Proposed Project Design (document reference 6.4.F1) (Revision B) and Figure 4.2: Proposed Project Design – Permanent Features (document reference 6.4.F2) (Revision B). However, it should be noted that the permanent aspects of the Project, including pylon locations, are not fixed and could be located anywhere within the LoD, as defined on the Works Plans (document reference 2.3) (Revisions A-C) (unless a commitment has been made to restrict the LoD, details of which are outlined within the Outline CoCP (document reference 7.2) (Revision G)). The location and orientation of the CSE compounds, new EACN Substation, new Tilbury North Substation and underground cables may also change within the LoD. The associated temporary construction works would also change to the revised locations, albeit within the Order Limits.

4.6.3 Table 4.3 outlines details of the Order Limits and LoD that have been used to undertake the assessment within this ES (Volume 6 of the DCO application).

Table 4.3 Details of Order Limits and Limits of Deviation

Project Component	Details
Proposed overhead line	
Order Limits and vertical, lateral and longitudinal LoD	The Order Limits are generally 100 m wide, i.e. 50 m either side of the centre line of the proposed overhead line. The vertical LoD would be to any extent not exceeding 6 m upwards from the pylon design heights presented within the Works Plans (document reference 2.5) (Revisions A-D) to allow for variations in heights between pylons to allow extra height to clear existing features, maintaining electrical clearance to the ground. The lateral LoD of 50 m either side of centreline and the unlimited longitudinal LoD[6] allows flexibility to move pylon positions in any direction for unforeseen circumstances, such as poor ground conditions or archaeological finds, and to cater for maximum conductor (overhead line) swing. Commitments to restrict the LoD for specific pylon locations are included within the Outline Code of Construction Practice (CoCP) (document reference 7.2) (Revision G).
Proposed new substations and modifications to existing substations	
Order Limits and vertical, lateral and longitudinal LoD	The Order Limits include approximately 640 m x 740 m for the new EACN Substation (including spacing for the associated Environmental Area); approximately 340 m x 530 m for the new Tilbury North Substation; and approximately 300 m x 600 m for the extension works needed at Bramford Substation (including the footprint of the existing substation). There is no defined vertical (downwards) LoD for the works to substations. The vertical (upwards) LoD could be up to 10% higher than shown on the layout and elevation plans (document reference 2.6) excluding aerials, handrails, rooftop equipment and lightning protection. The lateral and longitudinal LoD for the substation works are as shown on the Works Plans (document reference 2.3) (Revisions A-C), including space for the substations, drainage, accesses, construction compounds and soil storage.
Proposed CSE Compounds	
Order Limits and vertical, lateral and longitudinal LoD	The Order Limits include approximately 64 m x 90 m for the CSE compounds, plus the LoD as defined below. There is no defined vertical (downwards) LoD for the works to CSE compounds. The vertical (upwards) LoD could be up to 10% higher than shown on the layout and elevation plans (document reference 2.6). The lateral and longitudinal LoD are generally 50 m on all sides of the proposed location but vary locally depending on existing features (e.g. hedgerows, watercourses).

[6] Longitudinal LoD means movement along the line of the Project

Project Component	Details
Proposed underground cables	
Order Limits and vertical, lateral and longitudinal LoD	The Order Limits are generally 220 m wide. In some instances, the Order Limits have been widened to, for example, accommodate mitigation for protected species should it be required at the time of construction. There is no defined vertical LoD as the extent would be as necessary or convenient, however the minimum depth between the top of the protective tiles and made ground level would be approximately 0.9 m (where not within a substation or CSE compound). Lateral LoD of 100 m (50 m either side of the approximately 120 m cable construction swathe).
Removal of existing 132 kV overhead lines and proposed 132 kV overhead lines	
Order Limits and Vertical, lateral and longitudinal LoD	The Order Limits are generally 35 m wide for the underground cable installation (replacing the overhead line being removed) to allow for lateral LoD. The LoD and Order Limits for the 132 kV works as shown on the Works Plans (document reference 2.3) (Revisions A-C) include space for temporary overhead line diversions, the underground cable alignment and the existing alignment.
Removal of existing 33 kV and 11 kV Overhead Lines	
Order Limits and lateral LoD	The Order Limits are generally 25 m wide for the underground cable installation to allow for lateral LoD. The LoD and Order Limits for the 11 kV and 33 kV works as shown on the Works Plans (document reference 2.3) (Revisions A-C) allow for dismantling and diversion of wood pole electricity and communications overhead lines needed to facilitate the Project.

4.7 Environmental Mitigation Measures Within Project Design

4.7.1 In accordance with the mitigation hierarchy the development of measures to avoid, reduce or compensate for any significant adverse effects of a project is an intrinsic part of the EIA process and, from the outset, the route selection process described in ES Chapter 3: Alternatives (document reference 6.3) (Revision B) sought to take into account environmental constraints and to avoid them as far as possible.

4.7.2 Environmental mitigation measures have been defined within each environmental topic chapter and where relevant to construction are presented and secured in the Outline CoCP (document reference 7.2) (Revision G), the Outline Construction Traffic Management Plan (CTMP) (document reference 7.3) (Revision F) (and the Travel Plan appended to the CTMP), the Outline Public Rights of Way (PRoW) Management Plan (document reference 7.6) (Revision D) and / or the Draft Archaeological Mitigation Strategy and Outline Written Scheme of Investigation (AMSWSI) (document reference 7.5) (Revision C). Environmental mitigation that relates to the permanent assets is outlined and secured within the Outline LEMP (document reference 7.4) (Revision G) submitted as part of the application for development consent.

4.7.3 Generally, there are three types of design measures implemented on the Project. These are embedded, standard, and additional mitigation:

- Embedded measures: Embedded measures are those that are intrinsic to and built into the design of the Project. ES Chapter 4: Project Description (document reference 6.4) (Revision B) outlines the key embedded measures that have been incorporated into the design to date
- Standard measures: National Grid has identified a number of good practice measures, which generally comprise measures imposed through legislative requirements or represent standard sector good practices. These include measures to reduce nuisance from construction activities. The good practice measures are set out in the Outline CoCP (document reference 7.2) (Revision G)
- Additional mitigation comprises measures over and above embedded and standard mitigation measures to reduce environmental effects. This includes, but is not limited to, mitigation required for protected species. Where applicable, additional mitigation measures are identified within Section 6 of each environmental topic chapter (Chapter 6 – 16 (document references 6.6-6.16) (Revisions B – C) within the ES (Volume 6 of the DCO application) and replicated in the Outline CoCP (document reference 7.2) (Revision G) which is secured through Requirement 4 in the Draft DCO.

4.7.4 The Environment Act 2021 includes a requirement for Nationally Significant Infrastructure Projects (NSIPs) to deliver at least 10% BNG from May 2026. NPS EN-1 (DESNZ, 2024a) also states that '*Although achieving biodiversity net gain is not currently an obligation on applicants, Schedule 15 of the Environment Act 2021 contains provision which, when commenced, mean the Secretary of State may not grant an application for a Development Consent Order unless satisfied that a biodiversity gain objective is met in relation to the onshore development in England to which the application relates*' (paragraph 4.6.1).

4.7.5 National Grid has committed to deliver at least 10% BNG with wider environmental and societal benefits. The minimum of 10% target for the Project is voluntary as it is not mandated for NSIPs until May 2026. National Grid is working with appointed technical specialists, environmental organisations, and landowners to identify potential opportunities for delivering areas of BNG, and where practicable also linked to wider environmental gains such as recreation improvement. The biodiversity baseline has been quantified during the EIA and design process using the Statutory Biodiversity Metric (February 2024). This metric has been used to calculate the loss in biodiversity units as a result of construction and operational effects of the Project. As well as the number of biodiversity units required to achieve minimum 10% BNG, through either onsite or offsite habitat creation and enhancement. Further information is included within the BNG Report (document reference 7.1) (Revision B).

4.8 Requirements of the Draft DCO

4.8.1 Schedule 3 of the draft DCO (document reference 3.1) (Revision G) contains the draft Requirements proposed for incorporation if the DCO were granted. A number of draft Requirements include elements which would require the submission of, and approval by, the relevant LPA prior to the commencement of the Project as well as those that National Grid must comply with during construction. The draft Requirements will be subject to examination and may, as a result, be amended. Requirements identified in the draft DCO and explained in detail in the Explanatory Memorandum (document reference 3.2) (Revision G), at a high-level, comprise:

- Requirement 1 Interpretation
- Requirement 2 Time Limits
- Requirement 3 Stages of authorised development
- Requirement 4 Construction Management Plans
- Requirement 5 Archaeology
- Requirement 6 Design and layout plans (elevations)
- Requirement 7 Construction hours
- Requirement 8 Retention and removal of trees, woodland and hedgerows
- Requirement 9 Reinstatement planting plan
- Requirement 10 Reinstatement schemes
- Requirement 11 Approval of details having regard to the Design Approach to Site Specific Infrastructure
- Requirement 12 Design of permanent buildings
- Requirement 13 Decommissioning
- Requirement 14 Control of Development under Works Nos. 19 and 21 to 24.

4.9 Planning Obligations

4.9.1 National Grid's commitment to providing 10% BNG will be secured through a unilateral undertaking given under s106 of the Town and Country Planning Act 1990. While every effort has been made to deliver the required BNG through replacement planting and on-site mitigation in the form of habitat creation and enhancement, given the scale and nature of the Project, 10% BNG is not fully achievable on-site. Off-site BNG is therefore proposed to make up any deficit. Biodiversity is not physically bound by planning authority boundaries and therefore a holistic approach is proposed for any off-site BNG, with the aim to deliver a biodiversity legacy ideally in each of the three counties crossed by the Project (Norfolk, Suffolk and Essex).

4.9.2 Offsite BNG will be delivered through collaboration with partners and purchased from commercially registered providers. National Grid has been engaging in productive discussions with Norfolk, Suffolk and Essex Wildlife Trusts regarding the provision of off-site BNG units for the Project.

4.9.3 National Grid is currently preparing draft Heads of Terms in relation to s106 Unilateral Undertaking through discussions with the Local Planning Authorities.

5. The Order Limits and Surrounding Area

5.1 Overview

5.1.1 This Chapter provides an overview of the Order Limits and surrounding area. It describes the location and context within which the Project would be constructed and operated and identifies key land use planning issues affecting land within the Order Limits and surrounding area. The Order Limits are the maximum extent of the land required to construct and operate the Project.

5.1.2 A full description of the Project is available in ES Chapter 4: Project Description (document reference 6.4) (Revision B)

5.1.3 The Chapter provides a section-by-section overview of the Project, whilst identifying the key planning constraints in each section which are then further considered in Chapter 6.

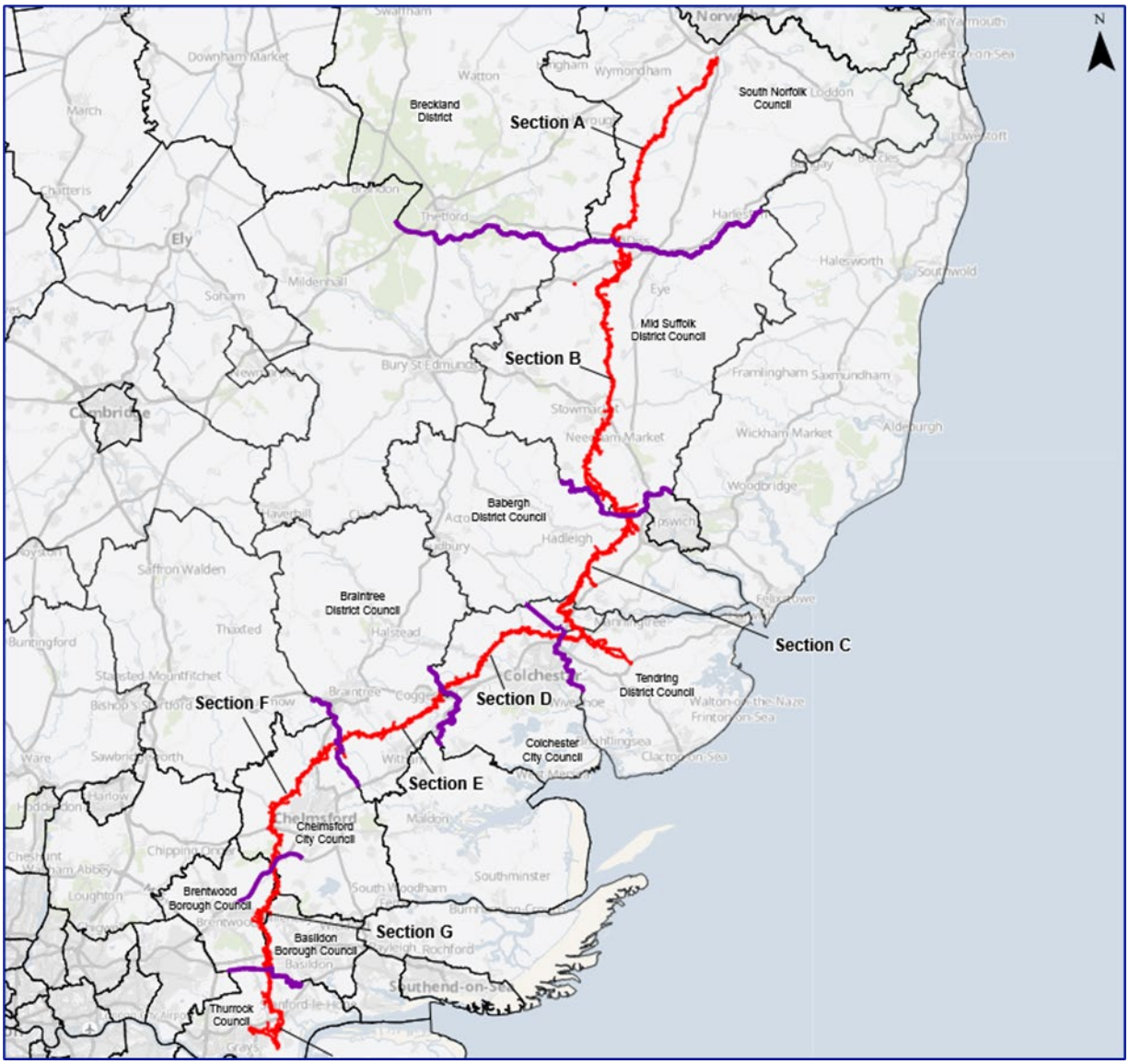
5.2 Administrative Boundaries and Geographical Context

5.2.1 For ease of presentation the Project has been split geographically into eight geographical sections for reader accessibility, based largely on Local Authority boundaries. These are presented on the Site Location Plan and Project Sections within ES Figure 1.1 (document reference 6.1.F1), replicated below in Image 5.1 and comprise:

- Section A – South Norfolk Council and Breckland District Council
- Section B – Mid Suffolk District Council
- Section C – Babergh District Council, Colchester City Council and Tendring District Council
- Section D – Colchester City Council
- Section E – Braintree District Council
- Section F – Chelmsford City Council and Brentwood Borough Council
- Section G – Basildon Borough Council and Brentwood Borough Council (and part of Chelmsford City Council)
- Section H – Thurrock Council.

5.2.2 The northernmost extent of the Project would comprise modifications to connect the Project to the existing Norwich Main Substation in South Norfolk. The Project would extend south through the districts of South Norfolk, Breckland, Mid Suffolk, Babergh, Colchester and through to Tendring where the new proposed EACN Substation would be constructed. From the proposed EACN Substation, the Project would continue south through Colchester, Braintree, Chelmsford, Brentwood, Basildon and into Thurrock, connecting into the new proposed Tilbury North Substation. The existing YYJ/ZB routes would then be modified to connect the proposed Tilbury North Substation to the existing Tilbury Substation.

Image 5.1 Site Location Plan



5.3 Section A: South Norfolk and Breckland

Location and Key Environmental Designations in Section A

5.3.1 The Project would start at its northern end at National Grid's existing Norwich Main Substation. Modification works to connect into the substation are required. National Grid secured planning consent for an extension of the existing substation from South Norfolk District Council in September 2024 (South Norfolk Planning Application reference 2024/1336).

5.3.2 The Project uses overhead line technology throughout Section A, comprising 88 standard height lattice pylons. The length of the overhead line in Section A is approximately 29 km. The nomenclature for this section of overhead line is the RG route.

5.3.3 The Order Limits head south by south-west of Dunston through arable fields before crossing an unnamed river between Flordon and Toprow. This river is connected to the Flordon Common Site of Special Scientific Interest (SSSI) located approximately 400 m to the south-east of the Order Limits.

5.3.4 The Order Limits continue generally south-west through arable fields and crossing some narrow lanes, passing between Forncett St Mary and Forncett End. The Order Limits continue south and pass within approximately 110 m of an area of Ancient Woodland (Bunwell Wood) at Bunwell Hill.

5.3.5 The Order Limits then cross the River Tas, west of Cargate Common, and continue south to the west of Tibenham Airfield. The Project then crosses the B1134 between Goose Green and Long Row, continues south through arable fields, before crossing another unnamed river, approximately 250 m south-east of Shelfanger Meadows SSSI.

5.3.6 The Project then heads west after crossing the B1077 (Shelfanger Road) and then crosses another unnamed river before heading south, around Snow Street, crossing the A1066 between the Bressingham Steam Museum and Gardens and the Grade I listed Church of St Remigius, Roydon. The Project then passes south-east between the Wortham Ling SSSI and Roydon Fen Local Nature Reserve (LNR), crossing into Section B, north of Ling Road.

5.3.7 A primary construction access route has been identified utilising the A1066 between the A140 in South Norfolk and the A11 at Thetford in Breckland. No physical works are proposed within the administrative boundaries of Breckland, however National Grid is proposing to utilise the A1066 between Diss and the A11 at Thetford in Breckland as a PAR for construction traffic.

5.3.8 There are no designation ecological features such as Special Protection Area (SPA), Special Area of Conservation (SAC), SSSI, Ancient Woodland, LNRs or County Wildlife Sites (CWSs) within the Order Limits in Section A.

5.3.9 There are no designated heritage assets such as World Heritage Sites, Registered Battlefields, Registered Parks and Gardens, Scheduled Monuments, Listed Buildings or Conservation Areas within the Order Limits in Section A.

5.3.10 There are no Regionally Important Geodiversity and Geomorphological Sites (RIGS), County Geodiversity Sites or geological SSSI present within the Order Limits in Section A.

Key Planning Considerations in Section A

5.3.11 Key planning considerations in Section A which are considered further throughout this Planning Statement include:

- Two granted Offshore Windfarm DCOs will connect into the electricity transmission network at Norwich Main Substation. The consented offshore windfarms are Hornsea 3 Offshore Wind Farm (developed by Orsted) and Sheringham and Dudgeon Extension Projects (developed by Equinor). Once operational, Hornsea 3 will be the world's single largest offshore wind farm with a capacity of 2.9 GW upon its completion at the end of 2027. The Sherringham and Dudgeon extension projects will double the installed capacity of the existing Sherringham Shoal offshore wind farm (317 megawatt (MW)) and Dudgeon Wind Farm (402 MW). Both projects have cable connections to the Norwich Main Substation
- National Grid secured planning permission in September 2024 for an extension to the Norwich Main substation (South Norfolk planning application reference 2024/1336). The Project will connect into the consented substation extension. The Project includes proposals for an environmental mitigation area around the substation extension as shown on the Outline LEMP (document reference 7.4) (Revision G)

- There are a number of planning applications (pending determination or consented) for solar energy farms and energy storage within the immediate area around Norwich Main Substation and along various points of the route. These include Innova Renewables Developments Ltd , a proposed 400 MW energy storage system at Hall Farm, Land North of Hickling Lane (South Norfolk planning application reference 2024/3750). EDF Energy has consent (South Norfolk planning application reference 2021/2495) at land north and south of Brick Kiln Lane, Swainsthorpe for a solar farm with a later associated application (South Norfolk planning application reference 2022/2350) for an underground cable connection between the solar farm and Norwich Main Substation. Rolas Project have a current planning application with South Norfolk for a ground mounted solar farm at land off Marsh Lane, Bracon Ash (South Norfolk planning application reference 2023/1055). The Project is aware of the emerging East Pye Solar Farm proposal, a Nationally Significant Infrastructure Project currently at pre-application stage
- With regard to the Innova Renewable Development 400 MW energy storage system at Hall Farm identified above, National Grid has identified a potential alternative alignment by widening the Order Limits to the east to allow for flexibility to change the alignment should consent not be granted for the Innova proposal. National Grid has also identified an additional construction haul road at the Anglian Water Sewage Treatment Works, south of Tabernacle Lane to avoid land which may be used for reed planting by Anglian Water. The potential design changes are shown on Figure 4.1: Proposed Project Design (document reference 6.4.F1) (Revision B) and Figure 4.2: Proposed Project Design – Permanent Features (document reference 6.4.F2) (Revision B). Where flexibility in the design is being sought, the ES has assessed a single scenario within Section 7 of each ES Chapter with an assessment of the flexibility presented in Section 9 of each environmental topic chapter. Further detail is presented in Table 4.4 of ES Chapter 4 (document reference 6.4) (Revision B) as to how each element has been assessed within the ES (Volume 6 of the DCO application).

5.3.12 Appendix A of this Planning Statement contains further details of committed developments which interact with the Order Limits.

5.3.13 The current Norfolk County Council Minerals and Waste Development Framework (NMWDF) (Norfolk County Council, 2011) cover Section A. The NMWDF was adopted in September 2011 and covers the period from 2010-2026. The plan is currently under review and Norfolk County Council have prepared a Norfolk Minerals and Waste Local Plan (NM&WLP) to update the policies and extend the plan period to the end of 2038. Examination hearings into the NM&WLP took place in July 2024. Subsequent to the hearings there were a number of Main Modifications required to the Plan in order for the Inspector to consider it sound and legally compliant. A formal representations period on the proposed Main Modifications commenced on 17 October 2024 and ended on 13 December 2024.

5.3.14 The Order Limits cross three mineral allocation sites identified in the Adopted NMWDF Sites (MIN79, MIN80 and MIN81). Aerial photography (dated 2023) appears to show MIN81 in the process of being worked. However, MIN79, MIN80 and MIN81, have been deleted in the pre-submission publication of the Norfolk Minerals and Waste Local Plan, published in May 2022, and are therefore not considered further.

5.3.15 South Norfolk Council adopted the Greater Norwich Local Plan on 25 March 2024. The Project does not interact with any development allocations along the route.

5.3.16 As a result of the existing and proposed developments around Norwich Main Substation, cumulative effects are a particular consideration in this section of the Project. The consideration of which is detailed in ES Chapter 17: Cumulative Effects Assessment (CEA) (document reference 6.17) (Revision B).

5.3.17 Whilst no physical works are proposed as part of the Project within Breckland, a primary access route has been identified along the A1066 between the A140 in Waterloo, Diss and the A11 in Thetford. The Project has taken into account the comprehensive mixed use urban extension at Croxton Road as part of the Traffic and Transport Assessment.

5.3.18 Within Section A the Project is routed through the following Neighbourhood Plans within South Norfolk and Breckland:

- Swainsthorpe Neighbourhood Plan (emerging)
- Mulbarton Neighbourhood Plan (adopted)
- Newton Flotman Neighbourhood Plan (emerging)
- Diss and District Neighbourhood Plan (adopted)
- Croxton, Brettenham and Kilverstone (within Breckland District) (adopted).

5.3.19 The relevant policies of the adopted Neighbourhood Plans are detailed and considered in the Policy Compliance Document (document reference 5.7).

5.3.20 The Project is within a Mineral Safeguarding Area in Section A. This is considered further in ES Chapter 9: Contaminated Land, Geology and Hydrogeology (document reference 6.9) (Revision B).

5.3.21 There are no local plan allocations within or close to the Order Limits in Section A.

5.4 Section B: Mid Suffolk District (and Babergh Council North of Existing Bramford Substation)

Location and Key Environmental Designations in Section B

5.4.1 The Project uses overhead line technology throughout Section B with the RG route comprising 122 standard height lattice pylons before connecting into the Bramford Substation. The nomenclature of the overhead line changes to JC to the south of the Bramford Substation. There are nine standard height lattice pylons on the JC overhead line which continues south within Section B. The length of the overhead line within Section B is approximately 41 km.

5.4.2 The Project enters Section B and continues to the south past Wortham Ling, through arable fields before crossing the A143 at Old Bury Road. Shortly after, the Project crosses an unnamed river.

5.4.3 The Project continues south-west on the northern side of Mellis and the Mellis conservation area, then heads south and south-east before crossing an unnamed river located to the north-east of Gislingham.

5.4.4 The Project continues generally south before crossing the Great Eastern Main Line Railway, which travels north-east to south-west across the path of the Order Limits. It then continues south past Finningham and Mendlesham Green, crossing the River Gipping.

5.4.5 The Project continues south before crossing the A1120 at Bell's Lane, then continues south passing by the Grade II* listed Roydon Hall, and crossing the A14 between Creeting St Peter and Creeting St Mary. Shortly after, it crosses an unnamed river and another section of the River Gipping, east of the Badley Conservation Area.

5.4.6 The Order Limits then cross the Ipswich to Ely railway line between Stowmarket and Needham Market before crossing the B1113. South of the B1113 the Project passes within close proximity to the Great Newton Wood and Little Newton Wood Ancient Woodlands and further south the Lower Wood Ancient Woodland.

5.4.7 The Project continues south before crossing the B1078 between Barking Tye and Ringshall Stocks. Here, the Order Limits split in two, continuing south on either side and adjacent to Middle Wood (Ancient Woodland and SSSI) and crosses a river known as 'The Channel'. The two sections of the Order Limits both cross Bildeston Road, the Project continues to the south-east to the north of Flowton where the two sections join again, and the Project continues south-east adjacent to Somersham Park Ancient Woodland. The Project then heads south into the existing Bramford Substation where an extension to the existing site is proposed, along with works to connect the Project into the substation. The Order Limits are adjacent to Bullen Wood Ancient Woodland and interact with Round Wood Ancient Woodland at this location. The Order Limits extend east to allow for third-party mitigation works. Section B ends to the south of Round Wood Ancient Woodland.

5.4.8 There are no designation ecological features such as SPA, SAC, SSSI, or LNRs within the Order Limits in Section B.

5.4.9 Round Wood Ancient Woodland is within the Order Limits where National Grid is proposing to dismantle part of UKPN's existing PHB overhead line

5.4.10 The Project does include proposals to remove a section of third-party 132 kV overhead lines and place them underground through the Thrandeston Marsh CWS. This is considered further in ES Chapter 8: Ecology and Biodiversity (document reference 6.8) (Revision C).

5.4.11 There are no designated heritage assets such as World Heritage Sites, Registered Battlefields, Registered Parks and Gardens, Scheduled Monuments, Listed Buildings or Conservation Areas within the Order Limits in Section B.

5.4.12 There are no RIGS, County Geodiversity Sites or geological SSSI present within the Order Limits in Section B.

Key Planning Considerations in Section B

5.4.13 Key planning considerations in Section B include:

- Although Mid Suffolk District Council and Babergh District Council and are legally separate councils, since 2011, they have been working together and they share many services, including a planning service, have the same office location and have recently adopted a Joint Local Plan, adopted on 20 November 2023. Mid Suffolk Council covers Section B of the route and Babergh Section C (although there is a small overlap north of Bramford Substation)
- The Joint Local Plan replaces all previously adopted Local Plans, Core Strategies and the Stowmarket Area Action Plan for Babergh and Mid Suffolk District Councils

- The Joint Local Plan was submitted for examination in March 2021, where it was suggested Babergh and Mid Suffolk District Councils prepare a Part 2 Plan. The Part 2 Plan is programmed to reach the pre-submission consultation during the autumn of 2024. Consequently, only some weight is afforded to this aspect of the emerging Plan as it is not considered to be at an advanced stage of the local plan process
- The East Anglia ONE and East Anglia THREE offshore wind projects both connect into the Bramford Substation via underground cables. The East Anglia ONE Project was consented in 2014 and is now operational, generating 714 MW of renewable energy. The East Anglia THREE project also consented and is currently under construction. Once operational it will generate 1.4 GW of renewable energy. There are a number of planning applications currently at various stages of proposed development for battery energy storage facilities and solar farms along the route e.g. Aura Power solar farms proposal (application reference DC/23/05426) and within the immediate area around the Bramford Substation. Where appropriate, National Grid has entered into Statements of Common Ground or sought and interface agreement where there is an overlap with a third-party development.

5.4.14 Appendix A of this Planning Statement contains for further details of committed developments which interact with the Order Limits. The Project is routed through the following Neighbourhood Plans:

- Diss and District Neighbourhood Plan (adopted)
- Botesdale & Rickinghall Neighbourhood Plan (adopted)
- Mendlesham Neighbourhood Plan (adopted)
- Stowupland Neighbourhood Plan (adopted).

5.4.15 Needham Market Neighbourhood Plan (adopted)The relevant policies of the above Neighbourhood Plans are detailed and considered in the Policy Compliance Document (document reference 5.7).

5.4.16 The Suffolk Minerals and Waste Local Plan (adopted 2020) identifies that sand and gravel resources are located throughout the County. The adopted plan indicates that the Project is within a Mineral Consultation Area in Section B. This is considered further in ES Chapter 9: Contaminated Land, Geology and Hydrogeology (document reference 6.9) (Revision B).

5.4.17 There are no allocations within or close to the Order Limits in Section B.

5.5 Section C: Babergh District, Colchester City and Tendring District

Location and Key Environmental Designations in Section C

5.5.1 The Project in Section C utilises overhead line technology and underground cables. The JC overhead line route comprises 26 standard height lattice pylons in Section C. There is a transition from overhead line to underground cable which takes place at Wenham Grove CSE Compound where the Project is routed underground for approximately 16 km (including through the Dedham Vale National Landscape) connecting into to the new EACN where the Project then returns to an overhead line. This section of overhead line has the nomenclature of the TB Route. Within Section C there are 20 standard height lattice pylons on the TB Route.

5.5.2 The Project starts adjacent to Burstall Long Wood Ancient Woodland with the Order Limits split into two sections, allowing for the proposed alignment and third-party mitigation works to the east. The alignment continues south and crosses the A1071 at Thorpe's Hill. Shortly afterwards it heads south-west and crosses an unnamed river. The Order Limits extend east to allow for third-party mitigation works. The Project then crosses Spring Brook.

5.5.3 The Project then heads south-west through arable fields, crossing Chattisham Road, before continuing south-west-west adjacent to Brimlin Wood Ancient Woodland.

5.5.4 The Project then transitions from overhead line to underground cable at a CSE compound to the north of Notley Enterprise Park. The underground cables are routed between Raydon and Holton St Mary, and into Dedham Vale National Landscape designated for its meadows, fens, and Ancient Woodland. The Project stays within the National Landscape located in both Babergh and Colchester. Within the National Landscape to the north-west of Stratford St Mary, the route crosses the River Stour, and to the north-east of Langham crosses the Black Brook, outside of the National Landscape. The Project then crosses the A12 and re-enters the National Landscape between Langham and Lamb Corner. The Project once again leaves the National Landscape crossing Birchwood Road, west of Lamb Corner.

5.5.5 From the Colchester and Tendring boundary south of Lamb Corner, the Project heads south-east crossing the B1029 at Dedham Road. The underground cabling continues south, crossing the A137 before connecting into the proposed EACN Substation located to the east of Hungerdown Lane.

5.5.6 The Project then exits the new EACN Substation, heading west as overhead line, following the route back on itself until it crosses the A137, passing to the north of Ardleigh. The Project continues west crossing the northern part of the Ardleigh Reservoir and continuing to the A12, where this section ends.

5.5.7 There are no designated ecological features such as SPA, SAC, SSSI, Ancient Woodland, CWSs or LNRs within the Order Limits in Section C.

5.5.8 There are no designated heritage assets such as World Heritage Sites, Registered Battlefields, Registered Parks and Gardens, Scheduled Monuments, Listed Buildings or Conservation Areas within the Order Limits in Section C.

5.5.9 There are no RIGS, County Geodiversity Sites or geological SSSI present within the Order Limits in Section C.

Key Planning Considerations in Section C

5.5.10 Key planning considerations in Section C include:

- As noted above, although Babergh District Council and Mid Suffolk District Council and are legally separate councils, since 2011, they have been working together and they share many services, including a planning service, have the same office location and have recently adopted a Joint Local Plan on 20 November 2023. Mid Suffolk Council covers Section B of the route and Babergh Section C (although there is a small overlap north of Bramford Substation)
- The Joint Local Plan replaces all previously adopted Local Plans, Core Strategies and the Stowmarket Area Action Plan for Babergh and Mid Suffolk District Councils
- The Joint Local Plan was submitted for examination in March 2021, where it was suggested Babergh and Mid Suffolk District Councils prepare a Part 2 Plan. The Part 2 Plan is programmed to reach the pre-submission consultation during the autumn of 2024. Consequently, only some weight is afforded to this aspect of the emerging Plan as it is not considered to be at an advanced stage of the local plan process
- The Colchester City Local Plan (2013-2033), North Essex Authorities Shared Strategic Section 1 Plan (adopted 2021) and Colchester City Local Plan 2017-2033 Section 2 (adopted 2022) are the adopted development plans for Colchester
- The adopted development plan for Tendring includes the North Essex Authorities Shared Strategic Section 1 Plan (adopted 2021) and Tendring District Local Plan 2017-2033 Section 2 (adopted 2022)
- Bramford to Twinstead is an approved nationally significant infrastructure project for a network reinforcement between Bramford Substation in Suffolk and Twinstead Tee in Essex and is also part of the Great Grid Upgrade. The proposals include up to 18 km of overhead line and approximately 11 km of underground cable, the latter through the Dedham Vale National Landscape and in the Stour Valley. The proposals would include overhead line and underground cable entry into Bramford Substation from the south-west. The Bramford to Twinstead application for development consent (reference EN020002) was approved 12 September 2024 and the Project is proposed to become operational in 2028. Bramford to Twinstead would therefore form part of the future baseline against which the cumulative effects of the Project have been assessed in the ES
- There are three projects which are proposed to connect into the EACN. These are the Five Estuaries Offshore Wind Farm which is the proposed extension to the operational Galloper Wind Farm; and North Falls Offshore Wind Farm is the proposed extension to the operational Greater Gabbard Offshore Wind Farm
- North Falls Offshore Wind Farm is a NSIP for an offshore electricity generating station. It is estimated to have an installed capacity in excess of 100 MW and will principally comprise offshore wind turbines together with associated infrastructure (onshore and offshore) including a connection to the electricity transmission network. The applicants are SSE Renewables and RWE Renewables. The application was submitted in July 2024 (application reference EN010119) and at the time of writing was at the examination stage. The examination is due to conclude in July 2025

- Five Estuaries Offshore Wind Farm is a NSIP for an offshore wind farm to generate in excess of 300 MW. The applicant is SSE Renewables and RWE Renewables. The application was submitted to the Planning Inspectorate on 25 March 2024 and the examination closed on 18 March 2025 (application reference EN010115). A decision on the application is due by 17 September 2025
- If approval is granted, Five Estuaries and North Falls are both proposed to become operational in 2030. The substations for both developments would be in proximity to (and connected to via underground cables) the EACN Substation and would therefore form part of the future baseline against which the cumulative effects of the Project are assessed in the ES. The design teams for the Project, Five Estuaries and North Falls are liaising closely to ensure compatibility with proposals including proposals for landscape mitigation
- In addition to the above Tarchon Energy is proposing a high voltage electricity interconnector between Great Britain and Germany. The interconnector would be 610 km long creating a direct power link between Germany and Great Britain where it would connect to the EACN. Subject to receipt of consent, this project is due to commence construction in 2027 and be operational by 2030. This proposal is currently at pre-application stage with initial consultation on the interconnector proposals taking place between 10 March 2025 and 7 April 2025
- The Order Limits do interact directly with a consented food storage and distribution facility at the Flying Trade Group Ipswich Road and Wick Lane site. Consent was awarded by Tendring Council (Tendring Council planning application reference 20/00594/FUL) in 2023. Due to the constrained nature of the area, it is necessary to position a pylon within the development site. National Grid has actively engaged with the promoters of developments to the north and south of Wick Lane near the junction with the old Ipswich Road (around TB20). Through those discussions modifications have been agreed to the arrangements for both developments to be implementable. At this location the LoD and Order Limits have been widened between TB18 and TB22 and is presented on Figure 4.1: Proposed Project Design (document reference 6.4.F1) (Revision B) and Figure 4.2: Proposed Project Design – Permanent Features (document reference 6.4.F2) (Revision B). The potential design change has been assessed in each ES environmental topic chapter (Chapters 6 to 16 (document references 6.6 to 6.16) (Revisions B – C)). Where flexibility in the design is being sought, the ES has assessed a single scenario within Section 7 of each ES Chapter with an assessment of the flexibility presented in Section 9 of each environmental topic chapter. Further detail is presented in Table 4.4 of ES Chapter 4 (document reference 6.4) (Revision B) as to how each element has been assessed within the ES (Volume 6 of the DCO application).

5.5.11 Where appropriate, National Grid has entered into Statements of Common Ground or sought and interface agreement where there is an overlap with a third-party development.

5.5.12 Appendix A of this Planning Statement contains further details of committed developments which interact with the Order Limits. The Project is routed through the following Neighbourhood Plan Areas:

- Sproughton Neighbourhood Plan (adopted)
- Copdock and Washbrook Neighbourhood Plan (emerging)
- East Bergholt (adopted, under review)
- Ardleigh Neighbourhood Plan (adopted).

5.5.13 The relevant policies of the above adopted Neighbourhood Plans are detailed and considered in the Policy Compliance Document (document reference 5.7).

5.5.14 The Suffolk Minerals and Waste Local Plan (adopted 2020) identifies that sand and gravel resources are located throughout the County. The adopted plan indicates that the Project is within a Mineral Consultation Area in Section C. This is considered further in ES Chapter 9: Contaminated Land, Geology and Hydrogeology (document reference 6.9) (Revision B).

5.5.15 The Order Limits cross an existing operational mineral site, Crown Quarry (Wick Farm) at Old Ipswich Road. National Grid has been cognisant of the siting of its infrastructure and interaction with the approval mineral restoration for the site.

5.5.16 There are three mineral sites identified by Essex County Council in their Regulation 18 Minerals Plan Consultation (2023). The three sites are:

- Martells Quarry A85
- Martells Quarry A86
- A79 Crown Quarry.

5.5.17 Whilst these sites are not formally allocated, National Grid has taken these into account these emerging proposals as part of its routeing and siting. However, all three sites are within the draft Order Limits, National Grid has sought to minimise the land take required in order to reduce the potential to sterilise these potential mineral allocations. The Order Limits have been widened in proximity to Martells Quarry Site A85 and A86 allow flexibility to facilitate a swap of the overhead line and underground cable north or south of Little Bromley Road, – subject to the progression of the silica sands minerals site, i.e. locating the underground cables to the north of Little Bromley Road would reduce sterilisation of potential silica sands mineral site.

5.5.18 The LoD and Order Limits have been widened in this area to allow flexibility to facilitate a swap of the overhead line and underground cable north or south of Little Bromley Road, subject to the progression of the silica sands minerals site, i.e. locating the underground cables to the north of Little Bromley Road would reduce sterilisation of potential silica sands mineral site. Figure 4.1: Proposed Project Design (document reference 6.4.F1) (Revision B) and Figure 4.2: Proposed Project Design – Permanent Features (document reference 6.4.F2) (Revision B).

5.5.19 The Project does interact with two areas of Local Green Space (Glebe Corner and fishing lake and footpaths north of Colchester Road) identified in the Ardleigh Neighbourhood Plan. The Project is proposing to underground a third-party 33 kV overhead line through Glebe Corner. Once the mitigation works are completed, the site will be restored to its former condition, resulting in a temporary impact on this Local Green Space. The Project will oversail the fishing lake north of Colchester Road. Where such oversail occurs, fishing activity would need to be restricted for safety reasons. Alternative alignments have been considered to avoid the oversail and these are presented in the Design Development Report (document reference 5.15) (Revision B). The loss of the private fishing activity is considered further in the Open Space Assessment at Chapter 7 and Appendix B of this Planning Statement.

5.5.20 Aside from the adopted Mineral Allocation (Wick Lane) identified above, there are no allocations within or close to the Order Limits in Section C.

5.6 Section D: Colchester City

Location and Key Environmental Designations in Section D

5.6.1 The Project in Section D utilises overhead line and underground cable technology. The TB overhead line route comprises 50 standard height lattice pylons in Section D. The transition from overhead line to underground cable takes place at Great Horkesley (EACN side) CSE Compound with approximately 3.9 km of underground cabling before transitioning back to an overhead line at the Great Horkesley (Tilbury Side) CSE Compound.

5.6.2 In Section D, the Project heads to the west at the A12 Ipswich Road and then is undergrounded at the Great Horkesley (EACN side) CSE compound to the north-north-east of Great Horkesley.

5.6.3 The Project crosses under the A134 The Causeway before transferring back to overhead line after Vinesse Road, through the Great Horkesley (Tilbury Side) CSE compound to the east of Grove Lodge, north of the B1508. The Project heads south crossing the B1508, heading south-west until it crosses the River Colne. Just south-east of the River Colne, Fiddlers Wood Ancient Woodland is adjacent to the Order Limits.

5.6.4 It then continues south-west passing the Fordstreet Conservation Area, before crossing the A1124 at Halstead Road. The Project then continues south past Aldham and Aldhamhall Wood Ancient Woodland, located adjacent to the Order Limits.

5.6.5 The Project then turns south-west at Aldham Hall Farm, with Church House Wood Ancient Woodland located adjacent to the Order Limits to the north, and Marks Tey Brickpit SSSI to the south. The Project crosses the railway line between Marks Tey and Chappel and Wakes Colne, before crossing the Roman River.

5.6.6 The Project continues through arable fields past Little Tey before Section Dends just north of the A120 Colchester Road.

5.6.7 There are no designation ecological features such as SPA, SAC, SSSI, Ancient Woodland, CWSs or LNRs within the Order Limits in Section D.

5.6.8 There are no designated heritage assets such as World Heritage Sites, Registered Battlefields, Registered Parks and Gardens, Scheduled Monuments, Listed Buildings or Conservation Areas within the Order Limits in Section D.

5.6.9 There are no RIGS, County Geodiversity Sites or geological SSSI present within the Order Limits in Section D.

Key Planning Considerations in Section D

5.6.10 Key planning considerations in Section D which are considered further throughout this Planning Statement include:

- Essex and Suffolk River Trust secured planning consent from Colchester City Council (Colchester City Council planning application reference 230279) in January 2025 for the restoration of wetland features and habitats at Fiddler's Hill Meadow through naturalising the river with its floodplain by lowering the river bank. The Project requires works within the red line boundary of this application site.

5.6.11 Appendix A of this Planning Statement contains further details of committed developments which interact with the Order Limits. The Project is routed through the following Neighbourhood Plans:

- Boxted Neighbourhood Plan (adopted)
- Great Horkesley Neighbourhood Plan (adopted)
- West Bergholt Neighbourhood Plan (adopted)
- Eight Ash Green Neighbourhood Plan (adopted)
- Great Tey Neighbourhood Plan (pending)
- The Marks Tey Neighbourhood Plan (adopted).

5.6.12 The relevant policies of the above Neighbourhood Plans are detailed and considered in the Policy Compliance Document (document reference 5.7).

5.6.13 There are no local plan allocations within or close to the Order Limits in Section D.

5.7 Section E: Braintree District

Location and Key Environmental Designations in Section E

5.7.1 The Project in Section E utilises overhead line and underground cable technology. The TB overhead line route comprises 53 standard height lattice pylons in Section E. The transition from overhead line to underground cable takes place at the Fairstead (EACN side) CSE Compound with approximately 0.15 km of underground cabling before transitioning back to an overhead line at the Fairstead (Tilbury Side) CSE Compound.

5.7.2 At the start of Section E, the Project crosses the A120 Colchester Road. The Project continues south-west past Coggeshall Hamlet and crosses the River Blackwater, before crossing the B1024 at Coggeshall Road. It continues south-west and interacts with Rivenhall Thicks Ancient Woodland adjacent to the Order Limits between Silver End and Rivenhall.

5.7.3 The Project continues south-west-west, crossing the B1018 Cressing Road. It then crosses a railway line connecting White Notley and Witham before crossing the River Brain. At this point, the Faulkbourne Hall Registered Park/Garden is located approximately 270 m to the south of the Order Limits.

5.7.4 It then continues west through arable fields; the Ancient Woodland Troy's Wood is within approximately 160 m of the Order Limits.

5.7.5 Further west, the Project then crosses an unnamed tributary of the River Ter. At this point, the existing Braintree – Pelham – Rayleigh 400 kV overhead line intersects the Project necessitating the need for the proposed overhead line to be undergrounded for a short section. This requires CSE compounds (Fairstead EACN Side and Fairstead Tilbury Side) to be positioned either side of the existing line to facilitate the transition.

5.7.6 As the Project goes back to overhead lines, the Project passes adjacent to an unnamed Ancient Woodland, continuing south-west, with the Order Limits adjacent to Mann/Parsons Woods Ancient Woodland.

5.7.7 There are no designation ecological features such as SPA, SAC, SSSI, Ancient Woodland, CWSs or LNRs within the Order Limits in Section E.

5.7.8 There are no designated heritage assets such as World Heritage Sites, Registered Battlefields, Registered Parks and Gardens, Scheduled Monuments, Listed Buildings or Conservation Areas within the Order Limits in Section E.

5.7.9 There are no RIGS, County Geodiversity Sites or geological SSSI present within the Order Limits in Section E.

Key Planning Considerations in Section E

5.7.10 Key planning considerations in Section E include:

5.7.11 The adopted Braintree Local Plan includes the North Essex Authorities Shared Strategic section (adopted 2021) and Braintree Local Plan Section 2 (adopted July 2022)

- The Project interacts with the boundary of a current outline planning application (with all matters reserved apart from access) for up to 600 dwellings, including up to 75 units sheltered housing accommodation, the proposed provision of a primary school, and provision of public open space including associated landscape planting with associated infrastructure, drainage measures, earthworks and provision of new footpath/cycleway route towards Coggeshall at Land south west of Coggeshall Road, Kelvedon (Braintree Council application reference 21/03579/OUT). The extent of the overlap is limited to an area identified in the outline application for green infrastructure (including drainage, pedestrian/cycling access)
- The Project oversails the consented Novus Renewables solar farm at land west of Park Road, Rivenhall (Braintree Council planning application reference 21/03775/FUL)
- The Project oversails Bradwell Quarry. There is currently one pylon (TB84) proposed within the boundary of the quarry. Consent was granted by Essex County Council in June 2022 for Extraction of 6.5 million tonnes of sand and gravel (from Site A7 as identified in the Essex Minerals Local Plan 2014) (Essex County Council planning application reference ESS/12/20/BTE). National Grid has sought to position the pylon within an area which is not proposed for mineral extraction area
- Eden CF Solar Ltd have submitted a planning application for a solar farm at land south west of Cressing Temple (Braintree planning application reference 24/02673/FUL). A review of their development proposals indicates that the Project will not constrain this development proposal
- There are a number of residential, employment, solar, agricultural schemes currently at various stages of proposed development along various points of the route
- Where appropriate, National Grid has entered into Statements of Common Ground or sought and interface agreement where there is an overlap with a third-party development.

5.7.12 Appendix A of this Planning Statement contains further details of committed developments which interact with the Order Limits. The Essex Minerals Local Plan review (Regulation 18 consultation) has identified a potential sand and gravel extraction site at A47 Bradwell Monks which would interact directly with the Project. The LoD and Order Limits have been widened between TB84 and TB87 to allow flexibility to change the alignment to reduce effects on a potential mineral extraction site should it be identified as an allocation in a future mineral plan. Figure 4.1: Proposed Project Design (document reference 6.4.F1) (Revision B) and Figure 4.2: Proposed Project Design – Permanent Features (document reference 6.4.F2) (Revision B) shows an overhead line alignment between TB84 and TB87 and widened order limits to minimise impacts should this potential mineral allocation be allocated. Where flexibility in the design is being sought, the ES has assessed a single scenario within Section 7 of each ES Chapter with an assessment of the flexibility presented in Section 9 of each environmental topic chapter. Further detail is presented in Table 4.4 of ES Chapter 4 (document reference 6.4) (Revision B) as to how each element has been assessed within the ES (Volume 6 of the DCO application).

5.7.13 The Project is routed through the following Neighbourhood Plans:

- Coggeshall Neighbourhood Plan (adopted)
- Feering Neighbourhood Plan (adopted)
- Kelvedon Neighbourhood Plan (adopted)
- Cressing Neighbourhood Plan (adopted)
- Witham Neighbourhood Plan (emerging).

5.7.14 The relevant policies of the above Neighbourhood Plans are detailed and considered in the Policy Compliance Document (document reference 5.7).

5.7.15 Aside from the potential Essex Minerals allocation identified above, there are no other allocations within the Order Limits in Section E.

5.8 Section F: Chelmsford City and Brentwood Borough

Location and Key Environmental Designations in Section F

5.8.1 The Project in Section F utilises overhead line technology. The TB overhead line route comprises 59 standard height lattice pylons and three low height lattice pylons. The low height pylons are proposed between Great and Little Waltham as mitigation for Langleys House (Grade I listed building), and to a lesser extent Langleys Registered Park and Garden (Grade II) and Great and Little Waltham Conservation Areas (refer to Chapter 11: Historic Environment (document reference 6.11) (Revision D)) – pylon reference TB140 to TB142 (to the south of the River Chelmer).

5.8.2 The length of overhead line within Section F is approximately 20 km.

5.8.3 Section F of the Project continues south-west through arable fields until crossing the River Ter. At this point, the Order Limits are approximately 140 m from the River Ter SSSI. The Project then continues south-west through arable fields coming passing adjacent to Lyonshall Wood Ancient Woodland before passing adjacent to Sheepcotes Ancient Woodland then crossing the A131 Braintree Road.

5.8.4 The Project continues south-west crossing the B1008, Chatham Hall Lane and the River Chelmer between Great Waltham and Little Waltham Conservation Areas. The Order Limits interact with the Great Waltham Conservation Area and are within approximately 40 m of Langley's Historic Park and Garden. The Project continues south-west, past Sparrowhawk Wood Ancient Woodland, just south of Broad's Green.

5.8.5 The Project then continues south, to the west of Broomfield Hospital, before turning south-west again at Bushy Wood Ancient Woodland, located adjacent to the Order Limits.

5.8.6 The Project then passes south of Chignal St James and crosses the River Can. It then crosses the A1060 Roxwell Road and Roxwell Brook. From here the Project heads south crossing the A414 Ongar Road and then Sandy Brook.

5.8.7 The Project heads south-east, to the south of Little Oxney Green, before diverting south-west near Gable Cottages on Margaretting Road. The Project interacts with Writtle -Writtle Park Wood Ancient Woodland, heading south crossing Ivy Barns Lane. The Order Limits pass between and adjacent to Bushey Wood and Osbornes Wood Ancient Woodland, where the Section ends at the A12 Ingatestone Bypass.

5.8.8 There are no designation ecological features such as SPA, SAC, SSSI, Ancient Woodland or CWSs within the Order Limits in Section F.

5.8.9 There is a minor overlap between the Order Limits and Langley's Deer Park and Great/Little Edney Woods Local Wildlife Sites (LWSs). An assessment of the effects is contained in ES Chapter 11: Historic Environment (document reference 6.11) (Revision D) and ES Chapter 8: Ecology and Biodiversity (document reference 6.8) (Revision C).

5.8.10 There are no designated heritage assets such as World Heritage Sites, Registered Battlefields, Registered Parks and Gardens (the overlap with Langley's Deer Park LNR does not extend to the Registered Park and Garden), Scheduled Monuments, Listed Buildings or Conservation Areas within the Order Limits in Section F.

5.8.11 There are no RIGS, County Geodiversity Sites or geological SSSI present within the Order Limits in Section F.

Key Planning Considerations in Section F

5.8.12 Key planning considerations in Section F include:

- The Chelmsford Local Plan covers the period 2013 to 2036 and was adopted in May 2020. A review is currently underway, and a Regulation 19 Consultation ended on 18 March 2025
- There are a number of planning applications currently at various stages along the Project's route through Chelmsford. These include the DCO for the Longfield Solar Farm which was approved 26 June 2023 (application reference EN010118). The Longfield Solar Farm covers an area of approximately 453 hectares. There is an overlap between the order limits of the Longfield Solar Farm and the Project at the northern extent of the solar farm site. National Grid is proposing to modify an existing UKPN PSB overhead line which will necessitate the creation of an access from Terling Hall Road, through Leylands Farm around the eastern edge of the site into an area identified in the DCO as an area of habitat management

- Planning permission was granted in 2022 by Essex County Council for the Chelmsford north east bypass. A single carriageway road between Roundabout 4 of the Beaulieu Park Radial Distributor Road (RDR1) and a new roundabout on the A131 at Chatham Green plus dualling of the existing A131 between Chatham Green and Deres Bridge roundabout. Works are currently underway on this project with works expected to be completed by spring 2026
- Roxwell Quarry is former operational minerals site which has been restored with grassland and woodland with a PRoW around the edge of the site. The proposed pylons within this Section of the Order Limits are to be placed outside of the boundary of the restored Roxwell Quarry and restored landfill site
- Where appropriate, National Grid has entered into Statements of Common Ground or sought and interface agreement where there is an overlap with a third-party development
- Appendix A of this Planning Statement contains further details of committed developments which interact with the Order Limits. The Project crosses a National Grid compressor site, identified in the adopted Chelmsford Local Plan as a Hazardous Substance and Safeguarding Zone (Chelmsford Local Plan Policy DM30)
- To the south of the A1060 and to the east of Roxwell the Project enters the Metropolitan Green Belt.

5.8.13 The Essex Minerals Local Plan review (Regulation 18 consultation) has identified a potential sand and gravel extraction site at Lowleys Farm (A59) which interacts directly with the Project. It is not possible to avoid routeing the Project through this potential allocation. National Grid has sought to identify wider Order Limits through the site to enable a degree of flexibility to the routeing (albeit remaining within the area identified by Essex County Council) should this site come forward. The LoD and Order Limits have been widened between TB128 and TB133 to allow flexibility to change the alignment to reduce effects should the Lowleys Farm mineral allocation be progressed.

5.8.14 Within the same area, the LoD and Order Limits have been widened to facilitate an alternative haul road off the proposed Chelmsford Bypass new roundabout. These changes are both presented on Figure 4.1: Proposed Project Design (document reference 6.4.F1) (Revision B) and Figure 4.2: Proposed Project Design – Permanent Features (document reference 6.4.F2) (Revision B). Where flexibility in the design is being sought, the ES has assessed a single scenario within Section 7 of each ES Chapter with an assessment of the flexibility presented in Section 9 of each environmental topic chapter. Further detail is presented in Table 4.4 of ES Chapter 4 (document reference 6.4) (Revision B) as to how each element has been assessed within the ES (Volume 6 of the DCO application).

5.8.15 The emerging Chelmsford Local Plan Regulation 19 Consultation document has identified Special Policy Area at ARU Writtle. Emerging policy SPA6 identifies that development will be permitted for proposals that are not inappropriate development in the Green Belt. A narrow corridor of ARU Writtle subject to this proposed policy will be oversailed by the Project.

5.8.16 The Project is routed through the following Neighbourhood Plans:

- Broomfield Neighbourhood Plan (adopted)
- Writtle Neighbourhood Plan (adopted).

5.8.17 The relevant policies of the above Neighbourhood Plans are detailed and considered in the Policy Compliance Document (document reference 5.7).

5.8.18 Aside from the Essex Minerals and emerging Special Policy Area allocation identified above, there are no allocations within the Order Limits in Section F.

5.9 Section G: Basildon Borough and Brentwood Borough (and Chelmsford east of Ingatestone)

Location and Key Environmental Designations in Section G

5.9.1 The Project in Section G utilises overhead line technology. The TB overhead line route comprises 46 standard height lattice pylons. The length of the overhead line within Section G is approximately 14 km.

5.9.2 Section G starts on the southern side of the A12 Ingatestone Bypass, heading south-east over the B1002 at Margaretting, and crossing a railway line linking Stratford and Chelmsford. It continues south-east past Spring Wood, crossing the River Wid, before heading south and crossing Stock Brook.

5.9.3 The Project then heads south-west, crossing different Sections of the River Wid twice and passing by Harespring Wood Ancient Woodland. It continues south, crossing the railway line linking Billericay and Shenfield, then the A129 Rayleigh Road. The Order Limits extend east to allow for third-party mitigation works near Hutton Manor/ Woodlands School.

5.9.4 The Project continues south past Havering's Grove and James Wood Ancient Woodland.

5.9.5 The Project then crosses an unnamed river before continuing south through arable fields passing between Little Burstead to the east and Parkhill Wood Ancient Woodland to the west, before crossing the A127 Southend Arterial Road. At this point, the Project is within approximately 50 m of Frieren Manor Wood Ancient Woodland. The Project continues south through arable fields concluding this Section at the border of Thurrock at the crossing of another railway line between Laindon and West Horndon.

5.9.6 There are no designated ecological features such as SPA, SAC, SSSI, Ancient Woodland or CWSs within the Order Limits in Section G.

5.9.7 A narrow section of St. Margarets Wood and Lane LWS would be over sailed by the new 400kV overhead line which would require some tree removal. This is reported in ES Chapter 8: Ecology and Biodiversity (document reference 6.8) (Revision C).

5.9.8 There are no designated heritage assets such as World Heritage Sites, Registered Battlefields, Registered Parks and Gardens, Scheduled Monuments, Listed Buildings or Conservation Areas within the Order Limits in Section G.

5.9.9 There are no RIGS, County Geodiversity Sites or geological SSSI present within the Order Limits in Section G.

Key Planning Considerations in Section G

5.9.10 Key planning considerations in Section G include the following:

- The Basildon Local Plan was adopted in 1998 with alterations in 1999. In 2007 the Secretary of State issued a Direction identifying saved policies from the Local Plan. Those saved policies represent the local planning policies currently applied by the Council to inform the determination of planning applications. Basildon Borough Council has commenced the preparation of their Local Plan review with a Regulation 18 consultation commencing in November 2024. The Brentwood Local Plan was adopted in March 2022
- The Project would interact with Dunton Hills Garden Village Brentwood Local Plan allocation which is expected to deliver up to 4,000 dwellings with a range of other land uses including 5 ha of employment land. The site benefits from a resolution to grant outline planning permission (subject to the completion of a Planning Agreement). The outline planning application includes up to 3,700 dwellings, three care homes, five gypsy/traveller pitches, secondary and primary schools, children's nurseries, employment hub, village centre and neighbourhood hubs, mobility hub, community sports hub, football hub, cricket ground, green and blue infrastructure, sustainable drainage system, access to A128 Tilbury Road, footpath/cycle link to the A127 and other associated infrastructure works including noise barrier, demolition of structures and undergrounding of the overhead lines. The delivery of Dunton Hills Garden Village is being progressed through the Government's Garden Communities Programme which is overseen by Homes England. National Grid has engaged with the promoters of this proposal as well as Brentwood Borough Council and Essex County Council. As outlined in the Design Development Report (document reference 5.15) (Revision B), National Grid has considered alternative options to route around the Dunton Hills Garden Village and these are reported on in the Design Development Report (document reference 5.15) (Revision B). National Grid considers that the respective proposals are not incompatible. Furthermore, National Grid has identified an alignment which does not directly restrict development on any areas that are not already constrained by the safety zone around an existing gas pipeline
- The Project oversails a consented solar farm subject to a cross-boundary planning application with Basildon Borough Council (Basildon planning application reference 24/01262/FUL) and Brentwood Borough Council (Brentwood planning application reference 24/01263/FUL). The application was consented by both authorities on 1 May 2025 and 30 April 2025 respectively. National Grid has amended the overhead line alignment in this location to avoid direct interaction with the solar arrays
- The Project oversails the Crouch Solar Farm site which was subject to a cross-boundary planning application consented by Brentwood Borough Council in December 2021 and on appeal (Planning Inspectorate reference APP/C1505/W/22/3301454) following a refusal by Basildon Borough Council in April 2023. National Grid has engaged with the developers to minimise any direct impacts arising from the Project
- Crest Nicholson has submitted a planning application (Basildon planning application reference 24/00729/FULL) to Basildon Borough Council for the redevelopment of land to the east of Lower Dunton Road to provide 146 residential dwellings (Class C3); provision of strategic landscape; provision of new vehicular and pedestrian access routes and associated infrastructure. Within the north west of the site, National Grid is proposing to remove and underground a section of third-party 132 kV overhead line.

5.9.11 Where appropriate, National Grid has prepared Statements of Common Ground or sought and interface agreement where there is an overlap with a third-party development.

5.9.12 Basildon Council is reviewing its Local Plan and published its Regulation 18 Local Plan Consultation between18 November 2024 and 12 January 2025. There are two proposed allocations which directly interact with the Project. These are:

5.9.13 Site H11 – Land at Southfields, site with potential capacity for up to 1,800 new homes. This site is immediately to the east of the Dunton Hills Garden Village. The routeing of the overhead line in this area was realigned to accommodate the housing development proposed at Dunton Hills Garden Village. In identifying the routeing and alignment, National Grid has sought to minimise any direct impact on the Dunton Hills Garden Village by adopting a preferred alignment within the safety zone around an existing high pressure gas pipeline. The gas main has a defined safety zone within which new housing would not be permitted to be developed (this safety zone limits the developable area for both Dunton Hills Garden Village and Site H11). As such, it is considered that the Project would not prevent this potential housing allocation from coming forward. It is understood that Crest Nicholson has proposals for part of this potential allocation (in addition to the above planning application (reference 24/00729/FULL). Two haul roads are presented to provide an alternative haul road should the Crest Nicholson housing development progress. Figure 4.1: Proposed Project Design (document reference 6.4.F1) (Revision B) shows two haul roads / construction access arrangements within the Order Limits between TB225 and TB226.

5.9.14 Site AS1 – North of Billericay, Queens Park which is a184 hectare site identified as having the potential for residential development. The Project Order Limits have only a minor interaction with this potential allocation. National Grid has engaged with Basildon Council to highlight the interaction between the Project and these potential allocations.

5.9.15 The Project is entirely within the Metropolitan Green Belt through Section G.

5.9.16 Appendix A of this Planning Statement contains further details of committed developments which interact with the Order Limits. The Project is routed through the following Neighbourhood Plan Areas:

- Ingatestone and Fryerning Neighbourhood Plan (adopted)
- West Horndon Neighbourhood Plan (rejected).

5.9.17 The relevant policies of the above Neighbourhood Plans are detailed and considered in the Policy Compliance Document (document reference 5.7).

5.9.18 Aside from Dunton Hills Garden Village there are no allocations within the Order Limits in Section G.

5.10 Section H: Thurrock

Location and Key Environmental Designations in Section H

5.10.1 The Project in Section H utilises overhead line technology and underground cable technology. A new Tilbury North Substation is proposed in Section H. Modifications to the existing National Grid Electricity Transmission overhead lines (YYJ and ZB overhead lines) to facilitate the connection of the existing network into the new Tilbury North Substation to provide connection to the Tilbury Substation

5.10.2 Within Section H the TB Route would comprise 27 standard height pylons and six low-height pylons. The low-height pylons are proposed to provide overflight clearance mitigation for Thurrock Airfield.

5.10.3 The modifications to the existing National Grid overhead lines would involve:

- The re-routeing of the existing YYJ overhead line to a more southerly permanent alignment. This would require eight new pylons and the removal of five existing pylons
- Undergrounding a short section (approximately 0.55 km) of the existing ZB overhead line and the construction of two new CSE compounds, each with a permanent access. In addition, three new pylons would be required and four existing pylons removed.

5.10.4 Section H of the Project continues south through arable fields, with Langdon Ridge SSSI adjacent to the east, before crossing the River Mardyke and then Doesgate Lane. It then continues south through arable fields and some areas of woodland, passing to the west of Horndon on the Hill, before crossing the A13 Stanford Hope Bypass and the A1013 Stanford Road. The Project continues south where is connects into the new Tilbury North Substation adjacent to Orsett Golf Course and Rainbow Wood Ancient Woodland.

5.10.5 The Order Limits continue to the west and south of Tilbury North Substation to allow for modifications to the existing ZB and YYJ infrastructure, including two CSE compounds south of the proposed Lower Thames Crossing (LTC) project. Ashen Wood Ancient Woodland also interacts with the Order Limits.

5.10.6 There are no designated ecological features such as SPA, SAC, SSSI or CWSs within the Order Limits in Section H.

5.10.7 The Project does position a pylon within the Buckingham Hill LWS. Order Limits have been drawn to accommodate a westward movement should ground conditions on former landfill be suitable for placing a pylon. The Project also oversails the Mucking Heath Complex LWS where the Project oversails Orsett Golf Course. Mitigation works to existing overhead line infrastructure is also proposed at Linford Pit LWS.

5.10.8 There are no designated heritage assets such as World Heritage Sites, Registered Battlefields, Registered Parks and Gardens, Scheduled Monuments, Listed Buildings or Conservation Areas within the Order Limits in Section H.

5.10.9 There are no RIGS, County Geodiversity Sites or geological SSSI present within the Order Limits in Section H.

Key Planning Considerations in Section H

5.10.10 Key planning considerations in Section H include:

- The adopted development plan for Thurrock includes the Thurrock Local Development Framework, Core Strategy and Policies for the management of development (as amended) (adopted 2015) and Thurrock Borough Local Plan (adopted 1997) saved policies
- Thurrock Council has commenced the review of their Local Plan with a Regulation 18 consultation taking place between December 2023 and February 2024

- The Project interacts with a number of DCO projects in Section G. These include the LTC Project which received development consent on 25 March 2025 (Planning Inspectorate Reference TR010032). The LTC is a trunk road dual carriageway, connecting the A2/M2 at Thong (Kent) to the M25 at Thames Chase (London Borough of Havering and Essex), south of Junction 29, with twin bored tunnels under the River Thames. Feedback received from National Highways to the Targeted Consultation during February and March 2025 highlighted the interaction between the environmental mitigation proposals associated with both projects. National Highways identified the potential of the Project to constrain their proposed ancient woodland and nitrogen deposition mitigation proposal. National Highways has identified an alternative location adjacent to Rainbow Wood National Grid have widened the LoD and Order Limits to the south of the proposed new Tilbury North Substation to allow a change to the design should the LTC project not be progressed or ongoing coordination identify a change is required. Should LTC not be progressed, an alternative Environmental Area is also proposed. Figure 4.1: Proposed Project Design (document reference 6.4.F1) (Revision B) and Figure 4.2: Proposed Project Design – Permanent Features (document reference 6.4.F2) (Revision B) presents the temporary and permanent works to existing overhead line infrastructure (YYJ and ZB) to the south of the new Tilbury North Substation
- Other consented National Infrastructure Projects in proximity include Thurrock Flexible Generation which was consented in February 2022 and subject to a non-material change in September 2024. The overlap with the Thurrock Flexible Generation and LTC has been taken into consideration in designing the Project. Figure 4.1: Proposed Project Design (document reference 6.4.F1) (Revision B) and Figure 4.2: Proposed Project Design – Permanent Features (document reference 6.4.F2) (Revision B) shows temporary and permanent works to existing overhead line infrastructure (YYJ and ZB) to the south of the new Tilbury North Substation. In addition, the Project presents temporary and permanent access options associated with the new Tilbury North Substation and associated works. The LoD and Order Limits have been widened at this location to allow a change to the design should the ongoing coordination identify a change is required. Should LTC not be progressed, an alternative Environmental Area is also proposed
- The Project includes proposals to position two pylons in Maple Park (including one within Buckingham Hill LWS. The positioning of these pylons has been subject to an open space assessment (contained within Appendix B of this Planning Statement). This identifies that whilst there is a loss of open space associated with the pylons; it is considered that there is a surplus of the typology of open space which would be lost within Thurrock. Notwithstanding this, National Grid has identified a widened Order Limits with a view to positioning the pylons to the west of Buckingham Hill Road (on a former landfill site) subject to there being acceptable ground conditions The LoD and Order Limits have been widened between TB255 and TB259 to allow flexibility to allow an alternative alignment if the Southfields housing development (described below) does not go ahead, as the alignment could then move to the west, removing two crossings of Buckingham Hill Road, a crossing of a historic landfill site and pylons situated within Maple Park and a quarry site
- The LoD and Order Limits have been widened between TB238 and TB240 to allow flexibility to enable an alternative alignment with more angles to facilitate a more perpendicular crossing at the British Pipeline Agency (BPA) pipeline. Figure 4.1: Proposed Project Design (document reference 6.4.F1) (Revision B) and Figure 4.2: Proposed Project Design – Permanent Features (document reference 6.4.F2) (Revision B) shows an overhead line alignment between TB238 and TB240

- Six low height pylons are proposed between TB238 and TB243 to ensure safe operation at Thurrock Airfield. However, should a housing development be brought forwards at Thurrock Airfield and/or the airfield be closed, low height pylons would not be required, and standard lattice pylons would be installed instead
- Where flexibility in the design is being sought, the ES has assessed a single scenario within Section 7 of each ES Chapter with an assessment of the flexibility presented in Section 9 of each environmental topic chapter. Further detail is presented in Table 4.4 of ES Chapter 4 (document reference 6.4) (Revision B) as to how each element has been assessed within the ES (Volume 6 of the DCO application).

5.10.11 The Project interacts with proposed allocations identified in Creating Successful Places: Local Plan – Initial Proposals Document: Regulation 18 consultation. The sites which have the potential to interact with the Project include:

- Stanford-le-Hope (St. Clere's Hall Golf Club)
- Southfields Opportunity Area
- Chadwell St. Mary.

5.10.12 It is noted that both the Southfields Opportunity Area and Chadwell St. Mary have been subject to an EIA Scoping submission.

5.10.13 The EIA Scoping Request for the Southfields Opportunity Area was submitted to Thurrock Council on 12 July 2023 (Thurrock Council reference 23/00897/SCO) and was based on the following description of development '*Proposed residential-led mixed-use development comprising of approximately 775 residential dwellings (Class C3), with a new village centre and public square; land for a junior school; sports pitches; external amenity spaces; eco-parkland for informal recreation and nature conservation; new pedestrian routes and cycleway connections; landscaping; and associated works*.' The Project follows an alignment to the south-east boundary. National Grid is in discussion with the applicant around the overhead line alignment in this portion of the route to minimise interaction with the Project.

5.10.14 The EIA Scoping Request for the (Land East Of) Chadwell St Marys site (Thurrock Council reference 25/00333/SCO) was submitted to Thurrock Council on 24 March 2025. The description of development was residential development of up to 1,500 dwellings (Use Class C3), a primary school (Use Class F1), retail floor space and healthcare floor space as part of a mixed use neighbourhood centre (Use Classes E, F1, F2, C3, C2, sui generis hot food takeaway, drinking establishment), site accesses and highway works (Scenario A without LTC and Scenario B with LTC), associated infrastructure, ancillary works, green and blue infrastructure including sustainable drainage systems, ecological habitat areas, children's play areas, public open space, playing fields and Suitable Alternative Natural Greenspace. The boundaries of the proposed allocation and site subject to the EIA Screening overlap with the proposed YYJ temporary and permanent overhead line works. National Grid is engaging with the promoters of these proposals. National Grid is in discussion with the applicant around the overhead line alignment in this portion of the route to minimise interaction with the Project.

5.10.15 To the south of the Shoeburyness and Tilbury Town Railway Line is the northern boundary of the Thames Freeport site. National Grid originally considered that the Project could have co-existed with the Thames Freeport (designated as a Freeport Zone on December 15, 2021) when proposing to connect to the existing Tilbury Substation. As set out in the Design Development Report (document reference 5.15) (Revision B) there was a concern that the Project could constrain economic potential of the Freeport Area. As a consequence, National Grid has identified an alternative substation location (Tilbury North) and has identified an option to connect into the existing overhead line to the north (known as the YYJ line) which meets the network reinforcement requirements and would avoid the need for interactions with the Freeport area.

5.10.16 There are a number of residential, solar, utilities, and agricultural schemes currently at various stages of proposed development along various points of the route.

5.10.17 Where appropriate, National Grid has prepared Statements of Common Ground or sought an interface agreement where there is an overlap with a third-party development.

5.10.18 The Project is within the Metropolitan Green Belt through all of Section H.

5.10.19 Appendix A of this Planning Statement contains further details of committed developments which interact with the Order Limits. No Neighbourhood Plans have been identified within Section H.

5.10.20 There are no allocations within the Order Limits in Section H.

5.11 Committed Developments Within the Order Limits

5.11.1 National Grid has also been reviewing all development proposals within or adjacent to the Order Limits and has, where relevant, made representations to the local planning authority (LPA) to advise applicants of the Project's interaction with the planning application(s) or emerging development plan allocations. A summary of planning permissions and DCOs which intersect the Order Limits for the Project is contained at Appendix A of this Planning Statement.

6. Project Evolution and Design

6.1 Overview

6.1.1 This chapter sets out how planning policy, as well as the requirement of the Electricity Act and the principles of the Holford Rules (National Grid, 1959) and Horlock Rules (National Grid, 2009), have influenced the optioneering and design evolution process, demonstrating how such policy and legislative objectives have been embedded into the design of the Project. NPS policy is set out in greater detail in Chapter 2 of this Planning Statement.

6.1.2 This chapter should be read alongside the Strategic Options Backcheck Review (document reference 7.17), ES Chapter 3: Alternatives (document reference 6.3) (Revision B) which documents the key environmental factors that were considered in the optioneering and design evolution process, alongside the Design Development Report (document reference 5.15) (Revision B), Design and Access Statement (document reference 7.15) (Revision D) and DASSI (document reference 7.16) (Revision E). The design of the Project has evolved throughout the development process, as detailed in the following reports:

- Corridor and Preliminary Routeing and Siting Study (2022) (document reference 7.18)
- Strategic Options Backcheck Review (2023) (document reference 7.19)
- Design Development Report for the Project (2023) (document reference 7.20)
- Design Development Report for the Project (2024) (document reference 7.21)
- Strategic Options Backcheck Review (2025) (document reference 7.17)
- Design Development Report for the Project (2025) (document reference 5.15) (Revision B).

National Grid's Approach to Options Appraisal

6.1.3 National Grid undertakes options appraisal to identify the most appropriate way to meet the identified need. There are often a number of different ways that the defined need could potentially be met, involving different locations, technologies or designs. Each appraisal which is undertaken for that purpose requires judgements and decisions about the best way to achieve the required outcome which define the project to promote. The options appraisal process provides information to help inform those judgements.

6.1.4 Options appraisal is a robust and transparent process that is used to compare options and to record the positive and negative effects they may have in meeting the defined need, across a wide range of criteria including environmental, socio-economic, technical, and cost factors. The aim is to find a balanced outcome to meet the identified need while meeting National Grid's statutory duties. Further details on the options appraisal process can be found in Our Approach to Options Appraisal (National Grid, 2012) and in Our Approach to Consenting (National Grid, 2022).

6.1.5 The options appraisal for the Project followed the above approach and involved a hierarchical assessment starting from strategic alternatives (such as broad technology choices and geographic areas) to select a preferred Strategic Proposal i.e. the Project, which is then defined in detail through further design and assessment work. This proposal was then subject to routeing and siting to determine an alignment for the Project, which was subsequently refined following statutory and non-statutory pre application consultation. Finally, alternative construction methods were considered.

6.1.6 At each stage in the options appraisal process, transparent methods were used to inform decision-making. This included technical inputs from engineers, planners and environmental consultants to inform the decisions and design. The optioneering process drew on data and evidence collected from both desk studies and field work (including technical, environmental, socio-economic, and cost factors). Decision-making also took account of feedback from both prescribed bodies and the local community through a programme of engagement and consultation. In addition, the appraisal was subject to challenge and review to ensure the robustness of the decisions made in light of changing circumstances.

Design Evolution

6.1.7 The design evolution of the Project is set out in ES Chapter 3 – Alternatives (document reference 6.3) (Revision B) and is summarised in this section of the Planning Statement.

6.1.8 The Corridor and Preliminary Routeing and Siting Study (document reference 7.18) established the preferred Strategic Proposal following comprehensive assessment of alternative strategic options to meet the identified transmission system need. This strategic assessment evaluated multiple technological approaches and configurations including offshore connections, onshore alternatives, HVDC options, and various alternating current (AC) arrangements, balancing cost, technical performance, environmental and socio-economic effects in accordance with National Grid's statutory duties under the Electricity Act 1989.

Due Consideration to Offshore Solution

6.1.9 National Grid has given due consideration throughout the pre-application process to alternatives to a predominantly overhead line proposal. This includes strategic alternatives such as an integrated offshore grid, offshore cabling from Norfolk to the southeast and onshore with full use of underground cabling. A brief summary of the reasons that these were not taken forward has been provided below. Full details of the assessment are available in the CPRSS (document reference 7.18) and SOBR reports (document reference 7.17).

6.1.10 There is no fully offshore solution to connect offshore wind to the grid, the power has to come onshore somewhere. The Project did consider an equivalent offshore option using HVDC (the appropriate technology in such circumstances). This requires converter stations at each end of the cables to integrate with the onshore alternating current (AC) based NETS. In order to facilitate an equivalent connection, it was concluded that considerably more infrastructure would be required. Factors which were considered in deciding not to progress with an offshore HVDC option, included, but were not limited to:

- The advice contained in adopted policy in the NPSs that overhead lines are appropriate technology in most circumstances
- The potential for mitigation of onshore options including undergrounding - where justified and feasible
- Cost and economics - the offshore options would be several billion pounds more expensive than onshore options.

6.1.11 Even if a more integrated solution that connected from the windfarms directly was to be developed, and the programme delay and constraints costs ignored, the scale of power transmission required would necessitate multiple HVDC connections. This would be at a cost that could not be justified nor be delivered to meet the programme requirements of the need case.

6.1.12 The 2025 Strategic Option Backcheck and Review (document reference 7.17) provides a cost comparison.

Onshore Solution

6.1.13 The assessment determined that 400kV AC overhead lines would provide the primary technology solution for the strategic proposal, with targeted underground 400kV AC cable sections in environmentally sensitive areas to optimise system performance whilst meeting statutory environmental duties and policy requirements.

6.1.14 The Strategic Options Backcheck Review (SOBR) (2023) confirmed this Strategic Proposal preference, with the SOBR (2024) reaffirming the strategic proposal remains optimal following further policy updates and consultation feedback.

6.1.15 The confirmed Strategic Proposal comprises:

6.1.16 **Norwich Main to Bramford Connection**: New 400kV double-circuit overhead line of approximately 60km, selected over alternatives including Necton Substation start point and Twinstead Tee routeing based on shorter connection distances, reduced environmental effects, and better Holford Rules compliance

6.1.17 **New EACN Substation within Tendring District**: Building from the NESO connection agreements, the CPRSS strategic assessment identified the requirement for a new EACN Substation integrated within the broader East Anglia reinforcement to efficiently provide offshore wind farm connections. The strategic evaluation considered regional alternatives including coastal locations and determined that the Tendring District location was optimal. This strategic decision was based on avoiding the greater effects (which would be required for Felixstowe area alternatives), reducing infrastructure complexity, and minimising additional connection requirements. The SOBR confirmed this strategic preference, validating that EAS 2 (Bramford via new substation to Tilbury) provided the optimal solution for integrating the Essex Coast Generation Group connections whilst meeting transmission reinforcement requirements.

6.1.18 **Bramford to Tilbury Connection**: New 400kV double-circuit overhead line of approximately 120km via new EACN Substation in Tendring District, selected over offshore and alternative onshore options based on superior cost-benefit analysis, technical feasibility and environmental performance.

6.1.19 This strategic configuration provides the most cost-effective solution to meet identified transmission needs, being consistent with Planning policy whilst reducing environmental impacts and aligning with National Grid's statutory duties. The Strategic Proposal was therefore carried forward for detailed corridor routeing and siting assessment as documented in subsequent sections.

6.1.20 Following the establishment of the Strategic Proposal, the next phase was to develop the specific Project through detailed corridor routeing and siting studies. This process translated the strategic-level parameters into specific infrastructure designs, comprising comprehensive assessments for overhead line corridors, underground cable routes, substation locations, CSE compound sites, and associated works required to deliver the transmission connection.

Onshore Undergrounding

6.1.21 As described above, it was assessed that steel lattice pylon supported overhead lines would provide the primary technology solution, with targeted underground cable sections in technically constrained and environmentally sensitive areas to optimise system performance whilst meeting statutory environmental duties as well as policy requirements.

6.1.22 NPS EN-5 makes it clear that the government considers overhead lines should be the '*strong starting presumption for electricity networks developments in* general', although 'this presumption is reversed when developments will cross part of a nationally designated landscape' (paragraph 2.9.20).

6.1.23 Undergrounding is proposed in four locations, including through the Dedham Vale National Landscape and part of its setting. The Dedham Vale National Landscape is a nationally important and designated landscape. With the proposed underground cable, the effects on views and setting would be reduced.

6.1.24 The other areas of undergrounding are:

- Great Horkesley due to the potential effects of OHL on the Dedham Vale National Landscape
- Fairstead to cross the existing 400 kV overhead line
- Existing YYJ route into the proposed new Tilbury North Substation to reduce effect on housing proposals by less direct land take and technical reasons that avoids outage interface with wider network.

6.1.25 Where the effects arising from standard lattice pylons are inconsistent with policy and National Grid's duties, the mitigation hierarchy is applied. The mitigation hierarchy sequentially considers localised specific mitigation measures, pylon position and routeing, low height pylons, T-pylons and the use of underground cables. Applied in this way National Grid can demonstrate compliance with it is duties under the Electricity Act and be assured the Project will be funded.

6.1.26 It is noted that EN-5 identifies that there may also be instances outside the nationally designated landscapes, where '*a high potential for widespread and significant adverse landscape and/or visual impacts*' (paragraph 2.9.24) may result in the use of underground cables in certain sections. Furthermore, EN-5 states that '*where the nature or proposed route of an overhead line will likely result in particularly significant landscape and visual impacts, as would be assessed through landscape, seascape and visual impact assessment, the applicant should demonstrate that they have given due consideration to the costs and benefits of feasible alternatives to the overhead line. This could include – where appropriate – rerouting, underground or subsea cables and the feasibility e.g. in cost, engineering or environmental terms of these*.' (paragraph 2.9.14).

6.1.27 Similarly, in accordance with the undergrounding policy section that is set out under paragraph 2.9.23 to 2.9.25 of NPS EN-5:

- Paragraph 2.9.23 'Additionally, cases will arise where – though no part of the proposed development crosses a designated landscape – a high potential for widespread and significant adverse landscape and/or visual impacts along certain sections of its route may result in recommendations to use undergrounding for relevant segments of the line or alternatively consideration of using a route including subsea cabling'.
- Paragraph 2.9.24 'In these cases, and taking account of the fact that the government has not laid down any further rule on the circumstances requiring use of underground or subsea cables, the Secretary of State must weigh the feasibility, cost, and any harm of the undergrounding or subsea option against:
  - the adverse implications of the overhead line proposal;
  - the cost and feasibility of re-routing overhead lines or mitigation proposals for the relevant line section; and
  - the cost and feasibility of the reconfiguration, rationalisation, and/or use of underground or subsea cabling of proximate existing or proposed electricity networks infrastructure'

Paragraph 2.9.25 '*In such cases the Secretary of State should only grant development consent for underground or subsea sections of a proposed line over an overhead alternative if they are satisfied that the benefits accruing from the former proposal clearly outweigh any extra economic, social, or environmental impacts that it presents, the mitigation hierarchy has been followed, and that any technical obstacles associated with it are surmountable. In this context it should consider:*

- *the landscape and visual baseline characteristics of the setting of the proposed route, in particular, the impact on high sensitivity visual receptors (as defined in the current edition of the Landscape Institute's Guidelines for Landscape and Visual Impact Assessment), residential areas, designated landscapes, valued landscapes, designated heritage assets and Heritage Coasts (including, where relevant, impacts on the setting of designated features and areas), noting the policy in EN-1 section 5.4.53 on regional and local designations;*
- *the additional cost of the proposed underground or sub-sea alternatives, including their significantly higher lifetime cost of repair and later uprating;*
- *the potentially very disruptive effects of undergrounding on local communities, habitats, archaeological and heritage assets, marine environments, soil (including peat soils), hydrology, geology, and, for a substantial time after construction, landscape and visual amenity. (Undergrounding an overhead line will mean digging a trench along the length of the route, and so such works will often be disruptive – albeit temporarily – to the receptors listed above than would an overhead line of equivalent rating);*
- *the potentially very disruptive effects of subsea cables on the seabed and the species that live in and on it, including physical damage to and full loss of seabed habitats. Cable protection can also be required where cables cross each other, or where they cannot be buried deep enough to protect them from becoming exposed. Such protection causes additional impacts that are often greater than those of the cable itself due to the large areas covered. There can also be issues*

where subsea cables make landfall, as much coastal land is protected habitat with environmental and heritage designations and landfall connections could cause additional disruption to coastal communities and the environment;

- *the applicant's commitment, as set out in their ES, to mitigate the potential detrimental effects of undergrounding works on any relevant agricultural land and soils (including peat soils), particularly regarding Best and Most Versatile land, including development and implementation of a Soil Resources and Management Plan. Such a commitment must guarantee appropriate handling of soil, backfilling, and return of the land to the baseline Agricultural Land Classification (ALC), thus ensuring no loss or degradation of agricultural land. Such a commitment should be based on soil and ALC surveys in line with the 1988 ALC criteria and due consideration of the Defra Construction Code of Practice for Sustainable Use of Soils on Construction Sites.'* The context and implications of undergrounding in areas outside nationally designated landscapes have been carefully taken into consideration and appraised. Due regard to the costs, benefits/disbenefits and feasibility of undergrounding to overhead line in areas outside the nationally designated landscape has been backchecked and reviewed throughout the 'design evolution' process with the final position, set out in the 2025 Design Development Report (document reference 5.15) (Revision B).

Options Appraisal and the Project Development Process

6.1.28 The design of the Project has followed a structured project development process that has integrated technical assessment with stakeholder engagement. The key stages with the associated key design outcomes and main outputs that forms the design evolution process is set out as follows:

Figure 6.1 Approach to consenting process



Strategic Proposal

6.1.29 Main design outcomes:

- Multi-project solution to meet reinforcement need of which Norwich to Tilbury forms one project
- Onshore preferred over offshore for Norwich to Tilbury reinforcement
- Predominately overhead line connection with some underground cable in designated areas
- Integrating EACN preferred over separate connection projects
- Corridor and graduated swathe for onshore.

6.1.30 Main outputs:

- April 2022: CPRSS identifying the preferred strategic proposal to meet the defined need and corridor options
- April-June 2022: Non-statutory consultation on preferred corridor options and graduated swathes for the Project.

Options Identification and Selection

6.1.31 Main design outcomes:

- Route option development building on feedback from corridor and graduated swathe
- Additional locations for underground cable confirmed between the Dedham vale national landscape and EACN at Great Horkesley the setting of the national landscape and for line entries into Tilbury Substation
- Location for transitions to underground cable identified
- Ongoing back-check and review of the strategic options considered for the Project against the need case.

6.1.32 Main outputs:

- June 2023: Strategic Options Backcheck Review (SOBR) to check the appropriateness of the then currently preferred strategic approach considering new and relevant information
- June 2023: Design Development Report (DDR) documenting design refinements and reasonable alternatives considered following review of 2022 consultation feedback
- June-August 2023: Non-statutory consultation on the 2023 preferred draft alignment with proposed infrastructure locations.

Defined Proposal

6.1.33 Main design outcomes:

- Detailed refinement of proposed indicative alignment and pylon positions building on feedback from consultation; technical and environmental studies
- Development of draft order limits
- Development of transport and access requirements including multi-modal options
- Opportunities for reducing effects through rationalisation of lower voltage network.

6.1.34 Main outputs:

- April 2024: Updated Strategic Options Backcheck Review (SOBR) to check the appropriateness of the then currently preferred strategic approach considering new and relevant information
- April 2024: Design Development Report (DDR) documenting design refinements and reasonable alternatives considered following 2023 consultation feedback
- April-July 2024: Statutory consultation on the 2024 preferred draft alignment with Preliminary Environmental Information Report.

Assessment and Land Rights (Including Further Refinement)

6.1.35 Main design outcomes:

- Confirmation of overhead line for River Waveney crossing Change of connection arrangement at Tilbury with new Tilbury North Substation and the use of existing lines to Tilbury Substation removing the need for underground cable
- Refinement and finalisation of route alignment, indicative pylon positions and temporary works.

6.1.36 Main outputs:

- Ongoing: Engagement with landowners and their feedback into our proposals
- March 2025: Targeted statutory and non-statutory consultation on proposed changes following statutory consultation including change to Tilbury connection arrangements
- August 2025: Report issued with DCO submission to report on the feedback received to the 2024 statutory consultation and to the targeted statutory and non-statutory consultations held in 2025.

6.1.37 This timeline demonstrates how the strategic work identified the strategic high-level form and connection points for the Project and how assessment has evolved through iterative design development of the Project, with each Project consultation document building upon previous assessments and incorporating stakeholder and consultation feedback. The documents listed above provide the main detailed technical evidence base that underpins the evolution of the Project design. For further detailed information for each stage see the output documents listed above.

6.1.38 A key part of the design evolution is a development process involving design change control where potential design refinements are identified through stakeholder feedback, the results of non-statutory and statutory consultation, on-going discussions with landowners and reviews by the engineering and environmental team, as additional baseline information is collated. The process has been developed to ensure that each identified design refinement is carefully considered by National Grid's specialist teams covering environment, socio-economics, design & construction and land rights.

6.1.39 The design for the Project is set out in detail in ES Chapter 4: Project Description (document reference 6.4) (Revision B), which describes the design submitted within the application. This should be read alongside ES Chapter 3: Alternatives (document reference 6.3) (Revision B), which documents the key environmental factors that were considered in the optioneering and design evolution process (from strategic options to the proposal subject to the application for development consent) and summarises the design process captured in the following reports:

- Corridor and Preliminary Routeing and Siting Study (2022) (document reference 7.18)
- Strategic Options Backcheck Review (2023) (document reference 7.19)
- Design Development Report for the Project (2023) (document reference 7.20)
- Design Development Report for the Project (2024) (document reference 7.21)
- Strategic Options Backcheck Review (2025) (document reference 7.17)
- Design Development Report for the Project (2025) (document reference 5.15) (Revision B).

6.1.40 The Design Development Reports have been prepared to explain the reasons for taking forward certain changes and explaining why other changes are not taken forwards. Professional judgement was used to determine which changes are judged to be the main ones covered with the remainder covered within the Consultation Report (document reference 5.1) (Revision B).

6.1.41 The 2023 DDR published as part of the 2023 non-statutory consultation reports on the changes to the corridor and the development of a route alignment building on the graduated swathe along with initial proposals for the use of underground cable (and initial CSE positions). A modified draft alignment and updates to CSEC position and route alignment responding to feedback was then set out in the 2024 DDR published in support of the 2024 statutory consultation. The submission DDR explains the changes to the Project after consideration of feedback from the 2024 Statutory Consultation and the 2025 targeted statutory and non-statutory consultations. At each stage, the Consultation Report (document reference 5.1) (Revision B) provides a comprehensive record of the rationale for decision making following consideration of all items of feedback received.

6.1.42 National Grid has given due consideration to the costs and benefits of feasible alternatives to the overhead line in line with Paragraph 2.9.14 of NPS EN-5. Furthermore, National Grid has continued to backcheck and review its proposal. After taking into consideration the socio-economic, environmental, technical and cost factors, the proposal that best meets the needs case set out above is an onshore reinforcement between Norwich Main Substation and Tilbury Substation via Bramford Substation, a new Tilbury North Substation. National Grid is satisfied that no additional undergrounding is justified beyond what is proposed. Accordingly, the Project considers that it has address the policy requirements set out in Paragraphs 2.9.23 to 2.9.25 (inclusive) of NPS EN-5.

6.1.43 The Project as proposed has been identified as a CNP that must facilitate new connections by the end of 2030. As such and as set out in NPS EN-1 Paragraphs 4.3.22 and 4.3.23, any alternative to the Project would have to demonstrate it could support the delivery of the connections within the 2030 programme. There is a need for the Project to be delivered at pace to achieve the Clean Power 2030 target for the benefits to be realised.

Design Evolution Going Forward

6.1.44 A key aspect of design evolution has been the recent assessment stage of the Project and how design will be secured/controlled for the implementation and delivery stage. The DAS sets out how the Project has been assessed that includes a ‘design for assessment’ section, as well as a ‘secure and control’ section for the delivery stage.

Design Principles

6.1.45 National Grid’s overarching design principles are set out in the DAS. This section of the Planning Statement provides a summary of the key design principles and constraints that have guided decision making reported in the DDR (document reference 7.15) (Revision D) and DASSI (document reference 7.16) (Revision E). Good design of electricity transmission infrastructure is primarily governed by application of the Holford and Horlock rules, alongside an iterative design approach informed by stakeholder engagement, relevant sections of national policy (NPS EN-1 and EN-5) and the embedded environmental design mitigation as part of the EIA process. Such good design principles are then intertwined with the technical design requirements alongside the regulatory and other constraints such as operational, safety and security requirements for new electricity transmission infrastructure.

Holford Rules

6.1.46 Broad principles for overhead transmission line routeing were formulated by the late Lord Holford and published in 1959 by the Royal Society of Arts. These rules, known as the 'Holford Rules', were reviewed by National Grid in 1992 and have become accepted within the electricity transmission industry as the providing the guidelines for overhead transmission line routeing. Paragraph 2.9.16 of NPS EN-5 states that the Holford Rules should be embodied in applicants' proposals for new overhead lines.

6.1.47 In overview, the Holford Rules seek to reduce any adverse impacts associated with new overhead lines through the adoption of a series of 'common sense' rules. The seven rules and supplementary notes which are identified in Chapter 5 of the DAS seek to inform the routeing of overhead lines by guiding them away from areas which are considered to be of the highest amenity value and maintain as direct and straight an alignment as possible. It is clear from the caveats within the wording of different Rules, however, that balanced decision making judgements are required on a case-by-case basis, informed by the unique circumstances of a location.

Horlock Rules

6.1.48 National Grid devised the Horlock Rules (National Grid, 2006) which provide guidelines for the siting and design of new substations, or substation extensions, to avoid or reduce the environmental effects of such developments. They also concern the siting of CSE compounds and line entries. In summary, like the Holford Rules, they facilitate the consideration of environmental factors and amenity within the design and siting of new substation infrastructure. The guidelines are set out in Chapter 5 of the DAS. Paragraph 2.9.18 of NPS EN-5 states that the Horlock Rules should be embodied in applicants' proposals for the infrastructure associated with new substation (and similar) infrastructure sites. The Horlock Rules have been important considerations for the Project.

Embedded Environmental Design Principles – Mitigation Hierarchy

6.1.49 Environmental appraisal was an integral part of the Project design from the outset, which has meant that the Project was able to avoid environmentally sensitive features as far as reasonably practicable. Through this process National Grid has applied the mitigation hierarchy (sequentially considering the use of measures at increasing levels of cost) until an acceptable design consistent with relevant policy is achieved. This has also embedded measures into the design of the Project to avoid or reduce significant effects that may otherwise be experienced during construction and operation (and maintenance) of the Project. Embedded measures are those that are intrinsic to and built into the design of the Project. These are set out in the ES Chapter 4, where examples include:

- Sensitive routeing and siting of the alignment and Order Limits –– as far as practicable, effects on identified environmental (including landscape and visual, ecology and heritage assets) and socio-economics receptors have been avoided and reduced
- Underground cabling of the route in four locations, including through Dedham Vale National Landscape, where the effects on views and setting would be reduced. Further information about undergrounding is provided in the Design Development Report (document reference 5.15) (Revision B) and Consultation Report (document reference 5.1A and B) (Revision B)

- Pylon options have been explored and designs selected to optimise the balance between function, aesthetics, minimising environmental impact, (including landscape and visual) and cost
- GIS where the key design features of GIS substations are the compact design, higher reliability, greater resilience and minimal maintenance. Use of GIS over AIS have been considered and selected where practicable, such as at Tilbury North Substation
- A commitment to a minimum of 10% BNG is made within the design proposals, including associated 30 years post-completion management plan.

6.1.50 The assessment of the Project presented within the ES (document references 6.1 – 6.18) (Revision B-C) is based on the design and LoD as shown on the Works Plans (document reference 2.3) (Revisions A-C), Figure 4.1: Proposed Project Design (document reference 6.4.F1) (Revision B) and Figure 4.2: Proposed Project Design – Permanent Features (document reference 6.4.F2) (Revision B). However, it should be noted that the permanent aspects of the Project, including pylon locations, are not fixed and could be located anywhere within the LoD, as defined on the Works Plans (document reference 2.3) (Revisions A-C) (unless a commitment has been made to restrict the LoD – details of which are outlined within the Outline CoCP (document reference 7.2) (Revision G)). In addition, smaller design details, such as the colour of fencing or finishes, are agreed upon and documented through the DCO process. Furthermore, NPS EN-1 encourages developers to ensure design '*demonstrates good aesthetics as far as possible*,' within the bounds of functional and safety constraints.

Technical Design Requirements

6.1.51 EN-1 paragraph 3.3.78 states that '*it is recognised that the case for a new connection or network reinforcement is demonstrated if the proposed development represents an efficient and economical means of:*

- *connecting a new generating station or storage facility to the network*
- *reinforcing the network to accommodate such connections, or*
- *reinforcing the network to ensure that it is sufficiently resilient and capacious (per any performance standards set by Ofgem) to reliably supply present and/or anticipated future levels of demand'*.

6.1.52 In meeting the 'economic and efficient' test (as required by the Electricity Act 1989) and guided by EN-1, the good design, avoidance and mitigation principles are achieved by meeting the requirements set out in EN-5.

6.1.53 NPS EN-5, requires at paragraph 2.4.2 that applicants consider the criteria for good design set out in NPS EN-1 at an early stage when developing proposals. NPS EN-5 recognises at paragraph 2.4.3 that '*the Secretary of State should bear in mind that electricity networks infrastructure must in the first instance be safe and secure, and that the functional design constraints of safety and security may limit an applicant's ability to influence the aesthetic appearance of that infrastructure'*.

6.1.54 At paragraph 2.4.4, NPS EN-5 goes on to state that '*the functional performance of the infrastructure in respect of security of supply and public and occupational safety must not thereby be threatened.*'

6.1.55 Consideration of design for electrical infrastructure is therefore inherently more focussed on those aspects of design (such as colour and design of any buildings) that are not responding to the other well-established design principles set out in EN-1, EN-5 and the referenced Holford Rules (relating to the connection routeing and siting) and Horlock Rules (relating to the siting of substations and similar sites).

Regulatory and Other Constraints (Such as Operational, Safety and Security Requirements)

6.1.56 Given the nature of electricity transmission infrastructure compared to other types of infrastructure projects, the Project design is governed by statutory duties and obligations set out under the following regulations and legislation:

- The Electricity Act – efficient, co-ordinated and economical
- Transmission licence obligations – connections and security of supply
- NETS SQSS – design safety standards
- Construction (Design and Management) Regulations 2015
- Health and Safety Legislation
- Planning policy as set out in NPS EN-1; NPS EN-5 and NPPF.

6.1.57 The above regulation and legislation provided the framework to decision making when identifying the most appropriate strategic option. The primary design requirement for electricity infrastructure is that it must be safe and secure. These functional constraints, particularly around safety and operational reliability, can significantly limit National Grid's ability to adapt the aesthetic appearance of its infrastructure.

6.1.58 In the case of Norwich to Tilbury, the preferred strategic option is an AC onshore connection. This is the preferred strategic option because it best aligns with National Grid's statutory obligations under Section 9 of the Electricity Act, and is supported by national government policies, including NPS EN-1 and EN-5. National Grid's starting position for new onshore electricity transmission infrastructure is then informed by NPS EN-5 which, for areas outside nationally designated landscapes, identifies the general acceptability of the use of overhead lines.

6.1.59 Paragraph 2.9.7 of EN-5 indicates that '*the government does not believe that the development of overhead lines is incompatible in principle with applicants' statutory duty under Schedule 9 to the Electricity Act 1989, to have regard to visual and landscape amenity and to reasonably mitigate possible impacts thereon*'.

6.1.60 There is nonetheless recognition that '*in practice new overhead lines can give rise to adverse landscape and visual impacts*' and that the right balance must be struck between the need for infrastructure development and the preservation of visual and landscape quality. The NPS goes on to identify circumstances and decision-making criteria where a change from the starting presumption may be appropriate.

6.1.61 For overhead lines, National Grid uses standard steel lattice pylons as the starting point in project design. These are well-established, cost-effective, and proven technologies. Their size, height, and spacing are determined by a combination of safety regulations, environmental conditions, and operational needs. Similarly, substation sitings and layouts are driven by technical and safety requirements, meaning there is limited flexibility to alter their configuration for visual or architectural reasons.

6.1.62 These infrastructure components of the overhead lines are by nature large-scale and often highly visible within the landscape. Despite this, in most circumstances overhead lines are accepted in relevant national planning policy, as they are essential for meeting National Grid's statutory duty to deliver a network that is both economical and efficient.

6.1.63 However, in nationally designated landscapes (AONBs, now referred to as National Landscapes), paragraph 2.9.20 of NPS EN-5 is clear that '*Although it is the government's position that overhead lines should be the strong starting presumption for electricity networks developments in general, this presumption is reversed when proposed developments will cross part of a nationally designated landscape*.'

6.1.64 Therefore, in such cases and in line with the above Policy, National Grid reverses the assumption and assumes the use of underground cables. Additionally the use of underground cables may be appropriate outside of these designated areas, in cases where NPS EN-5 (paragraph 2.9.23) states that there is '*a high potential for widespread and significant adverse landscape and/or visual impacts along certain sections of its route*'. National Grid also considers whether the starting presumption is most appropriate or whether there is a basis to consider further application of the mitigation hierarchy and the use of alternative pylon designs or whether the use of underground cables is justified. The mitigation hierarchy is a stepped process that helps development projects to address potentially adverse impacts on the environment. A full explanation of the mitigation hierarchy is provided in ES Chapter 5: EIA Approach and Methodology (document reference 6.5) (Revision B).

Good Design Principles

6.1.65 Paragraph 4.7.1 of NPS EN-1 states: '*The visual appearance of a building, structure, or piece of infrastructure, and how it relates to the landscape it sits within, is sometimes considered to be the most important factor in good design. But high quality and inclusive design goes far beyond aesthetic considerations. The functionality of an object – be it a building or other type of infrastructure – including fitness for purpose and sustainability, is equally important*.'

6.1.66 Paragraph 4.7.2 of NPS EN-1 states: '*Applying good design to energy projects should produce sustainable infrastructure sensitive to place,* […] *efficient in the use of natural resources* […] *and energy used in their construction and operation, matched by an appearance that demonstrates good aesthetic as far as possible*'.

6.1.67 The Project has been designed in line with the National Grid options appraisal process (National Grid, 2012), as outlined in ES Chapter 3: Alternatives (document reference 6.3) (Revision B).

6.1.68 The design of the Project has been an iterative process. National Grid has considered ways to achieve good design through the careful consideration of route corridors and the application of design principles. The Design Development Report (document reference 5.15) (Revision B) provides an explanation of the main changes in the route alignment and technology following the review and consideration of feedback received to the 2024 statutory consultation and to the targeted statutory and non-statutory consultations held in 2025.

6.1.69 Good design of transmission infrastructure is primarily governed by application of the Holford and Horlock rules, alongside an iterative design approach informed by the EIA. The design approach is also set within technical limitations to meet safety, security, cost effectiveness and operational requirements. These limit the scope for aesthetic or architectural customisation. Key elements like pylon size and substation layout are fixed by these functional needs.

6.1.70 Image 6.1 presents an example of National Grid substation in colour cladding. Both demonstrate balancing the inherent form and function of electricity transmission infrastructure with technical, economic and environmental considerations to reach reasonably practicable development proposals.

Image 6.1 Photo of a National Grid 400 kV substation in colour cladding



6.1.71 The guidance 'Nationally Significant Infrastructure Projects: Advice on Good Design Advice Note' (Planning Inspectorate, 2023) advises that '*Good design is not primarily about how infrastructure looks, although these considerations (the aesthetics) are important*'. EN-1 does stress the importance of process and addressing sustainability are essential elements of good design. The emphasis placed on the importance of process through the Project's evolution in accordance with the Planning Inspectorate advice note and delivering sustainability is set out in within the DAS (chapter 5 and section 5.3).

6.1.72 Furthermore, the Design Principles for National Infrastructure (National Infrastructure Commission, 2020) supports design champions within the Project management team to account for delivering on any good design objectives.

6.1.73 While minor design details (e.g. the colour of cladding used on the GIS or AIS buildings) can be agreed through the DCO process, overall design and layout flexibility is limited. Policy encourages good aesthetics 'as far as possible', but only within the bounds of technical constraints.

6.1.74 In summary, National Grid's design limitations are rooted in legal, safety, technical, cost effectiveness and policy frameworks. While there may be scope for minor aesthetic considerations, the overarching priority is the safe, secure, and efficient delivery of infrastructure to transmit the electricity the country needs, which significantly limits opportunities for design innovation especially in standard, non-protected locations.

6.1.75 The design considerations reflect National Grid's duty to be economic and efficient, as well as within the rigorous health and safety processes that National Grid has in place which govern how National Grid designs and constructs their projects safely.

6.1.76 As described in the Design and Access Statement (document reference 7.15) (Revision D) the Draft DCO (document reference 3.1) (Revision G) is a critical mechanism for ensuring that good design is secured. It ensures that the design retains flexibility to respond to site conditions, innovation, and stakeholder feedback whilst embedding enforceable design commitments that provide clarity, certainty, and accountability. This section explains how the DCO ensures that the final built outcome secures the design aspirations assessed during examination and meets the expectations of stakeholders and the public.

6.1.77 Should the application for development consent be approved by the SoS, Article 3 will give the legal authorisation for the development. Schedule 1 of the DCO will define the authorised development - the specific works and infrastructure that are granted development consent under the DCO. Schedule 1 lists individual work numbers which describe the key elements of the project, such as overhead transmission electric line and underground transmission electric line. The works in Schedule 1 are the only activities that can lawfully be carried out using the powers granted by the DCO.

6.1.78 Whilst Schedule 1 defines the works, the Works Plans (document reference 2.3) (Revisions A-C) show the spatial location of those works and identify the limits of deviation of each work number listed in Schedule 1. the scope of the limits of deviation are defined in writing in article 5 of the DCO (limits of deviation). The Works Plans also include the table of parameters which state the maximum height and upward extent of vertical limits of deviation for permanent infrastructure.

6.1.79 Schedule 18 (certified plans) lists all the documents that are formally 'certified'. They become legally binding reference material for the development and become the definitive version of what the National Grid must follow. Other parts of the DCO, especially Schedule 3 (requirements), often refer to specific certified documents.

6.1.80 Schedule 3 of the DCO (Requirements) controls how the Project is built by securing conditional control relating to design. The requirements secure mitigation commitments from the ES, provide the mechanism for agreeing detailed design where necessary, provide legal certainty and compliance controls and provide practical controls for the construction and operation phase.

6.1.81 Table 6.1 below describes each requirement and its purpose where relevant to design.

Table 6.1 Design secured through the Draft DCO requirements

Requirement	Name	Description
4	Construction Management Plans	Requires submission, approval and implementation of a suite of construction management plans, some of which have already been developed into an outline format to deliver mitigation commitments made in the ES into a practical set of controls and procedures that the contractor must follow on site.

Requirement	Name	Description
		The outline management plans already drafted are to be certified as part of the application and listed in Schedule 18 and final versions must be substantially in accordance with the outline.
5	Archaeology	To ensure National Grid minimise impacts upon designated and non-designated heritage assets, this requirement mandates the approach to investigate, mitigate and monitor before any irreversible construction works take place. This may lead to design adjustments and prevents National grid from finalising a design in ignorance of buried archaeology.
6	Design and layout plans (elevations)	Requires the authorised development to be carried out in general accordance with the design and layout plans that have been certified under Schedule 18 of the DCO. These plans present an indicative representation of CSE compounds and substations based upon the Project Description as set out in Chapter 4 of the ES. The authorised development will not be in general accordance with the design and layout plans to the extent that any departure from the design and layout drawings gives rise to any materially new or materially different environmental effects from those assessed in the ES. This ensures that flexibility in design is still retained but does not go unchecked.
8	Retention and removal of trees, woodland and hedgerows.	This requirement ensures that the detailed design phase of the project reflects the certified '*trees and hedgerows to be removed or managed*' plans (reference 2.16), maintaining alignment with what was assessed in the ES. This requirement prevents the premature or excessive clearance of trees, woodland and hedgerows by requiring submission of these finalised plans prior to commencement of development. This requirement also ensure that the removal of trees, woodland and hedgerows is carried out in accordance with measures captured within the LEMP, a final version of which will be agreed prior to commencement of development under requirement 4 (construction management plans).
9	Reinstatement planting plans	This requirement ensures that the reinstatement planting design following construction activities includes appropriate restoration of temporarily disturbed areas in a way that is consistent with the approved LEMP.

Requirement	Name	Description
10	Reinstatement schemes	This requirement mandates that land used temporarily for construction is to be reinstated to a condition suitable for its former use, reinforcing the design principle of reversibility of temporary impacts. It helps maintain the continuity of land use and encourages integration of reinstatement works with the staged delivery of the Project, so that reinstatement works are timely. This requirement also provides flexibility by recognising that not all land can be fully reinstated (e.g. near cable routes) but limits this through clear geographical exceptions and ensures that any deviation from the original condition must be justified and approved, preserving design control.
11	Approval of details having regard to the design approach for site specific infrastructure	This requirement recognises that whilst there is generally very limited flexibility regarding scale, layout and appearance of substations give their technical restrictions, the proposed Tilbury North GIS substation does offer more flexibility regarding the final colour finish than other substation sites. In addition to this, it also recognises that with the switchgear building being the most visually prominent feature of this site, the relevant the local planning authority may wish to agree the final colour of the building and other ancillary buildings on site to ensure visual cohesion.
12	Design of permanent buildings	This requirement ensures that the final appearance of permanent buildings is consistent with the approved design principles in the DASSI as certified under Schedule 18. It provides a mechanism for enforceable design-led detailing post consent, ensuring matters agreed during examination are delivered throughout construction whilst still allowing flexibility for innovation at detailed design stage.
14	Decommissioning	This requirement provides a design aligned framework for the responsible removal and restoration of the authorised development at the end of its life. It ensures that design principles continue to apply through the Project's final phase maintaining accountability and quality over the full life cycle of the infrastructure. It requires the written decommissioning scheme to be based on laws and regulations applicable at the time ensuring that the approach is future proof and adaptable to updated design and environmental standards.

7. Planning Policy Assessment

7.1 Overview

7.1.1 This chapter presents an appraisal of the Project's compliance with national policy including EN-1 (DESNZ 2024a), EN-5 (DESNZ 2024b), EN-3 (DESNZ 2024c) and the NPPF (MHCLG, 2025). The chapter also identifies relevant local planning and neighbourhood planning policies and should be read in conjunction with the Policy Compliance Document (document reference 5.7) which sets out an analysis of the compliance of the Project with the specific relevant policies.

7.1.2 Section 7.2 of this chapter is structured around the headings contained in '*assessment principles'* from Section 4 of NPS EN-1 (DESNZ, 2024a) and where relevant incorporates the 'assessment and technology specific information' sections from NPS EN-5 (DESNZ, 2024b) which have been identified as relevant to the Project and sets out how these and other material policies including NPS EN-3 (DESNZ, 2024c) have been addressed in the application. The Project has been assessed against the following EN-1 assessment principles (Section 4 EN-1):

- The CNP for low carbon infrastructure
- Environmental effects/considerations
- Health
- Environmental and Biodiversity Net Gain
- Criteria for good design for energy infrastructure
- Climate change adaptation and resilience
- Network connection
- Pollution control and other environmental regulatory regimes
- Safety
- Hazardous substances
- Common law nuisance and statutory nuisance
- Security considerations.

7.1.3 The Project has not been assessed against those assessment principles considered not to be relevant to the Project, namely, marine considerations, consideration of combined heat and power and carbon capture and storage.

7.1.4 Section 7.2.217 of this chapter is structured around the '*generic impacts'* from NPS EN-1 (Section 5 EN-1) (DESNZ, 2024a) and where relevant incorporates the '*assessment and technology specific information'* sections from NPS EN-5 (DESNZ, 2024b) and other material policies including NPS EN-3 (DESNZ, 2024c) identified as relevant to the Project and sets out how these have been addressed in the submission. This section also identifies local planning policies which are considered to be relevant to the generic impacts identified in NPS EN-1. The generic impacts which the Project has been assessed against comprise:

- Air quality and emissions
- Greenhouse gas emissions
- Biodiversity and geological conservation
- Civil and military aviation and defence interests
- Dust, odour, artificial light, smoke, steam and insect infestation
- Flood risk
- Historic environment
- Landscape and visual
- Land use, including open space, green infrastructure and Green Belt
- Noise and vibration
- Socio-economic impacts
- Traffic and transport
- Resource and waste management
- Water quality and resources.

7.1.5 Throughout the assessment of the Project against NPS EN-1, EN-5 and where relevant, EN-3, as well as the NPPF and local planning policies, reference is made to the mitigation hierarchy. There are numerous policies within EN-1 which require applicants to apply the mitigation hierarchy. Paragraph 4.2.10 of NPS EN-1, for example, is clear that '*Applicants for CNP infrastructure must continue to show how their application meets the requirements in this NPS and the relevant technology specific NPS, applying the mitigation hierarchy*….'

7.1.6 The Mitigation Hierarchy is defined in NPS EN-1 and EN-5 as '*A term to incorporate the avoid, reduce, mitigate, compensate process that applicants need to go through to protect the environment and biodiversity*'.

Application of the Mitigation Hierarchy

7.1.7 The requirement for promoters of energy infrastructure and CNP to apply the mitigation hierarchy is contained in a number of policies contained in EN-1, EN-3 and EN-5 including:

7.1.8 NPS EN-1 Paragraph 3.3.63 states '*Subject to any legal requirements, the urgent need for CNP Infrastructure to achieving our energy objectives, together with the national security, economic, commercial, and net zero benefits, will in general outweigh any other residual impacts not capable of being addressed by application of the mitigation hierarchy. Government strongly supports the delivery of CNP*

Infrastructure and it should be progressed as quickly as possible'. Paragraph 4.3.4 goes onto state that '… *the applicant must set out information on the likely significant environmental, social and economic effects of the development, and show how any likely significant negative effects would be avoided, reduced, mitigated or compensated for, following the mitigation hierarchy*'.

7.1.9 NPS EN-1 Paragraph 4.1.5 states that: '*In considering any proposed development, in particular when weighing its adverse impacts against its benefits, the Secretary of State should take into account:*

- *its potential benefits including its contribution to meeting the need for energy infrastructure, job creation, reduction of geographical disparities, environmental enhancements, and any long-term or wider benefits*
- *its potential adverse impacts, including on the environment, and including any long-term and cumulative adverse impacts, as well as any measures to avoid, reduce, mitigate or compensate for any adverse impacts, following the mitigation hierarchy'*

7.1.10 NPS EN-5 is clear at Paragraph 2.1.6 on the need for CNP Infrastructure to continue to apply the Mitigation Hierarchy '*The assessment principles outlined in Section 4 of EN-1 continue to apply to CNP infrastructure. Applicants must show how any likely significant negative effects would be avoided, reduced, mitigated or compensated for, following the mitigation hierarchy. Early application of the mitigation hierarchy is strongly encouraged, as is engagement with key stakeholders including SNCBs, both before and at the formal pre-application stage'*.

7.1.11 Throughout this chapter, reference is made to the Project having applied the mitigation hierarchy. It is considered that the mitigation hierarchy is a broad concept, and its precise application needs to be considered in the context of the design stage the Project has reached and the nature of the potential impacts being considered.

7.1.12 In accordance with national policy requirements, the Project has been designed following the mitigation hierarchy. At the routeing and siting stage, the Project design process was informed by the Holford and Horlock Rules to avoid impacts where possible. These established guidelines informed the evaluation criteria and how the mitigation hierarchy was applied during the options selection process.

7.1.13 The adopted design approach is set out within ES Chapter 3: Alternatives (document reference 6.3) (Revision B) which describes the evolution of the Project from Strategic Options through to the selection of the alignment and the technology choice submitted within the application for development consent. Furthermore, the Consultation Report (document reference 5.1) (Revision B) includes feedback which prompted design development consideration of alternative technologies in accordance with the mitigation hierarchy.

7.1.14 Environmental appraisal has been an integral part of the Project design from the outset, which has meant that the Project has been able to avoid environmentally sensitive features as far as reasonably practicable. The Project has considered sensitive areas and design minimisation of impacts.

7.1.15 The mitigation hierarchy is a key component of the EIA Process. ES Chapter 5: EIA Approach and Method (document reference 6.5) (Revision B) describes the mitigation hierarchy as a stepped process that helps development projects to address potentially adverse impacts on the environment.

7.1.16 In the EIA context, the EIA Regulations requires an ES to include '*a description of any features of the proposed development, or measures envisaged in order to avoid, prevent or reduce and, if possible, offset likely significant adverse effects on the environment*'. This is part of the application of the Mitigation Hierarchy.

7.1.17 In the context of the ES as set out in Chapter 5: EIA Approach and Method (document reference 6.5) (Revision B) the mitigation hierarchy has been applied to the Project throughout the iterative design process. When developing the Project, the following steps have been considered:

- Avoid – the first step of the mitigation hierarchy comprises mitigation measures taken to avoid creating impacts from the outset, such as careful spatial placement of infrastructure away from receptors, or timing construction sensitively to avoid their disturbance
- Prevent – these include measures to remove the impact at source or disrupt the impact pathway – such as adopting standard pollution prevention techniques in line with good practice to prevent watercourses becoming polluted
- Reduce – these are measures taken to reduce the duration, intensity and/or extent of impacts that cannot be completely avoided for example landscape planting around the permanent assets such as at the CSE compounds and the proposed new EACN Substation and Tilbury North Substation
- Offset (sometimes referred to as compensate) – where relevant and appropriate to the specific impact, these measures aim to compensate for any residual, adverse impacts after full implementation of the previous three steps of the mitigation hierarchy an example is individual tree replacement at a 3:1 ratio with some inside the Order Limits where space allows and some outside of the Order Limits.

7.1.18 The application of the Mitigation Hierarchy is reported across a number of documents which have been submitted as part of the application for development consent. These include:

- Design Development Report (document reference 5.15) (Revision B)
- ES (document reference 6.1 to 6.18) (Revision B to C)
- Design and Access Statement (document reference 7.15) (Revision D).

7.1.19 The mitigation hierarchy has been applied throughout development of the Project as part of the iterative EIA process which has informed the routeing and siting process. The Project has been designed to avoid, reduce or mitigate potentially significant adverse residual effects. Key elements of the application of the mitigation hierarchy in respect of the Project include:

- Sensitive routeing and siting of the alignment and Order Limits – as far as practicable, effects on identified environmental (including landscape and visual, ecology and heritage assets) and socio-economics receptors have been avoided and reduced where possible
- Undergrounding is proposed in four locations, including through the Dedham Vale National Landscape and part of its setting. The Dedham Vale National Landscape is a nationally important and designated landscape. With the proposed underground cable, the effects on views and setting would be reduced. In all areas where underground cables have been proposed forward as a part of the

Project, this has been after the local environment and habitats have been assessed, and the mitigation hierarchy and mitigation measures applied to reduce the impacts as far as possible, and where the selection of cable is required by technical considerations (e.g. crossing another 400 kV overhead line) or selection is justified by the relevant tests in NPS EN-5

- Prior to the commencement of construction works for the Project, several existing overhead and underground third-party services would need to be diverted, removed, undergrounded, or protected. The Project would follow the route of existing 132 kV overhead lines north of Flowton and north of Mellis, where the existing 132 kV overhead lines would be undergrounded. This would help to reduce Landscape and Visual effects
- The Project allows for the use of full line tension gantries at CSE compounds and substations (where design allows). The use of full tension gantries removes the need for a bulkier terminal pylon adjacent to the CSE compound which would reduce visual clutter and therefore help to reduce Landscape and Visual effects
- The Project allows for landscape planting around CSE compounds, the new EACN Substation, south of the new Tilbury North Substation and the existing Norwich Main Substation and its extension. These are shown as 'Environmental Areas' on Figure 4.1: Proposed Project Design (document reference 6.4.F1) (Revision B) and Figure 4.2: Proposed Project Design – Permanent Features (document reference 6.4.F2) (Revision B). Further details including landscape plans and planting schedules are provided in the Outline LEMP (document reference 7.4) (Revision G)
- Replacement planting would be undertaken at the earliest opportunity given the right planting season, to mitigate, where practicable, vegetation removed during construction
- National Grid has considered the proposed materials and colour palette for the CSE compounds and new substation / substation extension, including buildings to be s, security fencing, equipment, and surfacing to be sensitive to the environment they are located in, where practicable. Further information is included in the Design Appraisal for Site-Specific Infrastructure (document reference 7.16) (Revision E)
- As reported in the Design Development Report (document reference 5.15) (Revision B) where the effects arising from standard lattice pylons are considered to be inconsistent with policy and National Grid's duties, the mitigation hierarchy is applied. The mitigation hierarchy sequentially considers localised specific mitigation measures, pylon position and routeing, low height pylons, T-pylons and the use of underground cables. Applied in this way National Gridi can demonstrate compliance with it is duties under the Electricity Act and be assured the Project will be funded
- The Outline CoCP (document reference 7.2) (Revision G) provides the preliminary framework for the principles and procedures that the Main Works Contractor(s) must implement to minimise, manage and mitigate the potential environmental impacts of construction works associated with the Project. The Outline CoCP is secured by Requirement 4 in the draft DCO (document reference 3.1) (Revision G).

7.1.20 National Grid considers the mitigation hierarchy has been robustly applied and that the policy requirements for application of the mitigation hierarchy contained in NPS EN-1, EN-3 and EN-5 have been met.

7.1.21 With regard to compensation, NPS EN-1 states that *Applicants should set out how residual impacts will be compensated for as far as possible'*. National Grid's position is that any proposed measures to off-set or compensate for residual adverse effects is compensation. Such compensation measures (e.g. creating or enhancing natural landscape features outside of the Order Limits) are considered in relation to the mitigation hierarchy but there is no requirement under policy to compensate for all residual effects. The residual effects that remain following the application of the mitigation hierarchy and any compensation provided then falls to the Planning Balance.

7.2 Assessment Principles

7.2.1 This section sets out how the application for development consent addresses each of the relevant assessment principles as set out in Section 4 of NPS EN-1 and related policies (DESNZ, 2024a) and the technology-specific assessment principles as set out in sections 2.3 – 2.5 of NPS EN-5 (DESNZ, 2024b).

The CNP for Low Carbon Infrastructure (NPS EN-1 Section 4.2)

7.2.2 NPS EN-1 (DESNZ, 2024a) Paragraph 4.2.1 states that the '*Government has committed to fully decarbonise the power system by 2035, subject to security of supply, to underpin its 2050 net zero ambitions*'. Paragraph 4.2.4 states that the '*Government has therefore concluded that there is a critical national priority (CNP) for the provision of nationally significant low carbon infrastructure*'. Paragraph 4.2.5 lists the types of infrastructure which are nationally significant low carbon infrastructure for the purposes of the CNP policy and this includes electricity grid infrastructure in the scope of NPS EN-5 (DESNZ, 2024b), including network reinforcement, upgrade works and associated infrastructure such as substations. The Project meets these criteria and is therefore CNP infrastructure.

7.2.3 Paragraph 3.3.62 of NPS EN-1 reiterates that the government has concluded that there is a CNP for the provision of nationally significant low carbon infrastructure. This includes for electricity grid infrastructure, all power lines in scope of NPS EN-5 (including network reinforcement and upgrade works, and associated infrastructure such as substations).

7.2.4 Reflecting the level and urgency of need for energy infrastructure, paragraph 4.1.3 of NPS EN-1 states that the SoS should start with a presumption in favour of granting consent to applications for energy NSIPs. The presumption applies unless any more specific and relevant policies set out in relevant NPSs clearly indicate that consent should be refused, subject to the provisions of the PA 2008.

7.2.5 Paragraph 4.1.7 of NPS EN-1 goes on to provide guidance to the SoS in making decisions on CNP infrastructure such as the Project, stating (our emphasis): '*Where this NPS or the relevant technology specific NPSs require an applicant to mitigate a particular impact as far as possible, but the Secretary of State considers that there would still be residual adverse effects after the implementation of such mitigation measures, the Secretary of State should weigh those residual effects against the benefits of the proposed development.* ***For projects which qualify as CNP***

Infrastructure, it is likely that the need case will outweigh the residual effects in all but the most exceptional cases*. This presumption, however, does not apply to residual impacts which present an unacceptable risk to, or interference with, human health and public safety, defence, irreplaceable habitats or unacceptable risk to the achievement of net zero. Further, the same exception applies to this presumption for residual impacts which present an unacceptable risk to, or unacceptable interference offshore to navigation, or onshore to flood and coastal erosion risk*.'

7.2.6 The receptors listed above are repeated in NPS EN-1 Paragraph 4.2.15 which states that '*Where residual non-HRA or non-MCZ impacts remain after the mitigation hierarchy has been applied, these residual impacts are unlikely to outweigh the urgent need for this type of infrastructure*.' In other words, it is unlikely that consent will be refused on the basis of these residual impacts. As further set out in paragraph 4.2.15, the exceptions to this presumption of consent relate to circumstances in which residual effects onshore and offshore would present 'an unacceptable risk' to matters set out below.

Human Health and Public Safety

7.2.7 The ES concludes the Project will not result in significant adverse effects on human health and wellbeing (see Section 7.2.104 of this Planning Statement for further details) and ES Chapter 10: Health and Wellbeing (document reference 6.10) (Revision C).

7.2.8 Matters of public safety and pollution control are also considered where appropriate throughout the ES, including ES Chapter 10: Contaminated Land, Geology and Hydrogeology (document reference 6.9) (Revision B) and ES Appendices 6.9.A1: Baseline Information and Preliminary Contaminated Land Risk Assessment (document reference 6.9.A1) (Revision B), Groundwater Baseline and Qualitative Groundwater Risk Assessment (document reference 6.9.A3) (Revision B), Traffic and Transport Construction Effects (document reference 6.16.A4) (Revision B), Flood Risk Assessment (document reference 7.9), Outline CTMP (document reference 7.3) (Revision F) and Electric and Magnetic Field (EMF) Compliance Report (document reference 7.8) (Revision B).

7.2.9 As set out in the Scoping Opinion (document reference 6.20), it was agreed that a standalone ES chapter covering major accidents and disasters was not required. The EIA Approach and Method ES chapter should provide clear cross-referencing to where the likely risks are considered.

7.2.10 Management plans are submitted with the Application which secure the implementation of measures during construction and operation which would seek to avoid or reduce risks relating to pollution and emissions, including Outline CoCP (document reference 7.2) (Revision G) and accompanying appendices comprising the Outline Site Waste Management Plan (SWMP) (document reference 7.2.B) (Revision D), Outline Soil Resource Plan (document reference 7.2.D) (Revision D) Outline Noise and Vibration Management Plan (document reference 7.2.F) (Revision D), Outline Flood Warning and Excavation Plan (document reference 7.2.G) (Revision C), Greenhouse Gas Reduction Strategy (document reference 7.2.H) (Revision B).

7.2.11 The Statement of Statutory Nuisance (document reference 5.4) describes the matters that constitute 'statutory nuisances' within Section 79(1) of the Environmental Protection Act 1990 (EPA 1990) and considers whether the Project has the potential to cause nuisance, concluding that, with good practice measures in place (included in the abovementioned management plans), no breach of Section 79(1) of the EPA 1990 is expected as a result of the Project.

7.2.12 In light of the above, the Project would not present an unacceptable risk to human health and public safety.

Defence

7.2.13 In accordance with EN-1 requirements, National Grid has consulted with the MOD Defence Infrastructure Organisation (DIO) and the operator of the military aerodrome Wattisham Flying Station (WFS). As set out in ES Appendix 6.15.A2: Review of Aviation Impact (document reference 6.15.A2) (Revision C), consultation has identified that the Project alignment infringes the statutory safeguarding zones surrounding the aerodrome, as well as a potential conflict of interest between the Project and the safeguarding criteria for the aerodrome's STAR NG radar. Furthermore, consultation has identified the Project's infringement of the statutory safeguarding zone surrounding the MOD's East 2 WAM Network, specifically the North WAM technical asset, related to air traffic services. The Project alignment was also confirmed to fall within MOD Low Flying Areas (LFA) 5 and 10, within which military aircraft may conduct low level flight training.

7.2.14 National Grid's continued engagement with the WFS operator and the DIO recognises the need for MOD assessment of potential impacts on the identified military assets, appropriately informed through the provision of detailed Project design information. On undertaking its own assessment of the Project proposals, the MoD confirmed it had no safeguarding concerns regarding the WFS aerodrome. Following minor design changes, National Grid is seeking the reconfirmation of this position.

7.2.15 In relation to potential impacts on the STAR NG and East 2 WAM technical assets, National Grid is awaiting the outcome of MOD technical and operational assessments. With respect to the confirmed impact of the Project as an obstacle within LFAs 5 and 10, the DIO has advised that the MOD will require a condition to any consent issued to ensure that sufficient data is submitted for Project structures to be accurately charted to enable deconfliction with military aviation. National Grid has confirmed to the DIO that it intends to support this requirement. National Grid is developing Statements of Common Ground with both the DIO and WFS, which it intends to submit during Examination.

Irreplaceable Habitats

7.2.16 Irreplaceable habitat are those habitats which take significant time to restore, recreate or replace once they are lost, often because of their age, diversity or uniqueness. Ancient Woodland and Veteran Trees are both identified as irreplaceable habitat.

7.2.17 The Ancient Woodland and Veteran Tree Strategy (document reference 7.4B) (Revision C) outlines the principal measures that are required to help avoid, minimise, and compensate for the potential ecological effects of the Project on ancient woodland and veteran trees, during and post construction, as per the mitigation hierarchy. Due to the nature of both ancient woodland and veteran trees being 'irreplaceable habitat', additional and bespoke mitigation, which comprises measures over and above any embedded and standard mitigation measures, has been developed which considers each ancient/ or veteran feature independently. This strategy also describes the embedded mitigation which has influenced the Project design in order to avoid and/or reduce impacts to ancient woodland and/or veteran trees for completeness.

7.2.18 Potential impacts (excavation and non-excavation), in the absence of mitigation, were identified at 10 ancient woodland parcels (five within ancient woodlands themselves and five within the 15 m buffer).

7.2.19 Specific Project commitments have been made as standard mitigation, to remove impacts to ancient woodlands. As a result of these Project commitments impacts associated with five ancient woodlands have been completely removed (Mann/Parson's Wood, Stonefield Strip, Sheepcote's Wood, Botneyhill Wood and Millers Wood). No works will be undertaken (in line with Project commitments B20-B24 set out within the Outline CoCP (document reference 7.2) (Revision G)) within 15 m of these ancient woodlands. Impacts have also been reduced at one ancient woodland (Rivenhall Thicks) by Project commitment B25, set out within the Outline CoCP (document reference 7.2) (Revision G).

7.2.20 Complete removal of impacts to the four ancient woodlands and Rivenhall Thicks (and the associated 15 m buffer) are unavoidable, as the proposed works relate to the removal, undergrounding or modification of existing third-party infrastructure (11 kV, 33 kV, 132 kV), with the existing assets already located within the associated woodland or 15 m RPA.

7.2.21 Within three of these ancient woodlands (Round Wood, Rivenhall Thicks and Writtle-Writtlepark Wood) minor excavation works are required to remove the existing assets. Modification to an existing pylon located within Little Bladen's Wood is required and minor excavation to facilitate the 11 kV undergrounding is required 12 to 15 m from Clapgate Wood. Mitigation measures have been proposed to ensure no significant long term residual effects on ancient woodland are encountered as a result of the Project.

7.2.22 Rainbow Wood and Ashen Shaw is affected by the LTC project. The Project will have no direct effects on Rainbow Wood and Ashen Shaw ancient woodland, the Project will affect the area of proposed mitigation planting for the LTC DCO. An alternative tree planting area has been included within the Project Order Limits, which will provide space for this ancient woodland mitigation adjacent to the retained areas of Rainbow Wood LWS if LTC is taken forward to construction and the mitigation planting is required.

7.2.23 A total of 112 trees and four groups have been surveyed within the Project Study Area as veterans. Four individual veteran trees require removal while 15 veteran trees and two veteran tree groups require crown management to facilitate the overhead line clearance requirements. The Ancient Woodland and Veteran Tree Survey Report (document reference 7.4.B) (Revision C) identifies specifications for fencing and / or ground protection which will be used to safeguard root protection areas of veteran trees to be retained. A precautionary root protection area has been provided around groups of trees with the root protection areas reflecting the maximum calculated extent. In accordance with clause 6.2.1.1 of BS 5387:2012, all barriers and ground protection will be installed prior to construction at each relevant location and remain in place until construction has ceased.

7.2.24 ES Chapter 8 Ecology and Biodiversity (document reference 6.8) (Revision C) has not identified any further residual impacts on irreplaceable habitats.

The Achievement of Net Zero:

7.2.25 Consistent with the Government's Net Zero target, there has been, and continues to be, growth in the volume of renewable and zero carbon generation that is seeking to connect to the electricity transmission system in the East Anglia and South East regions. UK Government policy clearly sets out the critical requirement for significant reinforcement of the transmission system to facilitate the connection of renewable energy sources and to transport electricity to where it is used. In particular, the British Energy Security Strategy (HM Government, 2022) sets targets for the connection of up to 50 GW of offshore wind by the 2030s as a key part of a strategy for secure, clean and affordable British energy for the long term.

7.2.26 The Project makes a significant contribution to Net Zero by providing significant reinforcements to the transmission system which will facilitate the connection of future sources of renewable and low carbon power generation along the coast and therefore will facilitate the achievement of Net Zero. The Project does not impact any other Net Zero project(s) of any significance. Where there is an interaction with third-party renewable energy developments (e.g. battery energy storage or solar farms) the Project has sought to achieve co-existence through routeing and siting and if necessary seeks to mitigate or reduce impact.

Flood Risk

7.2.27 A Flood Risk Assessment (FRA) (document reference 7.9) has been submitted as part of the application for development consent focussing on flood risk from fluvial, tidal/coastal, pluvial (surface water) and groundwater sources. The FRA (document reference document 7.9) has concluded that the Project during its construction would be generally at low risk of flooding from rivers. Locally higher risks, particularly to temporary works within main river floodplains, would be reduced through embedded and good practice measures set out in the Outline CoCP (document reference 7.2) (Revision G). These measures would also protect construction workers, limit damages to construction equipment and materials and also limit any impacts of the Project on fluvial flood risk as set out in ES Chapter 12: Hydrology, Land Drainage and Flood Risk (document reference 6.12) (Revision B). During the operation of the Project, there would be low risk of fluvial flooding and there would be no increase in flood risk as a consequence of the Project's operation, subject to implementation of the recommended compensatory storage described in the FRA.

7.2.28 The Project would not present an unacceptable flood risk. Coastal erosion risk (also referred to in paragraph 4.1.7 of EN-1) is not material to the Project.

Summary of Project against CNP Policy

7.2.29 As set out above, the Project will not present an unacceptable risk to or unacceptable interference with those receptors or factors identified in paragraphs 4.1.7 and repeated in 4.2.15 of NPS EN-1, namely:

- Human health and public safety
- Defence
- Irreplaceable Habitats
- The achievement of net zero
- Flood risk.

7.2.30 Off shore navigation and coastal erosion risk are not material to the Project. The Project constitutes CNP Infrastructure. As set out in Chapter 3 of this report, the Project is required to support offshore wind projects, which in turn are required to meet the Government's targets for the connection of up to 50 GW of offshore wind by 2030. This offshore generation is a key part of a strategy for secure, clean and affordable British energy for the long term. Additionally, agreements are in place with two offshore wind farm projects and an interconnector based on their connections into a new EACN Substation. National Grid has a duty to facilitate new connections and maintain a safe National Electricity Transmission System (NETS) and has considered the capability of the existing network to support such connections.

7.2.31 East Anglia's 400 kV electricity transmission network was built in the 1960s. It was built to supply regional demand, centred around Norwich and Ipswich. With the growth in new energy generation from offshore wind, nuclear power and interconnection with other countries, there will be more electricity connected in East Anglia than the network can currently accommodate.

7.2.32 As a result, and to comply with its duties, National Grid needs to reinforce the electricity network to allow power to be imported to and exported from East Anglia. The reinforcement would provide additional capability to connect to areas of demand, allowing power flows across boundaries, and linking interconnectors to and from Europe. The requirement to reinforce the network within East Anglia is specifically acknowledged in NPS EN-1 (DESNZ, 2024a) at paragraph 3.3.68 specifically recognises that over the next decade the onshore and offshore transmission network will require '… substantial reinforcement in East Anglia to handle increased power flows from offshore wind generation (this may also require additional offshore connections coming to land in England).'

7.2.33 National Policy is therefore clear that the Norwich to Tilbury Project is CNP Infrastructure. In accordance with Paragraph 4.2.6 NPS EN-1 that substantial weight should be afforded to the need case as the starting point for the assessment of the Project.

7.2.34 Paragraph 4.2.7 states that *'The CNP policy does not create an additional or cumulative need case or weighting to that which is already outlined for each type of energy infrastructure. The policy applies following the normal consideration of the need case, the impacts of the project, and the application of the mitigation hierarchy. As such, it is relevant during Secretary of State decision making and specifically in reference to any residual impacts that have been identified. It should therefore also be given consideration by the Examining Authority when it is making its recommendation to the Secretary of State'*. Paragraph 4.2.10 goes onto state that *'Applicants for CNP infrastructure must continue to show how their application meets the requirements in this NPS and the relevant technology specific NPS, applying the mitigation hierarchy, as well as any other legal and regulatory requirements'*.

7.2.35 Paragraph 4.2.11 sets out that *'Applicants must apply the mitigation hierarchy and demonstrate that it has been applied. They should seek the advice of the appropriate SNCB or other relevant statutory body when undertaking this process. Applicants should demonstrate that all residual impacts are those which cannot be avoided, reduced or mitigated'.* Furthermore, applicants should set out how residual impacts will be compensated for (as far as possible) and set out how those measures will be monitored and reported upon.

7.2.36 The project team have applied the mitigation hierarchy to minimise residual impacts and the need for the Project strongly outweighs those impacts. The mitigation hierarchy has been applied throughout development of the Project as part of the iterative EIA process which has informed the routeing and siting process. The Project has been designed to avoid, reduce or mitigate potentially significant adverse residual effects. The application for development consent is supported by an ES (document reference 6.1-6.18) (Revision B to C) which demonstrates that the mitigation hierarchy has been applied throughout the design and development of the Project. The ES provides a description of the measures envisaged in order to avoid, prevent or reduce and, if possible, offset likely significant effects on the environment.

7.2.37 The Design Development Report (document reference 5.15) (Revision B), ES Chapter 3: Alternatives (document reference 6.3) (Revision B), Design and Access Statement (document reference 7.15) (Revision D) and Design Appraisal Approach for Site Specific Infrastructure (document reference 7.16) (Revision E) provide an overview of the design rationale for the Project. It outlines how the design choices have sought to reduce the environmental effects of the Project and demonstrates that the design has incorporated mitigation measures in order to avoid or reduce significant environmental effects wherever practicable.

7.2.38 National Grid has embedded measures into the design of the Project to avoid or reduce significant effects that may otherwise be experienced during construction and operation (and maintenance) of the Project. Embedded measures are those that are intrinsic to and built into the design of the Project.

7.2.39 The Outline CoCP (document reference 7.2) (Revision G) details the embedded measures and additional mitigation measures that have been identified through the EIA to avoid or reduce likely significant environmental effects. The Outline CoCP (document reference 7.2) (Revision G) as secured by Requirement 4 of Schedule 3 of the draft DCO (document reference 3.1) (Revision G), records all the commitments made by National Grid during the iterative development of the designs of the Project.

7.2.40 Paragraph 4.2.12 of NPS EN-1 (DESNZ, 2024a) sets out that *'Applicants should set out how residual impacts will be compensated for as far as possible. Applicants should also set out how any mitigation or compensation measures will be monitored and reporting agreed to ensure success and that action is taken. Changes to measures may be needed e.g. adaptive management. The cumulative impacts of multiple developments with residual impacts should also be considered.'* As described above (Section 7.1) National Grid's position is that any proposed measures to off-set or compensate for residual adverse effects is compensation. Such compensation measures (e.g. creating or enhancing natural landscape features outside of the Order Limits) are considered in relation to the mitigation hierarchy but there is no requirement under policy to compensate for all residual effects. The residual effects that remain following the application of the mitigation hierarchy and any compensation provided then falls to the Planning Balance.

7.2.41 Any landscape softening that does not remove or reduce a significant residual effect but seeks to off-set the effect is classed as landscape compensation. Such landscape compensation measures (e.g. creating or enhancing natural landscape features outside of the Order Limits) are considered in relation the mitigation hierarchy but there is no requirement under policy to compensate for all residual effects. The residual effects that remain following the application of the mitigation hierarchy and any compensation provided then falls to the Planning Balance.

7.2.42 With regard to residual effects, ES Chapter 18: Summary (document reference 6.18) (Revision B) sets out the likely significant residual effects anticipated during construction and operation (including maintenance) of the Project. The outline CoCP (document reference 7.2) (Revision G), as secured by Requirement 4 of Schedule 3 of the draft DCO (document reference 3.1) (Revision G) records all of the commitments made by National Grid during the iterative development of the Project. This sets out how mitigation will be secured and monitored. It includes embedded measures, which are intrinsic to the design submitted as part of the Application for development consent. It also includes additional mitigation measures that have been identified through the EIA to avoid or reduce likely significant environmental effects.

7.2.43 The outline CoCP (document reference 7.2) (Revision G) provides the framework for monitoring compliance auditing and inspection of agreed environmental aims to ensure that the commitments identified are fully implemented.

7.2.44 Cumulative effects, both intra-project (referred to as 'interrelationships between aspects' in the Planning Inspectorate Advice Note: Nationally Significant Infrastructure Projects: Advice on Cumulative Effects Assessment (Planning Inspectorate, 2024)) and inter-project (referred to as 'cumulative effects with other existing and, or approved development' in the Planning Inspectorate Advice Note (Planning Inspectorate, 2024)). The cumulative effects are set out in ES Chapter 17: Cumulative Effects (document reference 6.17) (Revision B).

7.2.45 Paragraph 4.2.15 states that *'Where residual non-HRA or non-MCZ impacts remain after the mitigation hierarchy has been applied, these residual impacts are unlikely to outweigh the urgent need for this type of infrastructure. Therefore, in all but the most exceptional circumstances, it is unlikely that consent will be refused on the basis of these residual impacts. The exception to this presumption of consent are residual impacts onshore and offshore which present an unacceptable risk to, or unacceptable interference with, human health and public safety, defence, irreplaceable habitats or unacceptable risk to the achievement of net zero. Further, the same exception applies to this presumption for residual impacts which present an unacceptable risk to, or unacceptable interference offshore to navigation, or onshore to flood and coastal erosion risk'.*

7.2.46 With reference to HRA, paragraph 4.2.13 states that '*where residual impacts relate to HRA or [Marine Conservation Zone] MCZ sites then applicants must provide a derogation case, if required, in the normal way in compliance with the relevant legislation and guidance*.' The HRA Report (document reference 5.3) provides the relevant information to inform the Secretary of State's HRA for the Project. As summarised in section 7.3.87 to 7.3.97 of this Planning Statement, no adverse effects on the integrity of a European Site (following the implementation of mitigation) have been identified from the stage 2 Appropriate Assessment (as set out in the HRA report), and therefore the HRA does not require progression to Stage 3 (derogation) of the HRA process.

7.2.47 As such, none of the circumstances in paragraph 4.2.17 of NPS EN-1 result in the presumption in favour to be disengaged.

7.2.48 It is, therefore, considered that the assessment undertaken by National Grid is in accordance with the requirements of NPS EN-1 (DESNZ, 2024a) in respect to habitats and species regulations. The Statement of Common Ground between National Grid and Natural England (document reference 5.9.14) seeks agreement on the conclusions of the HRA.

7.2.49 Paragraph 4.2.14 confirms that the SoS must be satisfied that these requirements have been met, such that the presumptions relevant to CNP infrastructure apply. National Grid believes this case has been robustly made in the submitted application for development consent.

7.2.50 Paragraph 4.2.16 of NPS EN-1 sets out that '*the Secretary of State will take as the starting point for decision-making that such infrastructure is to be treated as if it has met any tests which are set out within the NPSs, or any other planning policy, which requires a clear outweighing of harm, exceptionality or very special circumstances*'. Paragraph 4.2.17 goes on '*This means that the Secretary of State will take as a starting point that CNP Infrastructure will meet the following, non-exhaustive, list of tests:*

- *where development within a Green Belt requires very special circumstances to justify development*
- *where development within or outside a Site of Special Scientific Interest (SSSI) requires the benefits (including need) of the development in the location proposed to clearly outweigh both the likely impact on features of the site that make it a SSSI, and any broader impacts on the national network of SSSIs*
- *where development in nationally designated landscapes requires exceptional circumstances to be demonstrated and*
- *where substantial harm to or loss of significance to heritage assets should be exceptional or wholly exceptional'*.

7.2.51 The Planning Statement addresses how the Project has met the tests listed in paragraph 4.2.17 and the conclusions drawn are summarised below:

Green Belt

7.2.52 The Project is routed through the Metropolitan Green Belt between Chelmsford and the new Tilbury North Substation in Thurrock. Paragraphs 7.3.497 to 7.3.537 of this Planning Statement consider the Projects compliance with Green Belt policy. The assessment concludes that the overhead line infrastructure should be considered to be an engineering operation and as such should not be regarded as inappropriate development in the Green Belt. National Grid's position that the proposed Tilbury North substations and CSE compound works may be considered inappropriate development as they would not preserve the openness of the Green Belt. Very special circumstances would be required to justify their acceptability. The Planning Statement concludes that there are very special circumstances to justify inappropriate development in the Green Belt which include:

- The UK Government policy requires significant reinforcement of the transmission system to facilitate the connection of renewable energy sources to transport electricity to where it is used

- The British Energy Security Strategy sets targets for the connection of up to 50GW of offshore wind by 2030s as a key part of a strategy for secure, clean and affordable British energy for the long term
- New connections for offshore wind and nuclear power generation projects, and for interconnectors, are expected into East Anglia by 2030. These connections are being constructed or expected to connect into substations at Necton, Norwich Main, Bramford, Friston and Sizewell
- Without reinforcement, the capacity of the East Anglia existing network is insufficient to accommodate the connection of the proposed new power sources. Therefore, reinforcement of the network is required.
- The requirement to meet net zero by 2050, to replace the fossil fuels that once powered the economy to low-carbon electricity
- By reinforcing the capacity of East Anglia, the Project will address the need to be able to accommodate the connection of the proposed new power sources, namely offshore wind and nuclear power generation projects, as required by 2030
- The Clean Power 2030 Report (NESO 2024) states that 'Three projects have been identified as critical to delivering a network which supports the clean power pathways, but at present have delivery dates after 2030. Support is therefore needed to bring these projects forward for 2030 delivery. These are projects in East Anglia and in the southeast that are critical for connecting offshore wind in the North Sea and supporting the flow of clean power. Our assessment suggests that without these projects, the clean power objective would not be achieved, leaving the clean power target short by around 1.6% in 2030 (assuming a typical weather year) and consumers could face extra constraint costs of around £4.2 billion in 2030.' The Project is specified as one of those three projects. The critical and urgent nature of the Project is therefore also recognised in the strongest terms in a recent report in achieving Clean Power 2030 objectives.' Norwich to Tilbury is comprises two of the three projects
- Further detail of the assessment of the Project against Green Belt policies is contained at paragraphs 7.3.497 to 7.3.537.

Sites of Special Scientific Interest

7.2.53 In line with national policy requirements, the Project has been designed following the mitigation hierarchy and has avoided impacts where possible through the routeing and siting process. Environmental appraisal has been an integral part of the Project design from the outset, which has meant that the Project has been able to avoid environmentally sensitive features as far as reasonably practicable. The Project avoids all direct interaction with SSSI and therefore the test in Paragraph 4.2.17 of NPS EN-1 is not engaged. National Grid's application of the mitigation hierarchy is set out within ES Chapter 8: Ecology and Biodiversity (document reference 6.8) (Revision C) and included in the Statement of Common Ground produced with Natural England (document reference 5.9.14) and paragraphs 7.1.7 to 7.1.22 (inclusive) of this Planning Statement.

Nationally Designated Landscapes

7.2.54 Section 7.3.370 to 7.3.428 (inclusive) of this Planning Statement and ES Appendix 13.5 National Landscape Assessment Study (document reference 6.13.A5) (Revision B) describes the effects of the Project on Dedham Vale National Landscape during construction and operation. Paragraph 4NPS EN-1 confirms that development consent in nationally designated landscapes can only be granted in exceptional circumstances and should be demonstrated to be in the public interest. Paragraph 5.10.33 of NPS EN-1 confirms that the SoS should ensure that any projects consented in these designated areas should be carried out to high environmental standards. It is considered that the Project meets the tests set out in paragraph 5.10.32, as discussed below:

- The need for the development - Chapter 3 of the Planning Statement and the Strategic Options Back Check and Review Report (document reference 7.17) explains that the Project will reinforce the transmission system in East Anglia and the South East. In summary, in accordance with NPS EN-1 the Project will provide infrastructure that is CNP where need is fully established and for which the presumption in favour of granting development consent is engaged
- As described in ES Chapter 3: Alternatives (document reference 6.3) (Revision B) in defining the Project routeing at the Strategic Options Stage the assessment focused on whether the Bramford to EACN Substation connection should route directly through the Dedham Vale National Landscape (using underground cables within the National Landscape) or take a longer route around it via the Twinstead Tee area
- A decision was taken by National Grid to adopt underground technology through a more westerly part of the Dedham Vale National Landscape, achieving greater separation from sensitive ecology receptors and from areas of particular focus for National Landscape visitors
- Routes avoiding the National Landscape by passing north of Colchester presented significant additional challenges, including greater technical complexity with multiple constrained sections at Layham, Boxford, and Lamarsh Lane, increased construction complexity, and the need for additional crossings of existing infrastructure such as the proposed Bramford to Twinstead overhead lines. Moreover, routes north of Colchester may still result in adverse effects on the setting of the National Landscape
- The direct route with underground cables was selected as it halves the connection length, avoids creating a third connection between Bramford and Twinstead, and better complies with the Holford Rules, despite requiring underground cable mitigation through the National Landscape
- It is considered that permanent detrimental effects on the environment, landscape and recreational opportunities within the National Landscape have been avoided through undergrounding and careful consideration of routeing and siting through the National Landscape.

7.2.55 On the basis of the above, exceptional circumstances therefore exist to justify the Project in the Dedham Vale National Landscape and setting. As demonstrated by the needs case, the Project would be in the public interest. It is considered that the Project would be in compliance with these tests.

Substantial Harm to or Loss of Significance to Heritage Assets

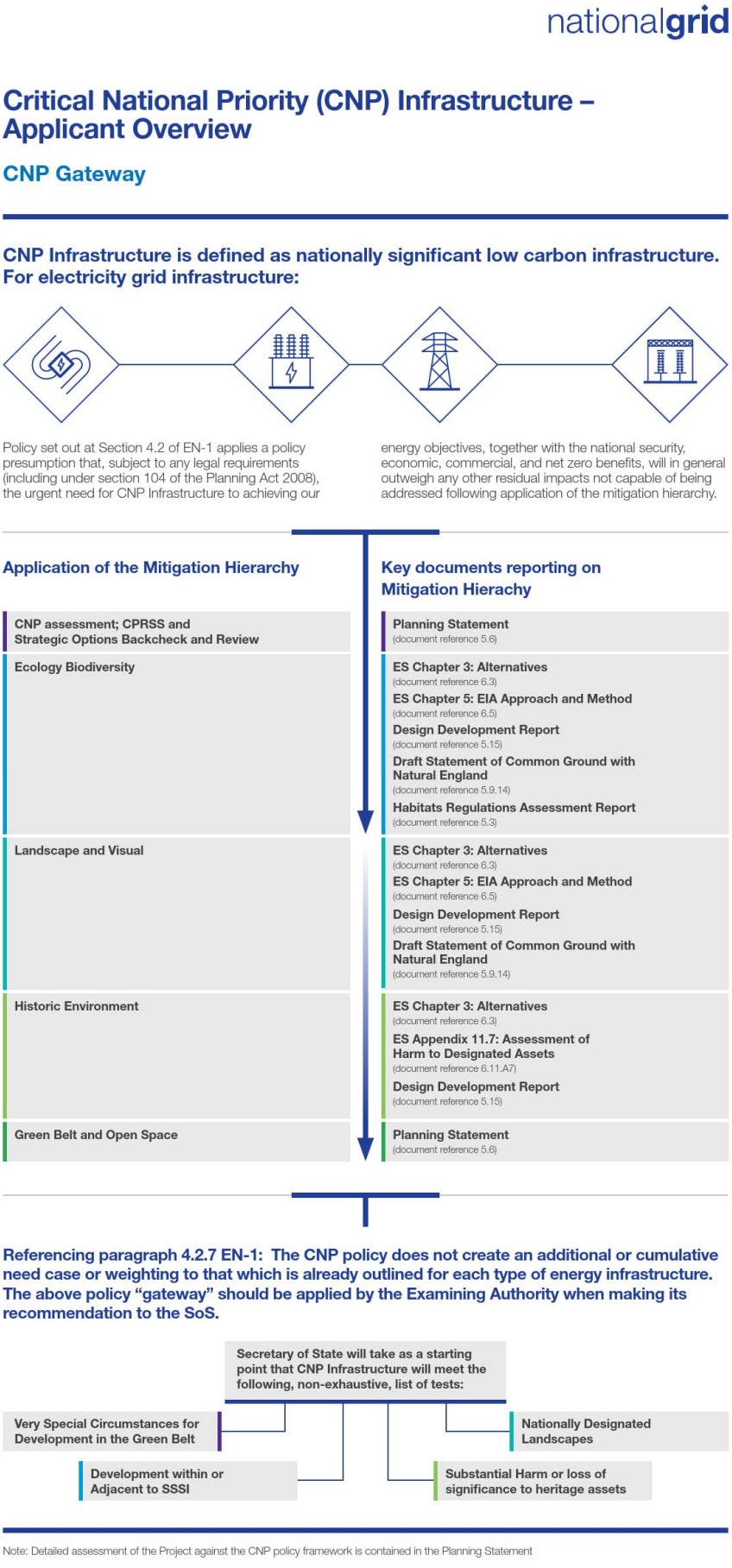
7.2.56 ES Chapter 11: Historic Environment (document reference 6.11) (Revision D) provides an assessment of the Projects likely significant effects on designated and non-designated heritage assets. The Project will not result in any substantial harm to designated heritage assets.

7.2.57 The Project has been carefully designed to avoid, reduce or mitigate potentially significant effects on cultural heritage and archaeology assets. Pursuant to the statutory requirement outlined in the Infrastructure Planning (Decisions) Regulations 2010, the SoS, when making a decision, is duty-bound to have regard to whether a scheme preserves or affects heritage assets, with this being afforded great weight against the Project due to this statutory duty and the NPSs. Given that the Assessment of Harm to Designated Assets (document reference 6.11.A7) (Revision B) demonstrates that the Project results in less than substantial harm, this is afforded moderate negative weight in the planning balance. Whilst the Project will not result in substantial harm to designated heritage assets it will result in the loss of significance to heritage assets due to the introduction of temporary and / or permanent plant, machinery and infrastructure into the setting. However, this harm is necessary to achieve the substantial public benefit of delivering CNP infrastructure that outweighs the heritage impact. This is supported by paragraphs 4.2.16 and 4.2.17 of NPS EN-1 (DESNZ, 2024) which treat CNP infrastructure as if it has met any tests which are set out within the NPSs, or any other planning policy, which requires a clear outweighing of harm, exceptionality or very special circumstances.

Summary of the Project against CNP Policy Tests

7.2.58 Based on the above, it is established that in the case of the Project, that the tests set out in paragraphs 4.2.16 - 4.2.17 (see above) have been met. National Grid has set out in Section 7 of this Planning Statement that the benefits of the Proposed Development clearly and demonstrably outweigh residual adverse effects after the implementation of mitigation measures. The Project is in accordance with the Energy NPSs and the CNP presumption in favour of consent is clearly engaged.

Image 7.1 Critical National Priority Infrastructure



Environmental Effects/Considerations (NPSEN-1 Section 4.3)

7.2.59 Section 4.3 of NPS EN-1 (DESNZ, 2024a) sets out the policy requirements for the ES. Paragraph 4.3.1 of NPS EN-1 states, '*All proposals for projects that are subject to the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (the EIA Regulations) must be accompanied by an Environmental Statement (ES) describing the aspects of the environment likely to be significantly affected by the project.*'

7.2.60 The application for development consent is accompanied by an ES (document reference 6.1-6.17) (Revision B-C) which meets the requirements of NPS EN-1 (DESNZ, 2024a). The following topics are covered within the ES:

- ES Chapter 6: Agriculture and Soils (document reference 6.6) (Revision B)
- ES Chapter 7: Air Quality (document reference 6.7) (Revision B)
- ES Chapter 8: Ecology and Biodiversity (document reference 6.8) (Revision C)
- ES Chapter 9: Contaminated Land, Geology and Hydrogeology (document reference 6.9) (Revision B)
- ES Chapter 10: Health and Wellbeing (document reference 6.10) (Revision C)
- ES Chapter 11: Historic Environment (document reference 6.11) (Revision D)
- ES Chapter 12: Hydrology and Land Drainage (document reference 6.12) (Revision B)
- ES Chapter 13: Landscape and Visual (document reference 6.13) (Revision B)
- ES Chapter 14: Noise and Vibration (document reference 6.14) (Revision B)
- ES Chapter 15: Socio-economics, Recreation and Tourism (document reference 6.15) (Revision C)
- ES Chapter 16: Traffic and Transport (document reference 6.16) (Revision B)
- ES Chapter 17: Cumulative Effects (document reference 6.17). (Revision B)

7.2.61 In response to paragraph 4.3.15 which requires applicants '*to include in their ES, information about the reasonable alternatives they have studied. This should include an indication of the main reasons for the applicant's choice, taking into account the environmental, social and economic effects and including, where relevant, technical and commercial feasibility*', the ES Chapter 3: Alternatives (document reference 6.3) (Revision B) includes a summary description of the options appraisal undertaken by National Grid. This should be read along the Design Development Report (document reference 5.15) (Revision B).

7.2.62 In accordance with paragraph 4.3.11 of NPS EN-1 (DESNZ, 2024a), the ES (document reference 6.1-6.17) (Revision B – C) outlines those aspects of the proposal which have not been settled in precise detail and outlines the reasons why these elements are yet to be finalised. Paragraph 4.3.12 sets out that where some details are still to be finalised, the ES should assess the likely worst-case environmental, social and economic effects of the proposed development.

7.2.63 The Order Limits include the LoD, which represent the maximum deviation for permanent infrastructure, such as the overhead line, pylons and underground cable and are shown on the Works Plans (document reference 2.3) (Revisions A-C).

7.2.64 The assessment presented within the ES (Volume 6 of the DCO application) is based on the design, LoD and parameters as shown on the Works Plans (document reference 2.3) (Revisions A-C), Figure 4.1: Proposed Project Design (document reference 6.4.F1) (Revision B) and Figure 4.2: Proposed Project Design – Permanent Features (document reference 6.4.F2) (Revision B). However, it should be noted that the permanent aspects of the Project, including pylon locations, are not fixed and could be located anywhere within the LoD, as defined on the Works Plans (document reference 2.3) (Revisions A-C) (unless a commitment has been made to restrict the LoD, details of which are outlined within the Outline CoCP (document reference 7.2) (Revision G)). The location and orientation of the CSE compounds, new EACN Substation, new Tilbury North Substation and underground cables may also change within the LoD. The associated temporary construction works would also change to the revised locations, albeit within the Order Limits.

7.2.65 The ES assess the effects of the Project against the LoDs. Section 9 of the ES topic chapters covers flexibility in design or construction and sensitivity testing. This outlines any new or different significant effects that may occur through the application of flexibility that is allowed for within the draft DCO (document 3.1) compared to the baseline scenario presented in the earlier sections of the topic chapter. The flexibility allows for micro-siting of pylons and the alignment of the 400 kV overhead line within the LoD during detailed design and construction. Further details regarding what is included within the baseline scenario and within the sensitivity assessment can be found in ES Chapter 4: Project Description (document reference 6.4) (Revision B).

7.2.66 National Grid consider that the submitted application is clear, proportionate and focussed. The geographical scale of the Project means that inevitably a large amount of information has been submitted as part of the application, however this information is deemed necessary for decision makers to make an informed decision. The use of tables, bullet points and summaries seeks to make the information submitted accessible to the end user.

Health (NPS EN-1 Section 4.4)

7.2.67 Section 4.4 of NPS EN-1 (DESNZ, 2024a) sets out NPS health policy relating to Energy NSIPs.

7.2.68 Paragraphs 4.4.1 and 4.4.2 of NPS EN-1 (DESNZ, 2024a) detail energy infrastructure has the potential to impact on the health and well-being of the population. The direct impacts on health may include:

- Increased traffic
- Air or water pollution
- Dust, odour
- Hazardous waste and substances
- Noise
- Exposure to radiation
- Increase in pests.

7.2.69 Paragraph 4.4.4 of NPS EN-1 (DESNZ, 2024a) sets out that '*where the proposed project has an effect on humans, the ES should assess these effects for each element of the project, identifying any potential adverse health impacts, and identifying measures to avoid, reduce or compensate for these impacts as appropriate*'. Paragraph 4.4.5 goes on to state that any assessment should also 'consider the cumulative impact on health within the ES where appropriate'.

7.2.70 NPS EN-1 (DESNZ, 2024a) paragraph 4.4.7 recognises that the aspects of energy infrastructure most likely to have a detrimental impact on the population are subject to their own separate regulation, that will result in effective mitigation of them. Therefore, '*it is unlikely that health concerns will either by themselves constitute a reason to refuse consent or require specific mitigation under the Planning Act 2008*'.

7.2.71 Paragraph 5.12.17 of NPS EN-1 (DESNZ, 2024a) directs the SoS to refuse consent 'unless they are satisfied that the proposals will meet the following aims, through the effective management and control of noise:

- *avoid significant adverse impacts on health and quality of life from noise*
- *mitigate and minimise other adverse impacts on health and quality of life from noise*
- *where possible, contribute to improvements to health and quality of life through the effective management and control of noise'*.

7.2.72 NPS EN-5 (DESNZ, 2024b) paragraph 2.10.11 states '*The Applicant should consider the following factors:* […] *that optimal phasing of high voltage overhead power lines is introduced wherever possible and practicable in accordance with the Code of Practice to minimise EMFs; and any new advice emerging from the Department of Health and Social Care relating to government policy for EMF exposure guidelines.*'

7.2.73 Paragraphs 8(b), 96(c), 98, 103, 135, 198, 223(f) and 224(b) of the NPPF (MHCLG, 2025) and the PPG for '*Healthy and safe communities*' and '*Open space, sports and recreation facilities, public rights of way and local green space*' contain similar health and wellbeing policies to the NPS and are therefore not repeated here.

Assessment

7.2.74 ES Chapter 10: Health and Wellbeing (document reference 6.10) (Revision C) provide assessments of the likely effects on health and wellbeing that could result from the construction and operation (including maintenance) of the Project. The assessment covers effects on the following issues:

- Health-related environmental change (for example, air quality, noise, traffic, and transport related effects), drawing on the assessments of other environmental topics as presented in the ES
- Mental health and wellbeing
- The perceptions of impacts arising from EMFs of the Project in relation to mental health and wellbeing.

7.2.75 The Health and Wellbeing assessment draws heavily on the assessment outcomes from other ES chapters and related documents, identifying the interrelationships and cumulative effects on identified population groups. This includes the following documents:

- Chapter 6: Agriculture and Soils (document reference 6.6) (Revision B)
- Chapter 7: Air Quality (document reference 6.7) (Revision B)
- Chapter 13: Landscape and Visual (document reference 6.13) (Revision B)
- Chapter 14: Noise and Vibration (document reference 6.14) (Revision B)
- Chapter 15: Socio-economics, Recreation and Tourism (document reference 6.15) (Revision C)
- Chapter 16: Traffic and Transport (document reference 6.16) (Revision B)
- Outline CoCP (document reference 7.2) (Revision G)
- Outline CTMP (document reference 7.3) (Revision F)
- Outline PRoW Management Plan (document reference 7.6) (Revision D)
- EMF Compliance Report (document reference 7.8) (Revision B)
- Transport Assessment (document reference 7.11) (Revision B).

7.2.76 The Project has been designed to follow the mitigation hierarchy as far as practicable, to, in the first instance, avoid or reduce and reduce health and wellbeing impacts through the process of design development. This has included sensitive routeing and siting of infrastructure. The Project has avoided sensitive features such as centres of population and community, healthcare, and education facilities, through the corridor and routeing studies. Relevant health and wellbeing receptors (for example community, health and education facilities, areas of green space) are shown on Figure 10.2 Health and Wellbeing Receptors (document reference 6.10.F2). Where practical, temporary construction compounds would be located to avoid or minimise environmental and community effects, provide the best access for personnel and deliveries in relation to major structures and worksites, and meet other construction requirements for the Project and temporary works.

7.2.77 The following sections assesses the Project against the impacts identified in Policy 4.4.2 of NPS EN-1

Increased Traffic

7.2.78 A full assessment of the Project against Traffic and Transport policy considerations (contained in Section 5.14 of NPS EN-1) is presented at Paragraphs 7.3.751 to 7.3.779 of this Planning Statement. This section focuses on the community safety aspect of increased construction traffic.

7.2.79 During the construction period there is the potential for an increase in traffic on the road network which could increase risk to users of the roads (including pedestrians and cyclists) within the Study Area.

7.2.80 ES Chapter 16: Traffic and Transport (document reference 6.16) (Revision B) identifies 12 PARs where large or large or moderate effects have been identified in relation to changes in the volume of traffic as a result of Project construction. It is noted that these effects are for the peak construction activity and would be realised

over a short duration (e.g. one week). Outside of this period the construction flows would be lower but over a longer duration (i.e. over the four years of construction) and therefore, the level of significance would be reduced. It is also noted that, for a number of road links the baseline level of traffic is low and that therefore even a small number of construction vehicles would be calculated as a large percentage increase.

7.2.81 ES Chapter 16: Traffic and Transport (document reference 6.16) (Revision B) notes that, while the addition of any amount of traffic can increase the risk of collisions, it is considered that for the majority of road links the temporary increase in construction traffic associated with the Project is unlikely to materially affect safety.

7.2.82 Environmental appraisal has been an integral part of the Project design from the outset, which has meant that the Project has been able to avoid environmentally sensitive features as far as reasonably practicable. Embedded measures relevant to health and wellbeing associated with an increase in construction traffic includes the provision of new permanent Non-Motorised User (NMU) routes which are proposed at two locations in order to mitigate impacts arising from the expected increase in construction traffic. The NMU routes along Bentley Road and Ardleigh Road in Essex and Hoford Road in Thurrock would comprise an off-road path to separate vulnerable users from the construction traffic

7.2.83 Standard mitigation measures, comprising management activities and techniques, would be implemented during construction of the Project to limit effects through adherence to good site practices and achieving legal compliance.

7.2.84 The Outline CoCP (document reference 7.2) (Revision G) contains good practice measures of relevance to Health and Wellbeing. Measures have been assigned references (for example GG01) that align with the references provided in Table 6.1 of the Outline CoCP (document reference 7.2) (Revision G) for ease of cross-reference. These measures include but are not limited to:

- GG35: Members of the community and local businesses will be kept informed regularly of the works through active community liaison. This will typically include the notification of ‘noisy activities’, heavy traffic periods and start and end dates of key phasing. A contact number will be provided which members of the public can use to raise any concerns or complaints about the Project. All construction-related complaints will be logged by the Main Works Contractor(s) in a complaints register, together with a record of the responses given and actions taken.

Air (Including Dust) or Water Pollution

7.2.85 A full assessment of the Project against the Air Quality and Water Quality policy considerations (contained in Section 5.2 and 5.16 of NPS EN-1) is presented at Paragraphs 7.3.14 and 7.3.786 respectively of this Planning Statement.

7.2.86 ES Chapter 7: Air Quality (document reference 6.7) (Revision B) identifies the likely significant effects of construction dust associated with the construction phase of the Project. With the implementation of standard mitigation measures, the risk to human health arising from construction dust would be low, resulting in a negligible and not significant effect. A range of methods to mitigate potential air quality effects have been proposed within the Outline CoCP (document reference 7.2) (Revision G), to be implemented in a proportionate manner.

7.2.87 Additionally, Chapter 7: Air Quality (document reference 6.7) (Revision B) models the effects of construction traffic on human receptors. Annual mean concentrations of NO2, PM10 and PM2.5 are all predicted to return a negligible and not significant effect during the construction phase. The highest concentration of PM2.5 experienced is predicted at receptor HR_38, a nursery school on Halstead Road, Colchester. However, concentrations modelled at this location were 7.6 µg/m3, which falls below legal thresholds. Full results of the air quality assessment by individual receptor can be found in Appendix 7.3: Air Quality Assessment Results (document reference 6.7.A3) (Revision B).

7.2.88 The use of generators and non-road mobile machinery (NRMM) would be located away from sensitive receptors, and the release height of any emissions would be adapted to ensure sufficient dispersion. Locations where compounds are within 100 m of sensitive receptors are shown in Table A7.3.11 in Appendix 7.3: Air Quality Assessment Results (document reference 6.7.A3) (Revision B). Chapter 7: Air Quality (document reference 6.7) (Revision B) concludes that use of construction NRMM is unlikely to result in significant effects on local air quality.

7.2.89 ES Chapters 9: Contaminated Land, Geology and Hydrogeology (document reference 6.9) (Revision B) and Chapter 12: Hydrology, Land Drainage and Flood Risk (document reference 6.12) (Revision B) assess the impacts of the Project on hydrogeology (including groundwater quality) and surface water quality respectively. With the implementation of standard mitigation measures set out in the Outline CoCP (document reference 7.2) (Revision G) the risk to polluting surface water or groundwater (through dewatering or creation of new groundwater flow pathways) is considered to be not significant.

Noise

7.2.90 A full assessment of the Project against policy considerations relating to noise (contained in Section 5.12 NPS EN-1) is presented at Paragraphs 7.3.654 to 7.3.676 of this Planning Statement.

7.2.91 The construction noise assessment, as presented within ES Chapter 14: Noise and Vibration (document reference 6.14) (Revision B) identifies the potential for significant adverse effects during daytime, nighttime and weekend periods, associated with highways remediation and haul road works, cable and pylon construction, the construction of the temporary construction compounds and conductor stringing.

7.2.92 However, with the use of mitigation in the form of Best Practicable Means (BPM) the magnitude of impact of construction noise is expected to be negligible to small at all nearby residential and low to medium sensitivity non-residential Noise Sensitive Receptors (NSRs), and negligible at all nearby high sensitivity NSRs across all periods assessed (i.e. daytime, nighttime and weekends).

7.2.93 There would also be noise generated by additional vehicle traffic (including HGVs) on the local road network, travelling to and from the work sites. An assessment of potential noise impacts from construction traffic is presented in ES Appendix 14.2: Construction Traffic Noise Assessment (document reference 6.14.A2) (Revision B). The assessment indicates that construction traffic noise impacts are negligible or small (and therefore not significant) on most routes.

7.2.94 ES Chapter 14: Noise and Vibration (document reference 6.14) (Revision B) identifies no significant effects in relation to construction noise as a result of construction activities. However, the chapter identifies a large (negative) magnitude

impact for PAR 30 (Bentley Road) in relation to noise as a result of construction traffic. PAR 30 is located within Ardleigh and Little Bromley ward, which is considered to be of high low sensitivity by virtue of its demographic profile. The section of Bentley Road which comprises PAR 30 passes through a predominantly rural area enabling access to a handful of properties. Only one significant effect has been identified in Chapter 14: Noise and Vibration (document reference 6.14) (Revision B) at an NSR (a residential property) as a result of changes in construction traffic noise.

7.2.95 As summarised in section 7.3.654 to 7.3.676 of this Planning Statement, effective management and control of noise will be in place to avoid or minimise significant adverse impacts on health and quality of life from noise, in line with paragraph 5.12.17 of NPS EN-1 (DESNZ, 2024a). Operational noise from overhead lines is scoped out of the ES in accordance with the Scoping Opinion (document reference 6.20), on the basis that a low noise conductor system is proposed. The proposed overhead line system would use 'triple Araucaria' conductors or alternative technology that performs to the same or better standard in relation to noise on standard lattice pylons for reducing operational noise (as reported in Chapter 4: Project Description (document reference 6.4) (Revision B). This would be regarded as practically quiet.

7.2.96 Information on noise from overhead lines is provided in Appendix 14.5: Operational Noise from Overhead Lines (Informative) (document reference 6.14.A5) (Revision B). This document provides information to demonstrate that any noise that may occur during the operation of the overhead transmission line would not be significant. It sets out a worst-case assessment for 'wet noise' levels (the highest noise levels generated by an overhead line generally occur during rainfall) and considers potential effects in relation to vulnerable subgroups (as set out by the WHO), residential receptors, and schools and hotels. The assessment shows that the predicted noise levels are significantly below the No Adverse Impact Criteria for all three Noise Sensitive Receptor groups and affirms that operational noise from the proposed 400 kV overhead line would therefore be not significant.

Exposure to Radiation

7.2.97 EMFs are a form of non-ionising radiation. EMFs from overhead lines are unlikely to have significant environmental effects. Therefore, it was proposed in the Norwich to Tilbury Scoping Report (document reference 6.19) that the assessment of EMFs be scoped out of the ES.

7.2.98 Whilst health impacts associated with EMFs have been scoped out of the assessment, during statutory and non-statutory consultation, feedback has emerged from local communities relating to ongoing anxieties about the perceived effects of EMFs, particularly on vulnerable populations such as children.

7.2.99 Comprehensive information about EMFs has been provided in a separate report to be submitted with the application for development consent. National Grid has prepared an EMF Compliance Report (document reference 7.8) (Revision B) which describes how the design of the Project is compliant with the International Commission on Non-Ionizing Radiation Protection (ICNIRP) guidelines (ICNIRP, 1998) in ensuring that the threshold for impacts to humans is not met or exceeded. National Grid will ensure that policies and procedures are in place at the design phase to ensure that all equipment complies with public EMF exposure limits.

7.2.100 The Project has been designed to comply with existing National Grid standards and relevant external guidance and processes, such as the ICNIRP guidelines (ICNIRP, 1998) for reducing effects in relation to EMFs. National Grid is committed to managing EMFs responsibly, including assessing the scientific evidence, determining any implications, and communicating the science to the public. National Grid's Corporate Public Position Statement relating to EMFs (National Grid, 2023) affirms that National Grid take the matter of EMFs very seriously, support high-quality research into EMFs and make the results available for scientific review, and communicate in an open manner.

7.2.101 ES Chapter 10: Health and Wellbeing (document reference 6.10) (Revision C) identifies that exposure guidelines have been set by independent scientific bodies and are based on decades-long studies into the effects of EMFs and ill health. After those decades of research, the weight of evidence is against there being any health risks of EMFs below the guideline limits. These policies are incorporated into the decision-making process for development consent in NPS EN-5 (DESNZ, 2023b).

Odour, Hazardous Waste and Substances and Increase in Pests

7.2.102 As reported in the Statement of Statutory Nuisance (document reference 5.4), the Project is not anticipated to generate steam, smell or other effluvia which could cause a nuisance or be prejudicial to health during construction or operation. It is not anticipated that the project would result in any insect infestation.

7.2.103 The Outline CoCP (document reference 7.2) (Revision G) sets out measures to minimise the risk of a pollution incident occurring including appropriate storage and handling of fuels and other substances hazardous to the environment. National Grid has set up the Great Grid Partnership (GGP) who will support the delivery of the project The GGP (described in this Planning Statement as the Main Works Contractor(s)) would ensure that any potentially hazardous waste is correctly stored, tested, recorded and disposed of. Hazardous Substance Consent is not considered to be required for the Project.

7.2.104 In accordance with the policies contained within NPS EN-1, ES Chapter 10: Health and Wellbeing (document reference 6.10) (Revision C) includes an assessment of the Project's impact on the health and well-being of the population. In accordance with paragraph 4.4.6 of NPS EN-1 the assessment includes protected characteristics defined within the Equality Act 2010 usually considered as vulnerable for the purpose of Health and Wellbeing assessments. ES Chapter 10: Health and Wellbeing (document reference 6.10) (Revision C) concludes that with appropriate mitigation measures, there will be no significant adverse effects on human health and wellbeing. The Project is therefore compliant with national planning policy as set out in Section 4.4 of NPS EN-1 with regard to the acceptability of health and wellbeing impacts.

Environmental and Biodiversity Net Gain (NPS EN-1 Section 4.6)

7.2.105 Section 4.6 of NPS EN-1 (DESNZ, 2024a) sets out Environmental and Biodiversity Net Gain, ensuring that projects not only avoid, mitigate and compensate harms, but also provide enhancement.

7.2.106 Paragraph 4.6.6 sets out that *'Energy NSIP proposals, whether onshore or offshore, should seek opportunities to contribute to and enhance the natural environment by providing net gains for biodiversity and the wider environment where possible'. Paragraph 4.6.7 states that 'applicants for onshore elements of any development are encouraged to use the latest version of the biodiversity metric to calculate their biodiversity baseline and present planned biodiversity net gain outcomes. This calculation data should be presented in full as part of their application.'*

7.2.107 In England, BNG is mandatory under Schedule 7A in relation to development granted planning permission under the Town and Country Planning Act 1990 (as inserted by Schedule 14 of the Environment Act 2021). BNG is an approach to development ensuring that habitats for wildlife are left in a measurably better state than they were before the development. The PA 2008 creates a separate consenting route for major infrastructure projects in the fields of energy, transport, water, wastewater, and waste – termed NSIPs. Currently BNG for NSIP projects is not a mandatory requirement. As part of a consultation on the implementation of BNG for NSIPs (which closed on 24 July 2025) the Government stated that it proposes introducing BNG for NSIPs from May 2026.

7.2.108 National Grid's RIIO-T2 Business Plan (2021 – 2026) (National Grid, 2019) included a commitment to deliver 10% environmental net gain (including at least 10% BNG) on its construction projects. National Grid made these commitments three years in advance of formal legislation. The RIIO-T2 Environmental Action Plan sets firm targets for the five-year period, with the following commitments to be funded:

- Deliver at least 10% environmental net gain (including at least 10% BNG) on its construction projects
- Incentive for delivering more than 15% BNG; penalty if less than 5% delivered.

7.2.109 BNG forms part of the Environmental Net Gain (ENG) strategy for the Project. As set out in the Biodiversity Net Gain Report (document reference 7.1) (Revision B), the Project will deliver at least 10% BNG with wider environmental and societal benefits.

7.2.110 In the absence of legal obligation or NSIP-specific guidance, National Grid's approach to BNG for NSIP projects is to:

- Meet the policy requirements within the current NPS
- Deliver its corporate commitments to deliver at least 10% BNG with wider benefits
- Maximise the benefits and value from consumer funded BNG
- Follow the spirit of the Town and Country Planning Act 1990 (TCPA) BNG legislation and guidance, including using the Statutory Biodiversity Metric.

7.2.111 National Grid has submitted a Biodiversity Net Gain Report (document reference 7.1) (Revision B) with the application for development consent.

7.2.112 For NSIP projects, National Grid's approach to the BNG hierarchy diverges slightly from that set out in TCPA legislation. For the most part, National Grid's projects of national significance are long linear projects which are routed across third-party land and the infrastructure allows retention of the original habitat (often agricultural) within the Order Limits, above underground cables and below overhead line spans. Projects consented under TCPA tend to be 'point-based' sites where the development often results in substantial permanent loss of habitat within the development boundary.

7.2.113 National Grid's approach is to deliver the best outcomes for nature from consumer-funded BNG.

7.2.114 Better outcomes for nature and value for money for consumers would likely occur where National Grid delivers BNG with expert partners, rather than through National Grid acquiring land to deliver BNG 'in-house'. It is proposed that BNG will be delivered both on-site and off-site.

7.2.115 National Grid's approach is to provide any on-site BNG in a coordinated manner in locations that do not prejudice the siting or routeing of future electricity infrastructure, such as substation extensions or customer connections. This approach is in the best interests of nature and is economic and efficient because it safeguards onsite BNG and means that on-site landscape screening or other environmental mitigation can also contribute towards BNG.

7.2.116 National Grid's commitment to providing 10% BNG will be secured through a unilateral undertaking given under s106 of the Town and Country Planning Act 1990. While every effort has been made to deliver the required BNG through replacement planting and on-site mitigation in the form of habitat creation and enhancement, given the scale and nature of the Project, 10% BNG is not fully achievable on-site. Off-site BNG is therefore proposed to make up any deficit. Biodiversity is not physically bound by planning authority boundaries and therefore a holistic approach is proposed for any off-site BNG, with the aim to deliver a biodiversity legacy ideally in each of the three counties crossed by the Project (Norfolk, Suffolk and Essex).

7.2.117 Offsite BNG will be delivered through collaboration with partners and purchased from commercially registered providers. National Grid has been engaging in productive discussions with Norfolk, Suffolk and Essex Wildlife Trusts regarding the provision of off-site BNG units for the Project.

7.2.118 National Grid is currently preparing draft Heads of Terms in relation to s106 Unilateral Undertaking.

7.2.119 Paragraph 4.6.13 of NPS EN-1 (DESNZ, 2024a) sets out that '*In addition to delivering biodiversity net gain, development may also deliver wider environmental gains and benefits to communities relevant to the local area and to national priorities, such as:*

- *Reductions in GHG emissions*
- *Reduced flood risk*
- *Improvements to air or water quality*
- *Climate adaptation*
- *Landscape enhancement*
- *Increased access to natural greenspace, or*
- *The enhancement, expansion or provision of trees and woodlands.'*

7.2.120 The above bullet points are considered either individually or collectively below.

Reductions in GHG Emissions

7.2.121 The Climate Change Act 2008 set in law a long-term target to reduce the UK's GHG emissions to 80% below 1990 levels by 2050 and established the system of UK carbon budgets. In 2019, the UK government furthered the ambition and committed to bring all GHG emissions to net zero by 2050. To meet these targets, the government has set five-yearly carbon budgets which currently run until 2042.

7.2.122 As presented in ES Appendix 4.1: Greenhouse Gas Assessment (document reference 6.4.A1) (Revision B) the total CO_2e estimated on the Project is 376,214 tCO_2e. This is split into 333,4617 tCO_2e for capital (construction) carbon (which would be spread over the whole construction duration), 39,199 tCO_2e for transmission losses during 40 years of operation and 3,398 tCO_2e for Non SF6 loss through leakage.

7.2.123 National Grid follows the principles of PAS 2080: 2023 Carbon Management in Infrastructure and Built Environment, throughout the project development process and require this of its contractors. PAS 2080 is a global standard for managing infrastructure carbon. This framework looks at the whole value chain, aiming to reduce carbon and reduce cost through more intelligent design, construction and use. Design optimisation in line with the carbon reduction hierarchy is included below:

- Reduce the elements and materials required for the construction phase of the Project
- Use alternative raw materials and resources, such as those with a higher proportion of recycled content
- Use efficient construction processes, such as manufacture and assembly design.

7.2.124 In 2021, National Grid detailed a commitment to being fully net zero across all new construction projects by 2025/26 as part of the '*Our Net Zero Construction project'* (National Grid, 2021). To deliver this, the focus will be on the absolute reduction of impacts associated with the delivery for the Project and this will be measured via the CIT. Residual emissions of all National Grid projects within the portfolio at the end of 2025/26 (and future years) would be aggregated and offsets delivered in line with National Grid's Offsetting policy guidelines. The assessment considered only the GHG related directly to construction and operation (and maintenance) of the Project. The Project would, however, make an important contribution to reducing GHG and reaching the UK government's target of net zero by 2050, by supporting the distribution of greener energy.

7.2.125 Measures to reduce greenhouse gas emissions are set out in ES Appendix H: Greenhouse Gas Reduction Strategy is also provided within the Outline CoCP (document reference 7.2.H) (Revision B).

7.2.126 NPS EN-5 (DESNZ, 2024b) (paragraphs 2.9.59 and 2.9.60) describe sulphur hexafluoride (SF6) as an 'insulating and arc-suppressant gas used in high-voltage switchgear for electricity networks. It is also an extraordinarily potent greenhouse gas, and fugitive emissions from electricity networks infrastructure are an object of increasing environmental concern, especially in light of the UK's commitment to net zero by 2050'.

7.2.127 Paragraph 2.9.61 of NPS EN-5 (DESNZ, 2024b) states that 'Applicants should at the design phase of the process consider carefully whether the proposed development could be reconceived to avoid the use of SF6-reliant assets'. Paragraph 2.9.62 sets

out that ‘Where the development cannot be so conceived, the applicant must provide evidence of their reasoning on this point. Such evidence will include, for instance, an explanation of the alternatives considered, and a case why these alternatives are technically infeasible or require bespoke components that are grossly disproportionate in terms of cost.’

7.2.128 Sulphur hexafluoride (SF6) is a gas commonly used in the electricity industry in electrical switchgear to insulate the live electrical parts and to safely switch the flow of electrical current on and off. This switchgear is used throughout the electrical network, including to connect the generation and storage of renewable energy of all types.

7.2.129 Electrical switchgear using SF6 is designed to avoid the release of the gas into the atmosphere, but small quantities are released during the lifecycle of the equipment: manufacture, installation, operation, maintenance and decommissioning. Larger leaks can also occur during its lifecycle, for example due to equipment malfunction.

7.2.130 SF6 is one of seven main greenhouse gas which contribute to climate change, as covered by the Kyoto Protocol (the others are carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFC), perfluorocarbons (PFC), and nitrogen trifluoride (NF_3).)

7.2.131 As a greenhouse gas, SF6 contributes to global warming in a similar way to carbon dioxide, though it is much more potent than carbon dioxide.

7.2.132 The GHG relevant to the Project are CO_2 (associated with the embodied carbon within materials or from emissions generated from construction plant and vehicles), and SF6 alternatives which would be required in the proposed switchgear equipment of the substations (i.e. Bus Section Bay, Shunt Reactor Bay Feeder Bay, Transformer Bay). As outlined in the Greenhouse Gas Assessment (document reference 6.4.A1) (Revision B). It is assumed that no SF6 equipment will be used in the Project, in accordance with National Grid policy. SF6 alternatives such as C4 or G3 have a 99% lower global warming potential (GWP) than SF6.

Reduced Flood Risk

7.2.133 An assessment of the Project against Flood Risk policies contained in section 5.8 of NPS EN-1 is set out in this Planning Statement at paragraphs 7.3.221 to 7.3.236. The application for development consent is accompanied by an FRA (document reference 7.9). The FRA focuses on fluvial, pluvial (surface water), tidal, and groundwater flood risk. Flooding from sewers, reservoirs and other artificial sources were scoped out of the assessment in agreement with the Planning Inspectorate.

7.2.134 The predicted impacts of climate change have been included in the assessment. These include increases to peak flows, with respect to fluvial flooding, and increased rainfall intensity, with respect to surface water flooding.

7.2.135 A sequential approach has been taken in siting the Project infrastructure (with the sequential test reported in the FRA (document reference 7.9)), however due to the linear nature of the Project and its large geographical scale, some parts of the Order Limits necessarily encroach into areas with a medium or high likelihood of flooding. This triggers the NPPF (MHCLG, 2025) exception test, and the evidence of satisfying the requirements of this is presented in the FRA.

7.2.136 National Grid has made a number of commitments around flood risk management measures and land drainage. These are documented in the Outline CoCP (document reference 7.2) (Revision G).

7.2.137 Flood risk to and arising from the Project during construction has been assessed and the following points have been concluded:

- The majority of the Project is at low risk of fluvial flooding. Locally higher risks, particularly to temporary works within main river floodplains, would be reduced through embedded and good practice measures which include managing these worksites in accordance with a Flood Warning and Evacuation Plan (Appendix G of the Outline CoCP (document reference 7.2) (Revision G)). These measures would protect construction workers, limit damages to construction equipment and materials and also limit any impacts of the Project on fluvial flood risk
- The proposed new EACN and Tilbury North Substations and the extensions to existing substations are in Flood Zone 1. Six of the proposed CSE compounds are in Flood Zone 1. Following the release of updated flood mapping dataset from the Environment Agency the CSE compound site at Wenham Grove is now partially situated in Flood Zone 3. This CSE compound would be laid out in accordance with the sequential approach, whereby the most vulnerable components are in areas at lowest risk of flooding
- The requirements for compensation of loss of floodplain storage associated with the pylons is addressed in the following sub-section and secured by commitment W17 in the Outline CoCP (document reference 7.2) (Revision G). No discernible loss of floodplain storage is associated with the CSE compound, associated above ground infrastructure has a very limited footprint
- As there would be no works within the inter-tidal zone and only limited works in the tidally dominated floodplain (associated with the removal of an existing overhead line), the Project is not anticipated to increase tidal/coastal flood risk during construction. Appropriate measures for managing the residual risk associated with the overhead line removal works in the tidally dominated floodplain of the River Stour have been incorporated into the Flood Warning and Evacuation Plan (Appendix G of the Outline CoCP (document reference 7.2) (Revision G))
- With respect to surface water flooding, during construction and operation, the Project is considered to be largely at low risk, with some areas at higher risk. Measures would be in place to manage surface water runoff and minimise impacts on the land drainage regime across the Project, including allowances for climate change resilience within the designs of operational SuDS
- During construction the Project is considered to be at low risk of flooding from groundwater and is not anticipated to increase flood risk from this source.

7.2.138 During its operational phase, the Project is considered to be at low risk of flooding from all sources assessed in the FRA (document reference 7.9) due to the mitigation measures built into its design. The Project is not anticipated to increase flood risk elsewhere during its operation as any losses of floodplain storage would be compensated for, and additional surface water runoff would be managed in line with national and local requirements.

7.2.139 In conclusion, the FRA (document reference 7.9) demonstrates that the requirements of NPS EN-1 (DESNZ, 2024a), NPS EN-5 (DESNZ, 2024b) and the NPPF (MHCLG, 2025) and its associated PPG (MHCLG, 2016) with respect to flood risk have been met, and the flood risk management measures identified would be secured through the Requirements of the DCO if approved. However, whilst the project will not exacerbate or increase the risk of flood, the Project would not, in itself, reduce the risk of flooding.

Improvements to Air or Water Quality

7.2.140 Potential impacts on air quality arising from the Project are assessed in ES Chapter 7 Air Quality (document reference 6.7) (Revision B). The potential impacts on water quality arising from the Project are assessed in ES Chapter 12 Hydrology, Land Drainage and Flood Risk (document reference 6.12) (Revision B).

7.2.141 The assessment of Air Quality and Water Quality concludes that with the adoption of the good practice measures identified in the Outline CoCP (document reference 7.2) (Revision G) there are no likely significant residual effects in relation to air quality or water quality during construction. There are no likely significant residual effects to air quality or water quality during operation (including maintenance).

Landscape Enhancement, Increased Access to Natural Greenspace, or the Enhancement, Expansion or Provision of Trees and Woodlands

7.2.142 Environmental Areas have been identified across the Project as part of on-site mitigation. Multifunctional areas were prioritised providing mitigation or enhancements for different environmental aspects i.e. sites where landscape mitigation and biodiversity gains could be achieved together. National Grid would retain ownership of these Environmental Areas and therefore National Grid can commit to a 30 year habitat management and monitoring plan. The following areas have been identified as 'Environmental Areas' and presented in the Outline LEMP (document reference 7.4) (Revision G).

- Land around Norwich Main Substation (areas not included in the Norwich Main Substation Extension Planning application)
- Land around EACN Substation
- Land around Tilbury North Substation and Tilbury North (Warley Side) and Tilbury North (Tilbury Side) CSE Compounds (with Lower Thames Crossing)
- Land around Tilbury North Substation and Tilbury North (Warley Side) and Tilbury North (Tilbury Side) CSE Compounds (without Lower Thames Crossing)
- Land around Wenham Grove CSE Compound
- Land around Great Horkesley (EACN Side) CSE Compound
- Land around Great Horkesley (Tilbury Side) CSE Compound
- Land around Fairstead (EACN Side) and Fairstead (Tilbury Side) CSE Compounds

7.2.143 Outline landscape plans have been developed for the Environmental Areas, which provide an indicative illustration of the habitats that could be created and enhanced on the sites, while taking into account other constraints and operational requirements for the sites. Detailed designs for these areas will be finalised and submitted for review post consent as part of the discharge of requirement process. At this stage the habitat being relied upon for BNG, and therefore subject to 30 year management, will be clearly defined.

7.2.144 BNG forms part of the Environmental Net Gain (ENG) strategy for the Project.

7.2.145 The Project has committed to achieve a minimum of 10% BNG (though onsite and offsite BNG) and undertaken a BNG assessment (based on the statutory biodiversity metric) which is presented in the Biodiversity Net Gain Report (document reference 7.1) (Revision B).

7.2.146 National Grid's approach is to provide any on-site BNG in a coordinated manner in locations that do not prejudice the siting or routeing of future electricity infrastructure, such as substation extensions or customer connections. This approach is in the best interests of nature and is economic and efficient because it safeguards onsite BNG and means that on-site landscape screening or other environmental mitigation can also contribute towards BNG.

7.2.147 Discussions are currently taking place between National Grid and the Waveney and Little Ouse Recovery (WaLOR) scheme (Suffolk Wildlife Trust, 2025), a landscape recovery scheme which is located in the same geographic area as the Project. This project is seeking to deliver a number of BNG units in addition to the delivery of the WaLOR scheme and National Grid have discussed the opportunity to deliver approximately 600 area habitat units. This could comprise a mixture of woodland, other neutral grassland as well as the potential to deliver wetland mosaic habitats. The final mix of units and location will be explored as the WaLOR scheme develops. Suffolk Wildlife Trust have also identified Market Weston Fen a habitat bank in Suffolk that comprises mixed scrub and other neutral grassland. National Grid is currently in discussion with both parties to sign an Expression of Interest and updated details will be provided accordingly.

7.2.148 Essex Wildlife Trust have issued a letter to National Grid confirming that they are happy to assist with the requirement of approximately 400 units in Essex, which include other neutral grassland, mixed scrub, individual trees and acid grassland. National Grid will continue to work with Essex Wildlife Trust to identify potential sites as the Project progresses.

7.2.149 National Grid is continuing these discussions with the Wildlife Trusts and other third parties in regard to securing the off-site units through a legal agreement (unilateral undertaking under s.106 of the Town and Country Planning Act 1990), and progress on such discussions will be provided accordingly.

7.2.150 In addition to the above, the Outline CoCP (document reference 7.2) (Revision G) contains relevant measures relating to Ecology and Biodiversity which demonstrate examples of where the Project will seek to identify opportunities for enhancement. These measures include but are not limited to:

- B12: Where temporary habitat removal is required to facilitate construction, this will be reinstated. Reinstatement will aim to provide habitats of equal or better value to those affected and permanent land take will be mitigated with additional habitat creation/ enhancement; minimum of 10% BNG is being sought. Accordingly, hedgerows scheduled for removal will be reinstated and, where appropriate, be improved from their baseline condition e.g., defunct, or species-poor hedgerows will be replanted to achieve species-rich and continuous hedgerows, once re-established
- B201: The Project will seek to provide strategic habitat enhancement and creation, aiming to identify and implement opportunities to improve habitat quality and connectivity and align with national nature recovery objectives and projects. Such measures may include specific habitat creation and enhancement measures and additional receptor -specific measures such as the creation of habitat piles and installation of bird and bat boxes.

Conclusions on Environmental and Biodiversity Net Gain

7.2.151 NPS EN-1 highlights the need for projects to leave the natural environment in a measurably better state than beforehand. The Project has been designed following the mitigation hierarchy, designed to avoid, mitigate and compensate harms. National Grid has also sought to identify opportunities for enhancements through the delivery of the Project.

7.2.152 Paragraphs 7.3.135 to 7.3.174 demonstrate how the Project meets the requirements of Section 4.6 of NPS EN-1 with regard to delivering Environmental and Biodiversity Net Gain.

7.2.153 Landscape and visual mitigation are proposed at Norwich Main, EACN and Tilbury North Substations and the seven CSE compounds, proposed as 'Environmental Areas'. These multi-functional areas have been prioritised, to provide mitigation or enhancements for different environmental aspects i.e. sites where landscape and visual mitigation and biodiversity gains could be achieved together. As shown on the indicative landscape design has been created for these areas as detailed proposals within Appendix D of the Outline LEMP (document reference 7.4) (Revision D) and shown in Images 2 to 9. The Outline LEMP provides the site context for each of the Permanent Features and identifies the individual landscape mitigation proposals for the Environmental Areas.

7.2.154 National Grid has committed to deliver at least 10% BNG with wider environmental and societal benefits The Outline LEMP (document reference 7.4) (Revision G) refers to the retention, replacement planting and onsite habitat creation and enhancement of habitats in line with the BNG Report (document reference 7.1) (Revision B).

7.2.155 Where created or enhanced, habits within these Environmental Area will be counted within the BNG assessment (onsite mitigation). The Environmental Areas are located on land to be acquired by National Grid and any habitats included within the BNG onsite mitigation, will be monitored and managed by National Grid for 30 years in line with commitments made within the BNG Report (document reference 7.1) (Revision B). Regular site visits will be undertaken by experienced ecologists, to ensure the habitat type and condition meet that prescribed within the BNG Report. Beyond the 30-year period it is expected that ongoing management will be undertaken by National Grid in line with standard practices around permanent assets.

Criteria for Good Design for Energy Infrastructure (NPS EN-1 Section 4.7)

7.2.156 Paragraph 4.7.1 of NPS EN-1 (DESNZ, 2024a) outlines that the *'visual appearance of a building, structure, or piece of infrastructure, and how it relates to the landscape it sits within, is sometimes considered to be the most important factor in good design. But high quality and inclusive design goes far beyond aesthetic considerations. The functionality of an object – be it a building or other type of infrastructure – including fitness for purpose and sustainability, is equally important'.*

7.2.157 Paragraph 4.7.5 sets out that *'design principles should be established from the outset of the project to guide the development from conception to operation. Applicants should consider how their design principles can be applied post-consent'.*

7.2.158 Acknowledging the limitations on infrastructure design, paragraph 4.7.6 states that *'Whilst the applicant may not have any or very limited choice in the physical appearance of some energy infrastructure, there may be opportunities for the*

applicant to demonstrate good design in terms of siting relative to existing landscape character, land form and vegetation. Furthermore, the design and sensitive use of materials in any associated development such as electricity substations will assist in ensuring that such development contributes to the quality of the area. Applicants should also, so far as is possible, seek to embed opportunities for nature inclusive design within the design process.'

7.2.159 Section 2.4 of NPS EN-5 (DESNZ, 2024b) reinforces the above policy and sets out the need for applicants to consider the criteria for good design in NPS EN-1 (DESNZ, 2024a) at an early stage when developing projects.

7.2.160 Paragraph 2.4.3 of NPS EN-5 (DESNZ, 2024b) states that *'…the Secretary of State should bear in mind that electricity networks infrastructure must in the first instance be safe and secure, and that the functional design constraints of safety and security may limit an applicant's ability to influence the aesthetic appearance of that infrastructure.'* Paragraph 2.4.4 goes onto state that '*While the above principles should govern the design of an electricity networks infrastructure application to the fullest possible extent – including in its avoidance and/or mitigation of potential adverse impacts – the functional performance of the infrastructure in respect of security of supply and public and occupational safety must not thereby be threatened.'*

7.2.161 The design evolution of the Project has been an iterative process, influenced by an extensive process of stakeholder engagement. National Grid has considered ways to achieve good design through the careful consideration of route corridors and the application of design principles. National Grid has also considered alternative design suggestions made in written representations, during consultation feedback from external stakeholders.

7.2.162 ES Chapter 4: Project Description (document reference 6.4) (Revision B) notes that environmental appraisal has been an integral part of the Project design process since conception, which has meant that the Project has been able to avoid environmentally sensitive features as far as reasonably practicable. Embedded mitigation measures include the sensitive routeing and siting of the alignment and Order Limits to avoid and reduce as far as possible the effects on sensitive receptors.

7.2.163 As outlined in ES Chapter 3: Alternatives (document reference 6.3) (Revision B), the options appraisal has included many good design principles including the following which are aligned with the steps in the Holford and Horlock Rules including:

- Avoiding areas of high environmental value such as conservation areas and scheduled monuments
- Siting of CSE compounds outside of the Dedham Vale National Landscape
- Avoiding main settlements and built-up areas with large numbers of people
- Proposing underground cables in four locations including through the Dedham Vale National Landscape and part of its setting.
- Removing existing third-party 132 kV overhead lines to further reduce the visual impact of the Project
- The Project allows for the use of full line tension gantries at CSE compounds and substations (where design allows). The use of full tension gantries removes the need for a bulkier terminal pylon adjacent to the CSE compound which would reduce visual clutter and therefore help to reduce landscape and visual effects

- The Project allows for landscape planting around CSE compounds, and the new EACN Substation, south of the new Tilbury North Substation and the existing Norwich Main Substation and its extension. These are presented as 'Environmental Areas' on Figure 4.1: Proposed Project Design (document reference 6.4.F1) (Revision B) and Figure 4.2: Proposed Project Design – Permanent Features (document reference 6.4.F2) (Revision B).
- National Grid has considered the proposed materials and colour palette for the CSE compounds and new substation / substation extension, including buildings, security fencing, equipment, and surfacing to be sensitive to the environment they are located in, where practicable. Further information is included in the DASSI (document reference 7.16) (Revision E).

7.2.164 The design considerations have taken place within the context of meeting National Grid's duty to be economic and efficient and also within the rigorous health and safety processes that National Grid has in place than govern how it designs and constructs its projects safely.

7.2.165 National Grid is already required to ensure that the Project is designed in accordance with standards set out within or overseen by, amongst others, the Electricity Supply, Quality and Continuity Regulations 2002, British Standards (BS), European Standards, the 'Conseil International des Grands Réseaux Electriques', the International Electrotechnical Commission, and the Electricity Networks Association. In addition, the Project must accord with each of the following: National Grid Design Standards, National Grid Technical Specification, National Grid Transmission Procedures, National Grid Policy Statement (Transmission), National Grid Technical Guidance Notes (Electricity) and National Grid Technical Reports (Electricity).

7.2.166 In addition, regard has also been had to the Horlock and Holford rules in respect to the siting of new transmission infrastructure and substations and as described in detail in this Planning Statement, Design and Access Statement (document reference 7.15) (Revision D) and DASSI (document reference 7.16) (Revision E).

7.2.167 Both sets of rules have been deployed by National Grid and have formed an important part of developing the preferred route and design of the Project. For example, the route seeks to avoid siting above ground infrastructure in areas with significant amenity value, the most direct route is preferred to avoid the need for additional angle pylons, siting infrastructure in areas benefiting from existing advantageous vegetation screening is preferred and densely populated urban/residential areas should be avoided, where possible. The Proposed Alignment has been selected because it performed more strongly overall than any other options, having regard to these factors (amongst others).

7.2.168 In summary, the Outline CoCP (document reference 7.2) (Revision G) sets out the required mitigation measures and environmental commitments that will be implemented during the construction phase of the Project.

7.2.169 The Project is also committed to adopting a sustainable approach to development by pro-actively taking measures to ensure that the Project leaves the environment in a better condition than it was before development (including but not limited to using reasonable endeavours to deliver 10% BNG). The Project will seek to provide strategic habitat enhancement and creation, aiming to identify and implement opportunities to improve habitat quality and connectivity and align with national nature recovery objectives and projects as well as delivering wider environmental benefit.

7.2.170 The application for development consent is accompanied by a Design and Access Statement (document reference 7.15) (Revision D) which provides an overview of the relevant national and local policy and physical context within which the design proposals have evolved. It sets out the design principles applied by National Grid and summarises its approach to good design. The report sets out the proposals and how the design has evolved through public consultation with a focus on the overhead lines. It also provides details on the permanent access for both the substations and CSE compounds. The DASSI (document reference 7.16) (Revision E) conveys the details of the site-specific infrastructure of the non-linear works included in the Project, such as the substations and CSE compounds. This document outlines the design principles that can be taken forward into the detailed design stage, and details those elements of the design which have some flexibility in their appearance.

Climate Change Adaptation and Resilience (NPS EN-1 Section 4.10)

7.2.171 Section 4.10 of NPS EN-1 (DESNZ, 2024a) sets out climate change policy relating to Energy NSIPs.

7.2.172 NPS EN-1 sets out how applicants and the Examining Authority should consider the effects of climate change when developing and consenting energy infrastructure setting out at paragraph 4.10.1 that '*If new energy infrastructure is not sufficiently resilient against the possible impacts of climate change, it will not be able to satisfy the energy needs as outlined in Part 3 of this NPS*'.

7.2.173 Paragraph 4.10.8 of NPS EN-1 (DESNZ, 2024a) notes that '*New energy infrastructure will typically need to remain operational over many decades, in the face of a changing climate. Consequently, applicants must consider the direct (e.g. site flooding, limited water availability, storms, heatwave and wildfire threats to infrastructure and operations) and indirect (e.g. access roads or other critical dependencies impacted by flooding, storms, heatwaves or wildfires) impacts of climate change when planning the location, design, build, operation and, where appropriate, decommissioning of new energy infrastructure.*'

7.2.174 Paragraph 4.10.5 NPS EN-1 (DESNZ, 2024a) sets out that '*In preparing measures to support climate change adaptation applicants should take reasonable steps to maximise the use of nature-based solutions alongside other conventional techniques.*' Furthermore, at paragraph 4.10.8, NPS EN-1 sets out the need for new energy infrastructure needing to remain operational over many decades in the face of a changing climate. Consequently, applications must consider both the direct and indirect impacts of climate change when planning the location, design, build and operation of new energy infrastructure.

7.2.175 Paragraph 2.3.2 of NPS EN-5 (DESNZ, 2024b) requires applicants to '*set out to what extent the proposed development is expected to be vulnerable and, as appropriate, how it has been designed to be resilient to:*

- *flooding particularly for substations that are vital to the network; and especially in light of changes to groundwater levels resulting from climate change;*
- *the effects of wind and storms on overhead lines;*
- *higher average temperatures leading to increased transmission losses;*
- *earth movement or subsidence caused by flooding or drought (for underground cables); and*
- *coastal erosion – for the landfall of offshore transmission cables and their associated substations in the inshore and coastal locations respectively.'*

7.2.176 The need for the Project is to support the connection and transfer of green, renewable energy into the National Electricity Transmission System NETS network. The Project would support the UK government's (2025) Clean Power 2030 statement Action Plan to transition the country's energy system to clean power by 2030. Therefore, the operational, medium- to long- term benefits of delivering the Project on a national level are considered to outweigh any short-term effects of greenhouse gas (GHG) emissions because from of material use and construction activities.

7.2.177 National Grid has assessed potential impacts of climate change and incorporated adaptation/resilience throughout the lifetime of the Project. The Project has been designed to be resilient to climate change by locating the above ground elements of the Project, including the new EACN and Tilbury North Substations and the CSE compounds, outside of Flood Zones 2 and 3 (with the exception of the Wenham Grove CSE Compound) as described in the FRA (document reference 7.9). The predicted impacts of climate change have been included in the FRA. These include increases to peak flows, with respect to fluvial flooding, and increased rainfall intensity, with respect to surface water flooding.

7.2.178 In terms of vulnerability of the Project to climate change, overhead lines are designed to withstand extreme weather conditions, such as high winds and ice formation on the conductors. National Grid has previously investigated whether climate change might require overhead lines to be redesigned but found there is more likely to be a reduction in the risk of ice on the wires and intense wind gusts occurring simultaneously.

Network Connection (NPS EN-1 Section 4.11)

7.2.179 Whilst Section 4.11 of NPS EN-1 (DESNZ, 2024a) is of primary importance to energy generation developers, Paragraph 4.11.7 is of relevance, setting out that '*The Planning Act 2008 aims to create a holistic planning regime so that the cumulative effect of different elements of the same project can be considered together. Co-ordinated applications typically bring economic efficiencies and reduced environmental impact. The government therefore envisages that wherever reasonably possible, applications for new generating stations and related infrastructure should be contained in a single application to the Secretary of State or in separate applications submitted in tandem which have been prepared in an integrated way, as outlined in EN-5. This is particularly encouraged to ensure development of more co-ordinated transmission overall.*'

7.2.180 Paragraph 2.8.35 of NPS EN-3 (DESNZ, 2024c) sets out that '*The previous standard approach to offshore-onshore connection involved a radial connection between single wind farm projects and the shore. A coordinated approach will involve the connection of multiple, spatially close, offshore wind farms and other offshore infrastructure, wherever possible, as relevant to onshore networks*'.

7.2.181 Paragraph 4.11.8 of NPS EN-1 (DESNZ, 2024a) does acknowledge that '*On some occasions it may not be possible to coordinate applications. For example, different elements of a project may have different lead-in times and be undertaken by different legal entities subject to different commercial and regulatory frameworks (for example grid companies operate within OFGEM controls) making it inefficient from a delivery perspective to submit one application.*' This position is replicated at paragraphs 2.7.3 and 2.7.4 of NPS EN-5 (DESNZ, 2024b)

7.2.182 The Norwich to Tilbury Project is not being submitted as part of larger, single application which incorporates the renewable energy projects which will connect into the electricity transmission network.

7.2.183 The government envisages that, wherever reasonably possible, applications for new generating stations and their related infrastructure should be contained in a single application to the Secretary of State. However, a consolidated approach of this kind may not always be possible, nor represent the most efficient strategy for delivery of new infrastructure.

7.2.184 This could be, for example, due to the differing lengths of time needed to prepare the applications for submission to the Secretary of State, or because a network application relates to multiple generation projects (which could be onshore or offshore), or because the works involved are strategic reinforcements required for a number of reasons.

7.2.185 It may also be the case that the networks infrastructure application and the application for a related generating station will of necessity come from different legal entities, or from entities subject to different commercial and regulatory frameworks.

7.2.186 It will also be common for applications to be submitted for the general purpose of reinforcing the network, which will be critical to deliver especially in light of the drive towards net zero, including the ambition for up to 50GW of offshore wind by 2030

7.2.187 The Project was part of the Offshore Transmission Network Review (OTNR) and Offshore Coordination Support Scheme (OCSS) studies.

7.2.188 These studies explored various opportunities to seek to improve the economic competitiveness and efficiencies that may be available through collaboration between projects. The OTNR has been progressed since its announcement in 2020. The review brought together key stakeholders involved in the timing, siting, design and delivery of offshore wind, to consider all aspects of the existing regime and how this influences the design and delivery of transmission infrastructure. The Five Estuaries and North Falls offshore wind farm projects engaged in the OTNR.

7.2.189 In April 2022 the Government announced the OCSS which came as a result of the OTNR. The OCSS provided grant funding for projects to explore potential coordination options for offshore transmission infrastructure. The fund was available to those projects that were further developed than those eligible for the Holistic Network Design (HND). The HND provided a recommended offshore and onshore design for a 2030 electricity network which facilitated the government's ambition of 50GW of offshore wind by 2030. At that stage five projects, including the North Falls

and Five Estuaries offshore wind farms, Sea Link, EuroLink (now LionLink) and Nautilus committed to exploring coordinated network designs. Applications to the OCSS closed in February 2023 and a consortium of North Falls, Five Estuaries and Sea Link was successful in receiving grant funding. The consortium worked together to explore the potential options for coordination but notwithstanding the funding, ultimately the OCSS was not taken forward, following a government decision in September 2024.

7.2.190 In April 2024, National Grid Electricity Transmission provided a response to the electricity system operators (ESO) East Anglian network study, which was part of the OTNR's initiative to explore coordinated offshore infrastructure. This response indicates NGET's engagement with the OTNRs findings and its consideration of these insights in planning and developing transmission projects. By integrating the OTNRs recommendations and collaborating with relevant stakeholders, National Grid aims to ensure that its projects contribute effectively to a coordinated and efficient electricity transmission network, facilitating the UK's transition to net zero emissions.

7.2.191 One consequence of these studies is a continued co-ordination between North Falls and Five Estuaries over the onshore cable installation that has reduced the working width requirement of their onshore connections. This was identified by National Grid to potentially have implications for decision making regarding EACN substation siting and has been reviewed with the findings set out in chapter four of the Design Development Report (document reference 5.15) (Revision B).

7.2.192 North Falls and Five Estuaries submitted their applications for development consent in advance of National Grid's Norwich to Tilbury Project. Due to these differing timelines, the projects are proceeding separately. The Project has assessed the cumulative impacts arising from the three individual projects and this assessment is report in ES Chapter 17: Cumulative Effects (document reference 6.17) (Revision B).

Pollution Control and Other Environmental Regulatory Regimes (NPS EN-1 Section 4.12)

7.2.193 Section 4.12 of NPS EN-1 (DESNZ, 2024a) sets out policy requirements relating to pollution control and other environmental regulatory regimes.

7.2.194 The planning and pollution control systems are separate but complementary. The planning system controls the development and use of land in the public interest. Pollution control is concerned with preventing pollution through the use of measures to prohibit or limit the releases of substances to the environment from different sources to the lowest practicable level. It also ensures that ambient air, water, and land quality meet standards that guard against impacts to the environment or human health.

7.2.195 Paragraph 4.12.6 acknowledges that '*Many projects covered by this NPS will be subject to the Environmental Permitting Regulations, which also incorporates operational waste management requirements for certain activities. When an applicant applies for an Environmental Permit, the relevant regulator (usually the EA or NRW but sometimes the local authority) requires that the application demonstrates that processes are in place to meet all relevant Environmental Permitting Regulations requirements*'.

7.2.196 Paragraph 4.12.8 states that *'wherever possible, applicants should submit applications for Environmental Permits and other necessary consents at the same time as applying to the Secretary of State for development consent.'*

7.2.197 As set out in the Outline CoCP (document reference 7.2) (Revision G), the Project will be operated and constructed in accordance with all relevant legislation, assents, consents and permits. The Consents and Licences Required Under Other Legislation (document reference 5.5) (Revision D) details which consents and licences would be incorporated within the DCO and identifies other consents needed to implement to Project.

7.2.198 The Outline CoCP (document reference 7.2) (Revision G) also sets out the actions and measures that would be implemented to reduce the risk of a pollution incident along with proactive actions that would be taken should any pollution incident occur.

Safety (NPS EN-1 Section 4.13)

7.2.199 Section 4.13 of NPS EN-1 (DESNZ, 2024a) sets out policy requirements relating to safety. Paragraph 4.13.5 requires applicants to consult with the HSE on matters relating to safety.

7.2.200 Paragraph 4.13.6 requires applicants to discuss their Project with the Competent Authority if their proposals are subject to the Control of Major Accident Hazards Regulations 2015.

7.2.201 The Project has been designed to comply with design safety standards including NETS SQSS and the suite of National Grid policies and processes which contain details on design standards required to be met when designing, constructing, and operating its projects. Existing National Grid processes are designed to identify potential safety risks during construction and operation (and maintenance) and to design these out at each stage of Project development.

7.2.202 The HSE has been consulted throughout the consultation activities on the Project. In its response to consultation in 2023, 2024 and 2025, the HSE identified that the draft Order Limits fall into the consultation zones of several Major Accident Hazard Sites and the consultation zones of several notified Major Accident Hazard Pipelines. The Project does not oversail any of the specific sites identified by the HSE. National Grid has been and continues to engage with the relevant site operators in order to ensure there are no adverse impacts.

7.2.203 National Grid is in consultation with operators of the Major Accident Pipeline and specialists to assess and mitigate permanent and temporary construction impacts.

7.2.204 The Project is not subject to the Control of Major Accident Hazards Regulations 2015.

7.2.205 In accordance with the policy in EN-1, National Grid has engaged with the HSE during the pre-application consultation process. National Grid has engaged with the site operators identified by the HSE. National Grid acknowledges the need to adhere to the relevant legislation, guidelines, codes of practice, and international standards for the Project. Necessary precautions have been taken, and these addressed comprehensively throughout the planning and execution phases of the Project. Specifically:

- HSE Guidance GS6 (Overhead Power Lines) and HSG47 (Underground Services): A thorough survey identifying and mapping all overhead power lines and underground services was undertaken. Safe working distances were maintained by the proposed design and will be strictly enforced during construction
- The Pipeline Safety Regulations 1996: This Project is aware of the requirement not to cause any damage to pipelines that could cause the release of dangerous fluids. Where we have not been able to mitigate potential damage by routeing, we will be looking to install other active mitigation measures. National Grid have also contacted all relevant pipeline operators for information and are working with them to develop adequate mitigations for long term and temporary construction risks
- Management of Health and Safety Regulations 1999: National Grid operates a comprehensive health and safety management system, compliant with the 1999 regulations. This included detailed risk assessments, method statements, and ongoing monitoring of safety performance. All National Grid's contractors are expected to be appropriately trained and supplied with personal protective equipment
- British Standards BS EN 50122-1: National Grid are working with Network Rail to ensure that the electrical design and installation of the Project will adhere to BS EN 50122-1, ensuring electrical safety, proper earthing, and a safe return circuit and mitigating any risk of induced voltages in their assets
- BS EN ISO 18086: Consultation between National Grid and the relevant utility provider will confirm the requirement for installed mitigation, based on the final 400kV design arrangements, which will be implemented by the relevant utility provider under their existing utility operation and maintenance provisions.

7.2.206 It is considered that the Project is in full compliance with all relevant regulations and standards and meets the safety requirements set out in Section 4.13 of NPS EN-1.

Hazardous Substances (NPS EN-1 Section 4.14)

7.2.207 Paragraph 4.14.1 of NPS EN-1 (DESNZ, 2024a) states that *'all establishments wishing to hold stocks of certain hazardous substances above a threshold need Hazardous Substances Consent'.*

7.2.208 The Outline CoCP (document reference 7.2) (Revision G) sets out measures to minimise the risk of a pollution incident occurring including appropriate storage and handling of fuels and other substances hazardous to the environment. National Grid has set up the Great Grid Partnership (Main Works Contractor(s)) who will support the delivery of the Project. The Great Grid Partnership would ensure that any potentially hazardous waste is correctly stored, tested, recorded and disposed of. Hazardous Substance Consent is not considered to be required for the Project.

Common Law Nuisance and Statutory Nuisance (NPS EN-1 Section 4.15)

7.2.209 Section 158 of the PA 2008 confers statutory authority for carrying out development consented to by, or doing anything else authorised by, a DCO. Paragraph 4.15.5 of NPS EN-1 (DESNZ, 2024a) requires all energy NSIPs to identify possible sources of nuisance under section 79(1) of the EPA 1990 and how they might be mitigated or limited.

7.2.210 To reduce the risk of Statutory Nuisance occurring, the Outline CoCP (document reference 7.2) (Revision G) includes good practice measures to avoid or reduce the effects of dust, lighting, noise and vibration. These measures would reduce impacts that could otherwise result in nuisance during construction.

7.2.211 The development authorised by the DCO must be undertaken in accordance with the Outline CoCP, pursuant to Requirement 4 of the draft DCO (document reference 3.1) (Revision G). The Outline CoCP provides the preliminary framework for the principles and procedures that the Main Works Contractor(s) must implement to minimise, manage and mitigate the potential environmental impacts of construction works associated with the Project. This outline management plan will be fully developed based on detailed design information to be provided by the Main Works Contractor(s). The final version will be submitted for approval in accordance with Requirement 4 (construction management plans) of the draft DCO (document reference 3.1) (Revision G) prior to commencement of development.

7.2.212 The Statement of Statutory Nuisance (document reference 5.4) identifies the matters set out in Section 79(1) (application of the EPA 1990) in respect of statutory nuisance and considers whether the Project has the potential to cause nuisance. With the good practice measures in place outlined within the CoCP (document reference 7.2) (Revision G) no breach of Section 79(1) of the EPA 1990 is expected to occur as a result of the construction and operation of the Project.

Security Considerations (NPS EN-1 Section 4.16)

7.2.213 Section 4.16 of NPS EN-1 (DESNZ, 2024a) sets out the policy on security considerations for Energy NSIPs. Paragraph 4.16.2 sets out that 'DESNZ works closely with government security agencies including the National Protective Security Authority (NPSA) and the National Cyber Security Centre (NCSC) to provide advice to the most critical infrastructure assets on terrorism and other national security threats, as well as on risk mitigation.'

7.2.214 For the applicant's assessment Paragraph 4.16.6 states that *'Where national security implications have been identified, the applicant should consult with relevant security experts from NPSA, ONR (for civil nuclear) and/or DESNZ to ensure security measures have been adequately considered in the design process and that adequate consideration has been given to the management of security risks'*. Paragraph 4.16.7 sets out that *'The applicant should only include sufficient information in the application as is necessary to enable the Secretary of State to examine the development consent issues and make a properly informed decision on the application.'*

7.2.215 ES Chapter 4: Project Description (document reference 6.4) (Revision B) and the DASSI (document reference 7.16) (Revision E) which conveys the details of the substations and CSE compounds, outline the security measures that have been incorporated into the design to ensure that the assets are protected.

7.2.216 The Project is designed to avoid the risk of damage through sabotage and arson (including terrorism). The materials are resistant to damage and are not at risk of catching fire. During construction, the working area would have security fencing around the site and only authorised personnel would be admitted to the site. Outside of working hours, the site would have a security guard to check for trespassers that could result in sabotage or arson.

7.2.217 During operation, the new EACN and Tilbury North Substations and the CSE compounds would be surrounded by security fencing to prevent trespass. Wilful sabotage of overhead lines is also very rare due to the perceived risk of electrocution that could result from this.

7.3 Generic Impacts

7.3.1 This section sets out how the application assess the Project in respect of each of the relevant generic impacts as set out in NPS EN-1 (DESNZ, 2024a) Section 5 and where relevant, the technology-specific assessment principles as set out in NPS EN-5 (DESNZ, 2024b) that relate to the same assessment topics. It also considers other related material policies and matters.

Air Quality and Emissions (NPS EN-1 Section 5.2)

National Planning Policy

7.3.2 Section 5.2 of NPS EN-1 (DESNZ, 2024a) sets out NPS air quality and emissions policy relating to NSIPs. Paragraph 5.2.8 states that where the project is *'likely to have adverse effect on air quality the applicant should undertake an assessment of the impacts of the proposed project as part of the ES.'* ES Chapter 7: Air Quality (document reference 6.7) (Revision B) details the likely significant effects of the Project on air quality.

7.3.3 Relating to air quality, paragraph 5.2.9 of NPS EN-1 (DESNZ, 2024a) advises that the '*ES should describe:*

- *existing air quality concentrations and the relative change in air quality from existing levels*
- *any significant air quality effects, mitigation action taken and any residual effects, distinguishing between the project stages and taking account of any significant emissions from any road traffic generated by the project;*
- *the predicted absolute emissions, concentration change and absolute concentrations as a result of the proposed project, after mitigation methods have been applied; and*
- *any potential eutrophication impacts'.*

7.3.4 Paragraph 5.2.13 of NPS EN-1 (DESNZ, 2024a) advises that the *'Secretary of State should consider whether mitigation measures are needed for operational and construction emissions over and above any which may form part of the project application'*.

7.3.5 Policy 199 of the NPPF (MHCLG, 2025) sets out that *'Planning* […] *decisions should sustain and contribute towards compliance with relevant limit values or national objectives for pollutants, taking into account the presence of Air Quality Management Areas and Clean Air Zones, and the cumulative impacts from individual sites in local areas.*'

Local Planning Policy

7.3.6 South Norfolk Development Management Policy DM 3.14 (Pollution, health and safety) states that all development should minimise and where possible reduce the adverse impact of all forms of emissions and other forms of pollution and that when assessed individually or cumulatively, development proposals should ensure that there will be no unacceptable impacts on air quality. Furthermore, developments which may impact on air quality will not be permitted where they have an unacceptable impact on human health, sensitive designated species or habitats, and general amenity, unless adequate mitigation can be ensured. Development will not be granted in locations where it is likely to result in an Air Quality Management Area being designated or the worsening of air quality in an existing Air Quality Management Area.

7.3.7 Colchester Local Plan Policy ENV5 (Pollution and Contaminated Land) states that Proposals will be supported that will not result in an unacceptable risk to public health or safety, the environment, general amenity, or existing uses due to the potential of air pollution, noise nuisance, surface / ground water sources or land pollution.

7.3.8 Braintree Local Plan Policy LPP 70 (Protecting and Enhancing Natural Resources, Minimising Pollution and Safeguarding from Hazards) states that proposals for all new developments should prevent unacceptable risks from all emissions and other forms of pollution (including light and noise pollution) and ensure no deterioration to either air or water quality.

7.3.9 Breckland Local Plan Policy COM 03 – Protection of Amenity indicates that regard will be had to a range of amenity considerations including odour, noise, vibration, artificial light pollution, insects and vermin and other forms of pollution such as contaminated land, dust, air pollution, for example the emission of particulates etc.

7.3.10 Babergh and Mid Suffolk Joint Local Plan Policy LP15 – Environmental Protection and Conservation states that development proposals must demonstrate consideration of pollution and environmental amenity and prevent, or where not practicable, mitigate and reduce to a minimum all forms of possible pollution including air, land, ground and surface water

7.3.11 The Chelmsford Local Plan Policy DM30 (Contamination and Pollution) sets out that for developments in or adjacent to an Air Quality Management Area, or where an air quality impact assessment has been provided, permission will only be granted where the Council is satisfied that after selection of appropriate mitigation the development will not have an unacceptable impact on air quality and the health and wellbeing of people.

7.3.12 The Brentwood Local Plan Strategic Policy NE08 (Air Quality) requires development proposals to meet national air quality standards and identify opportunities to improve air quality or mitigate local exceedances and impacts to acceptable legal and safe levels.

7.3.13 The Thurrock Core Strategy and Policies for Management of Development (as amended) Policy PMD1 (Minimising Pollution and Impacts on Amenity, Health, Safety and the Natural Environment) highlights that the Council will seek compliance with, and contribution to, EU limit values or national objectives for pollutants, taking into account the presence of Air Quality Management Areas and the cumulative impacts on air quality in local areas arising from individual sites.

Assessment

7.3.14 In accordance with NPS EN-1 (DESNZ, 2024a) paragraphs 5.2.8 and 5.2.9, NPPF (MHCLG, 2025) and relevant local plan policies, ES Chapter 7: Air Quality (document reference 6.7) (Revision B) provides an assessment of the likely effects on air quality that could result from the construction of the Project and consider the existing baseline conditions and the likely changes and effects to air quality levels during construction.

7.3.15 As set out in the Scoping Report (document reference 6.19) and agreed within the Scoping Opinion (document reference 6.20), the operational phase of the Project will not result in any significant impacts to air quality, and no further assessment has been carried out in the ES.

7.3.16 The assessments conclude that during construction the effects on air quality from vehicle emissions generated by the Project would be negligible and therefore not significant. These conclusions assume design mitigation and management measures proposed, set out in the Outline CoCP (document reference 7.2) (Revision G) are implemented.

7.3.17 The Project has been designed following the mitigation hierarchy, as far as practicable, to, in the first instance, avoid or reduce air quality impacts and effects through the process of design development. This has included sensitive routeing and siting of infrastructure and temporary works. Measures to control air quality emissions including dust are set out in the Outline CoCP (document reference 7.2) (Revision G). The detailed CoCP would come forward post consent as secured by Requirement 4 in Schedule 3 of the draft DCO (document reference 3.1) (Revision G).

7.3.18 In summary, NPS EN-1 (DESNZ, 2024a) directs the Secretary of State to give substantial weight to air quality considerations as part of decision making which is consistent with the NPPF (MHCLG, 2025) and local plan policy, however, it has been demonstrated that there will be no significant adverse effects upon air quality during the construction (and operational) phase of the Project and effects can be managed to acceptable levels. The Project therefore accords with Section 5.2 of NPS EN-1 (DESNZ, 2024a) and local policies relevant to air quality.

7.3.19 No eutrophication effects are anticipated.

Greenhouse Gas Emissions (NPS EN-1 Section 5.3)

National Planning Policy

7.3.20 Section 5.3 of NPS EN-1 (DESNZ, 2024a) sets out NPS greenhouse gas (GHG) emissions policy relating to NSIPs.

7.3.21 Paragraph 5.3.4 states that *'All proposals for energy infrastructure projects should include a GHG assessment as part of their ES. This should include:*

- *A whole life GHG assessment showing construction, operational and decommissioning GHG impacts, including impacts from change of land use.*
- *An explanation of the steps that have been taken to drive down the climate change impacts at each of those stages.*
- *Measurement of embodied GHG impact from the construction stage.*
- *How reduction in energy demand and consumption during operation has been prioritised in comparison with other measures.*
- *How operational emissions have been reduced as much as possible through the application of best available techniques for that type of technology.*
- *Calculation of operational energy consumption and associated carbon emissions.*
- *Whether and how any residual GHG emissions will be (voluntarily) offset or removed using a recognised framework.*
- *Where there are residual emissions, the level of emissions and the impact of those on national and international efforts to limit climate change, both alone and where relevant in combination with other developments at a regional or national level, or sector level, if sectoral targets are developed'*.

7.3.22 Paragraph 5.3.8 of NPS EN-1 states that *'The Secretary of State must be satisfied that the applicant has as far as possible assessed the GHG emissions of all stages of the development'.* Paragraph 5.3.9 sets out that the SoS should be content that an applicant has taken reasonable steps to reduce GHG emissions during construction and decommissioning.

7.3.23 Paragraph 164 of the NPPF (MHCLG, 2025) advises that *'new development should be planned in ways that help to reduce greenhouse gas emissions, such as through its location, orientation and design. Any local requirements for the sustainability of buildings in plans should reflect the Government's policy for national technical standards.'*

Local Planning Policy

7.3.24 Policy LP23 - Sustainable Construction and Design – of the Babergh and Mid Suffolk Joint Local Plan (Part 1) states that all new development is required to reduce dependence on fossil fuels and to make the fullest contribution to the mitigation of climate change. It contains a number of detailed requirements for all new development.

7.3.25 The Colchester Local Plan Policy CC1 (Climate Change) highlights that the council made a Climate Emergency declaration in 2019. In addressing the move to a low carbon future for Colchester, the Local Planning Authority will plan for new development in locations and ways that reduce GHG emissions, adopt the principles set out in the energy hierarchy and provide resilience to the impacts of a changing climate.

7.3.26 Tendring Local Plan Policy SPL3 (Sustainable Design) requires a developer to demonstrate how their proposal will minimise the production of GHGs and impact on climate change as per the Building Regulations prevailing at the time and policies and requirements in this plan.

7.3.27 Braintree District Council Local Plan Policy LPP71 – Climate Change – indicates that the Council will adopt strategies to mitigate and adapt to climate change. Applicants will be expected to demonstrate that measures to lower carbon emissions, increase renewable energy provision and adapt to the expected impacts of climate change have been incorporated into their schemes

7.3.28 Chelmsford Local Plan Policy S2 (Addressing Climate Change and Flood Risk) states that the council will encourage new development that reduces GHG emissions.

7.3.29 Thurrock Local Plan Policy CSTP2 (Addressing Climate Change) requires climate change adaptation measures to be considered from the outset in any development proposal and requires developers to consider the potential effects of climate change on their development.

Assessment

7.3.30 The Climate Change Act 2008 set in law a long-term target to reduce the UK's GHG emissions to 80% below 1990 levels by 2050 and established the system of UK carbon budgets. In 2019, the UK government furthered the ambition and committed to bring all GHG emissions to net zero by 2050. To meet these targets, the government has set five-yearly carbon budgets which currently run until 2042.

7.3.31 As presented in ES Appendix 4.1: Greenhouse Gas Assessment (document reference 6.4.A1) (Revision B) the total CO_2e estimated on the Project is 376,214 tCO_2e. This is split into 333,617 tCO_2e for capital (construction) carbon (which would be spread over the whole construction duration), 39,199 tCO_2e for transmission losses during 40 years of operation and 3,398 tCO_2e for Non SF6 loss through leakage.

7.3.32 National Grid follows the principles of PAS 2080: 2023 Carbon Management in Infrastructure and Built Environment, throughout the project development process and requires this of its contractors. PAS 2080 is a global standard for managing infrastructure carbon. This framework looks at the whole value chain, aiming to reduce carbon and reduce cost through more intelligent design, construction and use. Design optimisation in line with the carbon reduction hierarchy is included below:

- Reduce the elements and materials required for the construction phase of the Project
- Use alternative raw materials and resources, such as those with a higher proportion of recycled content
- Use efficient construction processes, such as manufacture and assembly design.

7.3.33 In 2021, National Grid detailed a commitment to being fully net zero across all new construction projects by 2025/26 as part of the 'Our Net Zero Construction project' (National Grid, 2021). To deliver this, the focus will be on the absolute reduction of impacts associated with the delivery for the Project and this will be measured via the CIT. Residual emissions of all National Grid projects within the portfolio at the end of 2025/26 (and future years) would be aggregated and offsets delivered in line with National Grid's Offsetting policy guidelines.

7.3.34 Measures to reduce GHG emissions on the Project are set out in Appendix H: Greenhouse Gas Reduction Strategy is also provided within the Outline CoCP (document reference 7.2.H) (Revision B). The Greenhouse Gas Reduction Strategy presents the overarching GHG management principles and foundational GHG management requirements to reduce and manage GHG emissions related to the Project. While the Project has a key role to play in helping the UK's electricity grid to decarbonise, it is still important to reduce GHG emissions associated with the Project where possible. These GHG reductions can be driven by implementation of the Greenhouse Gas Reduction Strategy, in particular implementation of a Decarbonisation Tracker (developed by the Main Works Contractor(s)) and National Grid) which would focus on reducing GHG emissions from key emissions sources. It will identify potential GHG reduction opportunities identified which are not committed to through the DCO.

7.3.35 Furthermore, as outlined in the Greenhouse Gas Assessment (document reference 6.4.A1) (Revision B) it is assumed that no SF6 equipment will be used in the Project, in accordance with National Grid policy. SF6 alternatives such as C4 or G3 have a 99% lower global warming potential (GWP) than SF6.

7.3.36 SF6 is one of seven main GHG which contribute to climate change, as covered by the Kyoto Protocol (the others are carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFC), perfluorocarbons (PFC), and nitrogen trifluoride (NF_3)).

7.3.37 As a GHG, SF6 contributes to global warming in a similar way to carbon dioxide, though it is much more potent than carbon dioxide.

7.3.38 NPS EN-1 (DESNZ, 2024a) requires the Secretary of State to be satisfied the applicant has, as far as possible assessed the GHG emissions of all stages of the development and taken reasonable steps to reduce emissions as part of decision making.

7.3.39 Over its lifetime, the Project will be a key scheme for the UK to fulfil its net zero policy and transition away from fossil fuels. By reinforcing the electricity transmission network, the Project will facilitate the connection of new renewable and low carbon energy generation and interconnectors. The Project is therefore a key part of UK policy to decarbonise the electricity grid and transition to net zero by 2050.

7.3.40 While the Project has a key role to play in helping the UK's electricity grid to decarbonise, it is still important to reduce GHG emissions associated with the Project where possible. These GHG reductions can be driven by implementation of the Greenhouse Gas Reduction Strategy (described in the Greenhouse Gas Reduction Strategy (document reference 7.2.H) (Revision B), in particular implementation of a Decarbonisation Tracker which will assigns tasks and responsibilities to relevant parties. The implementation of the Decarbonisation Tracker will be secured through Schedule 3, Requirement 4 (Construction Management Plans) contained in the draft DCO (document reference 3.1) (Revision G).

7.3.41 National Grid has prepared as part of this application a Greenhouse Gas Assessment (document reference 6.4.A1) (Revision B) and prepared a Greenhouse Gas Reduction Strategy. The Project has also sought to eliminate the use of a potent GHG (SF6) from the Project. National Grid has, as far as possible, assessed the GHG emissions of the development and taken reasonable steps to reduce emissions as part of decision making. The Project therefore accords with Section 5.3 of NPS EN-1 (DESNZ, 2024a) and local policies relevant to GHG emissions.

Biodiversity and Geological Conservation (NPS EN-1 Section 5.4)

7.3.42 This section of the Planning Statement seeks to demonstrate compliance with Section 5.4 of NPS EN-1 (DESNZ, 2024a) which sets out NPS biodiversity and geological conservation policy relating to Energy NSIPs.

7.3.43 The assessment has been divided into the following subheadings to replicate the structure contained in NPS EN-1 (DESNZ, 2024a).

- Habitats Regulations
- Ancient Woodland, Ancient Trees
- Protections and Enhancement of Habitats
- Mitigation.

7.3.44 Each subheading begins by identifying relevant policies from the NPS the NPPF and local planning policies.

National Planning Policy

7.3.45 Paragraph 5.4.17 of NPS EN-1 (DESNZ, 2024a) states, '*Where the development is subject to EIA the applicant should ensure that the ES clearly sets out any effects on internationally, nationally and locally designated sites of ecological or geological conservation importance, on protected species and on habitats and other species identified as being of principal importance for the conservation of biodiversity, including irreplaceable habitats.'*

7.3.46 Paragraph 5.4.4 of NPS EN-1 (DESNZ, 2024a) introduces the Habitats Regulations and the HRA, and states that '*the highest level of biodiversity protection is afforded to sites identified through international conventions*'. The Habitats Regulations set out sites for which an HRA is required, including SACs and SPAs.

7.3.47 Paragraph 5.4.7 of NPS EN-1 (DESNZ, 2024a) also recognises SSSIs as sites of international importance, affording features of SSSIs not covered by an international designation, a high level of protection. Paragraph 5.4.8 states that '*development on land within or outside a SSSI, and which is likely to have an adverse effect on it (either individually or in combination with other developments), should not normally be permitted'*. This is unless the benefits, including need, of the development outweigh both its likely impact on the SSSI and any broader impacts on the national network of SSSIs.

7.3.48 Sites of regional and local biodiversity and geological interest are outlined in NPS paragraph 5.4.12, which identifies the important contribution to ecological networks and nature recovery these provide, including wider benefits associated with public access and climate mitigation. This includes LWSs with paragraph 5.4.13 confirming that local development plan policies should '*secure their protection from harm or loss but also help to enhance them and their connection to the wider ecological networks*.'

7.3.49 NPS EN-1 (DESNZ, 2024a) paragraph 5.4.17 states that the applicant should ensure that the *'ES clearly sets out any effects on internationally, nationally, and locally designated sites of ecological or geological conservation importance, on protected species and on habitats and other species identified as being of principal importance for the conservation of biodiversity, including irreplaceable habitats'*. Opportunities to conserve and enhance these biodiversity interests should be demonstrated by the

applicant (NPS EN-1 (DESNZ, 2024a) paragraph 5.4.19). The need to consider biodiversity as part of the design, layout and future phases of proposals is set out in NPS EN-3 (DESNZ, 2024c) paragraph 2.11.36.

7.3.50 Paragraph 5.4.21 of NPS EN-1 (DESNZ, 2024a) outlines the opportunity for nature inclusive design throughout the design process, stating that *'Energy infrastructure projects have the potential to deliver significant benefits and enhancements beyond Biodiversity Net Gain, which result in wider environmental gains'*.

7.3.51 Paragraphs 5.4.33 and 5.4.34 of NPS EN-1 (DESNZ, 2024a) sets out the requirements of an applicant's assessment for the protection and enhancement of habitats and species.

7.3.52 NPS EN-1 (DESNZ, 2024a) paragraph 5.4.35 sets out examples of measures that applicants should demonstrate to appropriately avoid, mitigate and compensate impacts to, and enhance biodiversity. This includes, but is not limited to, confining construction activities to minimum areas required for the works; timing construction to limit disturbance; best practice measures in construction and operation to ensure impacts to species and habitats is minimised; restoration of habitats; enhancing existing habitats and where practicable, creating new habitats of value.

7.3.53 Paragraph 5.4.41 of NPS EN-1 (DESNZ, 2024a) states the *'benefits of nationally significant low carbon energy infrastructure may include benefits for biodiversity interests and these benefits may outweigh the harm to these interests'*. The SoS may take account of such net benefits in decision making.

7.3.54 Paragraph 5.4.42 of NPS EN-1 (DESNZ, 2024a) sets out that as a general principle, development should *'avoid significant harm to biodiversity and geological conservation interests, including through consideration of reasonable alternatives. Where significant harm cannot be avoided, impacts should be mitigated and as a last resort, appropriate compensation measures should be sought'*.

7.3.55 Paragraph 5.4.48 of NPS EN-1 (DESNZ, 2024a) requires the SoS to ensure that appropriate weight is attached to designated sites, ecological receptors and any relevant biodiversity and geological interests within the wider environment. Paragraph 5.4.52 states the SoS should give '*due consideration to regional or local designations. However, given the need for new nationally significant infrastructure, these designations should not be used in themselves to refuse development consent'*.

7.3.56 NPS EN-1 (DESNZ, 2024a) paragraph 5.4.53 explains that the SoS should not grant development consent if the development would result in the loss or deterioration of any irreplaceable habitats, including ancient woodland, and ancient and veteran trees unless there are wholly exceptional reasons, and a suitable compensation strategy exists.

7.3.57 Paragraph 2.2.10 of NPS EN-5 (DESNZ, 2024b) explains that applicants must take into account Schedule 9 to the Electricity Act 1989, which places a duty on all transmission and distribution licence holders, in formulating proposals for new electricity networks infrastructure, to '*have regard to the desirability of preserving natural beauty, of conserving flora, fauna and* […] *do what [they] reasonably can to mitigate any effect which the proposals would have on the natural beauty of the countryside or on any such flora, fauna...*'

7.3.58 Paragraph 2.11.1 of NPS EN-5 (DESNZ, 2024b) states that *'Where biodiversity impacts are identified, including those associated with bird collision with overhead lines, the Secretary of State should be satisfied that all feasible options for mitigation have been considered and evaluated appropriately'.*

7.3.59 Paragraph 187 of the NPPF (MHCLG, 2025) sets out the overarching principles for how planning decisions should contribute to and enhance the natural and local environment by protecting and enhancing sites of biodiversity or geological value and minimising impacts on and providing net gains for biodiversity.

Local Planning Policy

7.3.60 Norfolk County Council Core Strategy and Minerals and Waste Development Management Policies Development Plan Document Development Management Policy DM1 – Nature conservation – states that development that would harm locally designated nature conservation and geodiversity sites and/or habitats, species or features identified in UK and Norfolk biodiversity and geodiversity action plans will only be permitted if it can be demonstrated that sufficient measures to mitigate harm to the site, habitat(s) and/or species can be put in place, preferably in advance of development. Where such measures cannot be implemented, compensatory habits or geological exposure of at least an equivalent standard at a suitable alternative location should be provided.

7.3.61 The adopted South Norfolk Development Management Policies Document (2015) Policy DM 4.4 (Natural environmental assets - designated and locally important open space) sets out that the highest status natural environmental assets are identified on the Policies Map and in supporting evidence and will be protected from any significant harmful impact arising from new development. New development impacting on these designated sites will be required to contribute positive improvement of these natural environmental assets where opportunities arise. International, national and county-wide level sites will be accorded the highest levels of priority.

7.3.62 The Breckland Council Local Plan Policy ENV 02 - Biodiversity protection and enhancement -indicates that the highest level of protection will be given to European Sites and development only permitted where the proposal is in accordance with the requirements of the Conservation of Habitats and Species Regulations 2017. Development likely to have an adverse effect on a site of national, regional or local biodiversity, or geological interest, will not be permitted unless:

- It can be clearly demonstrated that there are reasons for the proposal that outweigh the need to safeguard the special ecological / geological interest of the site, and
- It has been demonstrated, where development would result in significant harm, that it cannot be reasonably located on an alternative site that would result in less or no harm, and
- Residual harm, after all measures to prevent and adequately mitigate have been applied, will be adequately compensated for.

7.3.63 The Babergh and Mid Suffolk Joint Local Plan Policy LP16 Biodiversity and Geodiversity Development must:

'a) Protect designated and, where known, potentially designated sites. Proposed development which is likely to have an adverse impact upon designated and potentially designated sites, or that will result in the loss or deterioration of irreplaceable biodiversity or geological features or habitats (such as ancient woodland and veteran/ancient trees) will not be supported;

b) Protect and improve sites of geological value and in particular geological sites of international, national and local significance;

c) Conserve, restore and contribute to the enhancement of biodiversity and geological conservation interests including Priority habitats and species. Enhancement for biodiversity should be commensurate with the scale of development;

d) Where possible plan positively for the creation, protection, enhancement and management of local networks of biodiversity with wildlife corridors that connect areas. This could include links to existing green infrastructure networks and areas identified by local partnerships for habitat restoration or creation so that these ecological networks will be more resilient to current and future pressures;

e) Identify and pursue opportunities for securing measurable net gains, equivalent of a minimum 10% increase, for biodiversity.'

7.3.64 The Colchester Local Plan (Section 2) Policy ENV1 (Environment) states that development proposals that have adverse effects on the integrity of habitats sites, SSSIs or significant adverse impacts on the special qualities of the Dedham Vale AONB (including its setting) (either alone or in-combination) will not be supported.

7.3.65 The Braintree Local Plan Policy LLP64 (Protected Sites) and Chelmsford Local Plan Policy DM16 (Ecology and Biodiversity) sets out the requirement for an Appropriate Assessment for development in internationally designated sites. Sites designated for their national importance should also be protected from development which is likely to adversely affect the features for which they are designated. Development likely to adversely affect locally designated sites, their features or their function as part of the ecological network, will only be permitted where the need and benefits of the development clearly outweigh the loss and the coherence of the local ecological network is maintained.

7.3.66 The Chelmsford Local Plan includes policy S4 (Conserving and Enhancing the Natural Environment) which sets out that the council is committed to the conservation and enhancement of the natural environment through the protection of designated sites and species, whilst planning positively for biodiversity networks and minimising pollution.

7.3.67 Brentwood Local Plan Policy NE01 (Protecting and Enhancing the Environment) sets out that when determining planning applications, the council will apply the principles relevant to habitats and biodiversity as set out in National Planning Policy.

7.3.68 Basildon Local Plan Policy BAS C1 – Protected Areas SSSIs, SINCs & important wildlife habitats – states that the Council will not permit development that may have an adverse material effect on a SSSI and that when considering applications affecting SINCs or other important wildlife habitats, the Council will have full regard to the nature conservation value of the site.

7.3.69 The Thurrock Core Strategy and Policies for Management of Development (as amended) (July 2015) Policy PMD7 (Biodiversity, Geological Conservation and Development) sets out that the council will create a robust network of ecological sites centring on the designated sites, i.e. SSSIs, SPAs, Ramsar, LNRs and LWSs. These sites will be safeguarded and enhanced to mitigate the effects of past habitat loss and fragmentation, development and climate change.

Assessment

7.3.70 ES Chapter 8: Ecology and Biodiversity (document reference 6.8) (Revision C) sets out the assessment of likely significant ecology and biodiversity effects that could result from the Project.

7.3.71 Table 8.21 and Table 8.22 of ES Chapter 8: Ecology and Biodiversity (document reference 6.8) (Revision C) sets out the impact assessment including residual effect on ecology biodiversity receptors during construction and operation respectively. The assessment concludes that no long-term residual significant adverse effects are predicted as a result of the construction and operation of the Project, in line with paragraph 5.4.17 of NPS EN-1 (DESNZ, 2024a) and relevant local planning policies. The Project is not considered to result in habitat loss for dormouse, badger and other Protected Species.

7.3.72 The Project will require works within the Fore and Bushey Groves CWS (Section B) where an existing 33 kV overhead line would be taken down and undergrounded. Within Thrandeston Marsh CWS (Section) there are proposals to underground 132 kV cables on the eastern edge of the site. In both instances, any habitat lost will be reinstated in line with the habitat reinstatement principles within Section 9 of the Outline LEMP (document reference 7.4) (Revision G).

7.3.73 At the River Gipping CWS (Section B) construction of pylon RG165 would take place within 10 m of the watercourse. The CWS would be oversailed by the new 400 kV overhead line. Any trees within 20 m either side of the centre line would be permanently removed and any within an additional 8 m either side managed for safety reasons. At Sproughton Park CWS, Pylon JC16 would be located within the CWS and would require a small area of temporary habitat loss during works and even smaller area of permanent habitat loss associated with the pylon foundations. A temporary haul road would be required up to the pylon working area from the north but would not cross the river to the south. At Buckingham Hill LWS (Section H) pylon TB258 would be positioned within the LWS and would therefore require a small area of temporary habitat loss during works and even smaller area of permanent habitat loss associated with the pylon base.

7.3.74 The potential for hydrological impacts arising from these works would be mitigated through the measures to protect water quality are identified in the Outline CoCP (document reference 7.2) (Revision G). Habitats will be reinstated in line with the habitat reinstatement principles within Section 9 of the Outline LEMP (document reference 7.4) (Revision G). Replacement tree planting will be undertaken outside of the electrical clearance distances but within the CWS or adjacent.

7.3.75 In line with national policy requirements, the Project has been designed following the mitigation hierarchy and has avoided impacts where possible through the routeing and siting process. Environmental appraisal has been an integral part of the Project design from the outset, which has meant that the Project has been able to avoid environmentally sensitive features as far as reasonably practicable. National Grid's application of the mitigation hierarchy is set out within ES Chapter 8: Ecology and Biodiversity (document reference 6.8) (Revision C) and included in the Statement of Common Ground produced with Natural England (document reference 5.9.14).

7.3.76 National Grid has embedded measures into the design of the Project to avoid or reduce significant effects that may otherwise be experienced during construction and operation (and maintenance) of the Project. Embedded measures are those that are intrinsic to and built into the design of the Project, which have been presented in Table 4.2 in Chapter 4: Project Description (document reference 6.4) (Revision B). Those relevant to Ecology and Biodiversity include:

- The Project will deliver at least 10% BNG with wider environmental and societal benefits. The Project would deliver an overall net improvement in environmental value (including biodiversity) in the area through a combination of on-site and off-site mitigation. This is reported in the Biodiversity Net Gain Report (document reference 7.1) (Revision B). There is currently no legislative requirement for BNG in respect of infrastructure projects for which development consent is required
- The design would allow for landscape planting around CSE compounds, and the new EACN Substation, around the new Tilbury North (if the Lower Thames Project is not constructed) and around the existing Norwich Main Substation
- Mitigation areas for landscape planting (and BNG) around permanent features are labelled 'Environmental Areas' and are presented on Figure 4.1: Proposed Project Design (document reference 6.4.F1) (Revision B) and Figure 4.2: Proposed Project Design - Permanent Features (document reference 6.4.F2) (Revision B). Landscape planting would reduce effects – further details are provided in the Outline LEMP (document reference 7.4) (Revision G).

7.3.77 Standard mitigation measures, comprising management activities and techniques, would be implemented during construction of the Project to limit effects through adherence to good site practices and achieving legal compliance.

7.3.78 The Outline CoCP (document reference 7.2) (Revision G) sets out the required mitigation measures and environmental commitments that will be implemented during the construction phase of the Project.

7.3.79 Additional mitigation measures have also been proposed over and above any embedded and standard mitigation measures, for which this Ecology and Biodiversity assessment has identified a requirement to further reduce significant environmental effects.

7.3.80 The Outline LEMP (document reference 7.4) (Revision G) has been produced to detail the additional environmental measures that would be implemented to avoid, minimise, mitigate and compensate (ecology only) the landscape and visual and ecological features likely to be impacted during construction and operation (and maintenance). It sets out how the land, vegetation and habitats would be reinstated following construction. It includes details on additional mitigation measures required for ecology during and post-construction, as well as detailing any required management of these receptors post-construction. The Outline LEMP (document reference 7.4) (Revision G) is secured by Requirement 4 in the draft DCO (document

reference 3.1) (Revision G) which would require the Main Works Contractor(s) to prepare the final LEMP 'substantially in accordance with' the Outline LEMP to discharge the Requirement. The Main Works Contractor(s) would be responsible for implementing the measures identified within the final LEMP and associated management plans / strategies.

7.3.81 As described above, ES Chapter 8 Ecology and Biodiversity (document reference 6.8) (Revision C) concludes that following the application of mitigation measures there will be no residual significant adverse effects during construction and operation on international, national, local (statutory and non-statutory) sites of biodiversity importance. Furthermore, no significant residual effects were identified for Habitats of Principal Importance.

7.3.82 No significant residual impacts have been assessed on protected species / species of conservation concern (including, aquatic macro-invertebrates, terrestrial invertebrates, fish, reptiles, birds (general, Schedule 1 birds and wintering / passage), bats (both foraging and commuting and roosting), hazel dormouse, otter, water vole, badger, species of principal importance and great crested newt).

7.3.83 The avoidance of residual significance effects has been achieved through the application of the mitigation hierarchy to avoid significant harm to biodiversity in compliance with paragraphs 5.4.32, 5.4.34 and 5.4.42 of NPS EN-1 (DESNZ, 2024a). The Project is also considered to be in accordance with the NPPF (MHCLG, 2025) and relevant local planning policies.

Habitats Regulations

National Planning Policy

7.3.84 Paragraph 5.4.25 of NPS EN-1 (DESNZ 2024a) requires applicants to *'seek the advice of the appropriate SNCB and provide the Secretary of State with such information as the Secretary of State may reasonably require, to determine whether an HRA Appropriate Assessment (AA) is required'*. Paragraph 5.4.29 goes on to state that '*It is vital that applicants consider the need for compensation as early as possible in the design process as 'retrofitting' compensatory measures will introduce delays and uncertainty to the consenting process*'; and at 5.4.30 *'Applicants should work closely at an early stage in the pre-application process with SNCB and Defra/Welsh Government to develop a compensation plan for all protected sites adversely affected by the development. Applicants should engage with the relevant Local Planning Authority at an early stage regarding the proposed location of compensatory measures. Applicants should also take account of any strategic plan level compensation plans in developing project level compensation plans.'*

Local Planning Policy

7.3.85 Tendring District Local Plan: Section 2 Policy PPL4 – Biodiversity and Geodiversity – states that where proposals for development are likely to significantly impact upon International and European sites, applications must be supported by an HRA to provide sufficient information to the Council to establish the likelihood and nature of impacts before a decision can be made. If necessary, this might need to be followed by a more detailed 'Appropriate Assessment'.

7.3.86 The Thurrock Core Strategy and Policies for Management of Development (as amended) (July 2015) Policy PMD7 (Biodiversity, Geological Conservation and Development) sets out that the council will create a robust network of ecological sites centring on the designated sites, i.e. SSSIs, SPAs, Ramsar, LNRs and LWSs. These sites will be safeguarded and enhanced to mitigate the effects of past habitat loss and fragmentation, development and climate change.

Assessment

7.3.87 To support the SoS with its duties under the Conservation of Habitats and Species Regulations 2017 (as amended) and in accordance with planning policy, an HRA Report (document reference 5.3) has been prepared. It forms part of the application for a DCO for the Project submitted to the SoS, under Section 37 of The PA 2008 and is submitted to inform the Secretary of State's HRA of the Project.

7.3.88 There were 28 European Sites identified within the Study Area for the HRA Report. No likely significant effects were identified for 23 sites which were screened out at the pre-screening stage. Five sites were taken forward for detailed screening.

7.3.89 Stage 1 (screening) of the HRA process identified the potential for Likely Significant Effects (of the Project on its own or in-combination with other plans or projects) on three European sites:

- Norfolk Valley Fens SAC
- Stour and Orwell Estuaries Ramsar Site
- Stour and Orwell Estuaries SPA.

7.3.90 The potential LSEs relate to construction activities. All operation (and maintenance) LSEs have been screened out.

7.3.91 In the absence of mitigation, direct LSEs through changes in hydrology could not be screened out for the Norfolk Valley Fens SAC or the Stour and Orwell Estuaries SPA and Ramsar Site.

7.3.92 In the absence of mitigation, indirect LSEs through temporary land loss, fragmentation of habitat, disturbance (through noise, vibration, light and movement), changes in air quality and changes in hydrology could not be screened out at functionally linked land (FLL) for the waterbird assemblage qualifying feature of the Stour and Orwell Estuaries SPA and Ramsar Site. Two areas of FLL are present within the Order Limits, which have been used by significant numbers of roosting Lapwing and Golden Plover which are part of the waterbird assemblage of the Stour and Orwell Estuaries SPA and Ramsar Site. The Appropriate Assessment concluded there would be no adverse effects on the integrity of the Norfolk Valley Fens SAC and the Stour and Orwell Estuaries SPA and Ramsar Site with regard to hydrology once mitigation measures within the Outline CoCP (document reference 7.2), (Revision G) secured through Requirement 4 of the draft DCO (document reference 3.1) (Revision G) are implemented. This includes direct and indirect (through FLL) effects at the Stour and Orwell Estuaries SPA and Ramsar Site.

7.3.93 The Appropriate Assessment concluded there would be no adverse effects on the integrity of the Stour and Orwell Estuaries SPA and Ramsar Site with regard to air quality on FLL associated with the waterbird assemblage qualifying feature. This is primarily due to the FLL consisting of arable habitat which is not considered to be vulnerable to air quality effects. Furthermore, the Outline Dust Management Plan,

appended to the Outline CoCP (document reference 7.2) (Revision G), secured through Requirement 4 of the draft DCO (document reference 3.1) (Revision G) will be adhered to during the works.

7.3.94 Following an assessment of other plans and projects at Stage 1 Screening and Stage 2 Appropriate Assessment to determine the potential for in-combination effects it was concluded that there would be no effect on the integrity of any European or Ramsar Sites, their qualifying features or their conservation objectives.

7.3.95 As no adverse effects on the integrity of a European Site (following the implementation of mitigation) have been identified during the Appropriate Assessment, the HRA does not require progression to Stage 3 (derogation) of the HRA process.

7.3.96 It is, therefore, considered that the assessment undertaken by National Grid is in accordance with the requirements of NPS EN-1 (DESNZ, 2024a) in respect to habitats and species regulations.

7.3.97 Paragraph 4.2.14 confirms that the SoS must be satisfied that these requirements have been met, such that the presumptions relevant to CNP infrastructure apply. The Applicant believes this case has been robustly made in the HRA Report (document reference 5.3) which accompanies the application for development consent.

Ancient Woodland, Ancient Trees, Veteran Trees and Other Irreplaceable Habitats

National Planning Policy

7.3.98 Paragraph 5.4.32 of NPS EN-1 (DESNZ, 2024a) states that *'Applicants should include measures to mitigate fully the direct and indirect effects of development on ancient woodland, ancient and veteran trees or other irreplaceable habitats during both construction and operational phases.'*

7.3.99 Policy 193 of the NPPF (MHCLG, 2025) states that 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. The NPPF clarifies that wholly exceptional reasons include projects where the public benefit would clearly outweigh the loss for deterioration of habitat e.g. nationally significant infrastructure projects.

Local Planning Policy

7.3.100 The Babergh and Mid Suffolk Joint Local Plan (2023) Policy LP16 (Biodiversity and Geodiversity), The Colchester Borough Local Plan Policy ENV1 (Environment), Tendring District Local Plan Section 2 Policy PPL4: (Biodiversity and Geodiversity) Braintree Local Plan Policy LPP 64 (Protected Sites), Chelmsford Local Plan Policy DM17 (Trees, Woodland and Landscape Features) and Brentwood Local Plan Policy NE03 (Trees, Woodlands, Hedgerows) state that proposed development which is likely to have an adverse impact upon designated and potentially designated sites, or that will result in the loss or deterioration of irreplaceable biodiversity or geological features or habitats (such as ancient woodland and veteran/ancient trees) will not be supported.

Assessment

7.3.101 Ancient woodland is an irreplaceable habitat and of high value as habitat of national importance.

7.3.102 Chapter 8 Ecology and Biodiversity (document reference 6.8) (Revision C) identified that 51 blocks of ancient woodlands fall within 200 m of the Order Limits, of which 1.7 ha falls within the Order Limits. All ancient woodland is presented set out within Table A8.1.6 of Appendix 8.1: Habitats Report and presented in Figure A8.1.3: Ancient Woodland Locations (both within document reference 6.8.A1) (Revision C). In addition, National Grid has produced an Ancient Woodland and Veteran Tree Strategy as an appendix to the Outline LEMP (document reference 7.4B) (Revision C). The Ancient Woodland and Veteran Tree Strategy has been produced to detail the environmental measures that would be implemented to avoid, minimise, mitigate and compensate the ancient and/ or veteran features likely to be impacted during construction and operation.

7.3.103 The Project design is a result of an iterative design process that has taken into account environmental considerations from the Project inception. Knowledge gained through the EIA process, following baseline surveys and assessment of impacts, along with consultation with interested parties have influenced the Project design. Where possible key environmental constraints, including ancient woodland and veteran trees have been avoided and/or impacts reduced. These measures are considered embedded mitigation as they are intrinsic to and built into the Project design. Embedded mitigation measures relevant to ecology are set out in ES Chapter 8: Ecology and Biodiversity (document reference 6.8) (Revision C).

7.3.104 The Project has been designed in a way which prioritises the retention and conservation of significant trees. Owing to the size of the Project it has not been possible to completely avoid the loss of such natural features therefore an Ancient Woodland and Veteran Tree Strategy (document reference 7.4B) (Revision C) appendix to the Outline LEMP (document reference 7.4) (Revision G) has been prepared to support the application for development consent.

7.3.105 Within the Study Area (the Order Limits plus a 200 m buffer from the Order Limits) defined within the Ancient Woodland and Veteran Tree Survey, 51 blocks of ancient woodland were identified, these are located in every Project Section but are particularly concentrated in:

- Section B – Mid Suffolk District Council (11 sites)
- Section F – Chelmsford City Council and Brentwood District Council (11 sites)
- Section G – Basildon Borough Council and Brentwood Borough Council (and part of Chelmsford City Council) (13 sites).

7.3.106 Eleven of the 51 ancient woodlands identified are not mapped as ancient woodland on Natural England's Ancient Woodland Inventory, but their LWS description indicates they contain ancient woodland features. Even though these sites are not officially listed on the ancient woodland inventory, the Project has classified them as ancient woodland on a precautionary basis and they have been afforded the same levels of protection and mitigation as a listed ancient woodland site.

7.3.107 As stated in the Outline CoCP (document reference 7.2) (Revision G) the Project has committed to there being no physical works or breaking ground within 15 m of ancient woodland where at all practicable. Demarcation measures will be used to ensure this 15 m buffer is not breached. These embedded and standard mitigation

measures are set out in the Outline LEMP (document reference 7.4) (Revision G) and the Ancient Woodland and Veteran Tree Strategy (document reference 7.4B) (Revision C).

7.3.108 The Project design process has carefully considered ancient woodland from the Project inception, with the design intended to avoid impacts on ancient woodland and the associated 15 m root protection zone where practicable. The mitigation hierarchy has been applied throughout the design process.

7.3.109 Complete removal of impacts on to the remaining four ancient woodlands and Rivenhall Thicks (and the associated 15 m buffer) is unavoidable, as all the proposed works relate to the removal, undergrounding or modification of existing third-party infrastructure (11 kV, 33 kV, 132 kV), with the existing assets already located within the associated woodland or 15 m root protection zone.

7.3.110 Within three of these ancient woodlands (Round Wood, Rivenhall Thicks and Writtle-Writtlepark Wood) minor excavation works are required to remove the existing assets, modification to an existing pylon located within Little Bladen's Wood is required and minor excavation to facilitate the 11 kV undergrounding is required 12 to 15 m from Clapgate Wood. Mitigation measures associated have been proposed to ensure no significant long term residual effects on ancient woodland are encountered as a result of the Project. The implementation of the Outline Dust Management Plan set out within the Outline CoCP (document reference 7.2) (Revision G) would ensure no negative effects on ancient woodland because of dust.

7.3.111 The arboricultural survey referred to the Woodland Trusts Ancient Tree Inventory (ATI) database to inform the known veterans within the Study Area (Order Limits plus up to 30 m). The Arboricultural Impact Assessment (AIA) (document reference 6.13.A6) (Revision B) expands on the ATI veterans that were not able to be verified in their described locations.

7.3.112 A total of 112 individual veteran trees and four veteran tree groups have been recorded within the Study Area. Of these, four veteran trees will require removal. A further 15 veteran trees and two veteran groups require crown management. All removed trees are located within the Order Limits. Veteran trees to be removed will still provide essential habitats for the local flora and fauna. Where practical, after being felled, each tree should be laid as close to their original location as possible or near existing woodland to provide a deadwood habitat area. The material to be left should be as intact as is practicable. The final mitigation measures, remediation works and long-term monitoring are to be agreed at detailed design stage with the Project arboriculturist and the relevant landowners on a case by case basis.

7.3.113 As set out in the Outline CoCP (document reference 7.2) (Revision G) where sensitive features are to be retained (i.e., veteran, and mature trees, and Ancient Woodland), an appropriate protective area or protection mechanisms will be established using appropriate equipment or fencing and signage and will be inspected, repaired, and replaced as necessary. The protective areas will be shown on the 'Retention and Reinstatement Plans' contained within the Outline LEMP (document reference 7.4) (Revision G).

7.3.114 ES Chapter 8: Ecology and Biodiversity (document reference 6.8) (Revision C) concludes that there will be no residual significant long-term effects on Ancient Woodland as a result of the construction and operation of the Project. As noted above, there are 9 veteran trees within order limits which are likely to be removed. In applying the mitigation hierarchy, where veteran trees cannot be avoided or works to

them minimised or rectified, then the Project will provide compensation. There are different compensation options available and these would be specified on a case by case basis by the Project Arboriculturist. These may include but are not limited to the below and may be used in conjunction with each other:

- Phased tree surgery appropriate for tree species and subject to individual tree assessments
- Veteranisation of nearby mature trees to maintain habitat continuity
- Genetic conservation: To preserve the genetic heritage of the veteran trees identified for removal, seeds could be collected before any clearing begins (generally between September and November). This seed collection would focus on gathering a diverse range of native tree and understory species, ensuring that the genetic material from the original tree can be used for propagation in the new planting areas, thereby maintaining a direct ecological link to the lost habitat. Sapling relocation where appropriate
- Compensation planting: Veteran trees are acknowledged as being irreplaceable, therefore full compensation is unachievable. Compensation planting will include a combination of new planting, sapling relocation, seed bank for local provenance, and financial contributions to local tree planting organisations to plant and maintain new areas of planting off-site.

7.3.115 Commitments to maintain and monitor compensation areas for a minimum of 30 years.

7.3.116 In summary, National Grid considers that it has applied the mitigation hierarchy appropriately in designing the Project to avoid, as far as possible, adverse impacts on ancient woodland, ancient trees and veteran trees. The main interaction with ancient woodland will be works associated with the removal of existing third-party infrastructure. It is considered that the Project is in accordance with paragraph 5.4.32 of NPS EN-1 (DESNZ, 2024a) and is consistent with the NPPF (MHCLG, 2025) and relevant local planning policy. It is acknowledged that the felling of veteran trees is contrary to local planning policy.

Protection and Enhancement of Habitats and Species

National Planning Policy

7.3.117 NPS EN-1 (DESNZ, 2024a) paragraph 5.4.17 states that the applicant should ensure that the '*ES clearly sets out any effects on internationally, nationally, and locally designated sites of ecological or geological conservation importance, on protected species and on habitats and other species identified as being of principal importance for the conservation of biodiversity, including irreplaceable habitats'*. Opportunities to conserve and enhance these biodiversity interests should be demonstrated by the applicant (NPS EN-1 (DESNZ, 2024a) paragraph 5.4.19).

7.3.118 Paragraph 5.4.33 states that *'Applicants should consider any reasonable opportunities to maximise the restoration, creation, and enhancement of wider biodiversity, and the protection and restoration of the ability of habitats to store or sequester carbon as set out under Section 4.6.'* Paragraph 5.4.34 sets out that *'consideration should be given to improvements to, and impacts on, habitats and species in, around and beyond developments…This may include considerations and opportunities identified through Local Nature Recovery Strategies and national goals and targets set through the Environmental Act 2021 and the Environmental Improvement Plan 2023'.*

7.3.119 NPS EN-1 (DESNZ, 2024a) is supported by NPS EN-5 (DESNZ, 2024b) in which paragraphs 2.9.3 to 2.9.6 relate to the need to consider the potential for large birds, such as swans and geese, colliding with overhead lines or being electrocuted by overhead lines and associated power infrastructure. Paragraph 2.9.6 sets out that '*Particular consideration should be given to feeding and hunting grounds, migration corridors and breeding grounds, where they are functionally linked to sites designated or allocated under the 'national site network' provisions of the Conservation of Habitats and Species Regulations.*'

7.3.120 The NPPF (MHCLG, 2025) at paragraph 187(a) identifies the importance of planning decisions contributing to protecting and enhancing sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan). At paragraph 187(d) the NPPF highlights the need for *'minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures and incorporating features which support priority or threatened species such as swifts, bats and hedgehogs*'.

7.3.121 Paragraph 193(a) goes onto that that if significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused.

Local Planning Policy

7.3.122 Greater Norwich Local Plan Policy P3 (Environmental Protection and Enhancement), Babergh and Mid Suffolk Joint Local Plan (2023) Policies SP09 Enhancement and Management of the Environment and LP16 Biodiversity and Geodiversity, Colchester Local Plan: Section 2 Policy ENV1 (Environment), Tendring Local Plan Policy PPL4 (Biodiversity and Geodiversity, Braintree Local Plan Policy LPP 63 – Natural Environment and Green Infrastructure and Policy LPP 66 Protection, Enhancement, Management and Monitoring of Biodiversity, Chelmsford Local Plan Strategic Policy S4 (Conserving And Enhancing The Natural Environment) highlight the need for development proposals to protect and enhance the natural environment, habitats, biodiversity and geodiversity. Enhancement for biodiversity should be commensurate with the scale of development.

Assessment

7.3.123 ES Chapter 8: Ecology and Biodiversity (document reference 6.8) (Revision C) sets out the existing baseline conditions of the Project including details of measures taken regarding the protection and enhancement of habitats and species.

7.3.124 Table 8.21 and Table 8.22 of ES Chapter 8: Ecology and Biodiversity (document reference 6.8) (Revision C) set out the impact assessment including residual effect on ecology biodiversity receptors during construction and operation respectively. The chapter concludes that no long-term residual significant adverse effects are predicted as a result of the construction and operation of the Project, which accords with paragraph 5.4.17 of NPS EN-1 (DESNZ, 2024a) and relevant local planning policies.

7.3.125 The Project will require works in proximity to ancient woodland. National Grid has made a commitment to no physical works or breaking ground within 15 m of ancient woodland where at all practicable, with demarcation measures to be used to ensure this 15 m buffer is not breached. The embedded and standard mitigation measures such as minimally invasive excavation techniques, such as hand-digging, would be used to protect root structures and the creation of roads using non-excavation construction techniques to minimise impacts to the woodland habitat are set out in the Outline LEMP (document reference 7.4) (Revision G) and the Ancient Woodland and Veteran Tree Strategy (Appendix B to the Outline LEMP document reference 7.4) (Revision C).

7.3.126 There will be impacts on Habitats of Principal Importance e.g. arable field margins, lowland meadows, ponds, wet woodlands and hedgerows during the construction and operational phases. During the construction phase, habitats would be temporarily removed to create haul roads, site compounds and storage areas. The Habitats of Principal Importance that would be lost on a temporary basis would be reinstated in line with the habitat reinstatement principles set out in Section 9 of the Outline LEMP (document reference 7.4) (Revision G).

7.3.127 Habitats that are within the footprint of the permanent infrastructure that includes pylons, CSE compounds and substations will be permanently removed. Where the permanent loss of habitat is unavoidable, including to Habitats of Principal Importance and important hedgerows, mitigation would be delivered through the creation / enhancement of habitat associated with the BNG for the Project. Within the Order Limits six areas of land (defined as Environmental Areas) will be utilised around the Project's permanent assets, where there is sufficient space. To ensure the BNG target is reached, any additional creation / enhancement will be delivered outside of the Order Limits, as identified in the Biodiversity Net Gain Report (document reference 7.1) (Revision B).

7.3.128 Replacement tree planting would be undertaken outside of the electrical clearance distances of the overhead line but within the impacted woodland or adjacent land.

7.3.129 Shrub planting would be undertaken where necessary to replace trees to maintain ecological connectivity and maintain the electrical clearance distance from the overhead line and above the underground cable route.

7.3.130 Table 8.21 of ES Chapter 8: Ecology and Biodiversity (document reference 6.8) (Revision C) identify the potential for long-term benefits associated with National Grid's proposal to remove existing third-party overhead lines within existing woodland. Long-term benefits have been identified at Round Wood Ancient Woodland Site (Section B) and Rivenhall Thicks Local Wildlife and Ancient Woodland Site (Section E).

7.3.131 National Grid has embedded measures into the design of the Project to avoid or reduce significant effects that may otherwise be experienced during construction and operation (and maintenance) of the Project. Environmental appraisal has been an integral part of the Project design from the outset, which has meant that the Project has been able to avoid environmentally sensitive features such as woodland as far as reasonably practicable. As set out in Section 6 of the Outline LEMP (document reference 7.4) (Revision G), removal and manipulation of habitat known to support hazel dormouse would take place under licence to Natural England (the current licensing body). With details to be approved by Natural England. Vegetation removal will be overseen by the licensed ecologists with removal staged to enable vegetation to be searched for individual dormice before it is cut to ground level, with further searches to confirm the absence of hazel dormouse before stumps are moved and the area identified as 'free' of constraints. Nest boxes will be installed in areas of retained vegetation to mitigate for the loss of natural nest sites. Following the implementation of mitigation measures identified in the Outline CoCP, no significant residual impacts have been assessed on protected species / species of conservation concern (including, aquatic macro-invertebrates, terrestrial invertebrates, fish, reptiles, birds (general, Schedule 1 birds and wintering / passage), bats (both foraging and commuting and roosting), hazel dormouse, otter, water vole, badger, species of principal importance and great crested newt) during construction of the Project. No residual significant effects have been identified for the operational period of the Project.

7.3.132 The avoidance of residual significance effects has been achieved through the application of the mitigation hierarchy to avoid significant harm to biodiversity in compliance with paragraphs 5.4.32, 5.4.34 and 5.4.42 of NPS EN-1 (DESNZ, 2024a). The Project is also considered to be in accordance with the NPPF (MHCLG, 2025) and relevant local planning policies.

Ecology and Biodiversity Mitigation

National Planning Policy

7.3.133 NPS EN-1 (DESNZ, 2024a) requires applicants to include appropriate avoidance, mitigation, compensation and enhancement measures as an integral part of the proposed development. Paragraph 5.4.35 sets out a series of requirements for applicants to demonstrate:

- '*during construction, they will seek to ensure that activities will be confined to the minimum areas required for the works*
- *the timing of construction has been planned to avoid or limit disturbance*
- *during construction and operation best practice will be followed to ensure that risk of disturbance or damage to species or habitats is minimised, including as a consequence of transport access arrangements*
- *habitats will, where practicable, be restored after construction works have finished*
- *opportunities will be taken to enhance existing habitats rather than replace them, and where practicable, create new habitats of value within the site landscaping proposals. Where habitat creation is required as mitigation, compensation, or enhancement, the location and quality will be of key importance. In this regard habitat creation should be focused on areas where the most ecological and ecosystems benefits can be realised*

- *mitigations required as a result of legal protection of habitats or species will be complied with*.'

7.3.134 Paragraph 5.4.36 sets out the requirement for applicants to produce and implement a Biodiversity Management Strategy as part of their development proposals.

Assessment

7.3.135 The Project mitigates all long-term significant adverse effects on internationally, nationally and locally designated biodiversity sites and other important ecological features such as protected species and habitats during the construction, operation (including maintenance phases). This has been achieved through a considered and iterative design which follows the mitigation hierarchy.

7.3.136 National Grid has embedded measures into the design of the Project to avoid or reduce significant effects that may otherwise be experienced during construction and operation (and maintenance) of the Project. In response to Paragraph 5.4.35 of NPS EN-1 which details measures and actions that should be demonstrated as part of the application e.g. timing construction to avoid/limit disturbance and restoring habitats (where practicable) after construction. The Project has addressed these measures within the design and/or the CoCP (document reference 7.2) (Revision G) together with the Outline LEMP (document reference 7.4) (Revision G).

7.3.137 Seasonal restrictions will be in place during the construction period to minimise the potential for adverse impacts.

7.3.138 For access roads and haul roads, the Project requires the crossing of multiple ditches, drains and watercourses. Large or sensitive watercourses, for example those designated as main river, and those with Water Framework Directive (WFD) status, would be crossed by the temporary haul road using temporary clear span bridges.

7.3.139 The Project has also committed to undertaking trenchless crossings at the following five locations (all within Section C); Higham Road, River Stour (north part), River Stour (south part), A12 highway crossing and railway crossing (east of Ardleigh) is committed to the delivery of trenchless crossings in particular locations as detailed in Chapter 4: Project Description (document reference 6.4) (Revision B) and presented on Figure 4.1: Proposed Project Design (document reference 6.4.F1) (Revision B). This would reduce ecological effects compared to open-cut construction, particularly on the aquatic biodiversity receptors.

7.3.140 All temporarily impacted watercourses will be reinstated to their former state, or better. All temporary structures such as culverts bridges and dams will be removed and all impacted watercourse features including bank profile, bed levels, and gradients will be reinstated. This will include the replacement of any substrate or vegetation that was temporarily removed.

7.3.141 As described in the Outline LEMP (document reference 7.4) (Revision G) as a general principle, all land which is temporarily impacted by the Project will be reinstated where practicable to its pre-construction condition land use. The only exception to this will be restrictions on tree planting below the overhead line and directly on top of the underground cables. Species mixes will allow for low growing and shallow rooted tree/scrub species as an alternative in these locations.

7.3.142 Reinstatement planting will occur at the earliest opportunity and no later than the first available planting season after that part of the authorised development is first brought into operational use. For trees and shrubs this will typically be between November and March to avoid periods of frost.

7.3.143 Natural regeneration of woodland post construction is proposed for woodlands where existing third-party infrastructure is being removed from woodlands and works are minimal such as the proposed drainage works. Removal of these third-party works is considered be a long-term ecological benefit, as the woodland would have been subject to an existing vegetation management regime under the existing overhead lines. Natural regeneration will allow the woodland to regenerate based on existing seed bank within the soil.

7.3.144 In addition to the reinstated habitats across the route, there will also be 'Environmental Areas' located around the new/ extended National Grid permanent assets (i.e. CSE compounds and substations). An indicative landscape design has been created for these areas as part of the Outline LEMP (Appendix 7.4D: Outline Landscape Proposals). The habitats to be created and/or enhanced in these areas (onsite mitigation) have been designed to provide landscape and visual mitigation while also offering ecological value. Where created or enhanced habitats within these Environmental Areas will be counted within BNG assessment (onsite mitigation), these habitats will be subject to a 30-year management regime.

7.3.145 Paragraph 5.4.36 states that *'Applicants should produce a Biodiversity Management Strategy as part of their development proposals'*. The Biodiversity Management Strategy is detailed across the Outline LEMP (document reference 7.4) (Revision G) and Biodiversity Net Gain Report (document reference 7.1) (Revision B) which is described further below.

7.3.146 The Environment Act 2021 introduces a mandatory requirement for 10% BNG, for new developments consented under the TCPA to ensure that they enhance biodiversity. Although not a statutory requirement for DCO projects submitted to the Planning Inspectorate prior to May 2026, National Grid has committed to deliver 10% BNG with wider environmental and societal benefits on all construction projects requiring formal planning or consent, including Norwich to Tilbury. The DCO application is anticipated be submitted in August 2025 and therefore prior to the BNG mandatory requirement for NSIPs.

7.3.147 The Project has committed to deliver at least 10% BNG with wider environmental and societal benefits. The Project would deliver an overall net improvement in environmental value (including biodiversity) in the area through a combination of on-site and off-site mitigation. Further details can be found in the Biodiversity Net Gain Report (document reference 7.1) (Revision B). The Project would deliver a net improvement in environmental value (including biodiversity) in the area through a combination of on-site and off-site mitigation.

7.3.148 As there is no guidance for BNG on NSIPs, guidance devised for TCPA applications has been applied and modified. This guidance includes Statutory Biodiversity Metric: User Guide (DEFRA, 2024) (Department for Environment, Food and Rural Affairs (Defra), 2024a) and BNG good practice principles which are described in Appendix E (Chartered Institute of Ecology and Environmental Management (CIEEM), Institute of Environmental Management and Assessment (IEMA) and Construction Industry Research and Information Association (CIRIA), 2019). Accounting for permanent and temporary habitat removal and habitat management and all proposed on-site planting and enhancement, the Project is predicted to result in an on-site - 8.25% net loss of -

526.99 Area Habitat BU. The deficit in area habitat BU will be delivered off-site in order to achieve the targeted +10% BNG for the Project. The Project is predicted to result in an on-site net loss -8.25% for area habitat units, a net gain in hedgerow units of 10% and net gain in watercourse units of 10.04%. Table 7.1 details the additional units required to achieve a 10% gain in area habitats.

Table 7.1 Summary of Biodiversity Units for the Project

Habitat Type	Baseline	Post-Development BU	Net Unit Change	Total Net % Change	Offsite BU Deficit Required to achieve 10% BNG
Area Habitat Units	6389.56	5862.56	-526.99	-8.25%	1165.95
Hedgerow Units	1009.23	1079.22	+69.97	**+10.00%**	0.00
Watercourse Units	118.74	131.40	+12.60	**+10.65**	0.00

7.3.149 National Grid will continue to work with contractors to further reduce impact and seek ways to achieve the targeted +10% BNG target within the Project and will continue to liaise with third-party stakeholders to secure any off-site measures required to deliver the BU deficit.

7.3.150 Land around National Grid permanent assets has been defined as Environmental Areas. These areas will provide landscape and visual screening benefits, as well as offering ecological value. The following sites have currently been identified as Environmental Areas:

- Land around Norwich Main Substation (areas not included in the Norwich Main Substation Extension Planning application)
- Land around EACN Substation
- Land around Tilbury North Substation and Tilbury North (Warley Side) and Tilbury North (Tilbury Side) CSE Compounds (with Lower Thames Crossing)
- Land around Tilbury North Substation and Tilbury North (Warley Side) and Tilbury North (Tilbury Side) CSE Compounds (without Lower Thames Crossing)
- Land around Wenham Grove CSE Compound
- Land around Great Horkesley (EACN Side) CSE Compound
- Land around Great Horkesley (Tilbury Side) CSE Compound
- Land around Fairstead (EACN Side) and Fairstead (Tilbury Side) CSE Compounds.

7.3.151 Indicative landscape proposals for each of these areas are included in Appendix D of the Outline LEMP (document reference 7.4.D) (Revision D) and are described in further detail below.

Land Around Norwich Main Substation

7.3.152 The Environmental Area around the existing Norwich Main Substation and its consented extension is located within the Tas Tributary Farmland Landscape Character Area (LCA). Within the Order Limits around the substation there are large arable fields and mature belts of deciduous woodland, which provide some visual containment to the existing substation. There are existing overhead lines and underground cables which converge at the substation.

7.3.153 Outline landscape mitigation proposals have been developed for the area around Norwich Main Substation, to complement the existing landscape structure whilst taking into account existing and proposed infrastructure and associated mitigation related to the consented substation extension. The purpose of these proposals is as follows:

- To filter and screen views from the surrounding area, to reduce significant effects on visual receptors including local residents and users of the PRoW network
- To connect existing hedgerows and areas of woodland, to improve green networks and enhance landscape character.

7.3.154 The landscape mitigation proposals include:

- Retention of existing vegetation to the north, south and west of the substation, reinstatement of vegetation removed to accommodate the haul road to the south of the substation and enhancement with supplementary tree and shrub planting
- Proposed deciduous woodland with scrubby woodland edge to expand existing woodland to the west of the substation extension
- Proposed native hedgerows with native trees to existing field boundaries
- Proposed neutral grassland over existing and proposed underground cables and below existing and proposed overhead lines.

Land Around EACN Substation - Landscaping Proposals

7.3.155 The EACN Substation is located within the Bromley Heaths LCA, and the Order Limits around the EACN Substation are approximately 1.2 km to the south of Dedham Vale National Landscape. Within the Order Limits around the EACN Substation there are large arable fields, enclosed by mature shelterbelts and hedgerows with hedgerow trees. Existing overhead lines cross the Order Limits, connecting to Lawford Substation to the south.

7.3.156 Outline landscape mitigation proposals have been developed for the area around the EACN Substation, to complement the existing landscape structure whilst taking into account existing and proposed infrastructure. The purpose of these proposals is as follows:

- To filter and screen views from the surrounding area, to reduce significant effects on visual receptors including local residents in surrounding communities, and users of the road and PRoW networks
- To connect existing hedgerows and shelterbelts, to improve green networks and enhance landscape character
- To provide replacement woodland and hedgerow planting as close to permanent impacts as possible.

7.3.157 The outline landscape mitigation proposals include:

- Retention and enhancement of existing vegetation where possible, including retention and protection of mature shelterbelts in the east of the Order Limits and mature trees along Grange Road and enhancement through supplementary tree and shrub planting
- Proposed deciduous woodland with scrubby woodland edge in the east of the Order Limits, to expand woodland habitat and provide further filtering/screening of views towards the EACN Substation from the east
- Use of suitable spoil material to create subtle landforms north-west of the EACN Substation, which blends into the existing topography and contribute to screening of the EACN Substation for local residential properties. The spoil bunds will be planted with deciduous woodland and scrubby woodland edge to expand woodland habitat and provide further filtering/screening of views
- Proposed native hedgerows with native trees to existing field boundaries, including along the north side of Ardleigh Road
- Proposed native scrub with trees to provide variety in vegetation cover and to provide further filtering/screening of views
- Proposed neutral grassland over proposed underground cables and below existing and proposed overhead lines
- Use of a permanent attenuation drainage pond to create a wetland habitat to introduce habitat diversity.

Land Around Land around Tilbury North Substation and Tilbury North (Warley Side) and Tilbury North (Tilbury Side) CSE Compounds (with Lower Thames Crossing) – Landscape Proposals

7.3.158 Tilbury North Substation and Tilbury North (Warley Side) and Tilbury North (Tilbury Side) CSE compounds are all located within the East & West Tilbury Open Undulating Farmland LCA. Within the Order Limits around the substation is a golf course and arable fields, often enclosed by hedgerows, scrubby vegetation and woodland with some mature hedgerow trees. The landscape around the two CSE compounds is open arable farmland. Based on an assumption that LTC is constructed the landscape around the substation and CSE compounds would change to include the road and associated earthworks, infrastructure and LTC mitigation including species rich grassland, scrub woodland and native woodland and wetland habitats.

7.3.159 Outline landscape mitigation proposals have been developed for the area around the new Tilbury North Substation and the two new Tilbury CSE compounds to complement and strengthen the existing landscape structure and tie into proposals for LTC. The purpose of these proposals is as follows:

- To filter and screen views from the surrounding area, to reduce significant effects on visual receptors including local residents in surrounding communities, and users of the road and PRoW networks
- To strengthen and connect existing hedgerows and areas of woodland, to improve green networks and enhance landscape character
- To tie into LTC mitigation and replace LTC mitigation affected by the Project

- To provide replacement woodland and hedgerow planting as close to permanent impacts as possible.

7.3.160 The outline landscape mitigation proposals include:

- Retention of existing vegetation where possible, including retention and protection of ancient woodland
- Proposed deciduous woodland with scrubby woodland edge, to expand and connect into existing woodland habitats and provide further filtering/screening of views towards the Tilbury North Substation and two CSE compounds from the west
- Use of spoil material to create subtle landforms which blend into the existing topography. The spoil bunds will be planted with deciduous woodland and scrubby woodland edge to expand woodland habitat and provide further filtering/screening of views, particularly from Chadwell St Mary and PRoW to the south
- Proposed native hedgerows with native trees to existing field boundaries
- Proposed native scrub with trees to provide variety in vegetation cover and to provide further filtering/screening of views
- Proposed neutral grassland over proposed underground cables and below existing and proposed overhead lines.

7.3.161 Land Around Land around Tilbury North Substation and Tilbury North (Warley Side) and Tilbury North (Tilbury Side) CSE Compounds (without Lower Thames Crossing)- Landscape Proposals. The outline landscape mitigation proposals for Tilbury North Substation and Tilbury North (Warley Side) and Tilbury North (Tilbury Side) CSE Compounds without Lower Thames Crossing would be configured differently but have the same overall aims as above; except there would be no LTC mitigation to be replace. The difference in layout is due to the fact that the mitigation proposals for the Norwich to Tilbury Project would not be divided by the construction of a new road and would not need to tie into the mitigation areas proposed for LTC.

Land Around Wenham Grove CSE Compound – Landscape Proposals

7.3.162 The Wenham Grove CSE Compound is located within the Ancient Estate Claylands Landscape Character Type and is approximately 2 km to the north-east of Dedham Vale National Landscape at its closest point. Within the Order Limits around the CSE compound there are large arable fields, blocks of deciduous woodland and a mature deciduous tree belt along the former railway line to the north of the CSE compound.

7.3.163 Outline landscape mitigation proposals have been developed for the area around the Wenham Grove CSE compound, to complement the existing landscape structure. The purpose of these proposals is as follows:

- To filter and screen views from the surrounding area, to reduce significant effects on visual receptors including local residents and users of the minor road and PRoW networks
- To connect existing hedgerows and woodland, to improve green networks and enhance landscape character.

7.3.164 The outline landscape mitigation proposals include:

- Retention and enhancement of existing vegetation where possible, including retention and protection of woodland at Wenham Grove and south of the former railway line, and enhancement through supplementary tree and shrub planting
- Proposed deciduous woodland with scrubby woodland edge to expand and connect existing woodland habitat and provide further filtering/screening of views towards the CSE compound from the south and east
- Proposed native scrub with trees to provide variety in vegetation cover and to provide further filtering/screening of views
- Use of suitable spoil material to create a subtle landform south-east of the CSE compound, which blends into the existing topography and contribute to screening of the CSE compound. The spoil bund will be planted with deciduous woodland to expand woodland habitat and provide further filtering/screening of views
- Proposed native hedgerows with native trees to existing field boundaries, including along Hadleigh Railway Walk to the north / north-west of the CSE compound and along Raydon Road and the proposed new permanent access road from the south-east
- Proposed neutral grassland over proposed underground cables and below existing and proposed overhead lines.

Land Around Great Horkesley (EACN side) CSE Compound

7.3.165 The Great Horkesley (Tilbury side) CSE Compound is located within the Great Horkesley Farmland Plateau LCA and is approximately 1.3 km to the south of Dedham Vale National Landscape at its closest point. Within the Order Limits around the CSE compound there are large arable fields, a block of woodland and hedgerows with mature hedgerow trees. One PRoW (Great Horkesley FP 30) crosses the area to the south of the CSE compound and ties into another (Great Horkesley FP 29) which runs to the east of the CSE compound.

7.3.166 Outline landscape mitigation proposals have been developed for the area around the Great Horkesley (Tilbury side) East CSE Compound, to complement the existing landscape structure. The purpose of these proposals is as follows:

- To filter and screen views from the surrounding area, to reduce significant effects on visual receptors including local residents and users of the minor road and PRoW networks, including the Essex Way and to further reduce potential visibility in glimpsed views from more distant PRoWs within the National Landscape
- To connect existing hedgerows and woodland, to improve green networks and enhance landscape character.

7.3.167 The outline landscape mitigation proposals include:

- Retention and enhancement of existing vegetation where possible, including retention and protection of the Horkesley Plantation south-west of the CSE compound, and enhancement through supplementary tree and shrub planting
- Five areas of proposed deciduous woodland with scrubby woodland edge to expand and connect existing woodland habitat and provide further filtering/ screening of views towards the CSE compound

- Proposed native scrub with trees to provide variety in vegetation cover and to provide further filtering/screening of views
- Use of suitable spoil material to create a subtle landform south of part of the Essex Way, which blends into the existing topography and contributes to screening of the CSE compound from the Essex Way
- Proposed native hedgerows with native trees to existing field boundaries, including along the south side of Broad Lane/ the Essex Way, north of the CSE compound
- Proposed neutral grassland over proposed underground cables and below proposed overhead lines.

Land Around Great Horkesley (Tilbury side) CSE Compound - Landscape Proposals

7.3.168 The Great Horkesley Tilbury side CSE Compound is located within the Rochfords Farmland Plateau LCA and is approximately 1.3 km to the south of Dedham Vale National Landscape at its closest point. Within the Order Limits around the CSE compound there are arable fields, and tree and vegetation cover associated with a drainage channel and watercourse/ waterbody at the head of the valley to the north and west.

7.3.169 Outline landscape mitigation proposals have been developed for the area around the Horkesley West CSE compound, to complement the existing landscape structure. The purpose of these proposals is as follows:

- To filter and screen views from the surrounding area, to reduce significant effects on visual receptors including local residents and users of the minor road and PRoW networks, including within the National Landscape
- To connect existing hedgerows and woodland, to improve green networks and enhance landscape character.

7.3.170 The outline landscape mitigation proposals include:

- Retention and enhancement of existing vegetation where possible, including woodland along the watercourses to the north and west of the CSE compound, and enhancement through supplementary tree and shrub planting
- Proposed deciduous woodland with scrubby woodland edge to expand and connect existing woodland habitat and provide further filtering/screening of views towards the CSE compound from the north and west
- Proposed native scrub with trees to provide variety in vegetation cover and to provide further filtering/screening of views
- Use of suitable spoil material to create a subtle landform in the north-west, which blends into the existing valley topography and contributes to screening of the CSE compound from the north-west
- Proposed native hedgerows with native trees to existing and historic field boundaries, including along Crabtree Lane to the east of the CSE compound
- Proposed neutral grassland over proposed underground cables and below proposed overhead lines.

Land Around Fairstead (EACN side and Tilbury side) CSE Compounds Landscape Proposals

7.3.171 The Fairstead CSE compounds (EACN side and Tilbury side) are located within the Central Essex Farmland LCA. Within the Order Limits around the CSE compounds there are large arable fields enclosed by hedgerows, with some shelterbelts and mature hedgerow trees.

7.3.172 Outline landscape mitigation proposals have been developed for the area around the Fairstead CSE compounds (EACN side and Tilbury side), to complement the existing landscape structure. The purpose of these proposals is as follows:

- To filter and screen views from the surrounding area, to reduce significant effects on visual receptors including local residents and users of the minor road and PRoW networks
- To connect existing hedgerows and shelterbelts, to improve green networks and enhance landscape character.

7.3.173 The outline landscape mitigation proposals include:

- Retention and enhancement of existing vegetation where possible, including field boundary hedgerows and mature hedgerow trees and a small block of woodland to the south, and enhancement through supplementary tree and shrub planting
- Five areas of proposed deciduous woodland with scrubby woodland edge to expand and connect existing habitats and provide further filtering/ screening of views towards the CSE compounds
- Proposed native scrub with trees to provide variety in vegetation cover and to provide further filtering/screening of views
- Use of suitable spoil material to create subtle landforms north-east of the CSE compounds, which blends into the existing topography and contributes to screening of the CSE compounds from the north-east
- Proposed native hedgerows with native trees to the western edge of the Order Limits and to the south of the CSE compounds
- Proposed native hedgerow offset from an existing hedgerow to the north to create a ‘green lane’ for the existing bridleway which will help to filter and screen views towards the CSE compounds
- Proposed neutral grassland over proposed underground cables and below proposed overhead lines.

7.3.174 The habitats to be created and/or enhanced in these areas have been designed to provide landscape and visual benefits while also offering ecological value. Where created or enhanced habitats within these Environmental Areas will be counted within BNG assessment, these habitats will be subject to a 30-year management regime.

Wider Landscape Mitigation

7.3.175 As set out in the outline LEMP (document reference 7.4) (Revision G), National Grid has committed to a 3:1 replacement for individual trees and individual trees within small groups. The tree planting strategy will prioritise replanting within the Order Limits, which is considered to be on-site landscape mitigation. The tree planting

strategy will prioritise replanting within the Order Limits, offsite provision may however be required. The tree replanting strategy will be in accordance with the following site selection principles:

- Within the Order Limits (on-site landscape mitigation)
  - Where possible, trees will be replanted in the same, or in close proximity to, the location from which they were removed
  - If constraints preclude tree planting in the same or in close proximity to where they were removed, tree planting will be undertaken as close as possible to the original location
- Outside the Order Limits (off-site landscape compensation)
  - If it is not possible to provide tree planting within the Order Limits, then offsite provision as close to the Order Limits as possible will be provided.

7.3.176 Additional planting may be considered within the Order Limits at detailed design stage, in locations such as around Tilbury North Substation and the permanent access roads to the EACN and Tilbury North CSE compounds.

7.3.177 The Project has considered opportunities to enhance ecosystem services and natural capital within the design following the mitigation hierarchy to avoid and minimise effects to ecology and biodiversity receptors. Where effects to ecology and biodiversity receptors would be unavoidable, the design incorporates appropriate mitigation and/or compensation measures. These measures are identified in the Outline CoCP (document reference 7.2) (Revision G), Outline LEMP (document reference 7.4) (Revision G) and Biodiversity Net Gain Report (document reference 7.1) (Revision B). It is concluded that the Project is in accordance with the requirements of Paragraphs 5.4.35 and 5.3.36 of NPS EN-1 (DESNZ, 2024a).

Civil and Military Aviation and Defence Interests (NPS EN-1 Section 5.5)

National Planning Policy

7.3.178 Section 5.5 of NPS EN-1 (DESNZ, 2024a) sets out that new energy development can affect all aerodromes, covering civil and military activities, as well as aviation technical sites, meteorological radars and other types of defence interests. It is important for collaboration between aviation, defence and the energy industry to ensure that neither is unduly compromised.

7.3.179 Paragraph 5.5.37 sets out that '*Where the proposed development may affect the performance of civil or military aviation CNS* [communications, navigation and surveillance]*, meteorological radars and/or other defence assets an assessment of potential effects should be set out in the ES.*'

7.3.180 In preparing their assessment, applicants are required to consult the MOD, Met Office, Civil Aviation Authority (CAA), National Air Traffic Services (NATS) and any aerodrome (licensed or otherwise) likely to be affected. Paragraph 5.5.40 sets out that '*Any assessment of effects on aviation, meteorological or other defence interests should include potential impacts of the project upon the operation of CNS infrastructure, flight patterns (both civil and military), generation of weather warnings and forecasts, other defence assets (including radar) and aerodrome operational*

procedures. It should also assess the demonstratable cumulative effects of the project with other relevant projects in relation to aviation, meteorological and defence.' Where adverse impacts are identified, applicants should include appropriate mitigation measures as part of an integral part of the proposed development.

7.3.181 Paragraph 2.11.14 of NPS EN-5 (DESNZ, 2024b) sets out that in order to avoid unacceptable adverse impacts of EMFs from electricity network infrastructure on aviation, the Secretary of State will take account of statutory technical safeguarding zones defined in accordance with Planning Circular 01/031, or any successor, when considering recommendations for DCO applications.

7.3.182 NPPF (MHCLG, 2025) paragraph 111(f) sets out that planning policies should '*recognise the importance of maintaining a national network of general aviation airfields, and their need to adapt and change over time – taking into account their economic value in serving business, leisure, training and emergency service needs, and the General Aviation Strategy*.'

Assessment

7.3.183 National Grid has consulted the MOD, CAA and NATS as well as owners and operators of aerodromes likely to be affected by the Project. This has included 17 unlicensed civil aerodromes and a model aircraft aerodrome identified as located within 5 km of the Project alignment and assessed to be potentially affected by the proposed development as result of their proximity to Project infrastructure. Consultation has also been undertaken with a licensed civil aerodrome and a military aerodrome, which, whilst located beyond 5 km of the Project Alignment, have defined safeguarding areas infringed by the Alignment.

7.3.184 National Grid's Aviation Impact Assessments have enabled risk-based site-specific impact assessments for civil aerodromes potentially impacted by the Project. Their primary function is to evaluate risks of collision, predominantly during take-off and approaches and including forced landing risks, with the proposed overhead line alignment representing a new obstacle within proximity of aerodromes. Operational and safety impacts arising from potential increases to risks of bird strike, wind turbulence and EMFs as a result of the Project are also considered.

7.3.185 The methodology enables a bespoke appraisal, appropriate to each aerodrome, that considers a range of factors in addition to the height and location of the proposed overhead line alignment, including: runway length and orientation in relation to the overhead line; aircraft types, performance, flight paths and operational procedures (determined from published information, as well as via consultation with operators and relevant aviation stakeholders); and the surrounding context in terms of topography, existing obstacles (including other overhead lines, considering cumulative effects) and neighbouring aerodromes.

7.3.186 The assessments include consideration of whether the Project alignment infringes Obstacle Limitation Surfaces as specified under the CAA's CAP 168 regulations for licensed aerodromes, recognising this to be a best practice measure for obstacle assessment and treatment, albeit not a regulatory requirement for unlicensed aerodromes. If CAP168 measures are met, the proposed overhead line alignment is considered to have an acceptable impact on the aerodrome's operations and no further design changes are considered likely to be necessary. National Grid recognises, however, that aerodrome operators, with responsibility for safeguarding, will review the possibility of agreeing reasonable changes to operational procedures.

7.3.187 National Grid is collaborating with the MOD to inform the Stakeholder's own assessment of the potential effects of the Project on military aviation, technical assets and other defence interests.

7.3.188 National Grid's design development approach has enabled evolution of the Project design to minimise adverse impacts for civil aviation aerodromes within scope, where possible. Engagement with aerodrome operators is ongoing to seek confirmation of the acceptability of the Project alignment via Statements of Common Ground and Stakeholder Agreements, where considered necessary. In addition, the Statements of Common Ground process enables collaborative review and agreement of possible changes to operational procedures by Operators, where considered to be reasonable. Stakeholder Agreements capture where General Aviation operators consider that the Project design and any associated or alternative mitigations (including reasonable changes to operational procedures) do not reduce residual safety or operational risks to an acceptable level from their safeguarding perspective. National Grid has identified mitigation in the form of low height pylons (between TB238 and TB243) to ensure the safe operation at Thurrock Airfield.

7.3.189 National Grid is engaging with the operators of Chase Farm aerodrome, which may require a reorientation or relocation of the runway due to the proximity of the overhead lines, to allow the current type and level of operations at the aerodrome to continue. National Grid did amend the routeing of the Project between the 2023 Preferred Draft Alignment and 2024 Statutory Consultation. Further re-location of the Project is not being taken forward due to competing constraints in the area.

7.3.190 Consultation with the operator of the military aerodrome Wattisham Flying Station (WFS) and the MOD Defence Infrastructure Organisation (DIO) confirmed the proposed alignment of the Project infringed the statutory safeguarding zones surrounding the aerodrome, and identified a potential conflict of interest between the Project and the safeguarding criteria for the aerodrome's STAR NG radar. Following an assessment, the operator and DIO confirmed that there were no outstanding safeguarding concerns including for obstacle treatment and bird strike safeguarding zones.

7.3.191 As set out in ES Appendix 6.15.A2: Review of Aviation Impact (document reference 6.15.A2) (Revision C), consultation has identified that the Project alignment infringes the statutory safeguarding zones surrounding the aerodrome, as well as a potential conflict of interest between the Project and the safeguarding criteria for the aerodrome's STAR NG radar. Furthermore, consultation has identified the Project's infringement of the statutory safeguarding zone surrounding the MOD's East 2 WAM Network, specifically the North WAM technical asset, related to air traffic services. The Project alignment was also confirmed to fall within MOD Low Flying Areas (LFA) 5 and 10, within which military aircraft may conduct low level flight training.

7.3.192 National Grid's continued engagement with the WFS operator and the DIO recognises the need for MOD assessment of potential impacts on the identified military assets, appropriately informed through the provision of detailed Project design information. On undertaking its own assessment of the Project proposals, the MoD confirmed it had no safeguarding concerns regarding the WFS aerodrome. Following minor design changes, National Grid is seeking the reconfirmation of this position.

7.3.193 In relation to potential impacts on the STAR NG and East 2 WAM technical assets, National Grid is awaiting the outcome of MOD technical and operational assessments. With respect to the confirmed impact of the Project as an obstacle

within LFAs 5 and 10, the DIO has advised that the MOD will require a condition to any consent issued to ensure that sufficient data is submitted for Project structures to be accurately charted to enable deconfliction with military aviation. National Grid has confirmed to the DIO that it intends to support this requirement. National Grid is developing Statements of Common Ground with both the DIO and WFS, which it intends to submit during Examination.

7.3.194 National Grid has consulted NATS who have confirmed that their assets would not be impacted by the Project.

7.3.195 Consultation with the Met Office identified the proposed alignment of the Project would infringe the safeguarding zone of a new meteorological radar (currently under construction) within the vicinity of Old Buckenham. National Grid's sharing of detailed design information enabled the Met Office's subsequent assessment of potential impacts and consideration of reasonable mitigations.

7.3.196 With specific regard to Paragraph 5.5.41 of NPS EN-1 National Grid's Aviation Impact Assessments (reported in the Summary of Aviation Impact (document reference 6.15.A2) (Revision C)) have taken into account factors including bird strike risk and building induced turbulence. Thermal Plume Turbulence is not considered to be a relevant factor to the Project.

7.3.197 In relation to bird strike risk, it is considered that the bird species of greatest risk are larger wetland species such swans, geese, ducks and waders. The Project overhead line alignment is not assessed likely to attract greater numbers of these species as they are not species that will roost or nest on the lines or pylons. Furthermore, wetland creation is not proposed within the Project. No significant change in the current baseline numbers of these species is expected as a result.

7.3.198 Bird species such as pigeons, corvids, starlings (and other passerines / near-passerines) will roost on the lines, sometimes in large flocks. It is assessed that the overhead lines will not draw these birds in from a wider area, rather provide an alternative roost site. Therefore, no change in the current baseline numbers of these birds is expected.

7.3.199 It is recognised that occasional bird of prey could nest on pylons, and so the proposed pylons may attract these birds to the area as they provide a nesting opportunity that would otherwise be absent.

7.3.200 However, nesting raptors have fairly big territories and so large numbers of birds won't be attracted, just the occasional breeding pair. The likelihood of an aircraft bird strike as a result of the Project overhead line alignment is assessed to be very low, for the reasons given. Mitigation of residual risk is achievable (through the use of bird diverters, for example) for aerodrome operators who have residual concerns. The use and locations of bird diverters are identified in ES Chapter 8: Ecology and Biodiversity (document reference 6.8) (Revision C) and the outline LEMP (document reference 7.4) (Revision G).

7.3.201 It is not considered that the Project overhead line alignment will increase the risk of wind turbulence for aircraft on approach or departure from any of the potentially affected aerodromes. Buildings at or near airfields can, in certain circumstances, produce wind turbulence which can impact on flight operations, particularly for smaller aircraft types. At the airfields assessed, however, the overhead line would be at a sufficient distance from the flight paths and the structural nature and surfaces of the overhead line infrastructure including pylons are such that wind vortices would not be generated that could impose a threat to aircraft safety.

7.3.202 In reaching a decision on an application paragraph 5.5.60 of NPS EN-1 requires that the Secretary of States be satisfied that the impacts of proposed energy developments do not present risks to national security and physical safety. It is considered that the assessment undertaken by National Grid demonstrates that this requirement has been satisfied.

Dust, Odour, Artificial Light, Smoke, Steam and Insect Infestation (NPS EN-1 Section 5.7)

National Planning Policy

7.3.203 Section 5.7 of NPS EN-1 (DESNZ, 2024a) sets out policy in relation to dust, odour, artificial light, smoke, steam and insect infestation relating to the Project. NPS EN-1 identifies the potential for the release of a range of emissions such as odour, dust, steam, smoke, artificial light and infestation of insects during the construction, operation and decommissioning of energy infrastructure. Paragraphs 5.7.5 and 5.7.6 consider that '*The applicant should assess the potential for* [these emissions] *to have a detrimental impact on amenity as part of the ES. In particular, the assessment provided by the applicant should describe:*

- *the type, quantity and timing of emissions*
- *aspects of the development which may give rise to emissions*
- *premises or locations that may be affected by the emissions*
- *effects of the emission on identified premises or locations*
- *measures to be employed in preventing or mitigating the emissions'*.

Local Planning Policy

7.3.204 The South Norfolk Local Plan, Development Management Policies Document includes Policy 3.13 (Amenity, noise and quality of life) which requires development to ensure a reasonable standard of amenity reflecting the character of the local area. The Babergh and Mid Suffolk Joint Local Plan Policy LP24 (Design and Residential Amenity) and Tendring Local Plan Section 2 Policy SPL3 (Sustainable Design) set out similar requirements seeking to protect amenity. In all cases particular regard will be paid to avoiding the introduction of incompatible neighbouring uses in terms of noise, odour, vibration, air, dusts, insects, artificial light pollution and other such nuisances.

Assessment

Dust

7.3.205 An assessment of air quality effects has been undertaken to determine where the Project may have adverse effects on air quality. This assessment is presented in ES Chapter 7: Air Quality (document reference 6.7) (Revision B). The assessment considered temporary air quality effects during construction arising from dust, traffic emissions and generator and NRMM emissions.

7.3.206 The construction effects have been assessed following the Institute of Air Quality Management (IAQM) methodology (IAQM, 2024). The individual construction dust risk assessments for each Project Section can be found in Appendix 7.3: Air Quality Assessment Results (document reference 6.7.A3) (Revision B).

7.3.207 Without applying mitigation measures, there would be the potential for significant effects. However, proposed standard mitigation measures for high-risk sites are set out in the Outline CoCP (document reference 7.2) (Revision G). Following the implementation of the proposed standard mitigation measures, the effects of construction on dust soiling, human health and ecological effects, are anticipated to be not significant, in line with IAQM guidance (IAQM, 2024).

Artificial Light

7.3.208 The proposed lighting requirements for the Project are described in ES Chapter 4: Project Description (document reference 6.4) (Revision B) and subject to assessment in ES Chapter 8: Ecology and Biodiversity (document reference 6.8) (Revision C) and Chapter 13: Landscape and Visual (document reference 6.13) (Revision B). The following lighting details are assumed:

- Exterior and interior lighting would be provided at the site to allow for safe movement and the operation of equipment. All lighting would be designed in accordance with the appropriate design standards and be motion-sensor activated
- A typical construction day would consist of 12 hours. In winter this would require working in the dark at either end of the day. For the purposes of the ES (Volume 6 of the DCO application), it is therefore assumed that winter working would require lighting at certain sites but this would not apply Project-wide.

7.3.209 The Project will employ standard mitigation measures to reduce potential adverse effects arising from temporary and permanent lighting. The Outline CoCP (document reference 7.2) (Revision G) includes the following mitigation measures:

- Reference B06: Lighting used for construction must be switched off when not in use and positioned to minimise spill on to adjacent land or retained vegetation. Lighting should be directional, away from biodiversity receptors and kept to a minimum so that the surrounding landscape remains unlit. All lighting (i.e., construction and operation) will also be designed following the joint guidance provided by the Institution of Lighting Professionals and Bat Conservation Trust. The lighting design will account for the potential effects on ecology by taking measures to minimise lighting usage, minimise light spill, use most appropriate wave lengths of light and locate lighting in the most appropriate locations to decrease the potential displacement effects on the natural environment and light sensitive fauna such as bats
- Reference GG26: Construction lighting will be of the lowest luminosity to safely perform each task and include motion sensors or be switched off when not in use where it is safe and efficient to do so. Permanent lighting (where required) will be designed, positioned, and directed to reduce the intrusion into adjacent properties, protected species, and habitats. Task -specific lighting will be directed to reduce intrusion so far as is reasonably practicable and considered by all necessary specialists.

7.3.210 No residual significant effects in respect of lighting are expected during the construction and operational phase of the Project.

Steam, Insect Infestation and Odour

7.3.211 As reported in the Statement of Statutory Nuisance (document reference 5.4), the Project is not anticipated to generate steam, smell or other effluvia which could cause a nuisance or be prejudicial to health during construction or operation. It is not anticipated that the Project would result in any insect infestation.

7.3.212 The Outline CoCP provides the preliminary framework for the principles and procedures that the Main Works Contractor(s) must implement to minimise, manage and mitigate the potential environmental impacts of construction works associated with the Project. The outline management plan will be fully developed based on detailed design information to be provided by the Main Works Contractor(s). The final version will be submitted for approval in accordance with Requirement 4 (construction management plans) of the draft DCO (document reference 3.1) (Revision G) prior to commencement of development. The implementation of the Project in accordance with the Outline CoCP (document reference 7.2) (Revision G). No significant effects in respect to odour, dust, artificial light steam, smoke are expected during the operational phase of the Project. The Project is considered to be in accordance with policies contained in Section 5.7 of NPS EN-1 (DESNZ, 2024a) and relevant local planning policies.

Flood Risk (NPS EN-1 Section 5.8)

National Planning Policy

7.3.213 Section 5.8 of NPS EN-1 (DESNZ, 2024a) sets out NPS flood risk policy.

7.3.214 NPS EN-1 (DESNZ, 2024a) Paragraph 5.8.7 states that *'Where new energy infrastructure is, exceptionally, necessary in flood risk areas (for example where there are no reasonably available sites in areas at lower risk), policy aims to make it safe for its lifetime without increasing flood risk elsewhere and, where possible, by reducing flood risk overall. It should also be designed and constructed to remain operational in times of flood'*.

7.3.215 Paragraph 5.8.13 states that '*A site-specific flood risk assessment should be provided for all energy projects in Flood Zones 2 and 3… In Flood Zone 1, an assessment should accompany all proposals involving:*

- *site of 1 hectare or more*
- *land which has been identified by the EA or NRW as having critical drainage problems*
- *land identified (for example in a local authority strategic flood risk assessment) as being at increased flood risk in future*
- *land that may be subject to other sources of flooding (for example surface water)*
- *where the EA or NRW, Lead Local Flood Authority, Internal Drainage Board or other body have indicated that there may be drainage problems'.*

7.3.216 Paragraph 5.8.36 states that '*In determining an application for development consent, the Secretary of State should be satisfied that where relevant:*

- *the application is supported by an appropriate FRA*
- *the Sequential Test has been applied and satisfied as part of site selection*

- *a sequential approach has been applied at the site level to minimise risk by directing the most vulnerable uses to areas of lowest flood risk*
- *the proposal is in line with any relevant national and local flood risk management strategy*
- *SuDS (as required in the next paragraph on National Standards) have been used unless there is clear evidence that their use would be inappropriate*
- *in flood risk areas the project is designed and constructed to remain safe and operational during its lifetime, without increasing flood risk elsewhere*
- *the project includes safe access and escape routes where required, as part of an agreed emergency plan, and that any residual risk can be safely managed over the lifetime of the development*
- *land that is likely to be needed for present or future flood risk management infrastructure has been appropriately safeguarded from development to the extent that development would not prevent or hinder its construction, operation or maintenance'.*

7.3.217 NPS EN-1 (DESNZ, 2024a) paragraph 5.8.41 states that that essential energy infrastructure within flood zone 3b *'should only be consented if the development will not result in a net loss of floodplain storage and will not impede water flows'*.

7.3.218 NPS EN-5 (DESNZ, 2024b) reiterates the requirements set out in NPS EN-1 (DESNZ, 2024a), detailed above. Paragraph 2.3.2 of NPS EN-5 states that the resilience of projects to climate change should be assessed and the policy states that an FRA should be prepared. The PPG (MHCLG, 2016) flood risk and coastal change section should also be considered with respect to the preparation of the FRA.

7.3.219 Paragraph 170 of the NPPF states that inappropriate development in areas at risk of flooding should be avoided by directing development away from areas at highest risk. Paragraph 173 identifies the requirement to apply a sequential risk-based approach should also be taken to individual applications in areas known to be at risk now or in future from any form of flooding. Paragraph 174 states that '*Development should not be allocated or permitted if there are reasonably available sites appropriate for the proposed development in areas with a lower risk of flooding*.' Having applied the sequential test, if it is not possible for development to be located in areas at lower risk of flooding then a proposal should be subject to an Exception Test. Paragraph 178 sets out that to pass the Exception Test, both of the following elements should be satisfied: '*a) the development would provide wider sustainability benefits to the community that outweigh the flood risk; and b) the development will be safe for its lifetime taking account of the vulnerability of its users, without increasing flood risk elsewhere, and, where possible, will reduce flood risk overall*.'

Local Planning Policy

7.3.220 The National Policy requirements with regard to flood risk are replicated at a local level through policies including South Norfolk Development Management Policies DM4.2 (Sustainable Drainage and Water Management), Babergh and Mid Suffolk Joint Local Plan Policy LP27 (Flood Risk and Vulnerability), Colchester Local Plan Section 1 Policy ENV3 (Green Infrastructure), and Section 2 Policy DM23 (Flood Risk and Water Management, Tendring Local Plan Section 2, Policies SPL3 (Sustainable Design) and PPL1 (Development and Flood Risk), Braintree Local Plan Section 1 Policies LPP74 (Flooding Risk and Surface Water Drainage) LPP75

(Surface Water Management Plans) and LPP 76 (Sustainable Urban Drainage Systems), Chelmsford Local Plan Strategic Policies S1 (Spatial Principles) and S2 (Addressing Climate Change and Flood Risk), Policy DM18 (Flooding/SuDS), Brentwood Local Plan Policies BE05 (Sustainable Drainage) and Strategic Policy NE09 (Flood Risk) and Thurrock Core Strategy Policies for Management of Development Policies CSTP27 (Management and Reduction of Flood Risk) and PMD15 (Flood Risk Assessment).

Assessment

7.3.221 The FRA (document reference 7.9) assesses flood risk from fluvial, pluvial (surface water) coastal, tidal and groundwater flood risk. Flooding from sewers, reservoirs and other artificial sources were scoped out of the assessment in agreement with the Planning Inspectorate following a screening activity that was undertaken. The FRA Screening Report, forming Appendix 12.1 of Volume 3 of the Preliminary Environmental Information Report (National Grid, April 2024) was shared with the Environment Agency and Lead Local Flood Authorities who were satisfied with its conclusion that these sources of flood risk could be scoped out.

7.3.222 The FRA describes how the risk of flooding has been avoided when situating vulnerable infrastructure, and for other less vulnerable components, how flood risk would be managed through appropriate design, and the control and management measures that are proposed to reduce any potential residual impacts associated with the Project which are secured via the Outline CoCP (document reference 7.2) (Revision G).

7.3.223 Flood risk to and arising from the Project during construction has been assessed and the following points have been concluded:

- A sequential approach has been taken to siting infrastructure for the Project, particularly those elements that are vulnerable to inundation. The proposed temporary construction compounds and CSE compounds are located in Flood Zone 1, with one exception concerning a CSE compound site at Wenham Grove that is partially situated in Flood Zone 3 in the updated flood mapping dataset. However, this CSE would be situated within the defined LoDs to avoid Flood Zone 3, as secured by commitment W19 within the Outline Code of CoCP (document reference 7.2) (Revision G)
- All of the proposed new substations and extensions to existing substations are located in Flood Zone 1
- Due to its linear nature and the geographical extent of the Project, some components, namely pylons, must necessarily be located in areas with a medium and high risk of flooding (Flood Zones 2 and 3). The Exception Test is therefore triggered and the FRA (document reference 7.9) and this Planning Statement provides the evidence of how the Project passes this test
- The majority of the Project is at low risk of fluvial flooding. Locally higher risks, particularly to temporary works within main river floodplains, would be reduced through embedded and good practice measures which include managing these worksites in accordance with a Flood Warning and Evacuation Plan (Appendix G of the Outline CoCP (document reference 7.2) (Revision G)). These measures would protect construction workers, limit damages to construction equipment and materials and also limit any impacts of the Project on fluvial flood risk

- As there would be no works within the inter-tidal zone and only limited works in the tidally dominated floodplain (associated with the removal of an existing overhead line), the Project is not anticipated to increase tidal/coastal flood risk during construction. Appropriate measures for managing the residual risk associated with the overhead line removal works in the tidally dominated floodplain of the River Stour have been incorporated into the Flood Warning and Evacuation Plan (Appendix G of the Outline CoCP (document reference 7.2) (Revision G))
- With respect to surface water flooding, during construction and operation, the Project is considered to be largely at low risk, with some areas at higher risk. Measures would be in place to manage surface water runoff and minimise impacts on the land drainage regime across the Project, including allowances for climate change resilience within the designs of operational SuDS
- During construction the Project is considered to be at low risk of flooding from groundwater and is not anticipated to increase flood risk from this source
- During its operational phase, the Project is considered to be at low risk of flooding from all sources assessed in this FRA due to the mitigation measures built into its design. The Project is not anticipated to increase flood risk elsewhere during its operation as any losses of floodplain storage would be compensated for, and additional surface water runoff would be managed in line with national and local requirements. Further detail on the proposals for compensatory storage and surface water drainage design have been included in this FRA.

7.3.224 The works required and associated flood risks during eventual decommissioning would be similar, subject to any climate change impacts. It has been concluded that more stringent mitigation could be implemented to address the risks associated with such future works, to be identified through an appropriate assessment to be undertaken the time. It is not anticipated that there would be any insurmountable flood risk obstacles to decommissioning that could not be overcome.

Sequential Test

7.3.225 The application of the Sequential Test is set out in Paragraph 5.8.21 of NPS EN-1 (DESNZ, 2024a) which explains that the Sequential Test ensures that '*a sequential and risk based approach is followed to steer new development to areas with the lowest risk of flooding, taking all sources of flood risk and climate change into account'*. It continues that where it is not possible to use low risk areas, the Sequential Test should go on to compare reasonably available sites with medium risk areas and then, only where there are no reasonably available sites in low and medium risk areas, within high-risk areas.

7.3.226 Paragraph 5.8.16 of NPS EN-1 (DESNZ, 2024a) notes that further guidance on flood risk can be found in the NPPF (MHCLG, 2025). At paragraph 175 the NPPF contains similar flood risk policies to NPS EN-1, explaining that *'the sequential test should be used in areas known to be at risk now or in the future from any form of flooding, except in situations where a site-specific flood risk assessment demonstrates that no built development within the site boundary, including access or escape routes, land raising or other potentially vulnerable elements, would be located on an area that would be at risk of flooding from any source, now and in the future (having regard to potential changes in flood risk)'.*

7.3.227 The Project, being a NSIP for energy transmission, is classed as essential infrastructure. Development is appropriate for essential infrastructure in Flood Zones 1 and 2. Where the development is located in Flood Zone 3, application of the Exception Test is required.

7.3.228 The Sequential Test encourages the location of new development in areas at low risk of flooding, the analysis contained within the Flood Risk Assessment (document reference 7.9) demonstrates that the majority of the Project lies within Flood Zone 1 and in zones that are at low risk of flooding from other sources. This has been achieved through an iterative process of design informed by detailed routeing and siting studies and stakeholder feedback. However, given the linear nature of the Project and its large geographical scale, avoidance of all areas of fluvial floodplain and areas at risk of surface water flooding is not practicable and therefore no suitable alternative sites are available for the parts of the Project in higher flood risk areas. Works in these areas however are largely temporary, associated with construction of the Project, and during its operation (and maintenance) are limited to a small number of pylons in the fluvial floodplain (that are of low vulnerability to inundation) and areas at risk of surface water flooding on some localised reaches of permanent routes of access.

7.3.229 The Exception Test is therefore triggered and this is reported below.

Exception Test

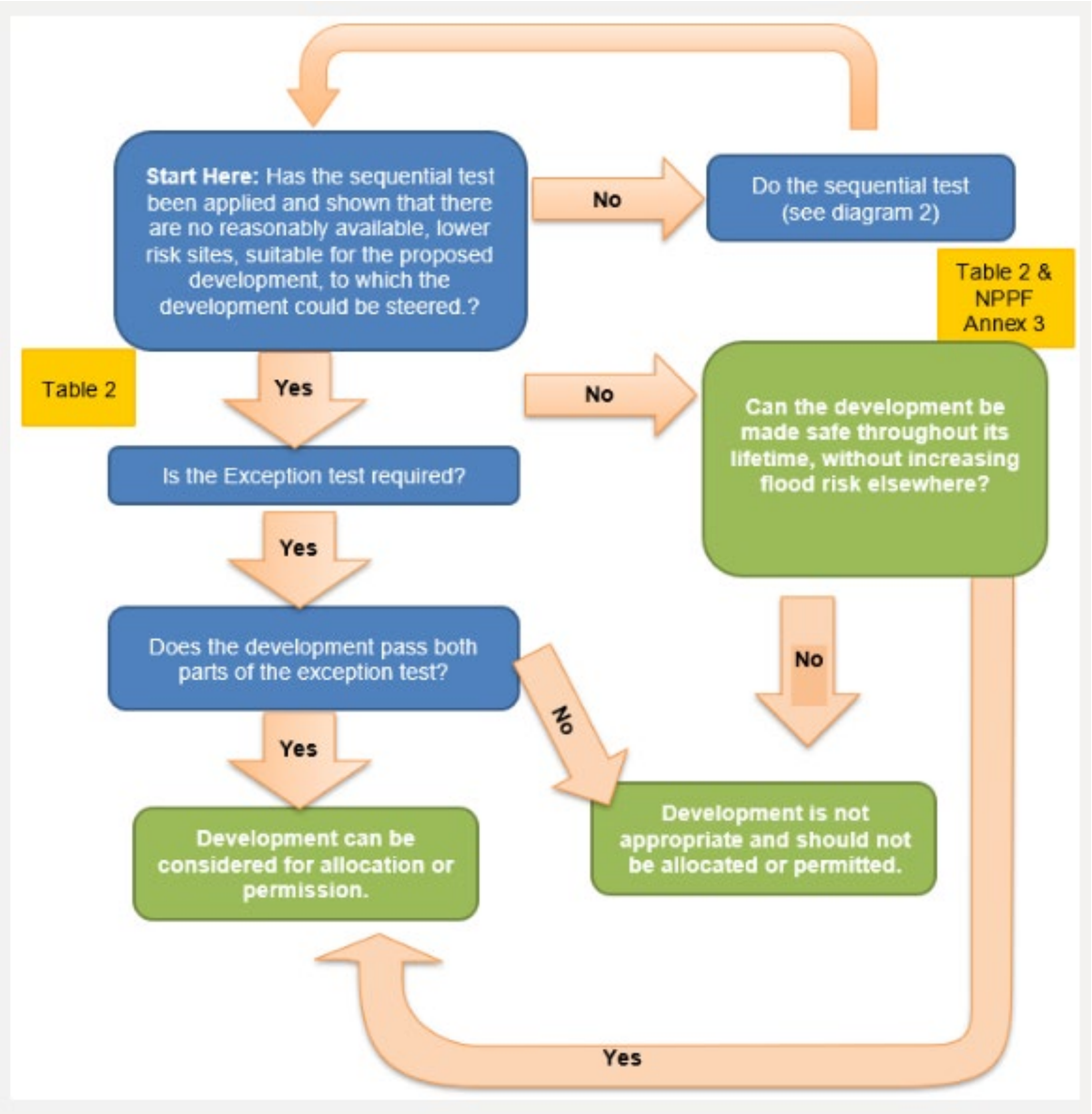
7.3.230 Paragraph 5.8.9 of NPS EN-1 (DESNZ, 2024a) (DESNZ, 2024a) introduces the Exception Test, stating *'If, following application of the Sequential Test, it is not possible, (taking into account wider sustainable development objectives), for the project to be located in areas of lower flood risk the Exception Test can be applied'*. This paragraph contains a footnote (214) referencing the PPG flood risk section (paragraph 031 Reference ID 7- 031-20220825) providing guidance on what the Exception Test consists of, and how it is intended to be applied.

7.3.231 The NPPF (MHCLG, 2025) reiterates the above guidance in relation to the Exception Test. Annex 3 of the NPPF identifies essential utility infrastructure such as electricity distribution systems as *'essential infrastructure'*. Table 2: Flood risk vulnerability and flood zone *'incompatibility'* of the PPG (paragraph 079) sets out that where essential infrastructure is located within Flood Zone 3a or 3b, and the sequential test has not been passed, an Exception Test is required.

7.3.232 To satisfy planning requirements, an Exception Test is required to prove:

- The development provides wider sustainability benefits to the community, that outweigh flood risk
- The development will be safe for its lifetime, taking account of the vulnerability of its users, without increasing flood risk overall.

Image 7.2 Exception Test



7.3.233 An exception test has been produced, and this is presented in the FRA (document reference 7.9). In response to the first part of the Exception Test the need for the Project is explained in the Strategic Options Back Check and Review Report (document reference 7.17) and summarised in Chapter 4 of this Planning Statement.

7.3.234 With regard to the first part of the test, the Project is an NSIP that would play an important role in delivering renewable electricity, reliably and safely and will support the UK's move towards net zero. The Project is identified as CNP Infrastructure.

7.3.235 With regard to the second test, the permanent works associated with the Project which are within Flood Zone 3 are restricted to a small number of pylons for the overhead lines and a partial area of the Little Wenham CSE compound. These elements would be designed such that they are resilient to flooding, ensuring the Project would be safe and could continue to operate during flood event. A suite of measures would be adopted to prevent flood risk increases during construction and operation of the Project. Temporary worksites in floodplains would operate in accordance with the protocols detailed in a Flood Warning and Evacuation Plan (Appendix G of the Outline CoCP (document reference 7.2) (Revision G), to safeguard construction personnel and prevent flood damage to construction equipment and materials.

7.3.236 In conclusion, the FRA demonstrates that the requirements of NPS EN-1 (DESNZ, 2024a), NPS EN-5 (DESNZ, 2024b) and the NPPF (MHCLG, 2025) and its associated PPG (MHCLG, 2016) and relevant local plan policies with respect to flood risk have been met, and the flood risk management measures identified would be secured through the Requirements of the DCO if approved. It can also be concluded that there would be no new or different impacts associated with the design scenarios set out in ES Chapter 4: Project Description (document reference 6.4) (Revision B), including in scenarios where the Project interacts with other development schemes.

Historic Environment

National Planning Policy

7.3.237 Section 5.9 of NPS EN-1 (DESNZ, 2024a) sets out NPS policy relating to the Historic Environment; and noting that the construction, operation and decommissioning of energy infrastructure has the potential to result in adverse impacts on the historic environment. Adverse impacts to the historic environment are addressed in ES Chapter 11: Historic Environment (document reference 6.11) (Revision D).

7.3.238 Paragraph 5.9.1 of NPS EN-1 states that *'The construction, operation and decommissioning of energy infrastructure has the potential to result in adverse impacts on the historic environment above, at and below the surface of the ground'*. Paragraph 5.9.2 of NPS EN-1 defines the historic environment as including, *'all aspects of the environment resulting from the interaction between people and places through time, including all surviving physical remains of past human activity, whether visible, buried or submerged, landscaped and planted or managed flora.'*

7.3.239 Paragraph 5.9.3 of NPS EN-1 sets out the different types of heritage assets and states *'the sum of the heritage interests that a heritage asset holds is referred to as its significance'* this also includes the setting within which the heritage asset is located. Paragraph 5.9.4 outlines the different types of designated heritage assets, which are those with *'a level of significance that justifies official designation'*, while paragraph 5.9.5 sets out that heritage assets may not currently be designated but are *'demonstrated to be of equivalent significant to designated heritage assets of the highest significance'*. These non-designated heritage assets are required to be considered subject to the policies for those that are designated. Paragraph 5.9.7 of NPS EN-1 requires the SoS to consider the impacts of development on other non-designated heritage assets.

7.3.240 Paragraph 5.9.9 of NPS EN-1 requires the applicant to *'undertake an assessment of any likely significant heritage impacts of the proposed development as part of the EIA, and describe these along with how the mitigation hierarchy has been applied in the ES. This should include consideration of heritage assets above, at, and below the surface of the ground. Consideration will also need to be given to the possible impacts, including cumulative, on the wider historic environment. The assessment should include reference to any historic landscape or seascape character assessment and associated studies as a means of assessing impacts relevant to the proposed project.'*

7.3.241 Paragraph 5.9.10 requires the applicant to *'provide a description of the significance of the heritage assets affected by the proposed development, including any contribution made by their setting. The level of detail should be proportionate to the importance of the heritage assets and no more than is sufficient to understand the potential impact of the proposal on their significance.'*

7.3.242 Paragraph 5.9.17 of NPS EN-1 states *'Where the loss of the whole or part of a heritage asset's significance is justified, the Secretary of State will require the applicant to record and advance understanding of the significance of the heritage asset before it is lost (wholly or in part)'*, this should be proportionate to the asset's significance and the impact to the asset.

7.3.243 Paragraph 5.9.27 of NPS EN-1 states that '*When considering the impact of a proposed development on the significance of a designated heritage asset, the Secretary of State should give great weight to the asset's conservation. The more important the asset, the greater the weight should be. This is irrespective of whether any potential harm amounts to substantial harm, total loss, or less than substantial harm to its significance'*.

7.3.244 Paragraph 5.9.28 of NPS EN-1 states *'any harm or loss of significance affecting any designated heritage asset (from its alteration or destruction, or from development within its setting) should require clear and convincing justification'*.

7.3.245 Paragraph 5.9.29 of NPS EN-1 states: *'Substantial harm to or loss of significance of a grade II Listed Building or a grade II Registered Park or Garden should be exceptional'*.

7.3.246 Paragraph 5.9.30 of NPS EN-1 states that *'Substantial harm or loss of significance of assets of the highest significance, including Scheduled Monuments, Protected Wreck Sites, Registered Battlefields; grade I and II* Listed Buildings; grade I and II* Registered Park and Gardens; and World Heritage Sites, should be wholly exceptional.'*

7.3.247 Regarding decision making, in cases where substantial harm to a heritage asset would result, NPS EN-1 (DESNZ, 2024a) paragraph 5.9.31 explains that: '*Where the proposed development will lead to substantial harm to (or total loss of significance of) a designated heritage asset the Secretary of State should refuse consent unless it can be demonstrated that the substantial harm to, or loss of, significance is necessary to achieve substantial public benefits that outweigh that harm or loss*'.

7.3.248 In cases where harm is less than substantial, NPS EN-1 (DESNZ, 2024a) paragraph 5.9.32 establishes a lower threshold for the need to demonstrate that the benefits of the Proposed Development outweigh impacts on a designated heritage asset, stating that '*where the proposed development will lead to less than substantial harm to the significance of the designated heritage asset, this harm should be weighed against the public benefits of the proposal*…'.

7.3.249 Paragraph 5.9.33 of NPS EN-1 states that '*in weighing applications that directly or indirectly affect non-designated heritage assets, a balanced judgement will be required having regard to the scale of any harm or loss and the significance of the heritage asset*'.

7.3.250 Paragraph 4.2.16 of NPS EN-1 discusses how the SoS will consider the balance of benefits and impacts in relation to CNP infrastructure (such as the Proposed Development) where the NPS (or any other planning policy) requires an outweighing of harm. This states that where residual impacts remain after the mitigation hierarchy

has been applied, in all but the most exceptional circumstances the residual impacts will be outweighed by the urgent need for CNP infrastructure, and therefore '…*the Secretary of State will take as the starting point for decision making that such infrastructure is to be treated as if it has met any tests which are set out within the NPSs, or any other planning policy, which requires a clear outweighing of harm, exceptionality or very special circumstances'.*

7.3.251 Paragraph 4.2.17 of NPS EN-1 follows this by providing a non-exhaustive list of policy tests that the SoS will consider the need case for CNP infrastructure satisfies. This includes the requirement for the substantial public benefits of a project to outweigh substantial harm or loss of a heritage asset. It states that (with emphasis added): '…*the Secretary of State will take as a starting point that CNP Infrastructure will meet the following, non-exhaustive, list of tests* (which includes) ***where substantial harm to or loss of significance to heritage assets should be exceptional or wholly exceptional***'.

7.3.252 Given that the need case for, and public benefits of, CNP infrastructure is taken as a starting point as being sufficient to outweigh substantial harm to a heritage asset, and noting that the list of policy tests in NPS EN-1 paragraph 4.2.17 is not exhaustive, it can be inferred that the need case for, and public benefits of, CNP infrastructure can also (and to an even greater degree) outweigh impacts on the significance of a heritage asset that amount to less than substantial harm.

7.3.253 NPS EN-5 (DESNZ, 2024b) provides limited guidance in relation to heritage. The references to cultural heritage or the historic environment are firstly in Paragraph 2.9.19 in summary of the Horlock Rules, which states '… *applicants should: … seek to avoid altogether internationally and nationally designated areas of the highest amenity, cultural or scientific value by the overall planning of the system connections'*. This is defined in footnote 21 as *'Internationally and nationally designated areas of highest amenity, cultural or scientific value are: National Parks; Areas of Outstanding Natural Beauty; Heritage Coasts; World Heritage Sites; Ramsar Sites; Sites of Special Scientific Interest; National Nature Reserves; Special Protection Areas; Special Areas of Conservation. Care should be taken in relation to all historic sites with statutory protection e.g. Ancient Monuments, Battlefields and Listed Buildings'*.

7.3.254 Secondly, at paragraph 2.9.25, in relation to underground options, states '*the Secretary of State should only grant development consent for underground or subsea sections of a proposed line over an overhead alternative if they are satisfied that the benefits accruing from the former proposal clearly outweigh any extra economic, social, or environments impacts that it presents … and that any technical obstacles associated with it are surmountable. In this context it should consider: …designated heritage assets and Heritage Coasts (including, where relevant, impacts on the setting of designated features and areas)… the potentially very disruptive effects of undergrounding on local communities, habitats, archaeological and heritage sites…*'.

7.3.255 Like NPS EN-1 (DESNZ, 2024a), the NPPF (MHCLG, 2025) requires an assessment of harm to the significance of heritage (paragraphs 212-216 (inclusive)) assets affected by a proposed scheme. Both NPS EN-1 and NPPF categorise the level of harm into 'substantial' and 'less than substantial'.

7.3.256 The PPG (MHCLG, 2016) provides further advice and guidance that expands the policy outlined in the NPPF. It expands on terms such as 'significance' and its importance in decision making. The PPG clarifies that being able to properly assess the nature, extent and the importance of the significance of the heritage asset and the contribution of its setting, is crucial to understanding the potential impact and acceptability of development proposals (Paragraph: 007 Reference ID: 18a-007-20190723).

7.3.257 The PPG (MHCLG, 2016) states that, in relation to setting, a thorough assessment of the impact on setting needs to take in to account, and be proportionate to, the significance of the heritage asset under consideration and the degree to which proposed changes enhance or detract from that significance and the ability to appreciate it (paragraph 013; Reference ID: 18a-013-20190723).

7.3.258 The PPG discusses how to assess if there is substantial harm. It states that what matters in assessing if a proposal causes substantial harm is the impact on the significance (value) of the asset. It is the degree of harm to the asset's significance (value) rather than the scale of the development that is to be assessed (paragraph 018; Reference ID: 18a-018-20190723).

7.3.259 The NPS (EN-1) and NPPF indicate that where development would result in substantial harm, it is necessary to achieve substantial public benefits that outweigh that harm. Where less that substantial harm is identified, the degree of harm should be considered alongside any public benefits that can be delivered by development. The PPG states that these benefits should flow from the proposed development and should be of a nature and scale to be of benefit to the public and not just a private benefit and would include securing the optimum viable use of an asset in support of its long-term conservation (paragraph 020; Reference ID: 18a-020-20190723).

Local Planning Policy

7.3.260 Within the Norfolk area, the Norfolk County Council Core Strategy & Waste Development Management Policies DPD Policy DM8 (Design, Local Landscape and Townscape Character), the Greater Norwich Local Plan Policy P3 (Environmental Protection and Enhancement) and the South Norfolk Development Management Policies DM 4.10 (Heritage Assets) set out the need for development proposals to enhance the built and historic environment.

7.3.261 Within Suffolk the Babergh and Mid Suffolk Joint Local Plan Policy LP19 (The Historic Environment) requires development proposals which potentially affects heritage assets to submit a heritage statement that describes the significance of any heritage asset that is affected including any contribution made by their setting. Where an application potentially affects heritage assets of archaeological interest, the heritage statement must:

- Include an appropriate desk-based assessment and, where necessary, a field evaluation by a suitably qualified person
- If relevant, demonstrate how preservation in situ of those archaeological assets can be achieved through the design of the development and safeguarding during construction.

7.3.262 Within Essex, the Policies of the Colchester Local Plan ENV 1 (Environment) and DM16 (Historic Environment), the Chelmsford Local Plan Strategic Policy S3 (Conserving and Enhancing the Historic Environment) and policies DM13 (Designated Heritage Assets) and DM14 (Non-Designated Heritage Assets), the Brentwood Local Plan Policy BE16 (Conservation and Enhancement of Historic Environment and Thurrock Core Strategy and Policies for Management of Development Policy CSSP24 (Heritage Assets and the Historic Environment) and PMD4 (Historic Environment), the Tendring District Local Plan Policy SP7 (Place Shaping Principles) and the Braintree District Local plan policies LPP47 (Built and Historic Environment), Policy LPP53 (conservation Areas) and Policy LPP57 (Heritage Assets and their Setting) reiterate the requirement to conserve and where appropriate enhance the historic environment.

7.3.263 The requirement for archaeological evaluation in areas where archaeological remains may be at risk from development is addressed in policies including the Tendring Local Plan Policy PP7 (Archaeology), Chelmsford Local Plan DM15 (Archaeology) and Braintree LPP59 (Archaeological Evaluation, Excavation and Recording).

Assessment

7.3.264 ES Chapter 11 Historic Environment (document reference 6.11) (Revision D) presents the assessment of the likely significant cultural heritage effects that could result from the Project. This includes a description of the heritage assets and the contribution of their setting to their significance. The ES chapter is supported by the following appendices:

- Appendix 11.1: Historic Environment Baseline Report (document reference 6.11.A1) (Revision C)
- Appendix 11.2: Historic Environment Assessment Tables (document reference 6.11.A2) (Revision D)
- Appendix 11.3: EACN Substation Geophysical Survey Report (document reference 6.11.A3)
- Appendix 11.4: Geophysical Survey Results Report (document reference 6.11.A4) (Revision D)
- Appendix 11.5: Trial Trenching Results Report (document reference 6.11.A5) (Revision C)
- Appendix 11.6: Geoarchaeological and Archaeological Monitoring of Ground Investigation Works Report (document reference 6.11.A6)
- Appendix 11.7: Assessment of Harm to Designated Heritage Assets (document reference 6.11.A7) (Revision B).

7.3.265 Environmental appraisal has been an integral part of the Project design from the outset, which has meant that the Project has been able to avoid environmentally sensitive features, including heritage assets, as far as reasonably practicable.

7.3.266 National Grid has also embedded measures into the design of the Project to avoid or reduce significant effects that may otherwise be experienced during construction and operation (and maintenance) of the Project.

7.3.267 Embedded measures are those that are intrinsic to and built into the design of the Project, which are presented in Table 4.2 in Chapter 4: Project Description (document reference 6.4) (Revision B). Embedded measures relevant to Historic Environment include:

- Sensitive routeing and siting – Avoid and reduce as far as practicable effects on identified heritage assets
- Use of low height pylons for the section of overhead line that passes between Great Waltham conservation area/Langleys Registered Park and Garden and Little Waltham conservation area, to reduce visibility of the alignment from Langleys House and more distant elements of the conservation areas and park and garden

- Underground cable – Underground cables are proposed in four locations, including through the Dedham Vale National Landscape. The Dedham Vale National Landscape is a nationally important and designated landscape. With the proposed underground cable, the effects on views and setting would be reduced. This would also reduce effects on the setting of heritage assets located within the National Landscape, although this would increase the area of potential physical impact for buried archaeology.

7.3.268 Standard mitigation measures, comprising management activities and techniques, would be implemented during construction of the Project to limit effects through adherence to good site practices and achieving legal compliance.

7.3.269 The Outline CoCP (document reference 7.2) (Revision G) is secured by Requirement 4 in the Draft DCO (document reference 3.1) (Revision G) which requires the Main Works Contractor(s) to prepare the CoCP to discharge the Requirement.

7.3.270 There are also additional mitigation measures over and above any embedded and standard mitigation measures, for which this Historic Environment assessment has identified a requirement to further reduce significant environmental effects.

7.3.271 As a result of the assessment within this ES, as defined in Section 11.7, the following additional mitigation is required:

- Archaeological mitigation which is specified through an Outline AMS-OWSI (document reference 7.5) (Revision C).

7.3.272 The Outline AMS-OWSI would be secured through Requirement 5 in the Draft DCO (document reference 3.1) (Revision G).

Designated Assets

7.3.273 ES Appendix 11.1: Historic Environment Baseline Report (document reference 6.11.A1) (Revision C) provides a detailed overview of the heritage assets within the defined Historic Environment Study Area (including the order limits) for Sections A-H (inclusive) and a discussion of the prehistoric and historic development of the landscape within each Section. The Historic Environment Baseline Report has established that there would be no impact on the majority of designated assets as their settings do not extend to the Order Limits, with the exception of those which are shown on Figure 11.2: Designated Heritage Assets Assessed in the ES Chapter (document reference 6.11.F2) (Revision B).

7.3.274 The assessment of the effects on designated assets is reported in ES Chapter 11: Historic Environment (document reference 6.11) (Revision D). Table 7.2 provides the number of designated assets which were assessed by Project Section. There are no World Heritage Sites or Registered Battlefields within Sections A-H, as such reference to these designations are excluded from Table 7.2.

Table 7.2 Designated heritage assets assessed in the ES Historic Environment Chapter

Section	SM	RPG	GI LB	GII* LB	GII LB	CA
A	1	0	4	1	39	2
B	1	0	8	4	116	2
C	3	0	3	8	55	2

Section	SM	RPG	GI LB	GII* LB	GII LB	CA
D	0	0	1	4	60	1
E	2	0	6	6	43	0
F	1	1	1	3	67	2
G	2	0	2	6	23	2
H	3	0	0	2	17	1

7.3.275 A description of each of the above designated heritage assets is provided within the baseline section of ES Chapter 11: Historic Environment (document reference 6.11) (Revision D). During construction, the Project is predicted to have a residual significant effect on a number of designated assets. The designated assets which will be subject to residual effects are identified in Section 11.7 of ES Chapter 11: Historic Environment (document reference 6.11) (Revision D) and full details of the assessment for all assets are presented in Appendix 11.2: Historic Environment Assessment Tables (document reference 6.11.A2) (Revision D). Where residual significant effects on designated assets have been identified, they have been assessed as being a high or medium adverse magnitude of impact resulting in a temporary moderate adverse significance of effect (significant) due to changes in its setting that affect its value during the construction phase of the Project.

7.3.276 The Historic Environment assessment has identified the potential for significant effects where the implementation of standard construction mitigation would benefit the historic environment but would not reduce the change in setting enough to reduce the impact. The assessment identifies predicted likely significant effects on 157 designated assets due to changes in their settings that affect their values during the construction phase of the Project. Table 7.3 quantifies the number of designated assets (by type) which would be subject to significant effects during construction.

Table 7.3 Designated heritage assets assessed as being subject to likely significant effects during construction

Section	SAM	RPG	GI LB	GII* LB	GII LB	CA
A				1	14	
B	1		3		44	
C	1			2	7	
D				4	18	1
E				3	30	
F		1			7	
G				2	11	
H	1				4	1

7.3.277 The number of designated assets assessed as having adverse significant effects reduces to 41 during the operational (and maintenance) phase of the Project. The potential for significant adverse effects is primarily due to the introduction of pylons which would be clearly visible to the designated heritage asset altering the character of their setting. Table 7.4 quantifies the number of designated assets (by type) which would be subject to significant effects during operation (and maintenance).

Table 7.4 Designated heritage assets assessed as being subject to likely significant effects during operation (and maintenance)

Section	SAM	RPG	GI LB	GII* LB	GII LB	CA
A				1	1	
B			2		9	
C					1	
D				3	8	1
E					3	
F		1			3	
G					6	
H					2	

7.3.278 As reported above, full details of the assessment for all designated (and non-designated) assets are presented in Appendix 11.2: Historic Environment Assessment Tables (document reference 6.11.A2) (Revision D).

Assessment of Substantial Harm and Less than Substantial Harm

7.3.279 An Assessment of Harm to Designated Heritage Assets is set out in ES Appendix 11.7 (document reference 6.11.A7) (Revision B) has been prepared which sets out the harm predicted upon designated heritage assets. It sets out the results of the assessment of harm to designated assets (during construction and operation (including maintenance)) in line with Paragraph 18 of the Historic Environment section of PPG (MHCLG, 2016) and compliments the assessment of cultural heritage assets conducted as part of the EIA.

7.3.280 The threshold for substantial harm can be defined on the basis of the PPG paragraph 018:

'In general terms, substantial harm is a high test, so it may not arise in many cases. For example, in determining whether works to a Listed building constitute substantial harm, an important consideration would be whether the adverse impact seriously affects a key element of its special architectural or historic interest. It is the degree of harm to the asset's significance rather than the scale of the development that is to be assessed'.

7.3.281 In EIA terms, a major (significant) effect on a designated heritage asset could be considered a guide by which to determine that the level of harm to the value of the asset would be substantial. However, as substantial harm is considered to be a high test a case-by-case assessment has been made using professional judgement. In Chapter 11: Historic Environment (document reference 6.11) (Revision D), no designated heritage asset would experience major adverse effects. The assessment contained in Appendix 11.7 (document reference 6.11.A7) (Revision B) has considered all adverse effects to designated heritage assets and concludes that none of the harm is of so considerable a scale as to be classified as substantial harm.

7.3.282 Appendix 11.7 (document reference 6.11.A7) (Revision B) therefore assesses the designated assets where some harm has been identified.

7.3.283 It is considered that any adverse effect should be considered harm in the context of NPS (EN-1) and the NPPF, and therefore only a neutral effect should be considered as indicating no harm to designated heritage assets. The assessment presented in Appendix 11.2: Historic Environment Assessment Tables (document reference 6.11.A2) (Revision D) concludes a neutral effect for some designated assets. In addition, there are a large number of designated assets that have not been taken forwards for detailed assessment, as set out in Appendix 11.1: Historic Environment Baseline Report (document reference 6.11.A1) (Revision C), due to settings not extending to the Project and consequently there being no potential for impact. Therefore, a significant number of designated heritage assets within the Study Areas for the Project would experience no harm.

7.3.284 In considering less than substantial harm the PPG (MHCLG, 2016), paragraph 18 states that:

'Within each category of harm (which category applies should be explicitly identified), the extent of the harm may vary and should be clearly articulated.'

7.3.285 In order to apply this the category of less than substantial harm has been considered in terms of three degrees of less than substantial harm, to provide nuance and scale to the assessment. 'Lower less than substantial harm' is assessed where there are slight changes within the setting of the designated asset (or elements of its setting) that contribute to its value but would be largely screened from the asset or where these changes would occur at the limit of the setting of the asset.

7.3.286 'Mid less than substantial harm' is assessed where the changes within the setting of the designated asset (or elements of its setting) that contribute to its value would be noticeable with little or no screening and would cause a change in much of the setting or the element of its setting that contribute to its value.

7.3.287 'Upper less than substantial harm' is assessed where the changes within the setting of the designated asset (or elements of its setting) that contribute to its value would significantly alter a large proportion of the setting of the asset that contributes to its value. The assessment for Appendix 11.7 (document reference 6.11.A7) (Revision B) has considered all adverse effects to designated heritage assets and concludes that none of the harm is of a scale to be classified as upper less than substantial harm. A summary table below quantifies the levels of no harm, less than substantial harm (LTSH) and mid less than substantial harm (MLTSH) which has been assessed in Appendix 11.7 (document reference 6.11.A7) (Revision B).

Table 7.5 Assessment of Less than Substantial Harm during Construction

Section	Designation	No Harm	LLTSH	MLTSH
A	Scheduled Monument		1	
	Listed Building		29	15
	Conservation Area		2	
	Registered Park and Garden			
B	Scheduled Monument			1
	Listed Building		49	42
	Conservation Area		2	
	Registered Park and Garden			
C	Scheduled Monument		2	1
	Listed Building		56	9
	Conservation Area		2	
	Registered Park and Garden			
D	Scheduled Monument			
	Listed Building		44	21
	Conservation Area			1
	Registered Park and Garden			
E	Scheduled Monument		2	
	Listed Building		19	34
	Conservation Area			
	Registered Park and Garden			
F	Scheduled Monument		1	
	Listed Building		64	7
	Conservation Area		2	
	Registered Park and Garden			1
G	Scheduled Monument		2	
	Listed Building	1	17	13
	Conservation Area		1	1
	Registered Park and Garden			
H	Scheduled Monument		3	1

Section	Designation	No Harm	LLTSH	MLTSH
	Listed Building		15	4
	Conservation Area			1
	Registered Park and Garden			

Table 7.6 Assessment of Less than Substantial Harm during Operation (and maintenance)

Section	Designation	No Harm	LLTSH	MLTSH
A	Scheduled Monument		1	
	Listed Building	1	39	4
	Conservation Area		2	
	Registered Park and Garden			
B	Scheduled Monument	1	1	
	Listed Building	26	53	12
	Conservation Area		2	
	Registered Park and Garden			
C	Scheduled Monument	1	2	
	Listed Building	35	29	1
	Conservation Area	1	1	
	Registered Park and Garden			
D	Scheduled Monument			
	Listed Building	30	24	11
	Conservation Area			1
	Registered Park and Garden			
E	Scheduled Monument		2	
	Listed Building	2	47	4
	Conservation Area			
	Registered Park and Garden			
F	Scheduled Monument		1	
	Listed Building		68	3
	Conservation Area		2	
	Registered Park and Garden			1

Section	Designation	No Harm	LLTSH	MLTSH
G	Scheduled Monument		2	
	Listed Building	1	24	6
	Conservation Area		2	
	Registered Park and Garden			
H	Scheduled Monument		4	
	Listed Building	3	14	2
	Conservation Area		1	
	Registered Park and Garden			

7.3.288 In accordance with paragraphs 5.9.19 and 5.9.28 – 5.9.31 (inclusive) of NPS EN1 (DESNZ, 2024a) and taking into account of the principles set out in NPS EN-1 paragraphs 4.2.16 and 4.2.17, the NPPF (MHCLG, 2025) and PPG (MHCLG, 2016), Chapter 11 of the ES finds that none of the harm to designated assets is of so considerable a scale as to be classified as substantial harm.

7.3.289 It is considered that the lower less than substantial harm and mid less than substantial harm quantified above and reported in Appendix 11.7 (document reference 6.11.A7) (Revision B) does equate to a loss of significance of those heritage asses.

7.3.290 Paragraphs 5.9.28 to 5.9.30 of NPS EN-1 provide that the loss of significance to designated heritage assets of highest significance should be 'wholly exceptional' and for Grade II listed buildings and registered park and gardens it should be 'exceptional'. In considering the loss of significance, it is necessary for applicants to comply with the tests in Paragraph 5.9.31 to demonstrate that:

'….loss of, significance is necessary to achieve substantial public benefits that outweigh that harm or loss….'

7.3.291 The Project Need Case is summarised in Chapter 3 of this Planning Statement. The public benefits for the Project are clear in that the Project is required to support the delivery of the Government's Net Zero target.

7.3.292 In particular, the British Energy Security Strategy (HM Government, 2022) sets targets for the connection of up to 50 GW of offshore wind by the 2030s as a key part of a strategy for secure, clean and affordable British energy for the long term.

7.3.293 The capacity of the East Anglia and South East existing network is insufficient to accommodate the connection of the proposed new power sources.

7.3.294 This need is emphasised by the analysis of the National Grid ESO (now NESO), which has recommended consecutive 'proceed' signals to new 400 kV circuits in the north and south of East Anglia, meaning that it considers the Project as essential to meet the UK Government's 2030 offshore wind targets.

7.3.295 Based upon the conclusions regarding loss of significance, it is considered that Paragraph 4.2.16 and 4.2.17 of NPS EN-1 is engaged. These paragraphs set out that the Secretary of State will take as a starting point for decision making that CNP

Infrastructure is to be treated as if it has met any tests which are set out within the NPS. This includes where substantial harm to or loss of significance to heritage assets should be exceptional or wholly exceptional.

Non-Designated Assets

7.3.296 ES Chapter 11: Historic Environment (document reference 6.11) (Revision D), the Historic Environment Baseline Report (document reference 6.11.A1) (Revision C) and Figure 11.3: Non-Designated Heritage Assets Assessed in the ES Chapter (document reference 6.11.F3) (Revision D) identify the non-designated assets of prehistoric through to modern date recorded in the respective Historic Environment Record (HER) or identified through other desk-based sources or through fieldwork, within the Project Order Limits and 250 m study area. By Project Section, this equates to:

- Section A – there are 252 non-designated assets of medium to negligible potentially impacted by the Project, including:
  - 62 miscellaneous artefact findspots
  - Two moats
  - Former parkland
  - Railway
- Section B – there are 320 non-designated assets potentially impacted by the Project, including:
  - One cropmark of a possible Neolithic long barrow
  - One site of possible Iron Age activity
  - One site of neolithic settlement activity
  - Two Roman roads
- Section C – there are 150 non-designated assets potentially impacted by the Project, including:
  - A post medieval bridge
  - Four sites with excavated archaeological remains indicative of medieval/post medieval agricultural practice
  - A canal
  - One milestone
- Section D – there are 172 non-designated heritage assets potentially impacted by the Project, including:
  - Four pillboxes
  - One WWII airfield
  - Two cropmark complexes suggestive of funerary activity
  - One earthwork dyke

- Section E – there are 107 non-designated heritage assets potentially impacted by the Project, including:
  - A record of cropmarks and limited excavation indicating settlement activity
  - Two records for excavated archaeological remains indicative of agricultural activity
  - A moated site
  - Three former parklands
  - An artefact scatter suggestive of Romano-British settlement activity
- Section F – there are 100 non-designated heritage assets potentially impacted by the Project, including:
  - Nine cropmark complexes suggestive of agricultural activity
  - Two sites of findspot scatter of various Romano-British artefacts
  - Excavated archaeological remains indicative of Romano-British settlement activity
  - A Roman road
  - Two 20th century military assets
- Section G there are 85 non-designated heritage potentially impacted by the Project, including:
  - The route of a Roman road
  - A possible deserted medieval village
  - A settlement site suggested by cropmarks
  - Three buildings
  - Two Post medieval findspots
- Section H there are 66 non-designated heritage assets potentially impacted by the Project, including:
  - WWII bombing decoy
  - The site of a former brick works
  - Two archaeological sites indicative funerary activity
  - An archaeological site indicative of ritual activity
  - An archaeological site indicative of settlement and ritual activity.

7.3.297 During construction, the Project is predicted to have a residual significant effect on 76 non-designated assets due to changes in their setting that affect their values or due to physical impacts during the construction phase of the Project. The non-designated assets which will be subject to these predicted adverse effects are identified in Section 11.7 of ES Chapter 11: Historic Environment (document reference 6.11) (Revision D). Where residual significant effects on non-designated assets have been identified, they have been assessed as being a high or medium adverse magnitude of impact resulting in a temporary moderate adverse significance of effect (significant) due to changes in its setting that affect its values during the construction phase of the Project.

7.3.298 During operation (and maintenance) phase the Project is predicted to have a significant effect on 29 non-designated heritage assets where the introduction of pylons will be visible from the asset resulting in a change in the setting of non-designated assets.

Archaeological Remains

7.3.299 In support of the DCO application, and in consultation with the archaeological advisors to the Local Planning Authorities and Historic England, certain portions of the Project were identified as 'priority areas' for archaeological evaluation fieldwork. The Priority Areas are detailed in ES Figure 11.4: Geophysical Survey and Archaeological Trial Trenching Priority Areas (document reference 6.11.F4).

7.3.300 The selection of the priority areas was based on the scale of the potential impact of the Project construction works, and the future ability for detailed design to microsite to avoid or reduce impacts to archaeology. On this basis the underground cable, CSE compounds, substations and temporary construction compound works were identified as priority areas for geophysical survey and archaeological trial trenching. For geophysical survey, HER data and analysis of aerial photography and satellite imagery undertaken by the Project also identified areas with high archaeological potential that may represent medium or high value below ground assets within the Order Limits, and these locations were also identified as priority areas.

7.3.301 The programme of geophysical survey commenced in summer 2023 and archaeological trial trenching has been ongoing since autumn 2024.

7.3.302 Results from the Geophysical Surveys are reported in ES Appendix 11.3 EACN Substation Geophysical Survey Report (document reference 6.11.A3) and Appendix 11.4: Geophysical Survey Results Report (document reference 6.11.A4) (Revision D). Details of the Trial Trenching are reported in Appendix 11.5: Trial Trenching Results Report (document reference 6.11.A5) (Revision C). A summary of the geophysical surveys and trial trenching results by Project Section are reported in ES Chapter 11: Historic Environment (document reference 6.11) (Revision D).

7.3.303 A programme of geoarchaeological and archaeological monitoring on geotechnical investigation works was undertaken to determine the potential for deposits of geoarchaeological and paleoenvironmental significance that may be impacted by development. A summary of the geoarchaeological monitoring results by Project Section are reported in ES Chapter 11: Historic Environment (document reference 6.11) (Revision D) and full details of the results, including a location figure, can be found in Appendix 11.6 Geoarchaeological and Archaeological Monitoring of Ground Investigation Works Report (document reference 6.11.A6).

Historic Landscapes

7.3.304 ES Chapter 11: Historic Environment (document reference 6.11) (Revision D) includes an assessment of the physical effects on designated historic landscapes (comprising registered parks and gardens) and non-designated historic landscapes during construction. Effects through change to setting on designated historic landscapes (comprising registered parks and gardens) are assessed for construction and operation (and maintenance).

7.3.305 Assessment of the historic landscape is included for the construction phase for all Project Sections, when impacts such as loss of features and change in land use would occur. With the implementation of mitigation as set out in the Outline CoCP

(document reference 7.2) (Revision G) and Outline LEMP (document reference 7.4) (Revision G) historic landscape features would be reinstated where possible following construction and therefore there is not expected to be any new impacts to the historic landscape during operation (and maintenance).

7.3.306 The assessment concludes that there are no impacts to historic landscapes in Sections A – H inclusive of the Project which result in significant effects.

Historic Environment Conclusion

Assessment

7.3.307 National Grid has undertaken an iterative design process which responds to policy requirements, historic environment desk-based information, published historic landscape character assessments and fieldwork analysis, in order to avoid and minimise harm to the historic environment. In accordance with the mitigation hierarchy, the Project design has been carefully considered to avoid, reduce or mitigate potentially significant adverse residual effects on designated and non-designated heritage assets.

7.3.308 Through sensitive routeing and siting National Grid has sought to avoid and reduce, as far as possible, adverse effects on identified heritage assets. National Grid is proposing to utilise low height pylons for the section of overhead line that passes between Great Waltham conservation area/ Langleys registered park and garden and Little Waltham Conservation Area, to reduce visibility of the alignment from Langleys House and more distant elements of the conservation areas and park and garden.

7.3.309 In addition, further standard mitigation measures to reduce impacts on the historic environment are contained in the Outline CoCP (document reference 7.2) (Revision G) include:

- H01: Methodology and processes for archaeological mitigation is specified through the Outline Archaeological Mitigation Strategy and Outline WSI (AMS-OWSI) (document reference 7.5) (Revision C) to be submitted with the DCO application
- H02: Detailed WSIs shall set out the arrangements and responsibilities for implementing, monitoring and auditing the mitigation measures identified in the Detailed WSIs
- H03: The location of known archaeological remains or areas where archaeological investigations will be undertaken (i.e. excavations) will be signposted/ fenced off to avoid unintentional damage
- H04: Where a previously unknown heritage asset has been discovered, or a known heritage asset has proven to be more significant than foreseen at the time of application, the Project will inform the Local Planning Authority and agree a solution that protects the significance of the new discovery, through preservation or excavation and recording, whichever is practicable within the Project construction requirements
- H05: LPA Archaeological Advisors will have access to the Project to monitor and sign-off relevant work. No construction can commence within areas identified for archaeological mitigation without sign off from the relevant LPA Archaeological Advisor

- H06: Where practicable, maintain elements within the landscape such as vegetation, hedgerows, walls and earthworks (such as boundary banks or ditches). Where such features cannot be retained, replacement will be installed as appropriate (including reinstating hedgerows, fences, walls and earthworks)
- H07: Commitment NV04 will be applied in relation to any designated historic buildings with potential to be impacted by construction vibration
- H08: Little Bromley War Memorial (1493299) and Milestone on east verge approximately 240 metres south of Harts Lane (1147792) are grade II listed buildings within the Order Limits. Measures, such as temporary fencing, will be adopted to ensure that no physical impact occurs to these designated heritage assets.

7.3.310 The Outline CoCP (document reference 7.2) (Revision G) will be secured by Requirement 4 in the DCO which will require the Main Works Contractor(s) to prepare the CoCP 'substantially in accordance with' the Outline CoCP to discharge the Requirement.

7.3.311 The Outline LEMP (document reference 7.4) (Revision G) includes measures to protect and reinstate historic landscape features including protected lanes, in addition to the commitment set out in H06 of the Outline CoCP (document reference 7.2) (Revision G).

7.3.312 Additional mitigation measures over and above any embedded and standard mitigation measures are also proposed for archaeology, which is specified through an Outline Archaeological Mitigation Strategy and Outline Written Scheme of Investigation (AMS-OWSI) (document reference 7.5) (Revision C). The Outline AMS-OWSI will be secured through Requirement 5 in the DCO.

7.3.313 In accordance with the NPS EN-1 (DESNZ, 2024a) paragraphs 5.9.32 and 5.9.33, and taking into account the principles set out in NPS EN-1 paragraphs 4.2.16 and 4.2.17, the NPPF (MHCLG, 2025) and PPG, an Assessment of Harm to Designated Heritage Assets (document reference 6.11.A7) (Revision B) has been prepared which sets out the harm predicted upon designated heritage assets.

7.3.314 Both the NPS EN-1 and NPPF require an assessment of harm to heritage significance. EN-1 and the NPPF further categorise that harm into 'substantial' and 'less than substantial'. The PPG which supports the NPPF heritage policies expects potential harm to designated heritage assets to be categorised as either less than substantial harm or substantial harm (which includes total loss) and that within each category of harm identified, the extent of the harm should be clearly articulated. ES Appendix 11.7 (document reference 6.11.A7) (Revision B) concludes that none of the harm is of so considerable a scale as to be classified as substantial harm.

7.3.315 It is considered that the lower less than substantial harm and mid less than substantial harm reported in Appendix 11.7 (document reference 6.11.A7) (Revision B) does equate to a loss of significance to heritage assets.

7.3.316 Paragraphs 5.9.28 to 5.9.30 of NPS EN-1 provide the loss of significance to designated heritage assets of highest significance should be 'wholly exceptional' and for Grade II listed buildings and registered park and gardens should be 'exceptional'. In considering the loss of significance, it is necessary for applicants to comply with the tests in Paragraph 5.9.31 to demonstrate to the SoS that the '….*loss of, significance is necessary to achieve substantial public benefits that outweigh that harm or loss*….'

7.3.317 The substantial public benefits and need for the Project, as set out in Chapter 3 of this Planning Statement, including contribution towards meeting national energy security objectives, clearly and demonstrably outweigh the less than substantial harm, at the medium and lower end of the spectrum, to the designated heritage assets. The potential for harm or loss of significance upon non-designated heritage assets affected by the Project is also clearly outweighed by the substantial public benefits and need for the Project providing the judgement required under paragraph 5.9.33 of NPS EN-1 (DESNZ, 2024a).

7.3.318 The Project does constitute CNP Infrastructure, accordingly, the SoS should consider that the Project meets the non-exhaustive list of tests set out in Paragraph 4.2.17 which includes '*where substantial harm to or loss of significance to heritage assets should be exception or wholly exceptional.'* It is considered that National Grid is able to clearly demonstrate the public benefits of the proposal.

7.3.319 Overall, the Project has followed the mitigation hierarchy in seeking to protect and conserve heritage assets where practicable, and the public benefits of the Project outweigh the less than substantial harm identified, in line with national policy. The loss of significance of heritage assets is acknowledged as being contrary to the NPPF and relevant local policies. However, it is considered that the benefits of the Project outweigh any adverse effect on heritage assets.

7.3.320 Regulation 3 of the Infrastructure Planning (Decisions) Regulations 2010 (as amended) requires regard be given to the desirability of preserving listed buildings, conservation areas and scheduled monuments and their settings where a development would affect these matters. These matters are considered above in this Planning Statement, ES Chapter 11: Historic Environment (document reference 6.11) (Revision D) and ES Appendix 11.2 Historic Environment Assessment Tables (document reference 6.11.A2) (Revision B).

Landscape and Visual

National Planning Policy

7.3.321 Section 5.10 of EN-1 (DESNZ, 2024a) sets out NPS landscape and visual policy relating to NSIPs. The assessment should include the effects of landscape components and character during construction and operation. Where a project affects a National Landscape, the assessment should include effects on the natural beauty and special qualities of these areas. Paragraph 5.10.16 of EN-1 advises that '*the applicant should carry out a landscape and visual assessment and report it in the ES'*.

7.3.322 Consideration of the Dedham Vale National Landscape and the requirement to *'seek to further the purposes'* of the National Landscape is set out in National Landscapes: Duty to Seek to Further the Purposes Report (s85 Countryside and Rights of Way Act 2000) (document reference 5.10).

7.3.323 Paragraph 5.10.5 recognises that *'Virtually all nationally significant energy infrastructure projects will have adverse effects on landscape, but there may also be beneficial landscape character impacts arising from mitigation'*. Paragraph 5.10.6 explains how projects need to be designed carefully, with regard given to the potential impact on the landscape in terms of siting, operational and other relevant constraints. It states: *'the aim should be to minimise harm to the landscape, providing reasonable mitigation where possible and appropriate'*.

7.3.324 Paragraph 5.10.12 of NPS EN-1 (DESNZ, 2024a) refers to local landscapes that may be highly valued and states that where a local development document has policies based on landscape character assessment, these should be paid particular attention. However, it is confirmed that *'locally valued landscapes should not be used in themselves to refuse consent, as this may unduly restrict acceptable development'*.

7.3.325 With regard to visual effects, NPS EN-1 (DESNZ, 2024a) paragraph 5.10.13 is clear that *'All proposed energy infrastructure is likely to have visual effects for many receptors around proposed sites'*. Paragraph 5.10.14 then goes on to state that the SoS *'will have to judge whether the visual effects on sensitive receptors such as local residents, and other receptors, such as visitors to the local area, outweigh the benefits of the project'*.

7.3.326 Paragraph 5.10.19 of NPS EN-1 (DESNZ, 2024a) sets out that applicants *'should consider landscape and visual matters in the early stages of siting and design … This will allow applicants to demonstrate in the ES how negative effects have been minimised and opportunities for creating positive benefits or enhancement have been recognised and incorporated into the design, delivery and operation of the scheme'*. Also, '*Applicants should consider how landscapes can be enhanced using landscape management plans*' (paragraph 5.10.24). Paragraph 5.10.25 sets out the benefit in providing examples of existing permitted infrastructure '*with a similar magnitude of impact on equally sensitive receptors. This may assist the Secretary of State in judging the weight they should give to the assessed visual impacts of the proposed development'*.

7.3.327 With regard to mitigation measures, Paragraph 5.10.27 identifies that *'Adverse landscape and visual effects may be minimised through appropriate siting of infrastructure within its development site and wider setting'*. Paragraph 5.10.28 goes onto state that '*Depending on the topography of the surrounding terrain and areas of population it may be appropriate to undertake landscaping off site. For example, filling in gaps in existing tree and hedge lines may mitigate the impact when viewed from a more distant vista.'*

7.3.328 Paragraph 5.10.35 of NPS EN-1 (DESNZ, 2024a) states that *'the scale of energy projects means that they will often be visible across a very wide area. The Secretary of State should judge whether any adverse impact on the landscape would be so damaging that it is not offset by the benefits (including need) of the project'*. Paragraph 5.10.36 requires that the SoS should '*consider whether any adverse impact is temporary, such as during construction, and/or whether any adverse impact on the landscape will be capable of being reversed in a timescale that the Secretary of State considers reasonable'.* Paragraph 5.10.37 adds *'The Secretary of State should consider whether the project has been designed carefully, taking account of environmental effects on the landscape and siting, operational and other relevant constraints, to minimise harm to the landscape, including by appropriate mitigation'.*

7.3.329 NPS EN-5 (DESNZ, 2024b) Paragraph 2.9.7 sets out that *'While the government does not believe that the development of overhead lines is incompatible in principle with applicants' statutory duty under Schedule 9 to the Electricity Act 1989, to have regard to visual and landscape amenity and to reasonably mitigate possible impacts thereon, in practice new overhead lines can give rise to adverse landscape and visual impacts.'* Paragraph 2.9.9 sets out that *'new substations, sealing end compounds (including terminal towers), and other above-ground installations that serve as connection, switching, and voltage transformation points on the electricity network may also give rise to adverse landscape and visual impacts'.* Paragraph 2.9.11 states that *'Landscape and visual benefits may arise, with that reconfiguration, rationalisation, or undergrounding of existing electricity network infrastructure'*.

7.3.330 NPS EN-5 (DESNZ, 2024b) states at paragraphs 2.9.20 and 2.9.21 that *'Although it is the Government's position that overhead lines should be the strong starting presumption for electricity networks developments in general, this presumption is reversed when proposed developments will cross part of a nationally designated landscape (i.e. National Park, Broads, or Area of Outstanding Natural Beauty). In these areas, and where harm to the landscape cannot feasibly be avoided by mitigation or re-routing, the strong starting presumption will be that the developer should underground the relevant section of the line'*.

7.3.331 Paragraph 2.9.14 sets out that '*Where the nature or proposed route of an overhead line will likely result in particularly significant landscape and visual impacts, as would be assessed through landscape, seascape and visual impact assessment, the applicant should demonstrate that they have given due consideration to the costs and benefits of feasible alternatives to the overhead line. This could include – where appropriate – rerouting, underground or subsea cables and the feasibility e.g. in cost, engineering or environmental terms of these.*'

7.3.332 Paragraph 2.9.15 states that *'The ES should set out details of this consideration, including the applicant's rationale for eschewing feasible alternatives to the overhead line, and the mitigation cost-calculation methodology that this rationale may rely upon'.*

7.3.333 Paragraph 2.9.16 to 2.9.19 outline the Holford and Horlock Rules (discussed in Chapter 6 of this Planning Statement). NPS EN-5 (DESNZ, 2024b) sets out that applicants should ensure the principles contained in both rules are embodied in an applicant's proposals.

7.3.334 Paragraph 2.11.2 makes it clear that the *'Secretary of State should be satisfied that the development, so far as is reasonably possible, complies with the Holford and Horlock Rules'.*

7.3.335 Paragraph 2.11.6 sets out that, for developments outside protected landscapes and *'in locations where there is a high potential for widespread and significant adverse landscape and/or visual impacts, the Secretary of State should be satisfied that the applicant has provided evidence to support a decision on whether undergrounding is or is not appropriate.'*

7.3.336 Paragraphs 132, 135, 139, 140, 187, 189, 190, 191 and 198 of the NPPF (MHCLG, 2025) and the PPG for the 'Natural Environment' contain similar landscape and visual policies to the NPS and are therefore not repeated here.

Local Planning Policy

7.3.337 The need for development to be designed so as to respect, conserve and enhance landscape character, retaining important views and features and having regard to sensitive landscape character is reflected in planning policies in the adopted local plans along the route.

- Greater Norwich Local Plan – Policy P3 (Environmental Protection and Enhancement) which sets out the requirement for development proposals to enhance the natural environment through having regard to landscape character assessments and sensitive areas such as landscape settings
- Norfolk County Council Core Strategy and Minerals and Waste Development Management Policies DPD Policy DM8 (Design, Local Landscape and Townscape Character) requires developers to consider the impact of their proposals on landscape and seeks to conserve or enhance landscape character

- South Norfolk Development Management Policies Document - Policy DM 4.5 (Landscape Character and River Valleys) states that all development should respect, conserve and where possible, enhance the landscape character of its immediate and wider environment. Development proposals that would cause significant adverse impact on the distinctive landscape characteristics of an area will be refused Policy DM 4.6 (Landscape Setting of Norwich) requires that development proposals should not harm – and where possible, should enhance – the landscape setting of Norwich
- The Breckland Local Plan Policy ENV05 (Protection and Enhancement of the Landscape) proposals will have regard to the findings of the Council's Landscape Character Assessment (LCA) and Settlement Fringe Landscape Assessment
- The Babergh and Mid Suffolk Joint Local Plan Policy LP17 (Landscape) states the need for development to be sensitive to landscape and visual impacts and where significant landscape or visual impacts are likely to occur, a Landscape and Visual Appraisal (LVA) or a Landscape and Visual Impact Assessment (LVIA) must be prepared to identify ways of avoiding, reducing and mitigating any adverse effects and opportunities for enhancement. Policy LP18 (Area of Outstanding Natural Beauty) and Colchester Local Plan Policy ENV4 (Dedham Vale Area of Outstanding Natural Beauty) state that proposals for major development within the AONBs will be refused other than in exceptional circumstances, and where it can be demonstrated that the development is in the public interest
- Tendring Local Plan (Section 2) Policy SPL3 (Sustainable Design) identifies the need for development to respect or enhance landscape character, views, skylines, open spaces and other locally important features. Policy PPL3 (The Rural Landscape) states that the Council will protect the rural landscape and would refuse planning permission for any proposed development which would cause overriding harm to its character or appearance. Development proposals affecting protected landscapes must pay particular regard to the conservation and enhancement of the special character and appearance of the Dedham Vale AONB, and their settings, including any relevant AONB Management Plan objectives
- The Braintree District Local Plan Policy LPP67 (Landscape Character and Features) requires that proposals which may impact on the landscape such as settlement edge, countryside or large schemes will be required to include an assessment of their impact on the landscape and should not be detrimental to the distinctive landscape features of the area such as trees, hedges, woodlands, grasslands, ponds and rivers. Development which would not successfully integrate into the local landscape will not be permitted
- The Thurrock Core Strategy and Policies for Management of Development Policy CSTP23 (Thurrock Character and Distinctiveness) the Council will protect, manage and enhance the character of Thurrock the Council will require an assessment based on The Guidelines for Landscape and Visual Impact Assessment, or other methodology supported by the Council.

Assessment

7.3.338 In accordance with paragraphs 5.10.16 to 5.10.25 of NPS EN-1 (DESNZ, 2024a), a landscape and visual assessment of the Project has been undertaken.

7.3.339 This section provides an overview of assessments of likely significant landscape and visual effects resulting from the Project during the construction and operation (including maintenance) phase. The full assessment of the potential residual effects of the Project on landscape and visual amenity is contained in ES Chapter 13: Landscape and Visual (document reference 6.13) (Revision B) and ES Appendix 13.2: Landscape Baseline and Assessment (document reference 6.13.A2) (Revision B), ES Appendix 13.3: Visual Baseline and Assessment (document reference 6.13.A3) (Revision B) and ES Appendix 13.4: Residential Visual Amenity Assessment (document reference 6.13.A4) (Revision D). The scope of the assessment has been informed by the EIA Scoping Report (document reference 6.19) and Scoping Opinion (document reference 6.20) provided by the Planning Inspectorate in 2022 on behalf of the SoS. The scope has also been informed through consultation and engagement with relevant consultees. This consultation comprised non-statutory consultation (summer 2023), statutory consultation (April to July 2024) and targeted consultation (January to March 2025).

7.3.340 Environmental appraisal has been an integral part of the Project design from the outset, which has meant that the Project has been able to avoid environmentally sensitive features as far as reasonably practicable. In accordance with the mitigation hierarchy, (as described in ES Chapter 5: EIA Approach and Method (document reference 6.5) (Revision B)) the Project design has been carefully considered to avoid, reduce or mitigate potentially significant adverse residual landscape and visual effects.

7.3.341 National Grid has also embedded measures into the design of the Project to avoid or reduce significant effects that may otherwise be experienced during construction and operation (and maintenance) of the Project.

7.3.342 Embedded mitigation measures relevant to landscape and visual amenity include:

- Sensitive routeing and siting of the alignment and Order Limits - as far as practicable effects on identified environmental (including landscape and visual, ecology and heritage assets) and socio-economics receptors have been avoided and reduced. ES Chapter 3: Alternatives (document reference 6.3) (Revision B) summarises the Project routeing and site selection process and consideration of alternatives
- Undergrounding is proposed in four locations, including through the Dedham Vale National Landscape and part of its setting. The Dedham Vale National Landscape is a nationally important and designated landscape. With the proposed underground cable, the effects on views and setting will be reduced
- Prior to the commencement of construction works for the Project, several existing overhead and underground third-party services would need to be diverted, removed, undergrounded, or protected. The Project would follow the route of existing 132 kV overhead lines north of Flowton and north of Mellis, where the existing 132 kV overhead lines would be undergrounded. This would help to reduce landscape and visual effects
- The Project allows for the use of full line tension gantries at CSE compounds and substations (where design allows). The use of full tension gantries removes the need for a bulkier terminal pylon adjacent to the CSE compound which would reduce visual clutter and therefore help to reduce landscape and visual effects
- The Project allows for landscape planting around CSE compounds, the new EACN Substation, south of the new Tilbury North Substation and the existing

Norwich Main Substation and its extension. These are presented as 'Environmental Areas' on Figure 4.1: Proposed Project Design (document reference 6.4.F1) (Revision B) and Figure 4.2: Proposed Project Design – Permanent Features (document reference 6.4.F2) (Revision B). Further details including landscape plans and planting schedules are provided in the Outline LEMP (document reference 7.4) (Revision G)

- Replacement planting would be undertaken at the earliest opportunity given the right planting season to mitigate, where practicable, vegetation removed during construction
- National Grid has considered the proposed materials and colour palette for the CSE compounds and new substation / substation extension, including buildings, security fencing, equipment, and surfacing to be sensitive to the environment they are located in, where practicable. Further information is included in the DASSI (document reference 7.16) (Revision E).

7.3.343 Relevant standard mitigation measures comprising management activities and techniques, would be implemented during construction of the Project to limit effects through adherence to good site practices and achieving legal compliance are set out in the Outline CoCP (document reference 7.2) (Revision G). Good practice measures relevant to Landscape and Visual Amenity include:

- GG08: Where sensitive features are to be retained (i.e., veteran, and mature trees, and Ancient Woodland), an appropriate protective area or protection mechanisms will be established using appropriate equipment or fencing and signage and will be inspected, repaired, and replaced as necessary. The protective areas will be shown on the 'Retention and Reinstatement Plans' contained within the Outline LEMP
- LV01: An Environmental Manager(s)/ Environmental Clerk of Works will be appointed for the duration of the construction phase
- LV02: Pre-construction condition surveys will be undertaken during the construction period to ensure appropriate reinstatement is undertaken. These will identify and record the condition of features such as trees, woodland, hedgerows, walls and fences that are to be reinstated
- LV03: Construction lighting will be directional and minimised where possible
- LV04: Where possible, maintain elements within the landscape such as vegetation and hedgerows. Where vegetation cannot be retained, replacement will be used as appropriate (including re-instating hedgerows, fences, and walls)
- LV05: The Main Works Contractor(s) will apply the relevant protective principles set out in British Standard (BS) 5837:2012: Trees in relation to design, demolition, and construction. This will be applied to trees within the Order Limits which will be preserved through the construction phase, and to trees outside of the Order Limits where such measures do not hinder or prevent the use of the relevant working width for construction. National Grid will as far as practicable seek to avoid and minimise impacts to all trees outside the Order Limits. All works to high grade trees, including trees under Tree Preservation Orders and veteran trees, will be undertaken by a suitably qualified and experienced arborist, and supervised by an Arboricultural Clerk of Works (ACW).

7.3.344 The Outline CoCP (document reference 7.2) (Revision G) will be secured by Requirement in the DCO which will require the Main Works Contractor(s) to prepare the CoCP 'substantially in accordance with' the Outline CoCP.

7.3.345 The measures detailed above reflect the emphasis in NPS EN-1 (DESNZ, 2024a) paragraphs 5.10.6 and 5.10.27 on designing projects to mitigate harm through careful siting, materiality, and sympathetic landscaping. The Design and Access Statement (document reference 7.15) (Revision D) considers in further detail how the Project seeks to achieve good design.

Summary of Landscape Effects During Construction

7.3.346 Significant adverse landscape effects during construction are predicted for all of the Landscape Character Assessments (LCAs) and Landscape Character Types (LCTs) which would be directly affected by construction activity within the Order Limits of the Project. These significant effects are related to the introduction of construction activity and equipment, including the temporary loss of some landscape features including farmland and field boundary vegetation. Significant effects are also anticipated for some LCAs and LCTs outside of the Order Limits, up to a distance of approximately 1.5 km. These significant effects are related to the perception of construction activity and the effect this has on identified key characteristics of the landscape. A full summary of effects on LCAs and LCTs during construction is provided in Table A13.2.73 of Appendix 13.2: Landscape Baseline and Assessment (document reference 6.13.A2) (Revision B).

Summary of Visual Effects During Construction

7.3.347 Significant adverse effects during construction are predicted for visual receptors within all of the Visual Receptor Areas (VRAs) that would be directly affected by construction activity within the Order Limits. VRAs are shown on Figure 13.7: Visual Receptors and Viewpoints (document reference 6.13.F7) (Revision D). These significant effects are related to the introduction of construction activity into close to medium distance views of residents, recreational receptors and road users. Significant effects are expected to extend up to approximately 1.5 km in some instances, for example where there are open, elevated and/or wide views towards construction activity. In some VRAs significant effects would be more contained, for example where views of construction activity are filtered and screened by vegetation or topography. A full summary of effects on visual receptors in VRAs and at viewpoints during construction is provided in Table A13.3.80 of Appendix 13.3: Visual Baseline and Assessment (document reference 6.13.A3) (Revision B).

Summary of Landscape Effects During Operation

7.3.348 At Year 1 of operation, there would be significant landscape effects for most of the LCAs and LCTs which would be directly affected by the introduction of an overhead line, CSE compound or substation/substation extension. Significant effects would also extend to the surrounding landscape, up to a distance of approximately 1.5 km. There would also be significant landscape effects along the route of the sections of underground cable, where reinstated vegetation would still be immature. By Year 15, these effects would reduce due to maturing of the reinstatement planting which would integrate the areas previously used for construction, into the landscape (noting that trees would not be replanted over the cable route). A full summary of effects on LCAs and LCTs at operation is provided in Table A13.2.73 of Appendix 13.2: Landscape Baseline and Assessment (document reference 6.13.A2) (Revision B). A summary of significant effects during operation is provided below, by Project Section and landscape character assessment.

Section A - South Norfolk Landscape Character Assessment (2001)

7.3.349 The following LCAs were predicted to experience significant effects at operation:

- LCA D1: Wymondham Settled Plateau Farmland – moderate and significant (adverse) within 1.5 km
- LCA E1: Ashwellthorpe Plateau Farmland - moderate and significant (adverse) within 1.5 km
- LCA E2: Great Moulton Plateau Farmland - major and significant (adverse) within 1.5 km
- LCA B1: Tas Tributary Farmland - major and significant (adverse) within 0.5 km, reducing to moderate and significant (adverse) between 0.5 km and 1.5 km
- LCA B4: Waveney Tributary Farmland - major and significant (adverse) within 0.5 km, reducing to moderate and significant (adverse) between 0.5 km and 1.5 km
- LCA A5: Waveney Rural River Valley - major and significant (adverse) within 0.5 km, reducing to moderate and significant (adverse) between 0.5 km and 1.5 km.

Sections B and C - Suffolk Landscape Character Assessment (2010)

7.3.350 The following LCTs were predicted to experience significant effects at operation:

- Rolling Valley Farmlands and Furze LCT - moderate and significant (adverse) within 1 km
- Wooded Valley Meadowlands Fens LCT – moderate-major and significant (adverse) within 0.5 km
- Rolling Valley Claylands LCT - moderate-major and significant (adverse) within 0.5 km
- Ancient Plateau Claylands LCT - moderate and significant (adverse) within 1.5 km
- Plateau Claylands LCT - moderate and significant (adverse) within 1.5 km
- Ancient Estate Claylands LCT - moderate and significant (adverse) within 1.5 km
- Valley Meadowlands LCT - moderate and significant (adverse) within 0.5 km
- Rolling Valley Farmlands LCT - major and significant (adverse) within 0.5 km, reducing to moderate and significant (adverse) between 0.5 km and 1.5 km
- Plateau Farmlands LCT - moderate and significant (adverse) within 0.5 km.

Section C – Tendring District Landscape Character Assessment (2001)

7.3.351 The following LCAs were predicted to experience significant effects at operation:

- LCA 7A: Bromley Heaths - moderate-major and significant (adverse) within 0.5 km, reducing to moderate and significant (adverse) between 0.5 km and 1.5 km
- LCA 6B: Ardleigh Valley System - moderate and significant (adverse) within 0.5 km.

Sections C and D – Colchester Borough Landscape Character Assessment (2005)

7.3.352 The following LCAs were predicted to experience significant effects at operation:

- LCA B7: Langham Farmland Plateau - moderate-major and significant (adverse) within 0.5 km, reducing to moderate and significant (adverse) between 0.5 km and 1.5 km
- LCA A7b: Sub-area A7b Stour River Valley Slopes - moderate and significant (adverse) within 0.5 km
- LCA B5: Rochfords Farmland Plateau - moderate and significant (adverse) within 1.5 km
- LCA B6: Great Horkesley Farmland Plateau Farmland Plateau – major-moderate and significant (adverse) within 0.5 km
- LCA A5: Colne River Valley Slopes - major and significant (adverse) within 0.5 km, reducing to moderate and significant (adverse) between 0.5 km and 1.5 km
- LCA A5: Colne River Valley Floors - major and significant (adverse) within 0.5 km, reducing to moderate and significant (adverse) between 0.5 km and 1.5 km
- LCA B4: Great Tey Farmland Plateau - moderate-major and significant (adverse) within 0.5 km, reducing to moderate and significant (adverse) between 0.5 km and 1.5 km
- LCA B2: Easthorpe Farmland Plateau - moderate-major and significant (adverse) within 0.5 km, reducing to moderate and significant (adverse) between 0.5 km and 1.5 km.

Sections D, E, F and G – Essex Landscape Character Assessment (2003)

7.3.353 The following LCAs were predicted to experience significant effects at operation:

- LCA B4: Gosfield Wooded Farmlands - moderate and significant (adverse) within 1.5 km
- LCA B1: Central Essex Farmlands - major and significant (adverse) within 0.5 km, reducing to moderate and significant (adverse) between 0.5 km and 1.5 km
- LCA C6: Blackwater and Brain Valley - major and significant (adverse) within 0.5 km, reducing to moderate and significant (adverse) between 0.5 km and 1.5 km
- LCA C5: Chelmer Valley - major and significant (adverse) within 0.5 km, reducing to moderate and significant (adverse) between 0.5 km and 1.5 km
- LCA G2: Chelmsford and Environs - moderate and significant (adverse) within 0.5 km
- LCA D2: Brentwood Hills - major and significant (adverse) within 0.5 km, reducing to moderate and significant (adverse) between 0.5 km and 1.5 km.

Section G – Basildon Borough Landscape Character Assessment (2014)

7.3.354 The following LCAs were predicted to experience significant effects at operation:

- LCA 11: West Billericay Wooded Hills and Ridges - moderate and significant (adverse) within 1.5 km
- LCA 12: Burstead Sloping Farmland - major and significant (adverse) within 0.5 km, reducing to moderate and significant (adverse) between 0.5 km and 1.5 km
- LCA 13: Dunton Settled Claylands - moderate and significant (adverse) within 1.5 km.

Section H – Thurrock Landscape Character Assessment (2018)

7.3.355 The following LCAs were predicted to experience significant effects at operation:

- LCA J1: Langdon Lower Hill Slopes - major and significant (adverse) within 0.5 km
- LCA A1: Bulphan Fenland - moderate and significant (adverse) within 0.5 km
- LCA H1: East and West Tilbury Open Undulating Farmland - major and significant (adverse) within 0.5 km, reducing to moderate and significant (adverse) between 0.5 km and 1.5 km
- LCA H2: Orsett and Horndon on the Hill Open Undulating Farmland - moderate and significant (adverse) within 0.5 km.

Summary of Visual Effects during Operation

7.3.356 At Year 1 of operation, there would be significant adverse visual effects on visual receptors within most of the VRAs which are directly affected by the Project. These significant effects are related to the introduction of the proposed overhead line, CSE compounds, substations or substation extensions into close to medium distance views. By Year 15 of operation, effects on some visual receptors in proximity to CSE compounds, substations and substation extensions would reduce as a result of landscape mitigation within Environmental Areas, although effects in relation to the proposed overhead line would remain. For visual receptors within VRAs along the proposed underground cable alignment, there would also be significant adverse effects at Year 1 relating to the loss of vegetation. By Year 15 of operation, effects on visual receptors along the proposed underground cable would reduce to not significant, as reinstated planting would restore views to be similar to baseline levels (noting that trees would not be replanted over the cable route). A full summary of effects on visual receptors is provided in Section 13.12 of Appendix 13.3: Visual Baseline and Assessment (document reference 6.13.A3) (Revision B). A summary of significant effects during operation is provided below, by Project Section.

Section A - South Norfolk Council

7.3.357 Visual receptors within the following VRAs were predicted to experience significant effects at operation:

- VRA A1 Swardeston – major and significant (adverse) within 0.5 km, reducing to moderate and significant (adverse) between 0.5 km and 1.5 km

- VRA A2 Stoke Holy Cross – major and significant (adverse) within 0.5 km, reducing to moderate and significant (adverse) between 0.5 km and 1.5 km
- VRA A3 Mulbarton and Wreningham – major and significant (adverse) within 0.5 km, reducing to moderate and significant (adverse) between 0.5 km and 1.5 km
- VRA A4 Newton Flotman – major and significant (adverse) within 0.5 km, reducing to moderate and significant (adverse) between 0.5 km and 1.5 km
- VRA A5 Tacolneston – major and significant (adverse) within 0.5 km, reducing to moderate and significant (adverse) between 0.5 km and 1.5 km
- VRA A6 Forncett St Peter – major and significant (adverse) within 0.5 km, reducing to moderate and significant (adverse) between 0.5 km and 1.5 km
- VRA A7 Goose Green – major and significant (adverse) within 0.5 km, reducing to moderate and significant (adverse) between 0.5 km and 1.5 km
- VRA A8 Tibenham – major and significant (adverse) within 0.5 km, reducing to moderate and significant (adverse) between 0.5 km and 1.5 km
- VRA A9 Shelfanger – major and significant (adverse) within 0.5 km, reducing to moderate and significant (adverse) between 0.5 km and 1.5 km
- VRA A10 Burston – major and significant (adverse) within 0.5 km, reducing to moderate and significant (adverse) between 0.5 km and 1.5 km
- VRA A11 Fen Street – major and significant (adverse) within 0.5 km, reducing to moderate and significant (adverse) between 0.5 km and 1.5 km
- VRA A12 Roydon and Diss – major and significant (adverse) within 0.5 km, reducing to minor and not significant (adverse) between 0.5 km and 1.5 km due to buildings and vegetation which would screen and filter views.

Section B - Mid Suffolk District Council

7.3.358 Visual receptors within the following VRAs were predicted to experience significant effects at operation:

- VRA B1 Wortham – major and significant (adverse) within 0.5 km, reducing to moderate and significant (adverse) between 0.5 km and 1.5 km
- VRA B2 Palgrave – major and significant (adverse) within 0.5 km, reducing to moderate and significant (adverse) between 0.5 km and 1.5 km
- VRA B3 Mellis – major and significant (adverse) within 0.5 km, reducing to moderate and significant (adverse) between 0.5 km and 1.5 km
- VRA B4 Finningham and Gislingham – major and significant (adverse) within 0.5 km, reducing to moderate and significant (adverse) between 0.5 km and 1.5 km
- VRA B5 Wickham Skeith and Mendlesham – major and significant (adverse) within 0.5 km, reducing to moderate and significant (adverse) between 0.5 km and 1.5 km
- VRA B6 Stowupland – major and significant (adverse) within 0.5 km, reducing to moderate and significant (adverse) between 0.5 km and 1.5 km

- VRA B7 Forward Green and Creeting St Mary – major and significant (adverse) within 0.5 km, reducing to moderate and significant (adverse) between 0.5 km and 1.5 km
- VRA B8 Stowmarket – major and significant (adverse) within 0.5 km, reducing to moderate and significant (adverse) between 0.5 km and 1.5 km
- VRA B9 Needham Market – major and significant (adverse) within 0.5 km, reducing to moderate and significant (adverse) between 0.5 km and 1.5 km
- VRA B10 Great Bricett – major and significant (adverse) within 0.5 km, reducing to moderate and significant (adverse) between 0.5 km and 1.5 km
- VRA B11 Barking and Willisham – major and significant (adverse) within 0.5 km, reducing to moderate and significant (adverse) between 0.5 km and 1.5 km
- VRA B12 Elmsett – major and significant (adverse) within 0.5 km, reducing to moderate and significant (adverse) between 0.5 km and 1.5 km
- VRA B13 Somersham – major and significant (adverse) within 0.5 km, reducing to moderate and significant (adverse) between 0.5 km and 1.5 km.

Section C - Babergh District Council, Colchester City Council and Tendring District Council

7.3.359 Visual receptors within the following VRAs were predicted to experience significant effects at operation:

- VRA C1 Burstall – major and significant (adverse) within 0.5 km, reducing to moderate and significant (adverse) between 0.5 km and 1.5 km
- VRA C2 Washbrook – major and significant (adverse) within 0.5 km, reducing to moderate and significant (adverse) between 0.5 km and 1.5 km
- VRA C4 Chattisham – major and significant (adverse) within 0.5 km, reducing to moderate and significant (adverse) between 0.5 km and 1.5 km
- VRA C5 Capel St Mary - major and significant (adverse) within 1.5 km
- VRA C7 Holton St Mary and East Bergholt – major and significant (adverse) within 0.5 km, reducing to moderate and significant (adverse) between 0.5 km and 1.5 km
- VRA C10 Dedham Heath – major and significant (adverse) within 0.5 km, reducing to moderate and significant (adverse) between 0.5 km and 1.5 km
- VRA C11 Langham – major and significant (adverse) within 0.5 km, reducing to moderate and significant (adverse) between 0.5 km and 1.5 km
- VRA C12 Ardleigh – major and significant (adverse) within 0.5 km, reducing to moderate and significant (adverse) between 0.5 km and 1.5 km
- VRA C13 Little Bromley – major and significant (adverse) within 0.5 km, reducing to moderate and significant (adverse) between 0.5 km and 1.5 km.

Section D - Colchester City Council

7.3.360 Visual receptors within the following VRAs were predicted to experience significant effects at operation:

- VRA D1 Tye Green and Boxted - major and significant (adverse) within 0.5 km
- VRA D2 Little Horkesley and Wormingford - major and significant (adverse) within 0.5 km, reducing to moderate and significant (adverse) between 0.5 km and 1.5 km
- VRA D3 Great Horkesley and Horkesley Heath - major and significant (adverse) within 0.5 km, reducing to moderate and significant (adverse) between 0.5 km and 1.5 km
- VRA D5 Fordham - major and significant (adverse) within 0.5 km, reducing to moderate and significant (adverse) between 0.5 km and 1.5 km
- VRA D6 West Bergholt, Fordham Heath and Eight Ash Green - major and significant (adverse) within 0.5 km, reducing to moderate and significant (adverse) between 0.5 km and 1.5 km
- VRA D7 Fordstreet and Aldham - major and significant (adverse) within 0.5 km, reducing to moderate and significant (adverse) between 0.5 km and 1.5 km
- VRA D8 Great Tey - major and significant (adverse) within 0.5 km, reducing to moderate and significant (adverse) between 0.5 km and 1.5 km
- VRA D9 Marks Tey - major and significant (adverse) within 0.5 km, reducing to moderate and significant (adverse) between 0.5 km and 1.5 km.

Section E - Braintree District Council

7.3.361 Visual receptors within the following VRAs were predicted to experience significant effects at operation:

- VRA E1 Coggeshall - major and significant (adverse) within 0.5 km, reducing to moderate and significant (adverse) between 0.5 km and 1.5 km
- VRA E2 Feering and Rivenhall - major and significant (adverse) within 0.5 km, reducing to moderate and significant (adverse) between 0.5 km and 1.5 km
- VRA E4 Silver End - major and significant (adverse) within 0.5 km, reducing to moderate and significant (adverse) between 0.5 km and 1.5 km
- VRA E5 Black Notley & White Notley - major and significant (adverse) within 0.5 km, reducing to moderate and significant (adverse) between 0.5 km and 1.5 km
- VRA E6 Terling & Witham - major and significant (adverse) within 0.5 km, reducing to moderate and significant (adverse) between 0.5 km and 1.5 km.

Section F - Chelmsford City Council and Brentwood Borough Council

7.3.362 Visual receptors within the following VRAs were predicted to experience significant effects at operation:

- VRA F1 Great Leighs – major and significant (adverse) within 0.5 km, reducing to moderate and significant (adverse) between 0.5 km and 1.5 km

- VRA F2 Peverel's Farm – major and significant (adverse) within 0.5 km, reducing to moderate and significant (adverse) between 0.5 km and 1.5 km
- VRA F3 Great Waltham – major and significant (adverse) within 0.5 km, reducing to moderate and significant (adverse) between 0.5 km and 1.5 km
- VRA F4 Little Waltham – major and significant (adverse) within 0.5 km, reducing to moderate and significant (adverse) between 0.5 km and 1.5 km
- VRA F5 Chignall Smealy – major and significant (adverse) within 0.5 km, reducing to moderate and significant (adverse) between 0.5 km and 1.5 km
- VRA F6 Chelmsford North-West – major and significant (adverse) within 0.5 km, reducing to moderate and significant (adverse) between 0.5 km and 1.5 km
- VRA F7 Roxwell – major and significant (adverse) within 0.5 km, reducing to moderate and significant (adverse) between 0.5 km and 1.5 km
- VRA F8 Writtle and Chelmsford West – major and significant (adverse) within 0.5 km, reducing to moderate and significant (adverse) between 0.5 km and 1.5 km
- VRA F9 Edney Common – major and significant (adverse) within 0.5 km, reducing to moderate and significant (adverse) between 0.5 km and 1.5 km
- VRA F10 Hylands Park – major and significant (adverse) within 0.5 km, reducing to moderate and significant (adverse) between 0.5 km and 1.5 km
- VRA F11 Margaretting and Stock – major and significant (adverse) within 0.5 km, reducing to moderate and significant (adverse) between 0.5 km and 1.5 km.

Section G - Basildon Borough Council and Brentwood Borough Council (and part of Chelmsford City Council)

7.3.363 Visual receptors within the following VRAs were predicted to experience significant effects at operation:

- VRA G1 Ingatestone and Fryerning – major and significant (adverse) within 0.5 km, reducing to moderate and significant (adverse) between 0.5 km and 1.5 km
- VRA G2 Billericay West – major and significant (adverse) within 0.5 km, reducing to moderate and significant (adverse) between 0.5 km and 1.5 km
- VRA G3 Brentwood East – moderate and significant (adverse) within 0.5 km
- VRA G4 Ingrave and Herongate – major and significant (adverse) within 0.5 km, reducing to moderate and significant (adverse) between 0.5 km and 1.5 km
- VRA G5 Little Burstead – major and significant (adverse) within 0.5 km, reducing to moderate and significant (adverse) between 0.5 km and 1.5 km
- VRA G6 Basildon – major and significant (adverse) within 0.5 km, reducing to moderate and significant (adverse) between 0.5 km and 1.5 km.

Section H - Thurrock Council

7.3.364 Visual receptors within the following VRAs were predicted to experience significant effects at operation:

- VRA H1 Bulphan – major and significant (adverse) within 0.5 km, reducing to moderate and significant (adverse) between 0.5 km and 1.5 km

- VRA H2 Horndon on the Hill – major and significant (adverse) within 0.5 km, reducing to moderate and significant (adverse) between 0.5 km and 1.5 km
- VRA H3 Orsett – major and significant (adverse) within 0.5 km, reducing to moderate and significant (adverse) between 0.5 km and 1.5 km
- VRA H4 Stanford-le-Hope – moderate and significant (adverse) within 0.5 km
- VRA H5 Grays and Chadwell St Mary – moderate and significant (adverse) within 1.5 km
- VRA H6 Southfields – major and significant (adverse) within 0.5 km, reducing to moderate and significant (adverse) between 0.5 km and 1.5 km
- VRA H7 Linford – major and significant (adverse) within 0.5 km, reducing to moderate and significant (adverse) between 0.5 km and 1.5 km.

Effects on Residential Visual Amenity

7.3.365 Appendix 13.4: Residential Visual Amenity Assessment (document reference 6.13.A4) (Revision D) describes the change in views likely to be experienced by residents at the closest residential properties to the overground sections of the Project (within approximately 200 m of the centre line). The purpose of the RVAA is to determine whether the overall change to visual amenity would breach the Residential Visual Amenity Threshold at any of these properties, considering whether the Project would be of such a nature that it may permanently affect living conditions or residential amenity.

7.3.366 The assessment established that whilst a high magnitude of visual effect is anticipated for 37 of the properties scoped in, no instances have been found where effects on Residential Visual Amenity would be so great that the Residential Visual Amenity Threshold would be breached.

Landscape and Visual Impact Summary

7.3.367 The landscape and visual amenity assessments indicate that the construction phases would result in significant negative landscape and visual amenity effects during construction. These significant effects are related to the introduction of construction activity and equipment, including the loss of some landscape features including farmland and field boundary vegetation. At Year 15 of operation, following the maturation of mitigation planting, the assessment concludes that significant adverse landscape and visual effects would remain. This aligns with the expectation that adverse landscape and visual effects may be minimised but cannot be entirely avoided in virtually all nationally significant energy infrastructure projects, as set out in paragraphs 5.10.5 and 5.10.13 of NPS EN-1 (DESNZ, 2024a).

7.3.368 The requirement set out in Paragraph 2.11.2 of NPS EN-5 (DESNZ, 2024b) that the Holford Rules and the Horlock Rules should be satisfied as far as is reasonably possible is addressed in Section 6.1 of this Planning Statement and in ES Chapter 3: Alternatives (document reference 6.3) (Revision B), Design Development Report (document reference 5.15) (Revision B), and Design and Access Statement (document reference 7.15) (Revision D). The identification of appropriate sites for the proposed CSE compounds has been informed by the Horlock Rules (National Grid, 2009). Although these rules were developed for the siting of substations, they are considered appropriate for CSE compound sites. The rules facilitate the consideration of environmental and amenity matters within the design and siting of

new substation and CSE compounds. National Grid employed the Holford Rules (National Grid, 1959) to inform the design and routeing of the proposed overhead lines. The rules have become accepted within the electricity transmission industry as the basis for overhead transmission line routeing.

7.3.369 In summary, it is evident that the Project has been designed carefully and incorporates measures to mitigate harm to landscape and visual receptors, having regard to National Grid's statutory duty under Schedule 9 of the Electricity Act 1989 (in line with paragraph 2.2.10 of NPS EN-5 (DESNZ, 2024b)). However, significant residual landscape and visual adverse effects will remain, as is inevitable with nationally significant energy infrastructure of the scale and type proposed. In the case of CNP infrastructure (such as this Project), '*these residual impacts are unlikely to outweigh the urgent need for this type of infrastructure. Therefore, in all but the most exceptional circumstances, it is unlikely that consent will be refused on the basis of these residual impacts'* (paragraph 4.2.15 of NPS EN-1 (DESNZ, 2024a). The presumption in favour of consenting CNP Infrastructure therefore applies. Whilst there are many residual significant effects on landscape, visual receptors, it is considered that these do not outweigh the need for the Project in accordance with EN-1 and paragraph 4.2.15 -4.2.17.

National Landscape Impacts: Dedham Vale National Landscape (an AONB)

7.3.370 The Dedham Vale National Landscape is a lowland river valley landscape, located on the Essex/Suffolk border in the East of England (see Figure 13.1: LVIA Study Area and Landscape Designations (document reference 6.13.F1) (Revision B). The National Landscape covers the lower reaches of the River Stour and is low-lying, with the valley floor typically lying at between 0 m and 20 m Above Ordnance Datum (AOD). The River Stour flows into the Cattawade Marshes to the east where the river becomes tidal. The eastern boundary of the National Landscape follows the western edges of the settlements of Cattawade and Manningtree. The western boundary of the National Landscape currently runs between Bures and Wormingford. The Dedham Vale National Landscape and Stour Valley Partnership have an aspiration for a future extension of the boundary into the Stour Valley Project Area between Bures and Sudbury. The northern and southern boundaries of the National Landscape are located a few kilometres either side of the river and its tributaries (the River Box and River Brett) and are typically at between 30 m and 60 m AOD.

7.3.371 The Dedham Vale AONB and Stour Valley Project Area Management Plan 2021 – 2026 sets out a vision for the National Landscape and guidance on how it should be managed. The landscape of the area is described in the Statement of Significance (page 21):

'The Dedham Vale AONB is a predominately agricultural landscape that exhibits a subtle lowland river valley with an assemblage of features associated with this landscape still in place and intact. These features include a gently winding river and tributaries; gentle valley sides with scattered woodlands; sunken rural lanes; picturesque villages with imposing churches and historic timber framed buildings; scattered farmsteads and agricultural buildings; small fields enclosed by ancient hedgerows; riverside grazing meadows with associated drainage ditches and visible and hidden archaeology providing evidence of human habitation over previous millennia.

The area remains mostly free of incongruous development and large scale industrial developments. Despite some intrusions of human activity in the twentieth and twenty first centuries, the area retains a rural charm and tranquillity and is largely free of infrastructure associated with modern life.

The essential character of the Dedham Vale AONB was established in the middle of the previous millennium and has remained intact despite social, technological events. The fundamental beauty of the area and the scenes of a working landscape were captured by England's finest landscape artist, John Constable. The sites of his paintings are still recognisable in the heart of what is now the AONB.'

7.3.372 The Dedham Vale National Landscape is confirmed in NPS EN-1 (DESNZ, 2024a) paragraph 5.10.7 as '*having the highest status of protection in relation to landscape and natural beauty'.* In respect to AONB, paragraph 5.10.32 of NPS EN-1 confirms that development consent could be granted in these areas in exceptional circumstances. The development should be demonstrated to be in the public interest and consideration of such applications should include an assessment of:

- '*the need for the development, including in terms of national considerations, and the impact of consenting or not consenting it upon the local economy;*
- *the cost of, and scope for, developing all or part of the development elsewhere outside the designated area or meeting the need for it in some other way, taking account of the policy on alternatives set out in Section 4.3; and*
- *any detrimental effect on the environment, the landscape and recreational opportunities, and the extent to which that could be moderated*.'

7.3.373 Given the Project is CNP infrastructure, paragraph 4.2.8 states that the CNP policy will 'influence how the Secretary of State considers tests requiring clear outweighing of harm, exceptionality, or very special circumstances have been met by a CNP Infrastructure application'. Paragraph 4.2.16 NPS EN-1 (DESNZ, 2024a) discusses how the SoS will consider the balance of benefits and impacts in relation to CNP infrastructure (such as the Project) where the NPS (or any other planning policy) requires an outweighing of harm. This states that where residual impacts remain after the mitigation hierarchy has been applied, in all but the most exceptional circumstances the residual impacts will be outweighed by the urgent need for CNP infrastructure, and therefore '*…the Secretary of State will take as the starting point for decision making that such infrastructure is to be treated as if it has met any tests which are set out within the NPSs, or any other planning policy, which requires a clear outweighing of harm, exceptionality or very special circumstances'*.

7.3.374 Paragraph 4.2.17 then explains that this '*means that the Secretary of State will take a starting point that CNP Infrastructure will meet the following, non-exhaustive, list of tests: (…) where development in nationally designated landscapes requires exceptional circumstances to be demonstrated (…)*'.

7.3.375 Paragraph 5.10.32 of NPS EN-1 (DESNZ, 2024a) states that '*When considering applications for development within National Parks, the Broads and AONBs the conservation and enhancement of the natural beauty should be given substantial weight by the Secretary of State in deciding on applications for development consent in these areas. The Secretary of State may grant development consent in these areas in exceptional circumstances. Such development should be demonstrated to be in the public interest and consideration of such applications should include an assessment of:*

- *the need for the development, including in terms of national considerations, and the impact of consenting or not consenting it upon the local economy;*
- *the cost of, and scope for, developing all or part of the development elsewhere outside the designated area or meeting the need for it in some other way, taking account of the policy on alternatives set out in Section 4.3; and*
- *any detrimental effect on the environment, the landscape and recreational opportunities, and the extent to which that could be moderated'*.

The Project in Relation to Dedham Vale National Landscape

7.3.376 Paragraph 2.9.20 of NPS EN-5 (DESNZ, 2024b) refers to nationally designated landscapes when considering the undergrounding of electricity lines. It states, '*Although it is the government's position that overhead lines should be the strong starting presumption for electricity networks developments in general, this presumption is reversed when proposed developments will cross part of a nationally designated landscape (i.e. National Park, The Broads, or Area of Outstanding Natural Beauty)*'. Paragraph 2.9.21 goes onto state that '*In these areas, and where harm to the landscape, visual amenity and natural beauty of these areas cannot feasibly be avoided by rerouting overhead lines, the strong starting presumption will be that the applicant should underground the relevant section of the line'*. It is also acknowledged that paragraph 2.9.24 of NPS EN-5 (DESNZ, 2024b) considers when making a decision on an application, the Secretary of State must weigh the feasibility, cost and any harm of the undergrounding against:

- '*the adverse implications of the overhead line proposal;*
- *the cost and feasibility of re-routing overhead lines or mitigation proposals for the relevant line section; and*
- *the cost and feasibility of the reconfiguration, rationalisation, and/or use of underground or subsea cabling of proximate existing or proposed electricity networks infrastructure*'.

7.3.377 Paragraph 2.9.25 states '*In such cases the Secretary of State should only grant development consent for underground or subsea sections of a proposed line over an overhead alternative if they are satisfied that the benefits accruing from the former proposal clearly outweigh any extra economic, social, or environmental impacts that it presents, the mitigation hierarchy has been followed, and that any technical obstacles associated with it are surmountable'*.

7.3.378 Section C of the Project passes through and to the north of the Dedham Vale National Landscape and Section D passes to the south of the National Landscape. The swathe of land within the Dedham Vale National Landscape affected by the Project is approximately 5.7 km long and typically 120 m wide, with the width of the swathe increasing to 200 m at trenchless crossings.

7.3.379 The Project would be undergrounded through the Dedham Vale National Landscape and adjacent landscapes. This commitment is secured within the draft DCO (document reference 3.1) (Revision G). Wenham Grove CSE compound would be located to the east of Raydon Great Wood, approximately 2 km to the north-east of the National Landscape at its closest point. The Project would transition from underground cable at this point, back on to overhead line heading north away from the National Landscape. To the south-east of the National Landscape, the underground cable route would continue outside the National Landscape and terminate at a new substation known as the EACN Substation, approximately 1.3 km south of the National Landscape.

7.3.380 The Project would transition to overhead line between the EACN Substation and Great Horkesley (EACN side) CSE compound to the west. A further section of underground cables secured through the draft DCO (document reference 3.1) (Revision G) is proposed to the south-west of the National Landscape at Great Horkesley, where the Project is within the setting of the Dedham Vale National Landscape. The Great Horkesley (EACN side) and Great Horkesley (Tilbury side) CSE compounds are located approximately 1.3 km to the south of the Dedham Vale National Landscape at each end of this underground section. The Project would transition back to overhead line at Great Horkesley (Tilbury side) CSE compound, and head south away from the protected landscape.

Assessment of Effect on Special Qualities of Dedham Vale National Landscape

7.3.381 A study by Alison Farmer Associates (2016) provides evidence on the 'natural beauty and special qualities' of the National Landscape. It includes a detailed assessment of the factors which contribute to the natural beauty of the National Landscape and the relationship between them. It comments on the natural beauty indicators (or natural beauty characteristics) used as considerations as part of the Dedham Vale's National Landscape designation process.

7.3.382 The Alison Farmer study summarises the 'special qualities' as follows:

- Iconic lowland river valley associated with the artist John Constable RA. The views he painted are still recognisable today
- Historic villages with timber-framed housing and prominent churches
- Valley bottom grazing marshes with associated drainage ditches and wildlife
- Naturally functioning River Stour with associated tributaries, meres, and historic river management features
- Semi-natural ancient woodlands on valley sides with associated wildlife
- Traditional field boundaries intact and well managed
- Apparent and buried archaeology indicating millennia of human activity
- A sense of relative tranquillity
- Surprisingly long-distance views from higher ground along the valley in an area associated with large skies.

7.3.383 Table A13.1 of ES Appendix 13.5: National Landscape Assessment Study (document reference 6.13.A5) (Revision B) includes an assessment of effects on the Special Qualities of Dedham Vale National Landscape. It identifies the potential for major and significant effects during the construction phase as a result of the removal of some landscape features including grazing marsh along the River Stour and field boundary hedgerows and the introduction of cranes required temporarily to construct the pylons. The assessment of effects during operation (and maintenance) concludes that minor and not significant effects (negative) would be experienced once the underground cables have been installed and the underground corridor reinstated.

Duty to Seek to Further the Statutory Purposes of the National Landscape.

7.3.384 Section 245 (Protected Landscapes) of the Levelling-up and Regeneration Act 2023 amends Section 85 of the Countryside and Rights of Way Act 2000 in relation to the duty placed on relevant authorities in respect of their functions which affect land in National Landscapes in England: '*(1A) In exercising or performing any functions in relation to, or so as to affect, land in an area of outstanding natural beauty in England, a relevant authority other than a devolved Welsh authority must seek to further the purpose of conserving and enhancing the natural beauty of the area of outstanding natural beauty.*'

7.3.385 The clause strengthens the duty on certain public authorities, including Statutory Undertakers (including the Applicant), when carrying out functions in relation to these landscapes to seek to further the statutory purpose and confers a power to make provision as to how they should do this. The legislation has been amended from 'having regard' to 'furthering the purpose' of protected landscapes such as National Landscapes.

7.3.386 The legal duty is also reflected within the NPS EN-1 (DESNZ, 2024a) which states at paragraph 5.10.7 '*For development proposals located within designated landscapes the Secretary of State should be satisfied that measures which seek to further purposes of the designation are sufficient, appropriate and proportionate to the type and scale of the development*.'

7.3.387 NPS EN-1 (DESNZ, 2024a) goes on to state at Paragraph 5.10.8 that '*The duty to seek to further the purposes of nationally designated landscapes also applies when considering applications for projects outside the boundaries of these areas which may have impacts within them. In these locations, projects should be designed sensitively given the various siting, operational, and other relevant constraints. The Secretary of State should be satisfied that measures which seek to further the purposes of the designation are sufficient, appropriate and proportionate to the type and scale of the development*'.

7.3.388 Paragraph 5.10.33 of NPS EN-1 (DESNZ, 2024a) *'For development proposals located within designated landscapes the Secretary of State should be satisfied that measures which seek to further purposes of the designation are sufficient, appropriate and proportionate to the type and scale of the development. The Secretary of State should ensure that any projects consented in these designated areas should be carried out to high environmental standards, including through the application of appropriate requirements where necessary*'.

7.3.389 Paragraph 5.10.34 of NPS EN-1 (DESNZ, 2024a) which considers development that is outside an AONB but which might affect them. It states, '*The duty to seek to further the purposes of nationally designated areas also applies when considering applications for projects outside the boundaries of these areas which may have impacts within them*'. The paragraph goes on to state that, '*The fact that a Project will be visible from within a designated area should not in itself be a reason for the Secretary of State to refuse consent.*'

7.3.390 In consideration of National Grid's duty to further the purposes of the National Landscape ('*conserve and enhance natural beauty*'), National Grid has produced National Landscapes – Duty to Seek to Further the Purposes Report (s85 Countryside and Rights of Way Act 2000) (document reference 5.10).

7.3.391 The wording of the duty provides some qualifications to its use; the wording does not impose a duty to necessarily fulfil the purposes but states the relevant authority must 'seek to' further the purposes. This was confirmed by Mr Justice Mould in a recent judgment regarding New Forest National Park Authority v Secretary of State for Housing, Communities and Local Government [2025].

7.3.392 The Mr Justice Mould also considered the duty in another recent judgment relating to Campaign for the Protection of Rural England (CPRE) v Secretary of State for Housing, Communities and Local Government [2025]. This case related to the legal challenge by CPRE to the decision to permit 165 homes in Kent within a National Landscape. The High Court has confirmed within the judgment that the duty does not require a refusal of planning permission where there is residual harm to the National Landscape. Mr Justice Mould confirmed, '*The language of section 85(A1) of the 2000 Act imposes no prohibition on the grant of planning permission for development which fails to conserve and enhance the natural beauty of a protected landscape*'.

7.3.393 The approach set out by Mr Justice Mould in the New Forest and CPRE cases '*recognises that in a case where development is found to result in harm to the natural beauty of a protected landscape, the duty imposed by section 85(A1) of the 2000 Act requires certain matters to be addressed by planning decision-makers. It is an approach which is essentially reflected in the guidance issued by DEFRA in December 2024'*. He said matters should be expressed in terms of weight, and that the '*duty does not and is not intended to displace the established evaluative character of the determination of planning applications, which arises from the long-established principles that govern such decisions under sections 70 of the 1990 Act and 38(6) of the 2004 Act*'.

7.3.394 Whilst the above case law has related to decision making under the Town and Country Planning Act 1990, the principles in relation to the duty to seek to further the purposes are considered broadly applicable for decision making under the PA 2008.

7.3.395 The Project has followed the mitigation hierarchy in seeking to lessen the effects on the National Landscape. Once the need for the Project was identified National Grid undertook an options appraisal process to identify the most appropriate way to meet the identified need. This enables the selection of a preferred Strategic Proposal (the Project, which is then defined in detail through further design and assessment work). This proposal was then subject to routeing and siting to determine an alignment, which was subsequently refined following statutory and non-statutory consultation. Finally, alternative construction methods were considered.

7.3.396 In line with the Defra guidance (Defra, 2024) '*Appropriate, reasonable and proportionate steps*' are being considered and explored which would seek to further the statutory purposes of the National Landscape. An initial high level scoping exercise was undertaken to identify potential measures with specific consideration given to the special qualities of the Dedham Vale National Landscape and the Dedham Vale AONB and Stour Valley Project Area Management Plan 2021-2026. This scoping exercise included considering and identifying:

- Existing projects being delivered within the National Landscape which could be supported
- Potential new projects which could be delivered in the National Landscape
- Financial contributions to a third party to deliver existing or new projects.

7.3.397 The output from this exercise was a series of high-level themes with potential measures identified which further consideration could be given to. This is in line with the Defra guidance (Defra, 2024) which states that '*a relevant authority should be able to demonstrate with proportionate, reasoned, and documented evidence the measures to which consideration has been given when seeking to further the statutory purposes of Protected Landscapes'*. The potential measures were identified as they would deliver enhancements for one or more of the special qualities and natural beauty indicators and help to support the objectives of the Dedham Vale AONB and Stour Valley Project Area Management Plan 2021-2026. These included:

- Heritage asset related projects – support heritage assets identified on the Heritage at Risk Register held by Historic England which are located within the Dedham Vale National Landscape and/or its setting
- Habitat enhancements projects – consider interventions or support work to create/enhance habitats
- Tree planting and other types of replanting – contribute to increasing tree canopy and woodland cover, field boundary replanting scheme
- Support existing projects – provide funding to support existing projects already initiated/being delivered to potentially widen the scope of the works covered or provide greater longevity
- Rationalisation of existing infrastructure – an initial feasibility study looking at the feasibility of the removal of an existing UKPN 132 kV overhead line (known as the PJ Line).

7.3.398 Feedback was sought to ensure the stakeholders had the opportunity to shape and influence the approach being taken. Initial feedback was provided following the meeting, and has informed the current approach and package of measures being developed.

7.3.399 Whilst engagement is ongoing, early feedback supported the provision of a financial contribution to support the delivery of a range of measures to further the purposes. Such an approach has been followed on a number of other NSIPs where the section 85 duty (as amended by section 245 Levelling-up and Regeneration Act (LURA) 2023) has been engaged.

7.3.400 National Grid will continue to engage and work with stakeholders to seek agreement on the proposed package of measures to fulfil the duty to seek to further the statutory purpose of the Dedham Vale National Landscape.

7.3.401 A working draft document setting out the proposed package of measures and the key principles of the fund has been shared with the DVNL Partnership for their feedback. The DVNL Partnership has stated that they are broadly content subject to some final specific areas to agree. Natural England and the relevant local authorities have also been provided the document for their information. A copy of the working draft has been provided in Appendix A of the National Landscape – Duty to Seek to Further the Purposes Report (s85 Countryside and Rights of Way Act 2000) (document reference 5.10).

7.3.402 A further update will be provided during the Examination as discussions with the stakeholders progress.

National Landscape Assessment Conclusion

7.3.403 ES Chapter 3: Alternatives (document reference 6.3) (Revision B) describes the routeing decision made by National Grid to route directly through the Dedham Vale National Landscape (using underground cables) or take a longer route around it.

7.3.404 In defining the Project routeing at the Strategic Options Stage the assessment focused on whether the Bramford to EACN Substation connection should route directly through the Dedham Vale National Landscape (using underground cables within the National Landscape) or take a longer route around it via the Twinstead Tee area.

7.3.405 Routes avoiding the National Landscape by passing north of Colchester presented significant additional challenges, including greater technical complexity with multiple constrained sections at Layham, Boxford, and Lamarsh Lane, increased construction complexity, and the need for additional crossings of existing infrastructure such as the proposed Bramford to Twinstead overhead lines. Moreover, routes north of Colchester may still result in adverse effects on the setting of the National Landscape.

7.3.406 The direct route with underground cables was selected as it halves the connection length, avoids creating a third connection between Bramford and Twinstead, and better complies with the Holford Rules, despite requiring underground cable mitigation through the National Landscape.

7.3.407 This approach aligns with National Grid's statutory duties under the Electricity Act 1989 to develop and maintain an efficient, co-ordinated and economical transmission system while having regard to the desirability of preserving amenity. At the time of this strategic decision, underground cable was considered for specific sections where justified by environmental factors and in accordance with the requirements of NPS EN-5 (DESNZ, 2024b) for consideration of alternatives where significant landscape and visual impacts are identified.

7.3.408 Given the Project is CNP infrastructure, paragraph 4.2.8 states that the CNP policy will '*influence how the Secretary of State considers tests requiring clear outweighing of harm, exceptionality, or very special circumstances have been met by a CNP Infrastructure application'*. Paragraph 4.2.17 then explains that this '*means that the Secretary of State will take a starting point that CNP Infrastructure will meet the following, non-exhaustive, list of tests: (…) where development in nationally designated landscapes requires exceptional circumstances to be demonstrated (…)*'.

7.3.409 Paragraph 5.10.33 applies to development proposals located within designated landscapes and states that, for these proposals, the '*Secretary of State should be satisfied that measures which seek to further the purposes of the designation are sufficient, appropriate and proportionate to the type and scale of the development*.'

7.3.410 ES Chapter 13: Landscape and Visual (document reference 6.13) (Revision B) presents the assessment of the likely significant landscape and visual effects that could result from the Project. The assessment of effects on the special qualities of the National Landscape identifies that there would be major and significant effects during construction to the following special qualities:

- '*Iconic lowland river valley associated with the artist John Constable RA , the views he painted are still recognisable today'*
- '*A sense of relative tranquillity'*.

7.3.411 Three of the special qualities would be subject to moderate and significant (adverse) effects during construction

- Valley bottom grazing marshes with associated drainage ditches and wildlife
- Naturally functioning River Stour with associated tributaries, meres, and historic river management features
- Surprisingly long-distance views from higher ground along the valley in an area associated with large skies.

7.3.412 Four special qualities would be subject to minor and not significant (adverse) effects during construction:

- Historic villages with timber framed housing and prominent churches
- Semi natural ancient woodlands on valley sides with associated wildlife
- Traditional field boundaries intact and well managed
- Apparent and buried archaeology indicating millennia of human activity.

7.3.413 As set out in Appendix 13.5: National Landscape Assessment Study (document reference 6.13.A5) (Revision B), effects on the special qualities of Dedham Vale National Landscape would reduce to minor and not significant (adverse) during operation once the underground cables are covered over and land use and landcover reinstated as far as possible.

7.3.414 With respect to Furthering the Purposes of the Dedham Vale National Landscape, as set out in National Landscapes – Duty to Seek to Further the Purposes Report (s85 Countryside and Rights of Way Act 2000) (document reference 5.10), engagement with stakeholders is ongoing, early feedback supported the provision of a financial contribution to support the delivery of a range of measures to further the purposes. Such an approach has been followed on a number of other NSIPs where the Section 85 duty has been engaged. In addition, there has been consideration of an initial feasibility study in respect of the potential for the future removal of an existing 132 kV overhead line operated by UKPN (the PJ Line).

7.3.415 National Grid will continue to engage and work with stakeholders to seek agreement on the proposed package of measures to fulfil the duty to seek to further the statutory purpose of the Dedham Vale National Landscape.

7.3.416 The Project aligns with NPS EN-5 in how it has approached siting of infrastructure with regard to the Dedham Vale National Landscape. In line with the Horlock Rules, National Grid has located the CSE Compounds and the EACN Substation outside the National Landscape and further minimised effects through sensitive siting of these aspects of development to avoid significant effects on its setting. The electricity connection in the National Landscape utilises underground cables, again, meeting the requirements of NPS EN-5 by applying the presumption that connections within an AONB should be located underground.

7.3.417 Paragraph 5.10.32 in NPS EN-1 (DESNZ, 2024) advises that the SoS should give '*substantial weight'* to the conservation and enhancement of National Landscapes natural beauty and adds that the SoS may give development consent in nationally designated landscapes in exceptional circumstances. It is considered that the Project meets the tests set out in paragraph 5.10.32 of the NPS and paragraph 187 of the NPPF (need for the development, cost of and scope for developing elsewhere and any detrimental effect on the environment, landscape and recreational opportunities), as discussed below.

7.3.418 The national need for the Project is described the Strategic Options Back Check and Review Report (document reference 7.17) whilst the policy need is outlined in Chapter 3 of this Planning Statement. The existing electricity transmission network in East Anglia does not have the capability needed to reliably and securely transport all the energy that will be connected in the future, while working to the required standards.

7.3.419 With new offshore wind generation, a new nuclear power station at Sizewell C and greater interconnection with countries across the North Sea being proposed, there will be a large increase in the amount of renewable and low carbon electricity generation connecting along the East coast.

7.3.420 This increased generation will play a key role in delivering the UK Government's net zero ambitions and delivering up to 50 GW of offshore wind connected by 2030. To facilitate these ambitions, electricity network infrastructure is needed to ensure that energy can be transported from where it is generated to where it is used.

7.3.421 In November 2024, the National Energy System Operator published Clean Power 2030: Advice on achieving clean power for Great Britain by 2030 (NESO, 2024). This report states that '*Three projects have been identified as critical to delivering a network which supports the clean power pathways, but at present have delivery dates after 2030. Support is therefore needed to bring these projects forward for 2030 delivery. These are projects in East Anglia and in the southeast that are critical for connecting offshore wind in the North Sea and supporting the flow of clean power. Our assessment suggests that without these projects, the clean power objective would not be achieved, leaving the clean power target short by around 1.6% in 2030 (assuming a typical weather year) and consumers could face extra constraint costs of around £4.2 billion in 2030*.' The Project is specified as two of those three projects.

7.3.422 Whilst the transmission system in East Anglia has been sufficient until today, it will soon exceed its current capability. This includes its thermal boundary capability (the physical capacity of the circuits to carry power) and transient stability (the ability to accommodate faults without damaging generators or the network). Increased transmission capability is therefore required in the East Anglia region, to allow National Grid to maintain a robust network, remain in accordance with its licence obligations, and to allow new sources of electricity generation to connect. This is vital to facilitate the ambitious targets set by the Government, for secure, clean and affordable energy for the long term.

7.3.423 Without reinforcement, the 'Thermal Boundary Export Limit' – the physical maximum energy capacity that the system can accommodate during planned system faults – would be exceeded, preventing export of power to demand centres beyond East Anglia. In some conditions, generators connecting in the area would be required to reduce their output. Generators would then have to be compensated via a 'constraint' payment, and additional payments made to non-constrained generators outside of the area to ensure that supply matches demand. These costs would be passed on to end consumers. Analysis from the Electricity System Operator (ESO) shows that, in this case, predicted constraint costs are likely to significantly exceed those of reinforcement, providing a further driver to reinforce the system. This is described further in the Strategic Options Backcheck and Review report (document reference 7.17).

7.3.424 With regard to the cost of, and scope for, developing elsewhere outside the designated area or meeting the need for the Project in some other way, as set out in ES Chapter 3: Alternatives (document reference 6.3) (Revision B) and National

Landscapes – Duty to Seek to Further the Purposes Report (s85 Countryside and Rights of Way Act 2000) (document reference 5.10) describe how the Project has considered the National Landscape and sought to meet Defra guidance (Defra, 2024) which requires relevant authorities to seek to avoid harm and consider whether measures can be embedded in the design of plans and proposals when seeking to contribute and further the purpose of the designation. The decision to use underground cables through the National Landscape provide environmental benefits in specific locations where overhead lines would result in particularly significant landscape and visual impacts. Routes avoiding the National Landscape by passing north of Colchester presented significant additional challenges, including greater technical complexity with multiple constrained sections at Layham, Boxford, and Lamarsh Lane, increased construction complexity, and the need for additional crossings of existing infrastructure such as the proposed Bramford to Twinstead overhead lines. In addition, routes north of Colchester may still result in adverse effects on the setting of the National Landscape.

7.3.425 It was considered that whilst laying underground cabling through the National Landscape would have an effect on the landscape, this would facilitate a more direct route and be more consistent with the wider Holford Rules. An alignment through the Dedham Vale National Landscape is approximately half the length of a route that avoids the Dedham Vale National Landscape.

7.3.426 The third bullet point of paragraph 5.10.32 requires the SoS to consider '*any detrimental effect on the environment, the landscape and recreational opportunities'*. The development in the National Landscape would be fully reinstated and consequently there would not be significant recreation, PRoW, visual or landscape effects on the National Landscape during the operation (and maintenance) of the Project.

7.3.427 On the basis of the above, exceptional circumstances therefore exist to justify the Project in Dedham Vale National Landscape and it has been demonstrated that the Project is critical to the delivery of clean power, and therefore in the public interest. Notwithstanding this, the Project comprises CNP infrastructure and the starting point for the SoS's decision-making in this case is that exceptional circumstances to justify the Project's location in the National Landscape are demonstrated as per paragraph 4.2.17 of NPS EN-1.

7.3.428 In summary, the Project will contribute to the urgent need for new electricity networks, to enable new renewable electricity generation and interconnection infrastructure that the UK needs to enable the transition to net zero while maintaining energy security (as set out in paragraph 3.3.66 of NPS EN-1 (DESNZ, 2024a)).

Land Use Including Open Space, Green Infrastructure and Green Belt (Including Best and Most Versatile Land) (NPS EN-1 Section 5.10)

National Planning Policy

7.3.429 Section 5.11 of NPS EN-1 (DESNZ, 2024a) sets out land use policy including open space, mineral resources, green infrastructure and Green Belt policy relating to the Project. NPS EN-1 provides general guidance on how the effects of the Project on existing and proposed land uses including any effects that may preclude a new development, or a use proposed in the development plan. This section also identifies that applicants should seek to 'minimise' the impacts on the Best and Most Versatile (BMV) agricultural land.

Open Space

7.3.430 This section considers the impact of the Project on open spaces as defined below. This assessment fundamentally concerns the impact of the Project on the use and function of open spaces and does not consider the issue of open space in the context of 'Special Category Land' which is considered in the Statement of Reasons: Appendix C Special Category Land Report (document reference 4.1) (Revision E).

7.3.431 The footnote to paragraph 5.11.1 of NPS EN-1 (DESNZ, 2024a) which sets out the NPS approach to land use including open space, green infrastructure and Green Belt policy, states that: '*Open space is defined in the Town and Country Planning Act 1990 as land laid out as a public garden, or used for the purposes of public recreation, or land which is a disused burial ground. However, in applying the policies in this section, open space should be taken to mean all open space of public value, including not just land, but also areas of water such as rivers, canals, lakes and reservoirs which offer important opportunities for sport and recreation and can also act as a visual amenity*'.

7.3.432 National Grid has undertaken a detailed assessment of the land within or nearby to the Order Limits to determine if it is open space, using the following methods:

- Desktop research processes using online mapping systems to ascertain records of registered parks and gardens, leisure facilities and playing fields used by the local community for recreation and publicly accessible nature reserves. Data has been taken from up-to-date open space assessments produced by each local planning authority along the route of the Project. Site visits and reviews of aerial photography have also been undertaken to identify any land that appears to be open space (such as being set out as a public garden, appearing to be a disused burial ground (old gravestones etc.), used by the local community for recreation (sports, games, dog walking etc.), with evidence of potential recreational activities (such as park benches, picnic benches, local clubs (such as fishing or yachting clubs)
- Desktop referencing was undertaken through extraction and review of Land Registry data, and requests for land interest information from landowners to identify open spaces.

7.3.433 While the above definition of open space is somewhat open to interpretation, the Project has taken a precautionary approach to include all land and water bodies that could be considered to be open space in the list of potential sites, assessing potential locations containing allotments, cemeteries, common land, golf courses, Accessible Natural Green Space, amenity land, parks, sports pitches, recreation grounds, fishing lakes and village greens, consistent with NPS EN-1 (DESNZ, 2024a) guidance. The identified sites are detailed in Table B.1 (Appendix B1) and displayed in Figure 2 of this Planning Statement.

7.3.434 The assessment presented in Chapter 7 considers whether as a result of the Project, the open space will be able to continue its existing use and function without direct or indirect impact. Where no loss of use or function of the open space has been identified an assessment of whether the land is surplus to requirements is not engaged.

7.3.435 Where it has been considered that there is a loss of the use or function of existing open space, sports or recreational facilities, Paragraph 5.11.10 sets out the requirement for applicants to use an up-to-date Local Planning Authority assessment or provide an independent assessment to show whether these existing facilities are

surplus to requirements. Paragraph 5.11.11. states that '*During any pre-application discussions with the applicant the LPA should identify any concerns it has about the impacts of the application on land use, having regard to the development plan and relevant applications and including, where relevant, whether it agrees with any independent assessment that the land is surplus to requirements*.'

7.3.436 Paragraph 5.11.23 acknowledges energy projects may have a direct effect on existing and proposed land uses stating that, '*in the case of most energy infrastructure there may be little that can be done to mitigate the direct effects of an energy project on the existing use of the proposed site (assuming that some of that use can still be retained post project construction) applicants should nevertheless seek to minimise these effects and the effects on existing or planned uses near the site by the application of good design principles, including the layout of the project and the protection of soils during construction*.'

7.3.437 Where green infrastructure is affected, Paragraph 5.11.24 sets out that '*the Secretary of State should consider imposing requirements to ensure the functionality and connectivity of the green infrastructure network is maintained in the vicinity of the development and that any necessary works are undertaken, where possible, to mitigate any adverse impact and, where appropriate, to improve that network and other areas of open space including appropriate access to National Trails and other public rights of way*…' Paragraph 5.11.25 states 'The Secretary of State should also consider whether any adverse effect on green infrastructure[7] and other forms of open space is adequately mitigated or compensated by means of any planning obligations, for example exchange land and provide for appropriate management and maintenance agreements. Any exchange land should be at least as good in terms of size, usefulness, attractiveness and quality, and accessibility.'

7.3.438 Paragraph 5.11.32 sets out that '*The Secretary of State should not grant consent for development on existing open space, sports and recreational buildings and land unless an assessment has been undertaken either by the local authority or independently, which has shown the open space or the buildings and land to be surplus to requirements or the Secretary of State determines that the benefits of the project (including need), outweigh the potential loss of such facilities, taking into account any positive proposals made by the applicant to provide new, improved or compensatory land or facilities'*. Paragraph 5.11.33 goes onto state that 'the loss of playing fields should only be allowed where applicants can demonstrate that they will be replaced with facilities of equivalent or better quantity or quality in a suitable location.'

7.3.439 Paragraph 5.11.27 sets out that '*Existing trees and woodlands should be retained wherever possible* […] *The applicant should assess the impacts on, and loss of, all trees and woodlands within the project boundary and develop mitigation measures to minimise adverse impacts and any risk of net deforestation as a result of the scheme*.'

7.3.440 Also of relevance is the revised NPPF (MHCLG, 2025), which was updated in December 2024, and states at paragraphs 103 that: '*Access to a network of high quality open spaces and opportunities for sport and physical activity is important for the health and well-being of communities, and can deliver wider benefits for nature*

[7] Green Infrastructure is defined in NPS EN-1 (DESNZ, 2024a) (footnote 247) as a network of multi-functional green and blue spaces and other natural features, both rural and urban, which is capable of delivering a wide range of environmental, economic, health and wellbeing benefits for nature, climate, local and wider communities and prosperity.

and support efforts to address climate change. Planning policies should be based on robust and up-to-date assessments of the need for open space, sport and recreation facilities (including quantitative or qualitative deficits or surpluses) and opportunities for new provision. Information gained from the assessments should be used to determine what open space, sport and recreational provision is needed, which plans should then seek to accommodate.'

7.3.441 In England, NPS EN-1 (DESNZ 2024a) identifies that Local Green Spaces may be designated locally in Local Plans and Neighbourhood Plans. These enjoy the same protection as Green Belt in England and the Secretary of State should adopt a similar approach.

7.3.442 NPPF (MHCLG 2025) Paragraph 104 states that '*Existing open space, sports and recreational buildings and land, including playing fields and formal play spaces should not be built on unless:*

(a) an assessment has been undertaken which has clearly shown the open space, buildings or land to be surplus to requirements; or

(b) the loss resulting from the proposed development would be replaced by equivalent or better provision in terms of quantity and quality in a suitable location; or

(c) the development is for alternative sports and recreational provision, the benefits of which clearly outweigh the loss of the current or former use.'

7.3.443 Each LPA along the route of the Project has local planning policies seeking to protect open spaces within its jurisdiction. It is important to acknowledge that the LPA policies and the NPPF (MHCLG, 2025) do not form the basis for policy assessment for the Project and instead, policy assessments are against the relevant NPS. Nevertheless, generally, the LPA policies relating to open space are consistent in seeking to protect open space provision, to increase the supply and to respond to identified deficits in the provision.

7.3.444 Table 7.7 sets out the current status of open space assessment (as of 1 April 2025) produced by each Local Planning Authority.

Table 7.7 Details of Local Planning Authority open space assessments

Authority	Development Plan Document	Open Space Assessment
South Norfolk District Council	Greater Norwich Plan (Adopted 2024) Site Specific Allocations and Policies Document (Adopted 2015) Development Management Policies Document (Adopted 2015)	South Norfolk Council – Playing Pitch Strategy Assessment Report (August 2022)
Mid Suffolk District Council	Babergh and Mid Suffolk Joint Local Plan (Part 1) (Adopted 2023)	Babergh and Mid Suffolk Open Space Assessment (May 2019)
Babergh District Council	Babergh and Mid Suffolk Joint Local Plan (Part 1) (Adopted 2023) Babergh Local Plan (Saved Policies) (Adopted 2006)	Babergh and Mid Suffolk Open Space Assessment (May 2019)

Authority	Development Plan Document	Open Space Assessment
Colchester City Council	Colchester City Local Plan (Section 1) (Adopted 2021) Colchester City Local Plan (Section 2) (Adopted 2022)	Colchester Borough Council: Open Space Report (April 2023)
Tendring District Council	Tendring District Local Plan (Adopted 2017)	Tendring District Council – Open Space Report (July 2023)
Braintree District Council	Braintree District Local Plan 2013-2033 Section 1 (Adopted February 2021) Braintree District Local Plan 2013-2033 Section 2 (Adopted July 2022)	Braintree Open Space Assessment Report (April 2017)
Chelmsford City Council	Chelmsford Local Plan (Adopted May 2020)	Chelmsford Open Space Study 2016-2036 (Part 1 and 2) (2016)
Basildon Borough Council	Basildon District Local Plan (Adopted March 1998, with alternations in September 1999) Saved Policies 2007.	Playing Pitch & Outdoor Sport Strategy: Assessment Report (2025) PPG17 Open Space Assessment Part 2 (2010)
Brentwood Borough Council	Brentwood Local Plan (Adopted March 2022)	Sport, Leisure and Open Space Assessment (August 2016)
Thurrock Council	Thurrock Local Plan (Adopted September 1997) Saved Policies	Thurrock Council Greengrid Strategy – Open Spaces Strategy 2006-2011

Open Space Assessment

7.3.445 The Order Limits have been designed to avoid built development and proposed development allocations in adopted and emerging local plans, including allocated and identified open space. However, on occasion, it is necessary for the overhead line to pass through open space to avoid settlements and conflicts with other developments.

7.3.446 In accordance with paragraph 5.11.9 of NPS EN-1 (DESNZ, 2024a), which states, '*applicants will need to consult the local community on their proposals to build on open space, sports or recreational buildings and land. Taking account of the consultations, applicants should consider providing new or additional open space including green and blue infrastructure, sport or recreation facilities, to substitute for any losses as a result of their proposal*', as well as the requirements of the PA 2008, between 2022 and 2025 National Grid undertook multi-stage pre-application consultations, allowing consultees several opportunities to provide feedback as the proposals evolved. Specifically, two periods of non-statutory consultation were held between 21 April 2022 and 16 June 2022 and between 27 June 2023 and 21 August 2023. Statutory consultation then took place for a period of 15 weeks between 10 April 2024 and 26 July 2024 and provided the opportunity for the public and

stakeholders to see how the Project has evolved since the non-statutory consultation. In 2025 a targeted consultation was held for a period of 11 weeks, between 30 January 2025 and 17 April 2025. This consisted of two rounds of non-statutory targeted consultation and one round of statutory targeted consultation.

7.3.447 If the loss of open space is proposed, then in accordance with paragraph 5.11.10 of NPS EN-1 (DESNZ, 2024a), the Open Space Assessment must consider if any LPA or independent assessment has identified whether the space was surplus to requirements. Alternatively, if the space is not considered surplus, then the Open Space Assessment must consider whether the benefits of the project (including need) outweigh the potential loss and taking into account any positive proposals to provide new, improved or compensatory land or facilities. Paragraph 5.11.24 and 5.11.25 outline the potential requirements for mitigation. Paragraph 5.11.24 states that where green infrastructure is affected, '*the Secretary of State should consider imposing requirements to ensure the functionality and connectivity of the green infrastructure network is maintained in the vicinity of the development and that any necessary works are undertaken, where possible, to mitigate any adverse impact and, where appropriate, to improve that network and other areas of open space including appropriate access to National Trails and other public rights of way and new coastal access routes.*' Paragraph 5.11.25 sets out that '*The Secretary of State should also consider whether any adverse effect on green infrastructure and other forms of open space is adequately mitigated or compensated by means of any planning obligations, for example exchange land and provide for appropriate management and maintenance agreements. Any exchange land should be at least as good in terms of size, usefulness, attractiveness and quality, and accessibility.*'

7.3.448 It is currently assumed and has been assessed within ES Chapter 13: Landscape and Visual (document reference 6.13) (Revision B) and ES Chapter 8: Ecology and Biodiversity (document reference 6.8) (Revision C) that any trees present within the 56 m wide swathe beneath the overhead lines will be either removed or managed to facilitate both the construction and operation of the overhead line. However, this is based on a worst-case assumption of tree species and predicted growth over a five-year period. The Outline CoCP (document reference 7.2) (Revision G) includes a commitment that following detailed design and prior to construction, all vegetation will be subject to a full tree / vegetation survey and site-specific assessment where vegetation removal may be reduced further.

7.3.449 Significant blocks of tree habitat have been avoided along the 400 kV and 132 kV underground cable swathe or alternative trenchless methods have been employed wherever possible. One exception to this is the area around Black Brook, Langham, where due to the narrow gap and other constraints, trenchless construction techniques are not possible. While for the 400 kV underground cable in general a 120 m swathe would be required, a restriction of 80 m has been applied at Black Brook due to the sensitive nature of the site.

7.3.450 Other third-party undergrounding works (33 kV, 11 kV and BT) are considered minor works and given the flexibility of the works will avoid tree loss where at all possible. Permanent woodland/tree removal is required at the EACN substation to facilitate the construction footprint. The band of lowland deciduous woodland was planted in 2002 and is in poor condition based on woodland condition criteria. No other woodland removal is required to facilitate the permanent Project assets (CSE compounds or substations).

7.3.451 Tree removal or management will be required at bellmouth junctions where a visibility splay has been identified for traffic safety reasons. Tree removal required within the visibility splays will be reduced as much as possible and if safe to do so trees will be coppiced instead of removed.

7.3.452 Where the Project will result in the removal of trees within open space, the Open Space Assessment has identified that removal will be taking place and has referenced the measures to mitigate loss and restore sites as derived from the Outline LEMP (document reference 7.4) (Revision G).

7.3.453 As set out, the Project has taken a precautionary approach to the identification of open space. This has resulted in the identification of 112 sites. These sites are located ether adjacent to or within the Order Limits. The 112 open space sites are identified in Appendix B1, and this Table also considers the impact of the Project on these open space sites. Given the precautionary approach, not all sites are used for recreational purposes and in these cases the impacts are limited.

7.3.454 Many of the sites are located adjacent to the Order Limits. In these instances, it is considered that there would be no direct or indirect impact on their use and function and no further assessment against the requirements of NPS EN-1 (DESNZ, 2024a) is provided. This is because it remains that the land can be used and will continue to function as open space in the same manner that it does currently.

7.3.455 Temporary works proposed as part of the construction of the Project result in some open space sites being located within the Order Limits. Where this is the case, Appendix B1 identifies the nature of the temporary works and concludes that there would be no permanent impact upon the use and function of the open space. After construction works are completed, the majority of open spaces will be restored to their former condition, and their use and function will revert to those that existed before works commenced. Therefore, where temporary works impact upon open space there are no further assessments of impact against the requirements of NPS EN-1 (DESNZ, 2024a), as no loss of the sites existing use or function.

7.3.456 In other cases, works are taking place to underground existing overhead lines. Whilst these would result in permanent changes underground, following the completion of undergrounding, the land above ground would be restored. Where there is undergrounding there will be restrictions on tree planting and thus replacement planting will take place as close as possible to the original location of the lost trees. Therefore, in instances where trees currently exist on land where undergrounding will take place, it will not be possible to restore land to its existing condition, but replacement planting will take place close to these areas. On this basis, the Open Space Assessment concludes that there would be no permanent overground impact on the use and function of open spaces.

Oversailing

7.3.457 The overhead lines oversail many of the identified open spaces. Where oversails are identified within the Open Space Assessment it is considered that there may be an impact on the function and use of an open space. The reasons for this are twofold:

- Oversailing a space with conductors, where this was not previously the case, may have indirect impacts on the function of a space due to worse outcomes for visual amenity value of a space; and
- In some cases, existing angling uses will be lost at angling ponds and lakes, as they are not compatible with overhead lines.

7.3.458 It will not be possible to replant trees within 56 metres underneath overhead lines. In these instances, similar to where undergrounding is taking place, tree planting will be undertaken as close as possible to the original location of tree loss.

Oversailing Impact on Visual Amenity

7.3.459 In determining the impact of oversailing on the visual amenity value that a site offers, it is relevant that land use is defined by what is happening on the ground. Oversailing insofar as it impacts visual amenity value, will have no impact on the use of the land, but could indirectly impact the function if that function is reliant upon the positive visual amenities of a site and these are interrupted by oversailing.

7.3.460 In relation to a reduction in the visual amenity value of a site, the Open Space Assessment advises that if and in so far as the Project has an indirect impact on the use of the open space then such an impact is significantly outweighed by the benefits of the Project (including need), and having regard to the mitigation the Project has offered in respect of the indirect effect on the open space.

7.3.461 Appendices B2 and B3 include additional consideration of those areas where a loss of open space has been identified in Appendix B1. In particular, Appendix B2 considers the impact of the Project on angling provision within Ardleigh (sites OS/46 and OS/47) whilst Appendix B3 considers further the position of pylons at Maple Park (OS/105).

Oversailing Impact on Angling

7.3.462 In respect of angling, the Project oversails a pond near Ardleigh and the northern section of the Ardleigh Reservoir, both in Tendring, as well as a small pond in Basildon. These sites are all used for angling. The pond in Ardleigh is only privately accessible and thus has only been identified on a highly precautionary basis. Ardleigh Reservoir is accessible on a daily ticketing basis, and it is understood that this is also the case for the pond in Basildon. At Ardleigh Reservoir, angling will only be sterilised along a 30 m swathe and outside of this it will still be permissible. So, this will not impact the whole area.

7.3.463 The loss of the two angling sites in Tendring results in the loss of approximately 4 ha of blue infrastructure for angling. Resultantly, a detailed assessment has been made on the provision of angling facilities within the proximity of these two sites, which is included in Appendix B2. This assessment finds that these two sites are surplus to requirements, as there is a strong provision of alternative facilities within the locality, and that there are no standout cost or quality reasons that would justify their retention.

7.3.464 The pond in Basildon is significantly smaller than the two sites in Tendring at 0.3ha, with a large swathe of this currently unusable due to the siting of existing pylons along its southern bank. On assessment of provision of angling within the locality of this site, which is carried out within the Open Space Assessment, it is evident that ample alternative options for angling exist nearby and therefore the site is considered surplus to requirements.

Pylons

7.3.465 Pylons will be sited in four areas where there are interactions with open space: The Fordham Hall Estate, Colchester; Dunton Hills Family Golf Centre, Dunton; Maple Park, Stanford-le-Hope; and Orsett Golf Course, Orsett. At these sites, there is considered to be an impact on the use and function of land as areas of open space with recreational uses will be lost immediately around the base of the pylons.

Fordham Hall Estate

7.3.466 Fordham Hall Estate is a Woodland Trust site and includes a network of 19 km of unsurfaced paths for public use. Much of the site is subject to third-party grazing licences. Whilst public access is permissible on this land, visitors are only allowed to deviate from paths where the land is occupied by the Woodland Trust. Pylons TB48 and TB49 are located within the site, however, these are located on areas of the site where third-party grazing licences exist and these are located away from pathways on the site, with the nearest located approximately 40 metres to the south of pylon TB49. Therefore, there would not be an impact on the use or function of the open space at Fordham Hall Estate. TB46 is within an area of the estate which is not farmed and within land leased by the Woodland Trust. Therefore, as a precautionary approach it has been assumed that the area around TB46 is publicly accessible. Given the siting of several pylons on the Estate, including the precautionary approach being taken in respect of TB46, an assessment of provision has been carried out using a relevant Local Authority Assessment. In doing this, the Colchester Borough Council Open Space Report (April 2023) identifies a surplus of open space both within the locality of Fordham Hall Estate and within the wider Colchester area.

Maple Park

7.3.467 Two pylons will be sited in the south west of Maple Park, Stanford-le-Hope. The Open Space Assessment acknowledges that this will result in the loss of open space in these locations, and that effort has been made to avoid Maple Park, however, it is the only technically feasible route for the Project. This impact will be restricted to a small section, being the base of the pylons, of Maple Park and this will take place in a part of the Park furthest from any population centre, which is visibly less maintained than the wider Park. Maple Park itself is significant in size at 42.3ha.

7.3.468 Given the loss, a detailed assessment for Maple Park has been produced, which is included in Appendix B3. This assessment reviews the 2005 Local Authority Open Space Assessment for Thurrock Council, which is the Authority within which Maple Park is located. Thurrock Council's Assessment identified a significant surplus of natural and semi natural open space, which is the open space typology that the area of Maple Park where the pylons will be sited falls into. The assessment seeks to update the findings of Thurrock's 2005 Assessment, given its age, and finds that it is reasonable to conclude that a significant surplus remains in 2025. Resultantly, the assessment concludes that the small area of Maple Park to be lost due to the two pylons is considered surplus to requirements.

Dunton Hills Family Golf Centre

7.3.469 At Dunton Hills Family Golf Centre the 400 kV overhead line broadly follows the alignment of an existing high pressure gas pipeline and 132 kV overhead line which crosses into the Dunton Hills Family Golf Centre. Pylon TB229 is proposed within the golf course, which will result in the loss of open space. As part of the Project several pylons that form part of the 132 kV overhead line will be undergrounded.

7.3.470 The position of pylon TB229 will not interfere with any of the holes and the removal of several pylons from the 132 kV overhead line at the Course as part of the Project will result in an overall improvement for the site in terms of use and function. Furthermore, in justifying a Local Plan allocation (discussed below), at the site, Brentwood Borough Council have established that the whole course is surplus to requirements and sufficient provision for playing golf exists in the locality (Brentwood, 2018)[8]. Therefore, the loss of open space because of the siting of pylon TB229 on Golf Centre is considered acceptable.

[8] https://document.brentwood.gov.uk/pdf/25102018124614000000.pdf

7.3.471 The Golf Centre is allocated in the Brentwood Local Plan 2016-2033 (Site Reference R01) and subject to an outline planning application (application reference 21/01525/OUT) for the construction of 3,700 dwellings, three care homes, five gypsy / travellers pitches, secondary and primary schools, employment and sports hub. The impact of the Project on this future development will be no greater than the existing 132 kV overhead line that the Project follows the route of, which will be undergrounded.

Orsett Golf Course

7.3.472 The Project oversails the 16th and 17th holes at Orsett Golf Course and pylon TB262 will be sited within a practice area to the south of the 16th green. The siting of pylon TB262 on the practice area will prohibit the use and function of it in the immediate vicinity of the pylon. Therefore, there will be a loss of the open space in this location and an impact on the use and function of the open space, as golfing on the practice green will be prohibited by the presence of the pylon.

7.3.473 Due to route constraints and the need to connect to Tilbury North Substation, the overhead lines must take this route, and therefore pylon TB262 can only be sited within the practice area and no suitable alternatives exist. There is provision of practice courses elsewhere within the locality, however, the need for a practice area is specific to an individual golf course. Resultantly, an assessment of provision elsewhere is not applicable. Discussions are ongoing between National Grid and Orsett Golf Course to minimise the impact on the practice area and a Statement of Common Ground is being prepared to this end. However, fundamentally, the impact of the loss of the use of part of the practice course is outweighed by the benefits of the Project (including need).

7.3.474 Table 7.2 B1 and appendix B2 and B3 display the impact of the Project on the 112 open space sites impacted, in line with relevant paragraphs of NPS EN-1 (DESNZ, 2024a). In the majority of cases there are either no impacts or short-term impacts during construction. Where there may be impacts in terms of visual amenity from oversails, the benefits of the Project (including need) are considered to outweigh these. Where angling is to be sterilised, it is found that suitable alternatives exist nearby. In four locations pylons will be sited on areas of open space where recreational uses exist, however, in these cases the impacts are justified. Importantly, no playing fields will be permanently lost due to the Project.

7.3.475 The Project has sought to apply the mitigation hierarchy to avoid impacts on open space where possible. Where impacts have been identified, it is considered that these have been justified, it is acknowledged that this would remain contrary to local planning policy. If it is considered that an impact has not been justified it is considered, fundamentally, that the benefits of the Project (including need) outweigh the potential loss of function or use of open space at all sites considered, in accordance with paragraph 5.11.32 of NPS EN-1 (DESNZ, 2024a).

7.3.476 The Project is identified as CNP Infrastructure. Paragraph 4.2.17 of NPS EN-1 includes a '*non-exhaustive*' list of tests which the SoS will take as a starting point that CNP infrastructure has met. The Project is able to demonstrate that it has applied the mitigation hierarchy to avoid adverse impacts on open space (including blue and green infrastructure). Whilst open space is not included within the list presented at paragraph 4.2.17, it is considered that the SoS should take as their starting point that the Project has met those tests presented at paragraphs 5.11.8, 5.11.9, 5.11.10, 5.11.11 and 5.11.32.

Mineral Resources

National Planning Policy

7.3.477 Paragraph 5.11.19 of NPS EN-1 (DESNZ, 2024a) highlights the need to consider minerals safeguarding issues, stating that '*applicants should safeguard any mineral resources on the proposed site as far as possible, taking into account the long-term potential of the land use after any future decommissioning has taken place'*. The NPPF (MHCLG, 2025) encourages prior extraction of minerals 'where practical and feasible'.

7.3.478 Where a proposed development has an impact upon a Mineral Safeguarding Area (MSA), the Secretary of State should ensure that appropriate mitigation measures have been put in place to safeguard mineral resources.

Local Planning Policy

7.3.479 Policy CS16 of the adopted Norfolk County Council Minerals and Waste Development Framework identifies Mineral Safeguarding Areas (MSAs) for silica sand, carstone, and sand and gravel with the pre-submission Norfolk Minerals and Waste Local Plan containing similarly worded policies around minerals safeguarding.

7.3.480 Policy MP09 (Safeguarding of port and rail facilities and facilities for the manufacture of concrete, asphalt and recycled materials) and Policy MP10 (Minerals consultation and safeguarding areas) of the adopted Suffolk Minerals and Waste Local Plan respectively address the issue of safeguarding concrete manufacturing sites and defines MSAs and MCAs within the plan area.

7.3.481 The Essex Minerals Local Plan defines sand and gravel MSA as being all areas of glacial, glaciofluvial and river terrace deposits of sand and gravel identified on the British Geological Survey (BGS) mapping (and other supplementary sources of evidence). Policy S8 (Safeguarding Mineral Resources and Mineral Reserves) seeks to prevent mineral resources of national and local importance being sterilised by surface development.

7.3.482 The Thurrock Core Strategy and Policies for Development Management Development Plan Document was adopted in January 2015. The Core Strategy contains information relating to minerals planning policy in policies CSTP31 (Provision of Minerals) and CSTP32 (Safeguarding Minerals Resources). Policy CSTP32 states that MSA in Thurrock are '*based on the work undertaken for the ECS'* (Environmental Capacity Statement).

7.3.483 Thurrock Council's Environmental Capacity Statement: Designation of Mineral Safeguarding Area (SKM Enviros, 2010) states that a MSA '*identifies and raises awareness to developers of the possible presence of workable mineral deposits. The potential for extracting these deposits must be considered when submitting and determining planning applications for non-mineral related development. This ensures valuable mineral resource are not needlessly sterilised*'.

Assessment

7.3.484 The Project has sought to avoid direct interactions with existing minerals sites, where possible, as described within Appendix 9.2: Qualitative Minerals Resource and Infrastructure Assessment (document reference 6.9.A2) (Revision B).

7.3.485 Information received from Norfolk County Council has provided the locations of safeguarded minerals, safeguarded minerals infrastructure and/or allocated sites for mineral extraction and the information is presented on Figure 9.3 (document reference 6.9.F3. The data set indicates that the northern part of the Study Area and Order Limits crosses the safeguarded areas for the following active (and Safeguarded) sites; Swardeston Quarry, Mangreen Recycling Centre and Mangreen Quarry.

7.3.486 The Study Area (as defined in ES Chapter 9: Contaminated Land, Geology and Hydrogeology (document reference 6.9) (Revision B) and Order Limits also cross three Adopted Sites (MIN79, MIN80 and MIN81) based on the information provided by Norfolk County Council. Aerial photography (dated 2023) appears to show MIN81 in the process of being worked. However, MIN79, MIN80 and MIN81, have been deleted in the pre-submission publication of the Norfolk Minerals and Waste Local Plan, published in May 2022, and are therefore no longer adopted and are not considered further.

7.3.487 Within Suffolk the Project is identified as crossing through several MCAs for sand and gravel as shown on Figure 9.3: Mineral Safeguarding Areas, Mineral Consultation Areas, and Minerals Infrastructure (document reference 6.9.F3). The Project also interacts with an existing concrete batching plant (Poundfield Products Section B), as shown on Figure 9.3: Mineral Safeguarding Areas, Mineral Consultation Areas, and Minerals Infrastructure (document reference 6.9.F3). However, the Order Limits only interact with the concrete batching plant site because the Project is proposing to use the existing access roads, and the proposed pylons within this area would be positioned outside of the facility. Therefore, the Project would not cause the loss of, or compromise the works of the facility

7.3.488 The current Essex Minerals Local Plan confirms that parts of the Study Area are located within a MSA for sand and gravel and brickclay. The Study Area also interacts with some existing minerals sites and the associated Mineral Consultation Areas (MCAs), as shown on Figure 9.3: Mineral Safeguarding Area, Mineral Consultation Area, and Minerals Infrastructure (document reference 6.9.F3).

7.3.489 As documented in Chapter 4 of this Planning Statement information obtained from Essex County Council has provided the locations of the following safeguarded existing minerals infrastructure sites that the Order Limits and Study Area interact with:

- Crown Quarry (Section C). Crown quarry is located to the west of Ardleigh Reservoir and is crossed by the Order Limits within Section C. There is currently one pylon proposed within the boundary of the quarry (TB20), along the northern boundary of the site along Wick Lane, and a further two pylons (TB19 and TB21) within the MCA for the site. A review of the plans for Crown quarry on the Essex County Council planning portal suggests that the northern part of the site along Wick Lane is not proposed to be worked as the mineral is not expected to extend that far. Further discussions with the quarry operator will be undertaken to agree any mitigation that may be required and minimise impacts on the working area so that significant effects are unlikely
- Essex County Council resolved to grant approval for the continued operations at Crown Quarry (Wick Farm) (reference ESS/07/02/TEN) site for the continuation of winning and working of minerals associated with the construction of a public water storage reservoir exceeding the previously approved timeframe set out in Condition 2, and the previously approved restoration/permission end date

(Condition 34) and restrictions against additional buildings/fixed plant and machinery (Condition 39) set out in the original permission (reference ESS/57/04/TEN). The changes to details under these conditions would allow changes to operational areas, the phasing of the development and the shape and capacity of the completed reservoir; an additional period of time to complete the development; the provision of an additional car parking area; a new workshop building; and the installation and use of a bagging facility. A Statement of Common Ground will be prepared between National Grid and Crown Quarry

- Blixes Farm (Section E) and the corresponding MCA are located within the Study Area, and a small part of the Order Limits also cross the MCA for this site. However, this part of the Project proposes only utilisation of an existing access road and the Project infrastructure will be outside of the site's boundary
- Bradwell Quarry (Section E) – The information received from Essex County Council regarding the current minerals local plan, does not identify Bradwell Quarry within the Order Limits, however a review of planning applications for the site and consultation information provided by Essex County Council, indicates the quarry expansion areas are within the Order Limits Sheepcotes (Section F), located north-east of Little Waltham – is within the Order Limits, however the parts of the Sheepcotes site that are within the Order Limits only comprise existing access roads and the proposed infrastructure for the Project will be outside the site's boundary and not within the operational part of the site
- Planning permission was granted by Essex County Council in June 2022 for the Extraction of 6.5 million tonnes of sand and gravel (from Site A7 as identified in the Essex Minerals Local Plan 2014) (application reference ESS/12/20/BTE). The Project Oversails Bradwell Quarry with one pylon (TB84) proposed within the boundary of the quarry. National Grid has sought to position the pylon within an area which is not proposed for mineral extraction area. The Project will not sterilise any minerals proposed to be quarried, and quarrying will not impinge upon the Project. National Grid is pursuing a Statement of Common Ground with Blackwater Aggregates as the operator of Bradwell Quarry (document reference 5.9.56)
- Roxwell Quarry, Chignall St James (Section F) – is located inside the Order Limits, however proposed pylons within this section of the Order Limits are to be placed outside of the working boundary of Roxwell Quarry. It is understood that this site has been restored.

7.3.490 The Essex Minerals Local Plan is currently under review, and a Draft Replacement Essex Minerals Local Plan (Essex County Council, 2024) was published for consultation in February 2024 to extend the plan end date to 2040. The consultation on the document closed in July 2024. During the review of the Essex Minerals Local Plan a call for sites exercise was undertaken to support development up to 2040 and the sites are now being considered by Essex County Council for their potential inclusion in the new Plan. The candidate mineral sites identified by Essex County Council which interact with the Project are:

- A85 and A86 Martells (Section C) – located inside the Order Limits
- A79 and A80 Crown Quarry (Section C) – located inside the Order Limits
- A47 Bradwell Monks Farm (Section E) – located inside the Order Limits
- A59 Lowleys Farm (Section F) – located inside the Order Limits.

7.3.491 National Grid has sought to avoid these potential allocations as far as possible. For all of these potential sites, National Grid has widened the Order Limits to allow for flexibility for an alternative alignment should the above sites be allocated in a future minerals plan.

7.3.492 Within Thurrock, the following safeguarded existing minerals sites are indicated to interact with the Order Limits and Study Area:

- Burrows Farm, Brentwood Road, Bulphan (Section H) – designated by Thurrock Council as an aggregate recycling site – located approximately 150 m north-west of the Order Limits therefore the Project infrastructure will be outside of the site's boundary
- Orsett Quarry (Section H) - current permitted minerals site, with a pending application for an extension to the east of the existing quarry – located within the Order Limits. However intrusive works are not proposed within the site boundary
- Rainbow Shaw Quarry (Section H) - which is designated by Thurrock Council as an aggregate recycling site – located within the Order Limits, however the Project is proposing only to utilise the existing access road and the proposed infrastructure for the Project would be outside of the site's boundary
- Mill House Farm (Section H) – designated as a permitted minerals site which is located inside the Order Limits. However, intrusive works are not proposed within the site boundary Dansand Quarry, Stanford Road (Section H) – designated by Thurrock Council as an operational sand and gravel quarry and is located directly adjacent to the west side of the Order Limits where the Project is proposing only to utilise the existing road network
- Dansand Quarry, Stanford Road (Section H) – designated by Thurrock Council as an operational sand and gravel quarry and is located directly adjacent to the west side of the Order Limits.

7.3.493 ES Appendix 9.2: Minerals Resource and Infrastructure Assessment (document reference 6.9.A2) (Revision B) presents an assessment of the potential effects of the Project on Minerals Safeguarding Areas (MSA) and/or Mineral Consultation Areas (MCA). Large parts of the Order Limits are located within either a MSA or an MCA for sand and gravel and/or brick clay. The MSA and MCA both extend beyond the Order Limits, across substantial areas of Norfolk, Suffolk, and Greater Essex. The assessment notes that even if the full extent of the Order Limits within an MSA/MCA were to sterilise mineral of sufficient quality and extent to be economically valuable, the extent of the sterilised area is very small in comparison to the extent of the MSAs/MCAs (<1.5%). The actual areas where built development would effectively sterilise any valuable mineral are significantly smaller still. Therefore, the quantity of mineral sterilised by the Project is insignificant in the context of the extensive occurrence of sand and gravel within all counties and the national need/significance of the Project.

7.3.494 Consideration has been given to prior or incidental extraction of minerals as part of the Project construction programme. However, this has shown that the increase in cost associated with the extraction would increase the overall cost of the entire Project and may conflict with National Grid's duty to be economic and efficient. The additional time that would need to be added to the construction schedule would mean that National Grid could miss the Project's intended delivery date, which could also risk the meeting of the Government target of a net-zero electricity system by 2050.

Therefore, it is considered that in the context of the additional cost and time required and the unproven economic value of the small amount of mineral that could be realised, prior extraction in these areas is not viable.

7.3.495 In addition, any potential mineral sterilisation can be considered to be temporary, as access to the underlying mineral could be restored if parts or all of the infrastructure are decommissioned.

7.3.496 Therefore, it is considered that the Project is not in conflict with NPS EN-1 (DESNZ, 2024a), the NPPF (MHCLG, 2025) and those identified mineral plan policies.

Green Belt

National Planning Policy

7.3.497 Paragraph 5.11.20 of NPS EN-1 (DESNZ, 2024a) sets out the within the Green Belt there is a general presumption against inappropriate development unless there are very special circumstances to justify that development being consented. Paragraph 5.11.37 sets out that '*very special circumstances are not defined in national planning policy as it is for the individual decision maker to assess each case on its merits and give relevant circumstances their due weight. However, when considering any planning application affecting Green Belt land, the Secretary of State should ensure that substantial weight is given to any harm to the Green Belt when considering any application for such development, while taking account, in relation to renewable and linear infrastructure, of the extent to which its physical characteristics are such that it has limited or no impact on the fundamental purposes of Green Belt designation. Very special circumstances may include the wider environmental benefits associated with increased production of energy from renewables and other low carbon sources'*.

7.3.498 Paragraph 4.2.16 sets out that where a project is CNP Infrastructure the Secretary of State will take as a starting point for decision making that such infrastructure is to be treated as if it has met any tests which are set out within the NPSs, or any other planning policy, which requires a clear outweighing of harm, exceptionality or very special circumstances. Paragraph 4.2.17 identifies that this assumption includes where development is within a Green Belt and requires very special circumstances to justify development.

7.3.499 Paragraph 143 of the NPPF (MHCLG, 2025) identifies the five purposes of the Green Belt. These are:

- *'To check the unrestricted sprawl of large built-up areas*
- *To prevent neighbouring towns merging into one another*
- *To assist in safeguarding the countryside from encroachment*
- *To preserve the setting and special character of historic towns*
- *To assist in urban regeneration, by encouraging the recycling of derelict and other urban land.'*

7.3.500 Paragraph 153 of the NPPF (MHCLG, 2025) identifies that local authorities should ensure that substantial weight is given to any harm to the Green Belt when considering planning applications. Inappropriate development is, by definition, harmful to the Green Belt and should not be approved except in very special circumstances. Very special circumstances will not exist unless the potential harm to the Green Belt by reason of inappropriateness, and any other harm resulting from the proposal, is clearly outweighed by other considerations.

7.3.501 Paragraph 154 notes that development is inappropriate in the Green Belt unless an exemption applies. Subsection 154 (h)(ii) notes that engineering operations may be appropriate development provided that the proposal preserves the openness does not conflict with the purposes of including land in the Green Belt.

Local Planning Policy

7.3.502 Policies to Protect the Green Belt from inappropriate development are contained within the development plans for Chelmsford Strategic Policy S1 (Spatial Principles), S11 (The Role of the Countryside), DM6 (New Buildings in the Green Belt), and Policy DM19 (Renewable and Low Carbon Energy), Brentwood Local Plan Strategic Policy MG02 (Green Belt), Basildon Local Plan (Saved Policies) (Policy BAS GB1) and Thurrock Core Strategy and Policies for Management of Development policies CSSP4 (Sustainable Green Belt), CSTP23 (Thurrock Character and Distinctiveness) and PMD6 (Development in the Green Belt). The policies identify that the Metropolitan Green Belt will be preserved from inappropriate development so that it continues to maintain its openness and serve its key functions. Planning permission will not be granted for inappropriate development in the Green Belt other than in very special circumstances.

Assessment

7.3.503 The extent of land designated as Green Belt in England in March 2023 was estimated at 1,389,420 hectares. This is approximately 12.6% of the land area of England.

7.3.504 The Metropolitan Green Belt was formally introduced in the Green Belt (London and Home Counties Act) 1938 is the largest area of Green Belt surrounding an urban core (London) and accounts for 31% of England's total Green Belt Area. The primary purpose of the Metropolitan Green Belt is to prevent urban sprawl by keeping land permanently open around major urban areas. This includes checking the unrestricted growth of built-up areas, preventing neighbouring towns from merging, safeguarding the countryside, and preserving the character of historic towns. The London Metropolitan Green Belt encompasses local authorities in and around Greater London including host authorities for the Project, Chelmsford Council, Brentwood District Council, Basildon District Council and Thurrock Council.

Existing Infrastructure in the Green Belt

7.3.505 National Grid has existing electricity transmission overhead lines across the Metropolitan Green Belt including the Project host authorities' areas in:

- Thurrock Council: Existing Tilbury Substation and ZV, ZJ and YYJ 400 kV overhead line and the ZB 275 kV overhead line
- Basildon: existing ZJ and ZT and 4VB 400 kV overhead line
- Brentwood: existing ZB 275 kV overhead
- In addition, there are also 132 kV, 33 kV and 11 kV UKPN overhead lines within the above local authority areas.

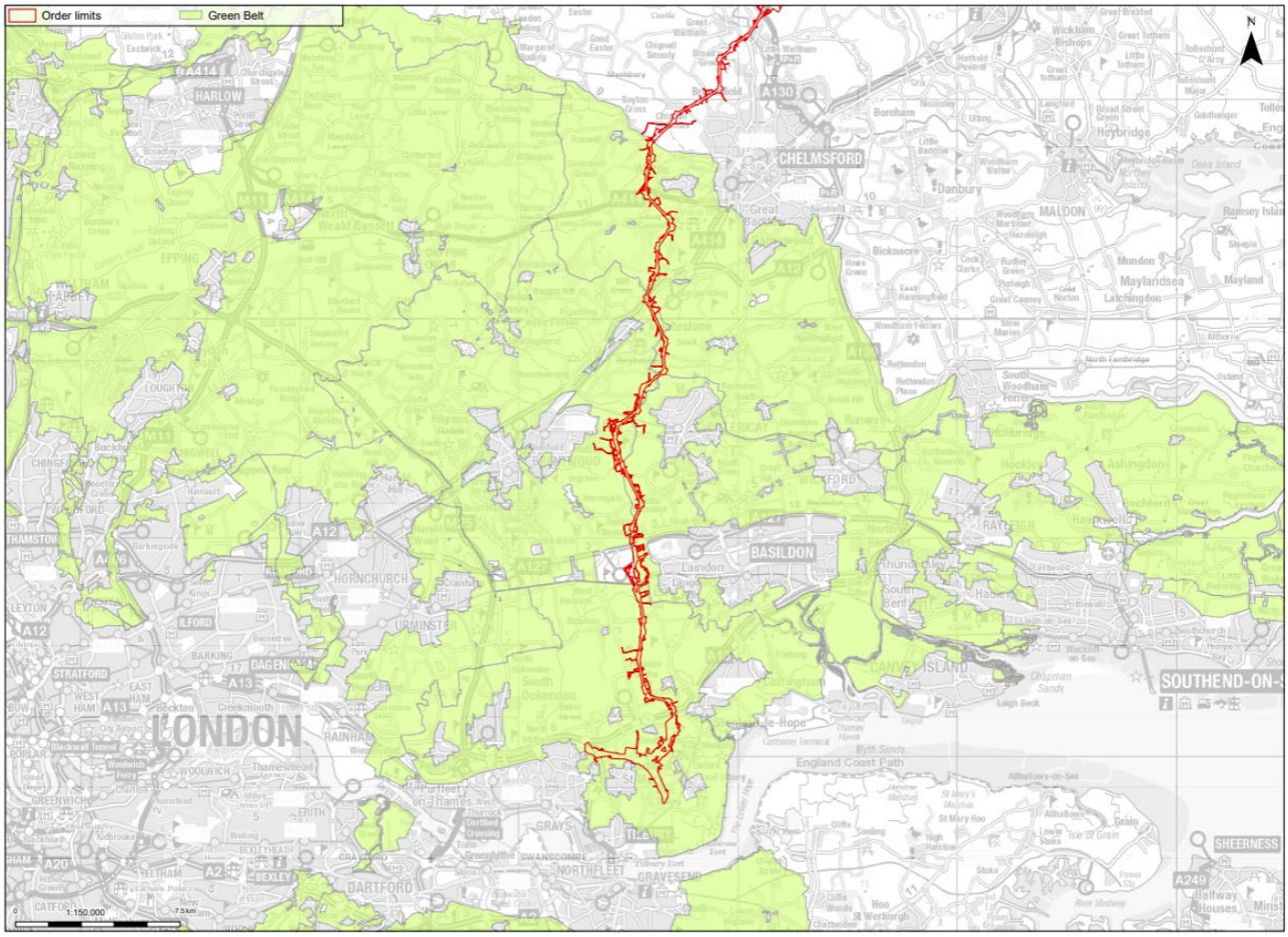
Proposed Infrastructure

7.3.506 The Project Description is set out within ES Chapter 4 (document reference 6.4) (Revision B). Figure 4.1: Proposed Project Design (document reference 6.4.F1) (Revision B) and Figure 4.2: Proposed Project Design – Permanent Features (document reference 6.4.F2) (Revision B) shows the Project within the Green Belt.

7.3.507 The proposed infrastructure that would be routed within the Metropolitan Green Belt comprises:

- Overhead Line comprising approximately 103 standard height lattice and 6 low height lattice pylons covering approximately 37 km. Low height lattice pylons to the west of Langdon Hills Golf and Country Club (between TB238 and TB243)
- New 400 kV GIS Substation at Tilbury North (to the south of Orsett Golf Course)
- Modifications to the existing National Grid Electricity Transmission overhead lines to facilitate the connection to the existing network into the new Tilbury North Substation including modifications to the existing ZB circuits to be diverted and changed to underground cable to allow for YYJ circuits to be connected into the new Tilbury North Substation
- Temporary works associated with the construction of the Project.

Image 7.3 Order Limits within the Metropolitan Green Belt



Background and Material Considerations

7.3.508 Like much of the high voltage electricity transmission network across the country, the network in East Anglia was largely developed in the 1960s. Growth in offshore wind generation has seen a significant number of connections planned in the East Anglian and South East coastal areas of England. The existing transmission network infrastructure was not originally designed to accommodate such large volumes of generation capacity.

7.3.509 As described in ES Chapter 3: Alternatives (document reference 6.3) (Revision B) following the need for the reinforcement being identified, National Grid commenced an optioneering process to determine how best to achieve reinforcement objectives. The first stage in the options appraisal process was to determine a preferred Strategic Proposal that would meet the identified need while balancing environmental, socio-economic, technical, and cost factors.

7.3.510 Having considered different technology options, the geographical scope of options was then considered. In general terms, the geographical scope was restricted to the area of East Anglia and the South East that encompassed the nearest parts of the NETS that would facilitate a connection between the northern parts of East Anglia, South Coast Interconnectors and the electricity demand area formed by the South East. A total of 27 options were identified that aimed to provide a solution with longer-term goals of supporting the system's capacity into the 2030s. These options were then appraised following National Grid's options appraisal process which looked at environmental, socio-economic, technical, and cost factors. Strategic option alternatives identified for appraisal fall into three main geographic themes:

- Eastern - transporting power from the north of East Anglia into the South East connecting with existing substations such as Tilbury and Grain
- Northern - creating additional capacity by connecting into the north of the existing London area network and then into the South East connecting with existing substations such as Wymondley, Pelham and Waltham Cross
- Western - creating additional capacity by transporting power westward around London and down into the South East connecting with existing substations such as East Claydon, West Weybridge along with additional reinforcement to the south of London.

7.3.511 Options were subsequently refined and evaluated with potential options discounted until Strategic Option 'East 7' was selected. This option comprises a single offshore HVDC link between central East Anglia and the South East supported by new AC overhead line circuits between north east Anglia and Thames Estuary. The 'East 7' options comprise three distinct elements:

- Norwich to Tilbury onshore reinforcement (i.e. Norwich to Tilbury Project) - A new 400 kV double circuit from Norwich to Bramford and from Bramford to Tilbury via a new East Anglia Connection substation
- SEALink project – 2 GW HVDC offshore reinforcement between Sizewell and Richborough
- Tilbury to Grain onshore reinforcement - A new connection between these existing substations.

7.3.512 This Option was selected following rigorous evaluation against environmental, technical, and economic criteria.

- Environmentally, this option minimises impacts through an integrated approach that reduces infrastructure footprint and enables underground cabling through National Landscapes, achieving better Holford Rules compliance
- Technically, it employs proven technologies with manageable risks while providing optimal system reinforcement, efficient network configuration, and balanced technology deployment
- Economically, the option demonstrated superior performance with the lowest 'worst regret cost' (£143 million) across all Future Energy Scenarios, integrates infrastructure efficiently, and delivers substantial network capability while minimising unnecessary development. This balanced approach made Option East 7 the most effective solution to meet the identified reinforcement requirements.

7.3.513 The east option requires a connection into Tilbury, which necessitates the need to route the Project through the Metropolitan Green Belt.

Suitability of Transmission Infrastructure in the Green Belt

7.3.514 The Applicant acknowledges the Secretary of State decision and the Examining Authority's (ExA) report on the Yorkshire GREEN project, which consisted of new electricity infrastructure, both overhead lines and underground cables, works to existing infrastructure, removal of redundant infrastructure, new substations and CSECs. This project was located within both the Leeds and York Green Belt. It looked at key issues relating to overhead lines, substations and CSE compounds within the Green Belt. The Yorkshire GREEN project was assessed under the NPS EN-1 (2011), although the submission also refers to a published draft of NPSs EN-1 and NPS EN-5 from April 2023.

7.3.515 In terms of the substations and CSE compounds ('CSECs' in the passage below), the ExA recommendation report found that *'the considerable physical scale of the proposed works and their permanence would undoubtedly fail to preserve the openness of the York and Leeds Green Belts…in terms of the purposes of including land within the Green Belt, we find that the proposed Overton and Monk Fryston Substations and the proposed CSECs would, by their presence and physical scale, fail to safeguard the countryside from encroachment. We do not consider that there would be conflict with any of the other four Green Belt purposes'*. The report then goes on to state that '*the ExA considers that even if the proposed substations and CSECs did constitute 'engineering operations', they would not benefit from the exception in NPPF para 150. Therefore, in our view, it is correct to consider the proposed substations and CSECs as inappropriate development*'.

7.3.516 In terms of overhead lines, the ExA recommendation treated the proposed new pylons, overhead lines, reconductoring works to existing overhead lines and pylons and temporary construction works as 'engineering operations'.

7.3.517 It concluded that the proposal would have a moderate adverse effect on Green Belt openness and would conflict with the purpose of the Green Belt to safeguard the countryside from encroachment. It stated at Paragraph 3.9.47 that '*as a consequence, the Proposed Development would be inappropriate development in the York and Leeds Green Belts. Inappropriate development is, by definition, harmful to the Green Belt. The ExA ascribes substantial weight to the harm to the York and*

Leeds Green Belts as a result of the Proposed Development. In accordance with NPS EN-1 and the NPPF, inappropriate development should not be approved except in very special circumstance'. The ExA stated that very special circumstances existed to justify the approval of inappropriate development in the Green Belt (Paragraph 5.4.6).

7.3.518 The Yorkshire Green Application also references the Hinkley C Connection project, which consisted of a 400 kV connection between Bridgwater, Somerset and Seabank substation, along with a range of related modifications to the electricity transmission and distribution networks. This decision was made in 2016. Part of this project was located within the Bristol-Bath Green Belt within North Somerset. The ExA's report states that '*we agree with Applicant's Planning Statement…that the construction of an overhead line would be classified as an engineering operation*'. The report also found that in relation to Green Belt '*taking into account all relevant matters, we find that the harm to the Green Belt, and any other harm, would be clearly outweighed by the need to connect new low carbon generating capacity in order to meet the UKs energy needs and carbon reduction targets as set out in EN-1. This represents the very special circumstances that justify the provision of such development within the Green Belt*.'

7.3.519 Considering the ExAs conclusions for both the Yorkshire GREEN and Hinkley C Connection, National Grid's position for the Project is that the proposed overhead lines are engineering operations (and therefore, may be considered appropriate development in the Green Belt) and the proposed CSE compounds and Tilbury North Substation which are located within the Green Belt constitute inappropriate development.

Green Belt – Overhead Lines

7.3.520 Paragraph 3.3.62 of the NPS EN-1 (DESNZ, 2024a) confirms that the '*Government has concluded that there is a critical national priority (CNP) for the provision of nationally significant low carbon infrastructure'*. CNP infrastructure includes electricity grid infrastructure, all power lines in the scope of NPS EN-5 (DESNZ, 2024b) including network reinforcement and upgrade works, and associated infrastructure such as substations.

7.3.521 As set out in paragraph 7.3.403 above National Grid consider that the overhead lines comprise an '*engineering operation*' and should not be regarded as inappropriate in the Green Belt. Provided that they preserve its openness and do not conflict with the purposes of including land within it. This is supported by paragraph 5.11.22 of NPS EN-1 (DESNZ, 2024a). Whilst National Grid has taken into consideration consultation feedback to underground sections of the Project within the Green Belt, for example in proximity to the Dunton Hills Garden Village, there is no policy imperative for using underground cable in this location and the additional costs associated with undergrounding are not justified.

7.3.522 Notwithstanding, should the ExA or Secretary of State consider overhead lines to be inappropriate development, there are very special circumstances that support the proposed development. These are set out below in the context of the substation and CSE compounds works but could equally apply to overhead lines.

Green Belt – Tilbury North Substation and CSE Compound works

7.3.523 As set out in the previous paragraphs, it is National Grid's position that the proposed substations and CSE compound works may be considered inappropriate development as they would not preserve the openness of the Green Belt. Very special circumstances would be required to justify their acceptability.

7.3.524 Paragraph 5.11.20 of NPS EN-1 (DESNZ, 2024a) sets out that the general policies controlling development in the countryside apply with equal force in Green Belts, but there is a general presumption against inappropriate development and such developments should not be approved except in very special circumstances.

7.3.525 Paragraph 5.11.37 of NPS EN-1 sets out that very special circumstances are not defined in national policy. '*However, when considering any planning application affecting Green Belt land, the Secretary of State should ensure that substantial weight is given to any harm to the Green Belt when considering any application for such development, while taking account, in relation to renewable and linear infrastructure, of the extent to which its physical characteristics are such that it has limited or no impact on the fundamental purposes of Green Belt designation. Very special circumstances may include the wider environmental benefits associated with increased production of energy from renewables and other low carbon sources'*.

7.3.526 ES Appendix 13.A2: Landscape Baseline and Assessment (document reference 6.13.A2) (Revision B) notes that the 'introduction of the Tilbury North Substation and overhead line, as well as two CSE compounds, would affect the 'panoramic views from high points', although would generally not affect the views 'across the neighbouring marshes and the Thames estuary' which are directed away from the Project. Seen in the context of existing infrastructure and set within the large scale field pattern and landform, the Project would not overwhelm the underlying landscape, but would be a noticeable new feature'. The assessment notes that once the landscape mitigation and enhancement shown in Appendix D of the Outline LEMP (document reference 7.4.D) (Revision D) would by Operational Year 15 help to integrate the Tilbury North Substation within the surrounding landscape reducing the significance of effect.

7.3.527 Taking these considerations into account, and acknowledging that there would be some harm, very special circumstances need to exist to outweigh the harm.

7.3.528 As stated in paragraph 5.11.37, when considering any planning application affecting Green Belt land, the '*Secretary of State should ensure that substantial weight is given to any harm to the Green Belt* […] *while taking account, in relation to renewable and linear infrastructure, of the extent to which its physical characteristics are such that it has limited or no impact on the fundamental purposes of Green Belt designation. Very special circumstances may include the wider environmental benefits associated with increased production of energy from renewables and other low carbon sources.*'

7.3.529 NPS EN-1 (DESNZ, 2024a) paragraph 4.2.16 states that Secretary of State will consider, as a starting point for decision-making, that such infrastructure is to be regarded as having satisfied any tests outlined in the NPSs or other planning policies that require a clear justification of harm being outweighed, exceptionality, or very special circumstances. This means that (Paragraph 4.2.17) as a starting point for CNP infrastructure, it will meet the test; where development within a Green Belt requires very special circumstances to justify development.

7.3.530 Notwithstanding this, it is considered that there are very special circumstances which just the approval of inappropriate development in the Green Belt. The very special circumstances specifically are:

- The UK Government policy requires significant reinforcement of the transmission system to facilitate the connection of renewable energy sources to transport electricity to where it is used
- The British Energy Security Strategy sets targets for the connection of up to 50GW of offshore wind by 2030s as a key part of a strategy for secure, clean and affordable British energy for the long term
- New connections for offshore wind and nuclear power generation projects, and for interconnectors, are expected into East Anglia by 2030. These connections are being constructed or expected to connect into substations at Necton, Norwich Main, Bramford, Friston and Sizewell
- Without reinforcement, the capacity of the East Anglia existing network is insufficient to accommodate the connection of the proposed new power sources. Therefore, reinforcement of the network is required
- The requirement to meet net zero by 2050, to replace the fossil fuels that once powered the economy to low-carbon electricity
- By reinforcing the capacity of East Anglia, the Project will address the need to be able to accommodate the connection of the proposed new power sources, namely offshore wind and nuclear power generation projects, as required by 2030.

7.3.531 All these factors are considered to support very special circumstances to justify development in the Green Belt.

7.3.532 Therefore, whilst the needs case justifies the developments very special circumstances, the current position as set out in NPS EN-1 (DESNZ, 2024a), is that CNP infrastructure meets the test in relation to requiring very special circumstances to justify development and the Green Belt tests have been met.

Conclusions on Green Belt

7.3.533 ES Chapter 3: Alternatives (document reference 6.3) (Revision B) describes the strategic evaluation process which identified the requirement for reinforcement between Norwich Main and Bramford substations, and between Bramford and Tilbury substations. This was based on network analysis demonstrating that the existing high voltage electricity network in East Anglia does not have the capability needed to reliably and securely transport all the energy that will be connected while meeting the NETS SQSS.

7.3.534 A comprehensive range of reasonable alternatives have been considered during the evolution of the Project, including alternative locations, routes, technologies and construction methods, influenced by the EIA process, ground investigations, various consultation stages and feedback received from consultees both through formal consultation feedback. The identification and assessment of alternatives has been an iterative process, with alternatives considered at strategic, corridor and alignment levels. The result of the ongoing assessments concluded that the Project needed to connect into Tilbury which would involve routeing through the Green Belt.

7.3.535 National Grid considers that the overhead lines comprise an engineering operation and should be regarded as not inappropriate in the Green Belt. Substations and CSE compounds may be considered inappropriate development. However, Norwich to Tilbury is a vital part of the transition to net zero. Due to the growth in offshore wind generation, there has been a significant number of connections planned in East Anglia. As such, the network requires significant reinforcement to provide the connections of more offshore wind on the east coast. Accordingly, it is considered that this need case provides the very special circumstances to justify development in the Green Belt.

7.3.536 Notwithstanding the above, the NPS EN-1 (DESNZ, 2024a) Paragraph 4.2.16 sets out that where a project is CNP Infrastructure the Secretary of State will take as a starting point for decision making that that such infrastructure is to be treated as if it has met any tests which are set out within the NPSs, or any other planning policy, which requires a clear outweighing of harm, exceptionality or very special circumstances. NPS EN-1 Paragraph 4.2.17 identifies that this assumption includes where development is within a Green Belt and requires very special circumstances to justify development.

7.3.537 In light of the above, the Project is assessed to be in accordance with the requirements of NPS EN-1, the NPPF (MHCLG, 2025) and local planning policy and the Green Belt tests have been met.

Development Land and Allocations

National Planning Policy

7.3.538 Paragraph 5.11.11 of NPS EN-1 (DESNZ, 2024a) outlines that local planning authorities '*should identify any concerns it has about the impacts of an application on land use, having regard to the development plan and any relevant applications'*.

7.3.539 A summary of committed development proposals within the Order Limits is presented in Appendix A of this Planning Statement.

7.3.540 The mitigation hierarchy has been applied throughout development of the Project as part of the iterative design which has informed the routeing and siting process. The Project has been designed to avoid, existing land use, and emerging development proposals as far as possible.

7.3.541 National Grid appointed an independent aviation consultancy to assist with consideration of potential interactions with flying activities. Aviation interests identified have included a variety of aircraft types, hot air ballooning, military, civilian and emergency services helicopters, as well as model aircraft. Following engagement and in response to feedback and further assessment changes have been made to the Project so that flight activities at all identified airstrips (where flight activity is confirmed) can continue to operate, with one exception. National Grid has considered strategic options and whether other alternative alignments are available to avoid the interaction with Chase Farm airstrip, full details are available in the Design Development Reports (National Grid, 2023b, 2024b, 2025b). The final arrangement with the airfield operator remains the subject on ongoing discussions with the potential for a solution to be found.

7.3.542 The Project has also considered its interaction with existing and planned solar farms seeking to avoid placing pylons within solar farms where practicable. During the development of the Project changes have been made to the alignment to reduce

interactions with solar developments whilst balancing other constraints and the Holford Rules. Interaction with existing and proposed solar farms and other major development proposals or relevant adopted or emerging local plan allocations are described below.

7.3.543 The following captures the planning applications, emerging development proposals or allocations which interact directly with the Order Limits as of 1st April 2025. Operational mineral sites and potential mineral allocations in Essex have been excluded from the review below, having already been considered within the Mineral Resources section between 7.3.459 – 7.3.465 above.

Section A – South Norfolk

Innova Renewables Ltd: Hall Farm Energy Storage System

7.3.544 South Norfolk Council is currently considering a planning application (reference 2024/3750) submitted by Innova Renewables Developments Limited for a 400 MW energy storage system including a 132-400 kV substation and associated infrastructure (reference A/4 in Appendix A). The proposal at Hall Farm, on land to the north of Hickling Lane, Swainsthorpe covers an area of 34.09 hectares. The Project oversails the planning application boundary, with pylon RG4 positioned within the development site. Drawing V16 of the layout plan submitted by Innova to South Norfolk Council (2 April 2025), illustrates the proposed development connecting into the Norwich Main Substation Extension. The proposed energy storage unit is positioned to the east of the proposed overhead line route order limits with the only additional overlap between the two projects associated with an oversail of a permanent access road (providing a connection between the energy storage unit and the B1113. National Grid has included alternative order limits to the alignment to the east which would oversail the proposed energy storage unit. The Project has included wider order limits (as illustrated in Table 4.4: Summary of design change scenario assessed in ES Chapter 4: Project Description (document reference 6.4) (Revision B) to allow flexibility to change the alignment should the energy storage proposal not proceed. Based on proactive discussions with the developer it is not considered that the Project would adversely affect the delivery of Innova Renewables proposal. A Statement of Common Ground has been prepared with Innova Renewables (document reference 5.9.25).

EDF Renewables: Land North and South of Brick Kiln Lane

7.3.545 South Norfolk Council have approved two applications relating to Land north and south of Brick Kiln Lane submitted by EDF Renewables (reference 2021/2495 relating to the solar farm reference 2022/2350 for the cable run connecting the solar farm to Norwich substation) for a solar farm with a maximum capacity of up to 49.9 MW and associated infrastructure. The proposal is split between two parcels of land to the north and south of Brick Kiln Lane and covers a total site area of 81 ha. The north-east portion of the red line boundary for the proposed development overlaps with the Order Limits for the Project. Sections of the overhead line would oversail the solar panels and associated electrical connections as well as crossing the project's site entrance and track road (to the north of the site joining onto Church Road). No new pylons are proposed within the area where solar panels are proposed. A pylon is proposed immediately adjacent to the site's entrance and track road. The project's supporting documents do not specify an anticipated construction start date however it does appear that several applications to discharge conditions to

allow enabling works to start have been approved in 2024, it is therefore assumed that works will likely start in 2025 and that there would be overlap between the two projects construction timeframes. The Project will not adversely affect the delivery of EDF Renewables proposal.

Ralos Projects Ltd: Land Off Marsh Lane, Bracon Ash

7.3.546 Ralos Projects Ltd have submitted an application to South Norfolk for a solar development on Land Off Marsh Lane, Bracon Ash (reference 2023/1055) (the Project notes that planning permission was awarded 4 July 2025). Planning permission is being sought for a solar farm to provide approximately 25 MW of electricity to the national grid via an existing 33 kVA connection point on the site. The proposal is being delivered across three fields located east of Flordon Road, Bracon Ash. The proposal is fundamentally a redesign of a previously withdrawn application for the same site (reference 2021/1072). There is an overlap between the proposed development and the Order Limits of the Project with the conductors between pylon RG18 and RG19 oversailing the proposed solar arrays. The Project will not adversely affect the delivery of Ralos Projects Ltd proposal. National Grid and Ralos Projects will continue to engage with one another.

Section B Mid Suffolk District Council

7.3.547 Aura Power Developments Limited: Land North of Lion Road, Palgrave Planning permission is being sought by Aura Power for a solar farm at land north of Lion Road, Palgrave. This is a cross-boundary planning application with the main solar farm development in Mid Suffolk and the point of connection at Diss Substation in South Norfolk (Mid Suffolk planning application reference DC/23/05426 and South Norfolk planning application reference 2023/3574). The site subject to this planning application covers an area of over 49 hectares of which 13 hectares would be covered by solar panels. The Order Limits for the Project would interact with the eastern portion of the solar development site. There is no direct interaction between the pylon locations and proposed solar panels. Pylon RG91 is located within an area identified by the applicant on drawing GBR.0010.DEV.M4.001.0.D.h (February 2025) as a wild flower planting area with skylark mitigation. It is not considered that the Project would constrain Aura Power Development's ability to deliver this project should planning consent be forthcoming. National Grid will continue to engage with Aura Power Developments.

Pathfinder Clean Energy UK Dev Ltd

7.3.548 Mid Suffolk District Council approved planning permission for a solar farm proposed by Pathfinder Clean Energy UK Dev Ltd (reference DC/22/02667). The proposed ground mounted solar PV would be delivered across several parcels of land to the north and south of Lion Road. The interaction between the Project and the solar development would be limited to the west portion of the solar development's north parcel where there is oversail and interaction with pylon RG 92 and the construction haul road. The layout plan (UKZ055_09) of the application documents for the solar development shows solar arrays proposed within this portion of the site. It is anticipated that it may be necessary to remove solar panels to accommodate Pylon RG92.

7.3.549 Several conditions attached to the planning decision for the solar farm have been discharged however there are outstanding conditions which need to be discharged before the development can lawfully commence. It is likely that construction could realistically begin from October continuing into 2026. This means that the solar PV will likely be constructed before the Project. National Grid has carefully considered the routeing alignment between this solar farm development and the Aura proposal described above. As described in the Design Development Report (April 2024) the 2024 preferred draft alignment deviates through a different solar farm development than the 2023 preferred draft alignment. This alternative further to the east would transfer effects from one planned solar farm development to another, though subject to final design of the solar farm and the overhead line alignment, the more eastern alignment would reduce the interaction with solar panels from three pylons (on the 2023 preferred draft alignment) to one (2024 preferred draft alignment).

7.3.550 The Project includes proposals to remove an existing 132 kV overhead line (PFK overhead line) which is currently routed through the corner of the application site. As part of the mitigation works proposed by National Grid two existing pylons on the PFK overhead line which interact with the solar farm proposal would be removed. The overhead line will be replaced with underground cables. National Grid has sought to route these cables around the proposed solar panels and modified the route to respond to the positioning of the proposed cable connection.

7.3.551 Given the status of the respective applications, UKPN will connect the solar farm to electricity distribution network as identified in the planning application submission. Subject to the award of development consent, UKPN will provide an alternative means of connection to mitigate the removal of the PKF overhead line.

7.3.552 In summary, the Project has sought to minimise direct effects on the Pathfinder proposal. It is anticipated that the siting of pylon RG92 and various oversails have potential to impact on the localised placement of solar panels. National Grid and Pathfinder are working together to reduce the effects and it is anticipated that an SOCG or an interface agreement letter will be put in place.

EcoPower Suffolk Mellis Common Solar Farm and Battery Energy Storage System

7.3.553 This is an emerging proposal for a nationally significant infrastructure project comprising a solar farm with Battery Energy Storage System (BESS) and with a connection to the existing National Grid electricity substation at Leys Lane, Yaxley, Suffolk (Planning Inspectorate reference EN0110019). The proposed development is expected to have a generation capacity of around 250 MW and 11 gigawatt hours of energy storage. The proposed development site is approximately 600 hectares (ha) in size, predominantly across five solar array areas situated around the Yaxley substation (on separate land parcels to the south-west of Stuston, north-east of Eye, north of Gislingham, north of Occold, and south-west of Thrandeston). EcoPower Suffolk undertook non-statutory consultation (Stage 1) in March 2025. The materials presented at that consultation illustrate the overlap between the two projects, particularly to the north of Gislingham.

7.3.554 EcoPower Suffolk is proposing to submit their application for development consent to the Planning Inspectorate in autumn 2026.

7.3.555 National Grid and EcoPower Suffolk are in discussion with regard to the overlap between the two Projects. National Grid has provided details of the Project as well as some guidance for developing the solar proposals around the constraints of the Project. Given the different stages of development of the projects and their stages through the planning process, it is expected that EcoPower Suffolk will take account of the Project in progressing their proposals.

Bramford Green Limited:

7.3.556 Mid Suffolk Council approved an application (reference DC/23/02118) for a renewable energy generation station comprising a mixture of both solar arrays and battery-based electricity storage containers together with substation and inverter/transformer station, and ancillary infrastructure. There is interaction between the Project and the renewable energy proposal where pylons RG 206 and RG 207, and their associated mitigation work area, pulling location and part of the haul road serving the construction compounds, oversail the cables which connect the Bramford Green renewable energy proposal to Bramford substation. This interaction is considered manageable and not of a nature which would impact the ability of either project coming forward. National Grid will continue to engage with Bramford Green Limited.

Bramford Power Ltd

7.3.557 Bramford Power Ltd has gained permission (reference DC/21/05468) from Mid Suffolk Council for a Battery Energy Storage (BESS) development to the east of Bramford substation. Both the Project and the BESS proposal seek to use Bullen Lane as an access route to their sites. An existing access from the development site onto Bullen Lane will be used and it is identified that this will be upgraded. Aside from the shared use of Bullen Lane, which is identified as a primary access route for the Project, there is limited crossover between the two developments which could impact either of the two projects being implemented. National Grid will continue communication with Bramford Power Ltd.

Section C – Babergh District Council, Colchester Council and Tendring District Council

Five Estuaries Offshore Wind Farm

7.3.558 The Five Estuaries DCO (SoS reference EN010115) located within Tendring District Council is an offshore windfarm proposed to generate electricity in excess of 300 MW. The proposal will comprise an offshore windfarm comprising of 79 turbines located approximately 37 km off the Suffolk coast which will transport electricity to the onshore location through offshore wind turbine generators and onshore export underground cables including associated jointing bays, and connection infrastructure into the national grid. Coming ashore at Sandy Point between Frinton-on-Sea and Holland-on-Sea in Tendring, Essex, underground cables then travel approximately 22 km to a new substation located to the west of Little Bromley. Finally, underground cables will connect the new substation to the proposed adjacent EACN Substation, part of National Grid's Norwich to Tilbury Project. The interaction between Five Estuaries DCO and the Project will be confined to the DCO cables connecting into the EACN. As a customer connection, National Grid and Five Estuaries Offshore Wind Farm are progressing Protective Provisions as part of their ongoing engagement.

North Falls Offshore Wind Farm

7.3.559 North Falls is a DCO located within Tendring District Council (SoS reference EN10119). The proposal is for an offshore wind farm comprising of 57 wind turbine generators which will be connected to the mainland through underground cables which make landfall at Kirby Brook, Essex. From the onshore location export cables

will transport the electricity in a broadly westerly direction approximately 24 km to the proposed onshore substation located west of Little Bromley before it enters the national grid at the EACN, part of the Norwich to Tilbury Project. North Falls is (at the time of writing this planning statement) in the examination stage. The interaction between North Falls DCO and the Project will be confined to the DCO cables connecting into the EACN. As a customer connection, National Grid and North Falls Offshore Wind Farm are progressing Protective Provisions as part of their ongoing engagement.

Lawford Power

7.3.560 Tendring District Council have approved an application (reference 21/02070) for the construction and operation of a 500 MW Battery Energy Storage System (BESS) and related infrastructure proposed by Lawford Power Ltd. The BESS development and the Project will interact at Ardleigh Road from where the BESS development proposes to take access from. The Project seeks to utilise Ardleigh Road as a primary access for construction. Flying Trade Group

7.3.561 Flying Trade Group received planning permission (reference 20/00594/FUL) from Tendring District Council for the erection of food storage and distribution facility and associated parking, logistics yard and offices on land east of Ipswich Lane and Wick Lane. The Project's Order Limits would interact with the site where pylons TB18 and TB19 are proposed. Pylon TB19 would be sited on the north boundary of Flying Trade Group site's red line boundary in an area which is not proposed for built development, as shown in drawing number 2748_100D – Site Layout which forms part of the application documents. National Grid has actively engaged with the promoters of developments to the north and south of Wick Lane near the junction with the old Ipswich Road (around pylon TB20) to agree arrangements for all developments such that co-existence is possible. A Statement of Common Ground will be progressed between National Grid and the Flying Trade Group.

Section D Colchester City Council

Habitat Restoration at Fiddler's Hill Meadow

7.3.562 Planning permission was granted by Colchester City Council (planning application reference 240279) for a planning application submitted by Essex and Suffolk Rivers Trust for the restoration of wetland features and habitats at Fiddler's Hill Meadow through naturalising the river with its floodplain by lowering the river bank at two locations (maximum 60 cm deep) and the excavation of very shallow scrapes (maximum 30 cm deep) and ponds (maximum 90 cm deep). Extension of fen habitat (maximum 30 m deep), tree planting and the installation of interpretation boards. Re-use of excavated soil on site outside of the flood zone to extend scrub, hedgerow and woodland habitats.

7.3.563 The proposed development site is part of the wider Woodland Trust Fordham Hall Estate. The proposed overhead line and a new pylon (TB48) will be sited within the development's red line boundary. In addition, a temporary construction access road is proposed which will route through the site. The positioning of the pylon does not impact on the permanent works illustrated on the site plans submitted with the planning application (Block Plan Sheet 1 of 2 and Block Sheet Plan 2 of 2). However, temporary construction haul roads will impact on the consent restoration scheme. The temporary works will be removed following the completion of the construction works and the site restored to its previous condition.

PS Renewables Solar Farm, East of Littlebury Road, Feering

7.3.564 Planning permission was granted by Braintree District Council for the 'Skye Green Solar Farm' on 3 April 2025. The solar farm would have an export capacity of 15 MW(AC) electricity. The development involves the layout of PV panels mounted on steel frames, arranged in arrays in east to west orientation and facing towards the south, plus supporting equipment to facilitate the generation and export of electricity. There are two areas where the Project would overlap with this consented solar farm. To the east, National Grid is proposing to underground a section of UKPN's PZD 33 kV overhead line which includes a section which oversails the solar farm site. It is noted from the applicants Landscape Mitigation Plan (drawing 0877-SHRSK-XX-XX-DR-L-1000 Rev 06) that no solar panels are proposed in this part of the site.

7.3.565 On the western boundary of the consented solar farm site, the Project Order Limits interact with the solar farm access road and temporary construction compound. In this area, National Grid is proposing an overhead line crossing protection access road. it is not considered that the proposed development would impact on National Grid or PS Renewables' ability to construct or operate the project nor constrain the implementation of this planning consent.

Novus Energy Solar Farm

7.3.566 The Novus Energy Solar Farm is located to the west of Park Road, Rivenhall. Consent for the 22.5 MW solar farm was granted on by the Planning Inspectorate (Planning Inspectorate reference APP/Z1510/W/23/3325681) following an appeal against non-determination of the planning application (Braintree planning application reference 21/03735/FUL).

7.3.567 The Project oversails the consented solar farm between TB94 and TB96. Pylon TB94 is positioned within the consented solar farm site in order to retain a veteran oak tree and reduce effects on the historic entrance to adjacent listed Park. National Grid has sought to minimise direct impacts by positioning pylon TB94 as close as possible to the field boundary, however it is anticipated that it will be necessary to remove solar panels during construction. National Grid has been in discussions with the solar farm developer and an interface agreement letter has been prepared for this development.

Land South West of Cressing Temple, Witham Road

7.3.568 Pylon TB101 is positioned on land which is subject to two existing planning consents. Braintree District Council has granted planning consent for the following proposals:

- Solar Farm with up to 13.8MWac of export capacity, comprising the installation of solar photovoltaic panels and associated infrastructure (planning application reference 24/02673/FUL). Planning permission was granted 6 June 2025
- Change of use of agricultural land to horse grazing (planning application reference 24/02680/FUL). Planning consent was granted on 10 April 2025.

7.3.569 In reviewing the proposal for the consented solar farm, it is evident that there would be no conflict between those proposals and the Project with pylon TB101 positioned in an area free from any built development (as indicated for by the Landscape Plan accompanying the application (102F)).

7.3.570 The agricultural change of use consent permits the relocation of grazing from the field in which pylon TB101 is to be positioned and relocated to the north to enable the solar farm proposals to proceed.

7.3.571 The Project will not impact on the ability to implement the above planning consents.

Section F Chelmsford City Council

Longfield Solar Energy Farm

7.3.572 The Longfield Solar Farm is a Nationally Significant Infrastructure Project (Planning Inspectorate Reference EN010118) with a total generating capacity up to 500MW. Consent was awarded by the SoS on 26 June 2023. The Longfield Solar Farm covers an area of approximately 453 hectares. There is an overlap between the order limits of the Longfield Solar Farm and the Project at the northern extent of the solar farm site. National Grid is proposing to modify an existing UKPN PSB overhead line which will necessitate the creation of an access from Terling Hall Road, through Leylands Farm around the eastern edge of the site into an area identified in the DCO as an area of habitat management. It is not considered that the mitigation measures proposed as part of the Project would materially impact on solar farm mitigation proposals.

Writtle College: Change of Use to Equestrian Grazing and Chelmsford Local Plan Review

7.3.573 Writtle College is part of the Anglia Ruskin University (ARU). Planning consent was granted by Chelmsford City Council (planning application reference 18/00254/FUL) for the change of use of land to equestrian grazing and construction of permeable all-weather access tracks as part of a relocation of existing equestrian grazing. The application included two parcels of land, one to the east of Cow Watering Lane, and to north of Newney Green. Pylon TB165 is located within the latter parcel of land. In additional there are proposals to remove an existing 11 kV overhead line within the site underground.

7.3.574 Chelmsford City Council is in the process of preparing a new Local Plan. During the process of updating its Local Plan, Chelmsford City Council consulted on their pre-submission Local Plan document (Regulation 19) between February and March 2025. The pre-submission Local Plan includes proposals for an expanded Special Policy Area at Writtle College. The ARU Special Policy Area (Policy SPA6) states that development will be permitted for proposals that are not inappropriate development in the Green Belt. The Special Policy Area would be oversailed by the Project between pylons TB165 and TB166. National Grid is in discussion with Writtle College to understand their future masterplanning proposals for this site.

Conrad Energy (Cross-boundary Planning Application)

7.3.575 Conrad Energy secured consent from Brentwood Borough Council (application reference 24/01263/FUL) and Basildon Borough Council (application reference 24/01262/FULL for Construction and operation of a Solar PV Farm together with ancillary infrastructure and equipment, landscaping and access. The solar farm proposal red line boundary directly interacts with the location of two pylons (TB203 and TB204) and permeant access routes. Within the parcel of land to the south of Clapgate Wood, National Grid is proposing to remove an existing 11 kV overhead line and place it underground.

7.3.576 National Grid has been in discussion with the developers and positioned TB203 in an area to minimise the potential for adverse effects.

Crouch Solar Farm

7.3.577 The Crouch Solar Farm located to the east of Friern Manor Wood and South Essex Golf Club and to the north of the A127. A cross-boundary proposal, planning permission was granted by Brentwood Borough Council (planning application reference 21/00834/FUL) in December 2021. Permission was refused by Basildon Borough Council (planning application reference 21/00758/FUL) but allowed on appeal (Planning Inspectorate Reference APP/V1505/W/22/3301454). Planning conditions have been discharged, and the consent is being implemented.

7.3.578 The Project oversails the consented solar farm, pylon TB224 is positioned within the application site and in conflict with the area identified as ‘Development Zone 5’ in plans submitted with the original planning application (Basildon Solar Farm Development Zone Plan – Drawing LCS016- DZ001). Details to discharge Condition 3 (application reference 23/011/08/COND) for both consents which illustrate full details of the final locations of the panel arrays indicate a smaller development footprint (drawing LCS016 PLE-04 – Basildon Site Layout Plan). The positioning of pylon TB224 has taken this layout into consideration in order to minimise any direct impact on the operational solar farm.

Dunton Hills Garden Village

7.3.579 Dunton Hills Garden Village is an allocation in the Brentwood Local Plan which is expected to deliver up to 4,000 dwellings with a range of other land uses including 5 ha of employment land. The site benefits from a resolution to grant outline planning permission (subject to the completion of a Planning Agreement). The outline planning application includes up to 3,700 dwellings, three care homes, five gypsy/traveller pitches, secondary and primary schools, children’s nurseries, employment hub, village centre and neighbourhood hubs, mobility hub, community sports hub, football hub, cricket ground, green and blue infrastructure, sustainable drainage system, access to A128 Tilbury Road, footpath/cycle link to the A127 and other associated infrastructure works including noise barrier, demolition of structures and undergrounding of the overhead lines (Brentwood planning application reference 21/01525/OUT). The delivery of Dunton Hills Garden Village is being progressed through the Government’s Garden Communities Programme which is overseen by Homes England. National Grid has engaged with the promoters of this proposal as well as Brentwood Borough Council and Essex County Council. As outlined in the Design Development Report (document reference 5.15) (Revision B) National Grid

has sought to identify alternative options to route around the Dunton Hills Garden Village. National Grid considers that the respective proposals are not incompatible. Furthermore, National Grid has identified an alignment which does not directly restrict development on any areas that are not already constrained by the safety zone around an existing the gas pipeline.

7.3.580 National Grid is pursuing a Statement of Common Ground with the site promoters, CEG Land Promotions, Brentwood Borough Council (document reference 5.9.11) and Essex County Council (document reference 5.9.3).

Crest Nicholson: Land to the East of Lower Dunton Road

7.3.581 Crest Nicholson submitted a planning application in June 2024 to Basildon Council for the redevelopment of the site to provide 146 residential dwellings (Class C3); provision of strategic landscape; provision of new vehicular and pedestrian access routes and associated infrastructure (Basildon planning application reference 24/00729/FULL).

7.3.582 There is interaction between the Order Limits for the Project and the residential development proposed as part of this application near the UKPN overhead line and two UKPN pylons, both of which are to be dismantled as part of the Project. The UKPN overhead line currently oversails the north portion of the residential development where an attenuation basin and open space is proposed. Once dismantled there will be no interaction. The works associated with dismantling the overhead line and pylon removal will not interact with any residential properties and would not constrain the ability to bring this site forward for residential development, subject to the award of planning permission.

Basildon Local Plan Review

7.3.583 Basildon Borough Council is in the process of preparing a new Local Plan. During the process of updating its Local Plan, Basildon Council consulted on their Draft Local Plan 2023-2043 (Regulation 18 Consultation) between November 2024 and January 20254. National Grid responded to this consultation highlighting the interaction between the Project and the following potential allocations.

Site H11 – Land West of West Mayne

7.3.584 The Basildon Borough Draft Local Plan identifies two potential sites for housing to the west of Basildon town (Site H11 and Site H12: Land adjacent to Dunton Road). Site H11 is identified as being adjacent to the urban area with good access to services. The western extent of the proposed allocation would connect with the Dunton Hills Village Community site.

7.3.585 The Norwich to Tilbury Project crosses the proposed housing allocation with a 400 kV overhead line broadly along the western edge of the proposed site. National Grid's proposals also involve the undergrounding of an existing UKPN 132 kV overhead line within the proposed development site.

7.3.586 The alignment has been developed to route as far as possible within the safety zone of an existing high pressure gas pipeline. The safety zone extends to 80 m either side of the gas pipeline.

7.3.587 As outlined in Section 4.10.12 it is understood that Crest Nicholson intends to bring this potential allocation forward for development (in addition to the above planning application (reference 24/00729/FULL). To avoid constraining the Project or future development proposals in this area, two haul roads are presented to provide an alternative haul road should the Crest Nicholson housing development progress. Figure 4.1: Proposed Project Design (document reference 6.4.F1) (Revision B) shows two haul roads / construction access arrangements within the Order Limits between TB225 and TB226.

Site AS1 – North Billericay – Queens Park

7.3.588 Site AS1 is identified as an alternative option for housing development in the draft Basildon Borough Local Plan. The Integrated Impact Assessment Report produced by Basildon Council identifies the total site area as 184.50 hectares. Only the north-west corner of the proposed Alternative Site interacts with the Project (between pylons TB197 and TB198).

7.3.589 Whilst no details of masterplanning for the site have been identified, it is considered that any direct impact on the potential future delivery of this site would be limited.

7.3.590 National Grid is pursuing a Statement of Common Ground with Basildon Borough Council (document reference 5.9.12).

Section H - Thurrock

Lime Kilns Energy Centre Ltd

7.3.591 Consent was awarded by Thurrock Council for a Battery Energy Storage System (BESS), diesel generator (planning application reference 24/01069/FUL) in December 2024. The consented proposal is adjacent to an existing electricity substation. The BESS scheme and Project Order Limits overlap with the proposed cable route and a UKPN pylon to be dismantled as part of Project and associated mitigation undergrounding. UKPN will be managing interface agreements with the applicant. National Grid will engage with UKPN to ensure construction complies with the interface agreement.

Fairwind Solar Farm

7.3.592 The Fairwind Solar Farm is an existing solar farm. The proposal was awarded a temporary 30 year operational consent in 2013 (Thurrock planning application reference 13/00543/FUL) and subject to a non-material amendment in 2018 (Thurrock planning application reference 18/00269/NMA). The Project will oversail this site, pylons TB232 positioned to the north and TB233 to the south of the operational solar farm. As there is no physical overlap of built development, the proposed development would not impact on National Grid's ability to construct or operate the Project or the existing solar farm to continue to operate. National Grid has developed an interface agreement with the developer (document reference 5.9.31).

Orsett Golf Course

7.3.593 Orsett Golf Course was founded in 1899. Its sand and gravel base enables the course to be played all year round. Orsett Golf Course has hosted the regional qualifying of The Open Championship 11 times.

7.3.594 The Golf Course includes an 18-hole course and adjacent practice area along with a club house. The golf course is identified as being a membership only golf course and is not open to the public. Visitors are permitted to play the course Monday to Friday by prior arrangement with the club professional.

7.3.595 The 400 kV overhead line crosses the north east of the golf course, oversailing the 16th and 17th holes. No pylons are proposed within the golf course, pylon TB262 is proposed within a practice area to the south of the 16th green.

7.3.596 An existing 132 kV overhead line oversails the golf course along its north eastern corner. The existing overhead line is located to the north of the 17th hole. As described in the Design Development Report (document reference 5.15) (Revision B) feedback received during the stages of non-statutory and statutory consultation identified a preference for alternative routes to avoid or reduce effects on Orsett Golf Course. There was particular concern about the 2024 preferred draft alignment relative to the position of the 17th tee box. National Grid has considered alternative arrangements in order to minimise impacts with the support and input of a golf course designer. The amended design positions a pylon between the 16th and 17th fairways, approximately midway between the easternmost bunkers on each of the holes and positions the crossing around 40 m further from the 17th tees. It also includes a repositioning of the pylon from the eastern side of the practice ground to a new position to the western edge where it has also been moved towards the south-eastern corner. This change, and with both pylons comprising tension pylons with extensions, increases the clearance above the practice ground. Together with the alignment change this further reduces the potential for interaction between overhead line and ball flights. Given that it also avoids the loss of vegetation associated with alternative diversions to the southern end of, or to the south of, the 16th green and 17th tee and avoids effects on the aggregate recycling facility, this change is taken forward as the basis for the Project design. National Grid and Orsett Golf Course are preparing a Statement of Common Ground.

Lower Thames Crossing

7.3.597 The LTC is a new road crossing connecting Kent, Thurrock and Essex. Approximately 14.5 miles (23 km) in length, it will connect to the existing road network from the A2/M2 to the M25 with two tunnels (one southbound and one northbound) running beneath the River Thames. Consent was granted by the Secretary of State for Transport on 25 March 2025 for the project.

7.3.598 The Order Limits for the two respective projects do overlap, particularly with regard to the positioning of the proposed Tilbury North Substation (on a site previously identified as a CSE compound location) in an area identified in the LTC proposal as an environmental area (identified as nitrogen deposit areas and ancient woodland mitigation) and modifications to the existing ZB and YYJ National Grid Electricity Transmission overhead lines.

7.3.599 Subject to the receipt of development consent for the Project there is the potential for an overlap during the construction period.

7.3.600 National Grid will continue to work with National Highways on the design proposals and will jointly prepare a Statement of Common Ground to reflect the progress made and clarify any matters which are to be resolved (document reference 5.9.20).

Residential Led Mixed Use Development at Land Adjacent to Sandown Road, Collingwood Farm

7.3.601 An EIA Scoping Opinion was sought from Thurrock Council for a proposed residential-led mixed-use development comprising of approximately 775 residential dwellings (Class C3), with a new village centre and public square; land for a junior school; sports pitches; external amenity spaces; eco-parkland for informal recreation and nature conservation; new pedestrian routes and cycleway connections; landscaping; and associated works (Thurrock Planning Application Reference 23/00897/SCO). The southern portion of the red line boundary relating to the scoping opinion request overlaps with the Order Limits of the Project where three pylons are proposed. There is also overlap with a UKPN asset to be dismantled as part of the Project. The project documentation shows the proposed site masterplan which earmarks development parcels, a Multi Use Games Area, a community building and areas of landscaping to be sited within the area of overlap.

7.3.602 Thurrock Council is in the process of preparing a new Local Plan. The site subject to EIA Scoping Request includes land identified as the '*Southfield Opportunity Area'* in Thurrock Council Initial Proposals Local Plan document (Regulation 18) which it consulted on between December 2023 and February 2024. National Grid responded to this consultation highlighting the interaction between the Project and potential allocation.

7.3.603 National Grid is in discussion with the developer around the overhead line alignment in this portion of the route to minimise interaction with the Project. A Statement of Common Ground will be prepared identifying progress made and clarify any matters which are to be resolved.

Residential Led Mixed Use Development at Chadwell St Mary

7.3.604 An EIA Scoping Opinion was sought from Thurrock Council on behalf of Bloor Homes for residential development of up to 1,500 dwellings (Use Class C3), a primary school (Use Class F1), retail floor space and healthcare floor space as part of a mixed use neighbourhood centre (Use Classes E, F1, F2, C3, C2, sui generis hot food takeaway, drinking establishment), site accesses and highway works (Scenario A without Lower Thames Crossing and Scenario B with Lower Thames Crossing), associated infrastructure, ancillary works, green and blue infrastructure including sustainable drainage systems, ecological habitat areas, children's play areas, public open space, playing fields and Suitable Alternative Natural Greenspace (Thurrock planning application reference 25/00333/SCO) in March 2025.

7.3.605 Thurrock Council is in the process of preparing a new Local Plan. During the process of updating its Local Plan, Thurrock Council consulted on an Initial Proposals Local Plan document (Regulation 18) between December 2023 and February 2024. National Grid responded to this consultation highlighting the interaction between the Project and potential allocation. Since that consultation, the Project design has been amended to connect to a new Tilbury North Substation and to undertake modifications to the existing ZB and YYJ National Grid Electricity Transmission overhead lines. These modifications would oversail the land subject to this EIA Scoping Request.

7.3.606 National Grid is in discussion with Bloor Homes around the overhead line alignment in this portion of the route to minimise interaction with the Project. A Statement of Common Ground will be prepared identifying progress made and clarify any matters which are to be resolved.

Land Quality

National Planning Policy

7.3.607 Paragraph 5.11.13 of NPS EN-1 (DESNZ, 2024a) sets out that '*Applicants should also identify any effects and seek to minimise impacts on soil health and protect and improve soil quality taking into account any mitigation measures proposed*.' Furthermore, paragraph 5.11.14 states that 'Applicants are encouraged to develop and implement a Soil Management Plan which could help minimise potential land contamination. The sustainable reuse of soils needs to be carefully considered in line with good practice guidance where large quantities of soils are surplus to requirements or are affected by contamination.'

7.3.608 Where development is on previously developed land, paragraph 5.11.18 of NPS EN-1 (DESNZ, 2024a) states that applicants should ensure that they have considered the risk posed by contamination, and where contamination is present, consider remediation where possible.

Assessment

7.3.609 ES Chapter 6: Agriculture and Soils (document reference 6.6) (Revision B) details the assessment of likely significant effects of the Project on agriculture and soils. The predominant soil types within the Study Area are slightly acidic loamy and clayey soils with impeded drainage with moderate to high fertility, and slowly permeable seasonally wet, slightly acidic but base-rich loamy and clayey with moderate fertility. The soil types through the southern Section (Sections C-H; Babergh District, Colchester District and Tendring District through to Thurrock) of the Study Area also show a high prevalence of soils described as freely draining, slightly acidic loamy soils. The Study Area also includes small areas of fen peat soils near Roydon and Diss in south Norfolk (Sections A and B) (Figure 6.6: Soil Association Map (document reference 6.6.F6)). The main Soil Associations identified within the Study Area, split by Project Sections, are presented in Table 6.7 of ES Chapter 6: Agriculture and Soils (document reference 6.6) (Revision B).

7.3.610 Environmental appraisal has been an integral part of the Project design from the outset, which has meant that the Project has been able to avoid environmentally sensitive features as far as reasonably practicable.

7.3.611 National Grid has also embedded measures into the design of the Project to avoid or reduce significant effects that may otherwise be experienced during construction and operation (and maintenance) of the Project.

7.3.612 Embedded measures are those that are intrinsic to and built into the design of the Project, which have been presented in Table 4.2 in Chapter 4: Project Description (document reference 6.4) (Revision B). Those relevant to soils include:

- The Project has committed to deliver at least 10% BNG with wider environmental and societal benefits. The Project would deliver an overall net improvement in environmental value (including biodiversity) in the area through a combination of on-site and off-site mitigation. This is reported in the Biodiversity Net Gain Report

(document reference 7.1) (Revision B). There is currently no legislative requirement for BNG in respect of infrastructure projects for which development consent is required

- The design would allow for landscape planting at CSE compounds, the new EACN Substation, around the new Tilbury North Substation and at the existing Norwich Main Substation – Mitigation areas for landscape planting at permanent features are labelled 'Environmental Areas' and are presented on Figure 4.1: Proposed Project Design (document reference 6.4.F1) (Revision B) and Figure 4.2: Proposed Project Design – Permanent Features (document reference 6.4.F2) (Revision B). Landscape planting would reduce effects – further details are provided in the Outline LEMP (document reference 7.4) (Revision G)
- Replacement planting – Replacement planting would be undertaken at the earliest opportunity given the right planting season.

7.3.613 Standard mitigation be secured through the Outline CoCP (document reference 7.2) (Revision G) include but are not limited to:

- GG10: The Project will be constructed in compliance with the required Environmental Control Plans (ECPs). Those which are relevant to this chapter which are anticipated to be required, at this stage include an Outline LEMP and Outline Soil Resource Plan (including but not limited to details of soil resources present, soil management and storage, and measures for soil restoration) (details of the contents of this plan will be included within the Outline CoCP)
- GG29: Earthwork mounds and stockpiled soil will be protected (to avoid dust generation) by covering, seeding, or using water suppression where appropriate (to be determined by the soil types and the likely storage duration)
- GG33: Where necessary, temporary appropriate technology / material will be installed in areas where heavy equipment, such as cranes and piling rigs, are to be used to provide stable working areas and reduce disturbance to the ground by spreading loads and reducing soil compaction. AS10 further states that the area will be stripped of the topsoil (and subsoil where required), which will be stored and reinstated (following removal) in accordance with the soil management measures contained in the Outline CoCP.

7.3.614 In addition to the above embedded and standard mitigation measures, additional mitigation measures in relation to agriculture and soils are to be put in place where the Project interacts with organic-rich (peaty) soils identified in the Waveney Valley. The Outline SRP within the Outline CoCP (document reference 7.2) (Revision G) provides guidance and mitigation on the handling of these soils.

7.3.615 Additional mitigation measures to maintain or improve the stability of organic-rich (peaty) soils where construction activities, including access tracks, are required on top of these organic-rich soils include (but are not limited to) the following, as set out in the Outline SRP within the Outline CoCP (document reference 7.2) (Revision G):

- Identify and maintain (not enhance) all existing drainage features within the access track corridors
- Install ditches with small dams and cross drains at regular intervals to allow groundwater flow below the tracks and to avoid high velocity concentrated discharge to peaty soils on the down slope side of the tracks, which could lead to deep soil erosion

- Install additional drainage up-slope to access tracks to prevent ponding and organic-rich soil instability
- Where organic-rich (peaty) soils are to be re-used or reinstated (if required), good practice soil handling measures are to be followed for storage, transport and excavation.

7.3.616 The assessment presented in ES Chapter 6: Agriculture and Soils (document reference 6.6) (Revision B) concludes that there would be disturbance to soils from the construction of temporary access and haul roads, temporary construction compounds, and construction laydown areas. Soil stripping would be required for the working areas related to pylon construction, underground cabling (including underground cable trenches, undergrounding of existing National Grid pylons, and undergrounding of third-party services), and CSE compounds. Additionally, soil stripping would be required for the foundations of pylons, permanent substation sites, the substation extension, and CSE compounds

7.3.617 The impacts on soils have the potential to occur on land within the Order Limits, adversely affecting the ecosystem services the soils provide over an area of up to approximately 3,755 ha (calculated as the total area of land within the order limits). This could include, for example, soil compaction due to the movement of plant across the soil surface or poor restoration of disturbed soils resulting in mixing of the soil horizons and compaction, which could reduce the infiltration rate of rainfall and result in an increase in surface runoff and consequent erosion and flood risk.

7.3.618 In accordance with good practice measure AS02 in the Outline CoCP (document reference 7.2) (Revision G), land required temporarily for construction would be reinstated where practicable to its pre-construction agricultural use or condition (or as agreed with the landowner). This would include removing all infrastructure required during construction, such as compound areas and temporary access and haul roads. In addition, soil resources stripped from the footprints of permanent infrastructure, such as for pylon foundations, substation sites, substation extensions and CSE compounds, would be reused as part of landscaping proposals within the Order Limits where practicable. It is assumed that all soil could be re-used on site, however if it arises that excess spoil cannot be reused on site, this soil would be taken off site. The Outline Soil Resource Plan (SRP) included as Appendix C of the Outline CoCP (document reference 7.2.C) (Revision D) contains good practice measures for soil handling, storage, and reinstatement, which would reduce the detrimental effects on soil function, and would mean that the reinstated soils are able to provide their associated ecosystem services.

7.3.619 The Outline CoCP (document reference 7.2) (Revision G) will be secured by Requirement in the DCO which will require the Main Works Contractor(s) to prepare the CoCP ‘substantially in accordance with’ the Outline CoCP. The Outline SRP will need to be updated by the Main Works Contractor(s) prior to commencement of construction. The Outline SRP provides a strategy, guidance, and methodology, and provides details of the approach to soil stripping, stockpiling, and re-use (where appropriate). The Outline SRP also considers temporary and permanent design, detailed construction approaches and Project programme. The SRP would aim to minimise the potential risk of damage to soil quality and reduced agricultural land grade.

7.3.620 There will be a requirement for an aftercare period where soils are being reinstated to ensure they are returned to their previous condition, or the condition required for their end-use.

7.3.621 In summary, the Project minimises impacts on agriculture and soils as far as practicable and includes mitigation measures to reduce impacts on the soil resource. The disturbance to soils is considered necessary on the basis that there is urgent need for CNP Infrastructure such as the Project. The routeing and siting selection process confirms that there are no other suitable sites of poorer agricultural quality that can accommodate the Project.

7.3.622 It is considered that National Grid has assessed the impacts of the Project on land quality and have identified appropriate mitigation measures to reduce impacts on the soil resource in accordance with the requirements of NPS EN-1 (DESNZ, 2024a).

Best Most Versatile Land

7.3.623 Paragraph 5.11.12 of NPS EN-1 (DESNZ, 2024a) states that '*Applicants should seek to minimise impacts on best and most versatile* [BMV] *agricultural land (defined as land in grades 1, 2 and 3a of the Agricultural Land Classification) and preferably use land in areas of poorer quality (grades 3b, 4 and 5)*'.

7.3.624 Paragraph 5.11.13 of NPS EN-1 (DESNZ, 2024a) states '*Applicants should also identify any effects and seek to minimise impacts on soil health and protect and improve soil quality taking into account any mitigation measures proposed'*.

7.3.625 Paragraph 5.11.14 of NPS EN-1 (DESNZ, 2024a) states '*Applicants are encouraged to develop and implement a Soil Management Plan which could help minimise potential land contamination. The sustainable reuse of soils needs to be carefully considered in line with good practice guidance where large quantities of soils are surplus to requirements or are affected by contamination*'.

7.3.626 Paragraph 5.11.34 of NPS EN-1 (DESNZ, 2024a) requires the SoS to ensure '*applicants do not site their scheme on the best and most versatile agricultural land without justification*'. Paragraph 5.11.34 further adds:

'Where schemes are to be sited on best and most versatile agricultural land the Secretary of State should take into account the economic and other benefits of that land. Where development of agricultural land is demonstrated to be necessary, areas of poorer quality land should be preferred to those of a higher quality'.

7.3.627 Paragraph 2.9.25 of NPS EN-5 (DESNZ, 2024b) relates to cases where the SoS needs to consider the benefits of undergrounding of a proposed line over an overhead alternative and states that, in this context, the SoS should consider '*the applicant's commitment, as set out in their ES, to mitigate the potential detrimental effects of undergrounding works on any relevant agricultural land and soils (including peat soils), particularly regarding Best and Most Versatile land, including development and implementation of a Soil Resources and Management Plan'*.

7.3.628 Paragraphs 187 and 188 of the NPPF (MHCLG, 2025) state that planning (policies) and decisions should contribute to and enhance the natural and local environment by recognising the wider benefits from natural capital including the best and most versatile agricultural land.

Local Planning Policy

7.3.629 Babergh and Mid Suffolk Joint Local Plan Policy LP15 (Environmental Protection and Conservation), Braintree District Council Local plan Policy LPP73 (Renewable Energy Schemes), Chelmsford Local Plan Strategic Policy S4 (Conserving and Enhancing the Natural Environment) and Thurrock Core Strategy and Policies for Management of Development Policy CSTP21 all seek to minimise or avoid the loss of the most versatile agricultural land from development.

Assessment

7.3.630 ES Chapter 6: Agriculture and Soils (document reference 6.6) (Revision B) detail the likely significant effects of the Project on agriculture and soils. Agriculture and soil receptors include BMV land (as defined by the Agricultural Land Classification (ALC) system) and land holdings in agricultural use. In addition, ES Appendix 6.1: ALC Assessment Report (document reference 6.6.A1) (Revision B) sets out the results of the ALC surveys conducted on the Project and the assessment regarding BMV land.

7.3.631 The detailed agricultural land classification (ALC) site surveys undertaken for the Project are presented in Table 6.10 of ES Chapter 6 (document reference 6.6) (Revision B). The site surveys confirm the presence of best and most versatile land within the Order Limits as shown in Figure 6.3: Detailed ALC Mapping (document reference 6.6.F3). Within the 1011 hectares of land surveyed, 83.7% of the land is BMV land in Grades 1, 2, and 3a. It illustrates that the Project comprises a greater extent of BMV land than compared to the average for England (65%).

7.3.632 Following the detailed ALC surveys, predictive ALC grading was undertaken on a 100 m grid (equivalent to approximately one sample point per hectare) across the entire Order Limits. This approach provides predicted ALC grades for the approximately 856 ha where surveys were not possible. The predictive model was refined by integrating detailed ALC survey data, surveyor's field observation, geological data, satellite imagery, auger bore data from the national survey database and professional judgement. It is recognised that landscapes, geologies and soil types will give different levels of accuracy in the prediction, but it is considered that use of this approach, in the absence of survey access, provides a better estimate of the extent of BMV land than relying solely on the available Provisional ALC mapping. A soil survey would be required post-consent / pre-construction in the areas where a detailed ALC survey was not undertaken, to inform a Soil Resource Plan (SRP).

7.3.633 In applying the mitigation hierarchy on the Project, environmental appraisal has been an integral part of the Project design from the outset, which has meant that the Project has been able to avoid environmentally sensitive features as far as reasonably practicable.

7.3.634 National Grid has also embedded measures into the design of the Project to avoid or reduce significant effects that may otherwise be experienced during construction and operation (and maintenance) of the Project. Measures adopted include sensitive routeing and siting of the alignment and Order Limits to try and minimise adverse impacts.

7.3.635 The Outline CoCP (document reference 7.2) (Revision G) contains relevant good practice measures relating to Agriculture and Soils. Example measures include:

- GG10: The Project will be constructed in compliance with the required Environmental Control Plans (ECPs). Those which are relevant to this chapter which are anticipated to be required, at this stage include an Outline LEMP and Outline Soil Resource Plan (including but not limited to details of soil resources present, soil management and storage, and measures for soil restoration) (details of the contents of this plan will be included within the Outline CoCP)
- GG18: The Main Works Contractor(s) will undertake pre-site condition surveys as part of the site setup. This will include making a record of the condition of existing features such as tracks and roads. Post-site condition surveys will be undertaken by the contractor after construction and the results of these will be discussed with the landowner prior to handover.

7.3.636 Additional mitigation measures are to be put in place where the Project interacts with organic-rich (peaty) soils identified in the Waveney Valley. The Outline SRP within the Outline CoCP (document reference 7.2) (Revision G) provides guidance and mitigation on the handling of these soils.

7.3.637 Additional mitigation measures to maintain or improve the stability of organic-rich (peaty) soils where construction activities, including access tracks, are required on top of these organic-rich soils include (but are not limited to) the following, as set out in the Outline SRP within the Outline CoCP (document reference 7.2) (Revision G):

- Identify and maintain (not enhance) all existing drainage features within the access track corridors
- Install ditches with small dams and cross drains at regular intervals to allow groundwater flow below the tracks and to avoid high velocity concentrated discharge to peaty soils on the down slope side of the tracks, which could lead to deep soil erosion
- Install additional drainage up-slope to access tracks to prevent ponding and organic-rich soil instability
- Where organic-rich (peaty) soils are to be re-used or reinstated (if required), good practice soil handling measures are to be followed for storage, transport and excavation.

7.3.638 Detailed agricultural land classification undertake for the Project confirmed the presence of Best and Most Versatile Land (BMV) in Grades 1, 2 and 3a. Within the 1,011 ha of land surveyed, 83.7% of the land is BMV land in Grades 1, 2, and 3a.

7.3.639 The total extent of each ALC grade across the Project includes data from both the detailed ALC surveys and the ALC predictive mapping. Across the Order Limits, a total of 3,755 ha, 82.3% of the land is BMV land in Grades 1, 2, and 3a.

7.3.640 During construction there would be a loss of BMV land (ALC Grades 1, 2 and 3a) from agricultural productivity. It is calculated that 3,461 ha of agricultural land would be temporarily removed from agricultural production during construction. Of this, 2,923 ha (84.4%) are mapped as Grades 1, 2 and 3a and as such the temporary removal is considered to have a temporary negative effect which would be significant.

7.3.641 During operation (and maintenance), there would be a permanent loss of areas of agricultural land required for permanent infrastructure. As presented in Table 6.14 of ES Chapter 6: Agriculture and Soils (document reference 6.6) (Revision B) this equates to approximately 172.7 hectares of Grade 1, Grade 2 and Grade 3a agricultural land (i.e., BMV land) would be taken out of agricultural production permanently.

7.3.642 The Project notes the SoS decision making at paragraph 5.11.34 of NPS EN-1 (regarding avoiding siting a scheme on BMV land). The Project has sought to minimise impacts on BMV agricultural land as far as practicable and includes mitigation measures to reduce impacts on the soil resource. Given the predominance of BMV agricultural land within East Anglia, it has not been possible to avoid both temporary and permanent effects on this resource. The permanent loss of BMV land is considered necessary on the basis that there is urgent need for CNP Infrastructure such as the Project. The routeing and siting selection process confirms that there are no other suitable sites of poorer agricultural quality that can accommodate the Project.

7.3.643 It is acknowledged that the Project will result in a loss of BMV land and is therefore contrary to NPS EN-1 paragraph 5.11.3, was well as the NPPF (MHCLG, 2025) and relevant local planning policy. The extent of BMV land across Norfolk, Suffolk and Essex significantly constrains the ability to avoid this particular resource. However, it is considered that the significant benefits arising from this CNP Infrastructure justify the permanent loss of 172.7 hectares of BMV agricultural land.

Noise and Vibration (NPS EN-1 Section 5.12)

National Planning Policy

7.3.644 Section 5.12 of NPS EN-1 (DESNZ, 2024a) sets out NPS noise and vibration policy relating to the Project.

7.3.645 Paragraph 5.12.1 of NPS EN-1 states that '*Excessive noise can have wide-ranging impacts on the quality of human life and health such as annoyance, sleep disturbance, cardiovascular disease and mental ill-health. It can also have an impact on the environment and the use and enjoyment of areas of value such as quiet places and areas with high landscape quality*.' Paragraph 5.12.4 notes the potential for development to have adverse impacts on wildlife and biodiversity.

7.3.646 Paragraph 5.12.6 advises that where noise impacts are likely to arise, the applicant should include a description of the noise generating aspects of the development; identification of noise sensitive receptors; characteristics of the existing noise environment; prediction of how the noise environment will change with the project; an assessment of effects; and proposed mitigation.

7.3.647 Paragraph 2.9.26 of NPS EN-5 (DESNZ, 2024b) set out that '*All high voltage transmission have the potential to generate noise under certain conditions*'. Paragraph 2.9.27 goes on to state that '*Line noise is most commonly caused by corona noise when the conductor surface electric stress exceeds the inception level for corona discharge activity which is released as acoustic energy and radiates into the air as sound. Transmission line conductors are normally designed to operate below this threshold*'.

7.3.648 Paragraph 2.9.28 states that '*Surface contamination on a conductor or accidental damage during transport or installation can cause local enhancement of electric stress and initiate discharge activity leading to the generation of additional noise*.' Paragraph 2.9.29 goes onto state that '*The highest noise levels generated by a line generally occur during rain.*'

7.3.649 Paragraphs 5.12.13 to 5.12.16 of NPS EN-1 (DESNZ, 2024a) set out national planning policy requirements with respect to mitigation. This states that, in considering mitigation measures, the hierarchy approach for the consideration of noise impacts should be adopted. It also refers to the need for due regard to be had to the Noise Policy Statement for England, the NPPF (MHCLG, 2025) and PPG with regard to noise mitigation. By applying the hierarchy approach this ensures compliance with these policies and guidance.

7.3.650 In applying the hierarchy approach to considering potential impacts upon noise, the NPSE (Defra, 2010) sets out definitions for significant adverse effects and adverse effects. These are described as:

- Lowest Observed Adverse Effect Level (LOAEL) – the level above which, as an average response, adverse effects on health and quality of life can be detected

- Significant Observed Adverse Effect Level (SOAEL) – the average response level above which, as an average response, significant adverse effects on health and quality of life occur.

7.3.651 NPS EN-5 (DESNZ, 2024b) outlines that noise effects can also arise from other transmission infrastructure including substation equipment such as transformers, quadrature boosters and mechanically switched capacitors. NPS EN-5 (DESNZ, 2024b) paragraph 2.10.9 also expects applicants to consider a range of mitigation measures for noise and vibration impacts including positioning of lines, maintenance of conductors and selection of quieter plant.

7.3.652 Section 15 of the NPPF sets out policies for 'Conserving and enhancing the natural environment', including noise pollution (paragraphs 187, 198). Given the policies in this Section are similar to those in NPS EN-1 (DESNZ, 2024a) above, they are not repeated here.

Local Planning Policy

7.3.653 Local Plan policies including the South Norfolk Development Management policies DM3.13 (Amenity, Noise and Quality of Life) and DM3.14 (Pollution, Health and Safety), Breckland Council Local Plan policy COM03 (Protection of Amenity), Babergh and Mid Suffolk Joint Local Plan policies LP15 (Environmental Protection and Conservation) and LP24 (Design and Amenity), Colchester Local Plan policies SP7 (Place Shaping Principles) and DM15 (Design and Amenity), Tendring District Local Plan policy SP7 (Place Shaping Principles), Braintree District Council Local Plan policies SP7 (Place Shaping Principles) and LPP70 (Protecting and Enhancing Natural Resources, Minimising Pollution and Safeguarding From Hazards), Brentwood Local Plan policy BE14 (Creating Successful Places) and Thurrock Core Strategy and Policies for Management of Development policy PMD1 (Minimising Pollution and Impacts on Amenity, Health, Safety and the Natural Environment) state that development proposals will not be permitted where the proposed development would generate unacceptable levels of noise, vibration or other impacts which would be significantly detrimental to the amenity of nearby residents or the occupiers of other sensitive uses. Proportionate mitigating measures including limiting conditions will be used to reduce the potential impact to an appropriate level whenever practical to do so.

Assessment

7.3.654 ES Chapter 14: Noise and Vibration (document reference 6.14) (Revision B), details the likely significant effects associated with construction noise and vibration, construction traffic noise, operational noise from the proposed EACN and Tilbury North Substations and operational vibration. Operational traffic noise and operational noise from overhead lines and underground cables have not been assessed due to the likely low level noise generation from these aspects of the Project.

7.3.655 There are a number of sources of noise and vibration during construction. The nature and duration of the works varies with a combination of relatively short duration works and long duration works at fixed stationary locations, and intermittent linear works. As discussed in Section 4.5 above, weekend and bank holiday working is proposed. Works may also take place outside of core working hours (Monday to Friday 07:00 to 19:00) Saturdays, Sundays and Bank Holidays (07:00 to 17:00) for works including, the installation and removal of conductors, trenchless crossing operations, jointing of underground cables or non-intrusive surveys.

7.3.656 The assessment concludes that there are potential significant residual adverse effects during daytime periods in the construction phase on 144 noise sensitive receptors. The assessment indicates that there are potential significant adverse effects at 25 noise sensitive receptors during night-time works. These effects can be avoided through the use of appropriate mitigation in the form of BPM.

7.3.657 With the use of mitigation in the form of BPM the magnitude of impact of construction noise is expected to be negligible to small at all nearby residential and low to medium sensitivity non-residential noise sensitive receptors, and negligible at all nearby high-sensitivity noise sensitive receptors. The assessment also concluded that with appropriate mitigation measures in the form of BPM, the residual effects of construction noise during weekend and bank-holiday periods would not be significant.

7.3.658 Construction noise and vibration data and calculations are provided in Appendix 14.1: Construction Noise and Vibration Data (document reference 6.14.A1) (Revision B) and Appendix 14.2: Construction Traffic Noise Assessment (document reference 6.14.A2) (Revision B). Results are also shown on Figure 14.2: Construction Noise Assessment Outputs (document reference 6.14.F2) and Figure 14.3: Construction Vibration Assessment Outputs (document reference 6.14.F3).

7.3.659 The majority of the construction activities are not expected to generate significant levels of vibration; however, activities that may generate significant levels of vibration include ground compaction and percussive or vibratory piling. The assessment concludes that with the use of mitigation in the form of BPM, the magnitude of impact of construction vibration is expected to be negligible to small at all nearby residential and low to medium sensitivity non-residential noise sensitive receptors, and negligible at all nearby high-sensitivity noise sensitive receptors. The residual effect of construction vibration effects on people in buildings is therefore not significant at all nearby NSRs.

7.3.660 The assessment has identified the potential for damage due to construction vibration due to potential compaction activities on 14 structures or buildings. Those structures or buildings identified in ES Chapter 14: Noise and Vibration (document reference 6.14) (Revision B), will be reviewed by the Main Works Contractor(s) in their specific detailed assessments prior to the start of works, with mitigation measures put in place where required to avoid potential significant effects. Additionally, the Main Works Contractor(s) will review all works locations to determine whether any other buildings are structures may be affected by vibration from construction activities.

7.3.661 With the use of mitigation in the form of BPM, the vibration magnitude threshold for potential damage to buildings or structures is not expected to be exceeded due to any proposed construction works at any NSRs and therefore the residual effect is not significant at all nearby NSR.

7.3.662 The outputs of the construction vibration assessment are provided in Figure 14.2: Construction Vibration Assessment Outputs (document reference 6.14.F3).

7.3.663 During construction, there would be additional vehicle traffic (including HGVs) on the local road network, travelling to and from the construction sites. The assessments indicate that construction traffic noise impacts are negligible or small on most routes and therefore effects from construction traffic at all NSR on most routes are not significant. The noise assessment has identified the potential for a large (negative) impact on 16 noise sensitive receptors within 50 m of primary access route (PAR) 30 – Bentley Road. One NSR (a residential property) is identified specifically as having a likely significant effect (without mitigation) due to the small distance between the property and the carriageway.

7.3.664 The assessment of operation noise is presented in Appendix 14.3: EACN Substation Operational Noise Assessment (document reference 6.14.A3) (Revision B) and Appendix 14.5: Tilbury North Substation Operational Noise Assessment (document reference 6.14.A4) (Revision B).

7.3.665 With embedded and standard mitigation measures, the impact of operational noise from the proposed substations on all nearby NSR, has been assessed as having a negligible or small magnitude of impact, during both daytime and night-time periods, taking account of context. This would result in a residual negligible to minor adverse effect at all nearby NSR, which is considered to be not significant.

7.3.666 The assessment is indicative for the purpose of demonstrating that significant adverse effects can be avoided. The assessment is based on early design information and standard noise mitigation measures. Further detailed design would be undertaken by the contractors, including consideration of specific noise mitigation measures.

7.3.667 The effects of vibration from the operation of the proposed substations would be not significant at all nearby NSR with standard vibration mitigation measures incorporated in the design.

7.3.668 Operational noise from overhead lines was scoped out of the ES (Volume 6 of the DCO application), in accordance with the Scoping Opinion (document reference 6.20), on the basis that a low noise conductor system is proposed. However, information on noise from overhead lines is provided in Appendix 14.4: Operational Noise from Overhead Lines (Informative) (document reference 6.14.A5) (Revision B).

7.3.669 Where modifications for existing transmission overhead lines are required, like for like conductors are proposed and there would therefore be no material change in noise levels, and therefore is considered to be not significant.

7.3.670 No significant adverse effects are therefore identified during the operational and maintenance phase.

7.3.671 The Project has been designed following the mitigation hierarchy, as far as practicable, to avoid or reduce noise and vibration impacts and effects in accordance with paragraph 4.7.3 of NPS EN-1 (DESNZ, 2024a). With the implementation of design measures, along with other control measures, potential significant adverse effects of Project at NSR during construction, operation and maintenance can be avoided.

7.3.672 Environmental appraisal has been an integral part of the Project design from the outset, which has meant that the Project has been able to avoid environmentally sensitive features as far as reasonably practicable. Embedded measures are those that are intrinsic to and built into the design of the Project, which are presented in Table 4.2 of Chapter 4: Project Description (document reference 6.4) (Revision B). Embedded measures relevant to Noise and Vibration are summarised below.

- The route alignment and siting have been designed as far as practicable to avoid sensitive noise and vibration features as set out in the Corridor and Preliminary Routeing and Siting Study (National Grid, 2022). This included avoiding settlements and residential areas, passing predominantly through rural areas, with the majority of nearby NSRs being isolated dwellings and small settlements

- The Project would include triple Araucaria conductors (or alternative technology that performs to the same or better standard in relation to noise on standard lattice pylons) for new transmission infrastructure. Due to its geometrical configuration, the triple Araucaria design is the least electrically stressed conductor system that National Grid uses. It is the best design for reducing the effects of line crackle (corona discharge) and would reduce the generation of noise from the proposed overhead lines during operation
- Substations – noise control measures: The proposed new substations would include any required noise mitigation measures by design. This may include, plant selection, siting, screening, and enclosures, as appropriate
- Substations – vibration control measures: Plant with moving parts, such as cooling equipment and transformers, would be expected to be mounted on suitable anti-vibration mounts to protect the plant from potential vibration effects and to attenuate vibration generated by the plant.

7.3.673 The Outline CoCP (document reference 7.2) (Revision G) outlines specific mitigation measures to reduce construction noise and vibration which will be secured by Requirement in the DCO. However, specific BPM to reduce construction noise and vibration would be determined by the Main Works Contractor(s) following their detailed assessment but would typically include the use of alternative methods and screening (this would be documented in the CoCP submitted by the Main Works Contractor(s) which would be 'substantially in accordance with' the Outline CoCP to discharge the Requirement.

7.3.674 In addition to the above commitments, the Main Works Contractor(s) would conduct detailed construction noise assessments to determine whether there are likely to be any new or different significant adverse effects at NSRs and therefore whether additional measures, including site-specific BPM, may be required. The Outline Noise and Vibration Management Plan (NVMP), appended to the Outline CoCP (document reference 7.2) (Revision G) would be updated into a Noise and Vibration Management Plan, incorporating the findings of their detailed assessment and associated site-specific mitigation.

7.3.675 With the mitigation measures proposed and good design implemented, the three aims of paragraph 5.12.17 of NPS EN-1 (DESNZ, 2024a) are met along with relevant policies of NPS EN-3 (DESNZ, 2024c), NPS EN-5 (DESNZ, 2024b), NPSE (Defra, 2010), the NPPF (MHCLG, 2025) and relevant local planning policies regarding the effective management and control of noise from the Project.

7.3.676 Overall, the Project is considered to be in accordance with national and local policies with regard to the acceptability of noise and vibration impacts.

Socio-Economic Impacts (NPS EN-1 Section 5.13)

National Planning Policy

7.3.677 Section 5.13 of NPS EN-1 (DESNZ, 2024a) sets out the socio-economic considerations for energy projects. Paragraph 5.13.2 of NPS EN-1 requires applicants to undertake an assessment of socio-economic impacts at local or regional levels as part of the ES. NPS EN-1 (DESNZ, 2024a) paragraph 5.13.9 sets out that the SoS *'should have regard to the potential socio-economic impacts of new energy infrastructure identified by the applicant and from any other sources that the Secretary of State considers to be both relevant and important to its decision.'*

7.3.678 Paragraph 5.13.4 of NPS EN-1 (DESNZ, 2024a) sets out the scope of matters which the applicant's socio-economic assessment within the ES should consider, stating that it may include details on *'the creation of jobs and training opportunities'*, *'the contribution to the development of low-carbon industries'*, *'any indirect beneficial impacts for the region'*, *'effects (positive and negative) on tourism and other users of the area'*, *'the impact of a changing influx of workers'* during the different phases of the project, and cumulative effects. In identifying socio-economic impacts, paragraph 5.13.3 stipulates that engagement with relevant Local Authorities is *'strongly encouraged'* early in the project development.

7.3.679 In relation to construction impacts and the link to tourism, paragraph 5.13.7 acknowledges that construction works would likely require temporary accommodation and that as a result accommodation strategies should be produced.

7.3.680 Applicants are required under paragraph 5.13.5 of NPS EN-1 (DESNZ, 2024a) to describe the existing socio-economic conditions in the area(s) surrounding a proposed development and how the project's socio-economic impacts correlate with local policy. Paragraph 5.13.6 of NPS EN-1 (DESNZ, 2024a) explains that socio-economic impacts may be linked to other impacts, for example the visual impact of a development, which may impact on tourism and local business. Paragraph 5.13.10 of NPS EN-1 explains the SoS may conclude that '*limited weight is to be given to assertions of socio-economic impacts that are not supported by evidence (particularly in view of the need for energy infrastructure as set out in this NPS)'*.

7.3.681 Paragraphs 5.13.8 and 5.13.11 of NPS EN-1 (DESNZ, 2024a) relates to mitigation and set out that the decision maker should consider '*whether mitigation measures are necessary to mitigate any adverse socio-economic impacts*' (5.13.8) and that the SoS should consider the steps taken to mitigate impacts and any legacy benefits that may arise (5.13.11). Paragraph 5.13.12 states that '*The Secretary of State may wish to include a requirement that specifies the approval by the local authority of an employment and skills plan detailing arrangements to promote local employment and skills development opportunities, including apprenticeships, education, engagement with local schools and colleges and training programmes to be enacted*.'

7.3.682 Paragraph 2.9.7 of NPS EN-5 (DESNZ, 2024b) reads '…*the Holford Rules state that applications should:* […] *approach urban areas through industrial zones, where they exist; and when pleasant resident and recreational land intervenes between the approach line and the substation, carefully assess the comparative costs of undergrounding'*.

7.3.683 Specifically in relation to aviation, NPS EN-1 (DESNZ, 2024a) paragraph 5.5.5. states the following: '*UK airspace is important for both civilian and military aviation interests. It is essential that new energy infrastructure is developed collaboratively alongside aerodromes, aircraft, air systems and airspace so that safety, operations and capabilities are not adversely affected by new energy infrastructure. Likewise, it is essential that aerodromes, aircraft, air systems and airspace operators work collaboratively with energy infrastructure developers essential for net zero. Aerodromes can have important economic and social benefits, particularly at the regional and local level, but their needs must be balanced with the urgent need for new energy developments, which bring about a wide range of social, economic and environmental benefits.*' Requirements are put on applicants where there are impacts on aviation between paragraphs 5.5.37 and 5.5.48, including the need for an assessment of impacts on aviation. Ultimately, the SoS must be satisfied that '*the proposal has been designed, where possible, to minimise adverse impacts on the operation and safety of aerodromes.*'

Local Planning Policy

7.3.684 Local Plan policies relating to tourism, economic development, community facilities, PRoWs, health and wellbeing and open space are relevant to this section. This includes policies such as DM 3.15 Outdoor Play Facilities and Recreational Space of the South Norfolk Local Plan, ENV 04 Open Space, Sport and Recreation and COM 02 Healthy Lifestyles of the Breckland Local Plan, Babergh and Mid Suffolk Joint Local Plan Policy LP28 - Services and Facilities Within the Community, Colchester Local Plan policies DM1 Community Facilities and DM2 Health and Wellbeing, Tendring District Local Plan Policy HP4: Safeguarded Open Space Braintree District Council Local Plan policies LPP61 Local Community Servies and Facilities and LPP50 Provision for Open Space, Sport and Recreation, Brentwood Local Plan policy PC10 Protecting and Enhancing Community Facilities and Thurrock Core Strategy and Policies for Management of Development policy CSTP10 Community Facilities.

7.3.685 These policies broadly seek to protect existing assets and ensure that they are not unacceptably impacted by new development. With regard to the health policies, these seek positive health outcomes from development proposals.

Assessment

7.3.686 ES Chapter 15: Socio-economics, Recreation and Tourism (document reference 6.15) (Revision C) details the likely significant effects of the Project on employment and business activity during construction, severance and sterilisation of land (in the context of its potential for future development during construction and operation, disruption to community facilities and tourism and recreational facilities.

7.3.687 ES Chapter 15 uses three study areas to break down the assessment as follows, and these are used throughout this section to describe impacts:

- **Local Study Area** – This comprises the Order Limits. The Order Limits represent the area in which temporary and permanent works have the potential to affect Socio-economics, Recreation and Tourism receptors directly
- **3 km Study Area** – For the assessment of potential effects on businesses where visual effects are an economic consideration (for example, restaurants and wedding venues), businesses are considered where they fall within 3 km of the Local Study Area (i.e. within 3 km of the Order Limits). Based on the findings from Chapter 13: Landscape and Visual (document reference 6.13) (Revision B), visual effects situated beyond 3 km of the Order Limits are deemed to be not significant
- **Wider Study Area** – This comprises the spatial extent of the Local Planning Authority areas through which the Order Limits pass together with Norwich City Council and Ipswich Borough Council (adjacent to the Project) and West Suffolk Council (where the Project office is located).

Local Authority engagement

7.3.688 As *'strongly encouraged'* by paragraph 5.13.3 of NPS EN-1 (DESNZ, 2024a), comprehensive engagement has taken place with Local Authorities to inform ES Chapter 15. In terms of general engagement, two non-statutory consultations took place between 2022 and 2023, a statutory consultation took place between 10 April 2024 and 26 July 2024, and further targeted consultations took place between January and April 2025. In addition to these consultations, specific engagement took place with Local Authorities focusing on socio-economic, recreation and tourism

impacts. This involved the creation of a socio-economic, recreation and tourism thematic group including representatives from all impacted Local Authorities, which held three meetings between July 2022 and September 2024, and one follow up meeting in November 2024. Details of these meetings are displayed in Table 15.1 of ES Chapter 15.

7.3.689 Early engagement on socio economic impacts through the above means, commencing in July 2022, has therefore informed the development of the Project, allowing for an improved understanding of local and regional issues and opportunities.

7.3.690 Scope of impacts considered Paragraph 5.13.4 of NPS EN-1 (DESNZ, 2024a) sets out a non-exhaustive list of potential impacts and advises that all relevant socio-economic impacts should be included within the applicant assessment.

7.3.691 In complying with the requirements of paragraph 5.13.4, ES Chapter 15 considers the impacts on the following topic areas:

- Local Economy: The potential direct economic impact has been assessed quantitatively based on the National Grid estimate of the capital cost of the Project. A qualitative assessment has been undertaken to determine the potential indirect impact on the local economy. The potential induced impact on the local economy (e.g. employment created from additional income in the economy from the direct and indirect construction employment) has also been assessed quantitatively based on experience of other National Grid projects
- Local Employment: A quantitative and qualitative desk-based assessment of effects during construction has been carried out based on contractor estimates and experience of other National Grid projects
- Tourism Economy: A qualitative desk-based assessment of effects during construction has been carried out based on findings from air quality, noise and vibration, visual amenity and traffic and transport assessments, as well as experience of other National Grid projects
- Community Facilities, which are assets that serve community purposes. For example, these include nurseries, schools, libraries, hospitals, surgeries, pharmacies, community centres, sports halls, swimming pools and places of worship
- Business, Recreation and Tourism Assets, which is broken down into sub-categories focusing on:
  - Built and other assets, which includes a range of recreational buildings such as museums, hotels and formal recreational areas such as golf club (see paragraph 15.5.27 of ES Chapter 5 for the full list of assets included)
  - Recreational land, which includes designations such as National Landscapes, national nature reserves and local nature reserves, open access land under the CRoW Act (excluding roadside verges), Registered Common Land, as well as parks and playing fields (except for sports clubs)
  - Recreational routes, which includes PRoWs (which includes bridleways), cycleways, circular recreational routes and long-distance paths

- Planning and Development, which considers the impact of the Project on potential forthcoming developments which benefit from planning permission or are allocated within relevant Local Plans.

7.3.692 The identification of these topic areas and the assets within them ensures that all relevant socio-economic impacts are considered in accordance with the requirements of paragraph 5.13.4 of NPS EN-1 (DESNZ, 2024a)

Existing context

7.3.693 In accordance with the requirements of paragraph 5.13.6 of NPS EN-1 (DESNZ, 2024a) section 15.5 of ES Chapter 15 conducts a review of the baseline socio-economic conditions, in order to understand the existing context. This section also considers the future baseline, taking into account known or anticipated changes to the current baseline conditions. This uses existing data to understand the socio-economic conditions under which the Project will be constructed and operate within.

7.3.694 Full baseline conditions are provided in section 15.5, however, in summary, the topic areas have the current contexts:

Employment and Economy: The Wider Study Area has experienced an 8.5% population increase (2011–2021), with high economic activity rates and diverse occupations but notable skills gaps, a medium economy and employment sensitivity, and dominant industries in Wholesale, Retail, Manufacturing, and Construction.

Community Facilities: There are four community facilities located within the Local Study Area; an allotment, an equine centre, a church, and a nursery and primary school.

Business, Recreation and Tourism Assets:

- Built and other assets (see Table 15.15 in ES Chapter 15): there are 37 assets identified within this category, and these are predominantly sports facilities. With regard to tourism assets, visitor accommodation in the Wider Study Area had its highest occupancy rate at 83% in July 2024 and lowest at 67% in January 2024, with surplus bedspaces indicating low sensitivity to the Project due to the area's high accommodation capacity
- Recreational land (see Table 15.16 in ES Chapter 15): there are 13 assets identified within this category, and these range from land designated as land with public access under the Countryside and Rights of Way Act 2000 to playing fields
- Recreational routes: a significant number of footpaths and bridleways are located within the Local Study Area.

Planning and Development: In the Local Study Area, numerous planning applications are either approved or awaiting decisions but remain unconstructed. These developments range in their interaction with the Project and their resultant sensitivity to it. There are also several Local Plan allocations that are yet to be built out within the Local Study Area.

7.3.695 In terms of the future baseline no changes are considered likely in relation to the Community Facilities and Planning and Development topic areas. The following was considered in relation to Employment and Economic Activity and Business, Recreation and Tourism Assets:

Employment and Economy: From 2027 to 2031, an ageing population is projected alongside a slight rise in the working-age population, which may support economic growth but increase demand for health and social care services.

Business, Recreation and Tourism Assets: The future business and tourism baseline is expected to remain stable, despite external factors like Brexit and the pandemic impacting tourism, while the government's plan to boost visitor numbers to 50 million by 2030 may increase demand for tourism services.

Socio-economic, Recreation and Tourism impacts of the Project

7.3.696 As required by paragraph 5.13.4 of NPS EN-1 (DESNZ, 2024a), ES Chapter 15 conducts an assessment of the residual socio-economic, recreation and tourism impacts of the Project. This assessment is found in section 15.7 of ES Chapter 15 and considers the impacts for the assets within the above identified topic areas, and these impacts are summarised below. In line with paragraph 5.13.4 of NPS EN-1 (DESNZ, 2024a) this section also seeks to display how the Project's socio-economic impacts correlate with Local Plan policies.

7.3.697 The Project design has prioritised environmental appraisal from the outset, allowing it to avoid environmentally sensitive areas wherever feasible. National Grid has integrated measures into the Project's design to mitigate significant effects during construction, operation, and maintenance. These embedded measures include the use of underground cabling at four locations, such as through the Dedham Vale National Landscape, to minimise visual impacts and effects on recreation and tourism. Additionally, the Project has been designed to avoid impacting community facilities, businesses, tourism, and recreational assets as much as possible through careful corridor and routeing studies.

7.3.698 The Project will implement standard mitigation measures during construction to limit effects through good site practices and legal compliance, as outlined in the Outline CoCP (document reference 7.2) (Revision G). Key measures include but are not limited to:

- GG10: The Project will be constructed in compliance with the required Environmental Control Plans. Those anticipated to be required, at this stage include:
- LEMP (an Outline LEMP is submitted as part of the DCO application (document reference 7.4) (Revision G))
- CTMP and Construction Staff Travel Plan (an Outline CTMP is submitted as part of the DCO application (document reference 7.3) (Revision F))
- S01: Provision of training to construction workers, particularly in relation to working hours and the management of emissions (dust, noise, vibration, etc)
- S02: PRoWs crossing the working areas will be managed in discussion with the relevant local authorities and potential temporary closures and diversions applied, where required. Road closures and diversions will be kept as brief as possible, with alternative routes maintained where possible. Access disruption would be reduced while construction activities occur where practicable. Any required temporary diversions will be clearly marked at both ends with signage explaining the diversion, the duration of the diversion and a contact number for any concerns. Management of PRoW during construction is detailed in the Outline PRoW Management Plan (document reference 7.6) (Revision D)

- S03: Where community facilities, businesses, tourism, and recreational assets cannot be avoided and fall within the Order Limits, access to these affected assets will be maintained where practicable. In the case of closures, appropriate access arrangements, including temporary diversion will be provided. Advance notice signage will be erected regarding route diversion. These notice boards will be erected prior to and throughout the construction period
- S04: Engagement will take place between National Grid, its Main Works Contractor(s) and developers of other planning applications within the Order Limits. Engagement will occur throughout the pre-construction and construction phase of the Project to understand the construction programme of relevant planning applications where available. Access to land where construction is proposed for planning applications that fall within the Order Limits will be maintained.

7.3.699 The Outline CoCP (document reference 7.2) (Revision G) is secured by Requirement 4 of the draft DCO (document reference 3.1) (Revision G) which requires the Main Works Contractor(s) to prepare the CoCP to discharge the Requirement.

7.3.700 Additional mitigation measures, beyond embedded and standard ones, have been identified to further reduce significant environmental effects, as assessed in the ES (Volume 6 of the DCO application). These measures are detailed in the Outline CoCP (document reference 7.2) (Revision G), requiring Main Works Contractors to prepare the CoCP in line with the Outline CoCP. One key measure (S05) involves National Grid working with event organisers to minimise disruptions to local events like the Little Bromley 10 km Run and Ford RideLondon-Essex 100, encouraging organisers to coordinate with them in advance.

Local Economy

7.3.701 ES Chapter 15 considers the Employment and Economy impacts of the development during construction. Impacts during operation were scoped out of the ES.

7.3.702 National Grid has estimated the capital cost of the Project is in the region of £894 million (based on 2020-2021 prices), which would be average around £178.8 million per annum, assuming expenditure occurs from 2026 to 2030 as a worst-case scenario

7.3.703 In terms of direct benefits, from National Grid's previous experience, it is expected that around 65% of the Project cost would be spent on civil engineering works (e.g. excavations, foundations, construction and reinstatement) and around 35% on plant and equipment (e.g. pylon materials, conductors and cables). It is assumed that all of the civil engineering work would be undertaken by UK based contractors and that some of the plant and equipment would be sourced from UK suppliers. However, previous experience suggest that much of the plant and equipment would come from outside the economy. This would result in £581.1spend within the UK economy (approximately £116.2 million per annum) through the civil engineering contracts.

7.3.704 At the regional level, the construction sector had a turnover of £40.2 billion in 2022, with £7.7 billion of this being on civil engineering projects (note: no data is available at the regional level for the turnover of construction projects for electricity or telecommunications projects). A construction spend of £116.2 million would represent approximately 1.4% of turnover of all construction work in the East of England and 7.5% of turnover of construction projects in civil engineering. Again, the contribution of the Project to the economy at regional level is considered to be very low.

7.3.705 Until contracts are let for the construction work, it is not possible to know how much of the construction spend would be within the local economy (i.e. Wider Study Area). Given that much of the spend is anticipated to go to specialist contractors who may not be based in the local area, it is expected that direct impacts would be very low to low beneficial at best.

7.3.706 In terms of indirect impacts, the Project may source local materials and services like skip hire and landscaping supplies, potentially boosting the local economy during construction, but with varying demand and unspecified sources, its impact is expected to be limited.

7.3.707 For induced impacts, the Project's construction workforce is expected to provide a minor economic benefit through spending on accommodation, food, and other local services. At peak, the workforce is anticipated to be approximately 1,720 Full Time Equivalents (FTEs), with around 10% (172 workers) drawn from the local area and 90% (1,548 workers) traveling in from elsewhere. Non-local workers are estimated to spend an average of £65 per day, generating approximately £100,620 per day, £26.2 million per year, and £104.6 million over the 48-month construction period.

7.3.708 However, when compared to the size of the regional economy (e.g., £4.7 billion in tourism spend in East of England in 2019), this contribution is negligible. Additionally, the rolling and linear nature of the works means the workforce will not be concentrated in one area for long periods, further limiting the economic impact. Overall, workforce spending is not anticipated to significantly contribute to the local economy.

7.3.709 These impacts align with Local Plan policies which seek to promote economic development insofar as they offer a degree of local employment and stimulus to local businesses. These impacts would not otherwise take place, and whilst considered limited in their benefit within ES Chapter 15, they comply with the ambitions of these policies.

Local Employment

7.3.710 The majority of construction activities would require trained specialists who are qualified to work on high voltage electricity lines. These are typically sourced from National Grid’s existing pool of approved contractors. However, from experience with other National Grid projects, it is likely that a minimum of 10% of the workforce would be sourced from the local labour market. These could, for example, have less specialist roles such as security workers and delivery drivers. This level of local employment, based on the assumption of approximately 4,800 construction employment jobs throughout the four-year construction period, could result in a total job demand of approximately 480 jobs locally.

Tourism Economy

7.3.711 Tourism is a key contributor to the local economy, providing employment for the local workforce. During the construction phase, there is potential for temporary impacts arising from changes in air quality (e.g., dust), noise levels, visual amenity, and traffic congestion, which may influence tourists' perception of the area.

7.3.712 Due to the linear nature of the Project, these potential impacts are expected to be short-term in most locations and confined to the construction phase. The construction good practices and mitigation measures outlined in both the Outline CoCP (document reference 7.2) (Revision G) and Outline CTMP (document reference 7.3) (Revision F) are anticipated to mitigate potential construction air quality effects, and mitigate the majority of construction noise and traffic and transport related effects.

7.3.713 Appendix 13.3 Visual Baseline and Assessment (document reference 6.13.A3) (Revision B) predicts potential significant adverse effects during construction for visual receptors within all of the Visual Receptor Areas which would be directly affected by the Project. Significant visual effects are expected to extend up to approximately 1.5 km in some instances. Chapter 14: Noise and Vibration (document reference 6.14) (Revision B) identify potential significant adverse effects during construction on Bentley Road from the potential construction traffic noise. Chapter 16: Traffic and Transport (document reference 6.16) (Revision B) identify potential significant adverse effects in relation to driver delay for 12 PARs, public transport passenger delay for 12 PARs, and changes to pedestrian, cyclists and horse-rider amenity for nine PARs.

7.3.714 While it is acknowledged that there are significant residual visual changes, construction traffic noise and changes in journey and amenity at particular locations anticipated as a result of the Project, these effects are not expected to affect the Wider Study Area as a whole and are unlikely to deter visitors or substantially alter the appeal of the destination for tourists in the Wider Study Area. The Wider Study Area's key attractions and its overall character are not anticipated to be diminished. Therefore, while the visual effects along the route, construction traffic noise on Bentley Road, and driver delay, public transport passenger delay and changes to pedestrian, cyclists and horse-rider amenity at particular locations are recognised, they are not expected to materially affect the tourism economy in the Wider Study Area.

Community Facilities

7.3.715 In relation to community facilities, the greatest impacts will be on the equine centre at Writtle University College and the Woodland Schools – Hutton Manor and Little Acorns. At these sites, temporary acquisitions of land will be required to facilitate third-party work and third-party construction access, respectively. However, these impacts will be temporary and only during the construction phase. There are interactions between the Order Limits and other community facilities, however, no works or rights are required on these in these locations. Following the completion of works all impacted land will be reinstated to their pre-construction status. Therefore, there will be no permanent impact on these facilities.

7.3.716 Local Plan policies in respect of community facilities seek to protect the continued use of the facility. The Project will have temporary impacts on two facilities during construction. However, these impacts would not prejudice the continued use of these facilities and as such would not conflict with policy seeking to protect community facilities.

Business, Recreation and Tourism Assets

Tourism

7.3.717 Tourism, a key contributor to the local economy, may face temporary impacts during the construction phase of the Project due to potential changes in air quality, noise, visual amenity, and traffic congestion. These impacts are expected to be short-term and confined to the construction phase, thanks to good practices and mitigation measures outlined in project documents. While construction may cause significant visual and noise effects and traffic delays in certain areas, these are not expected to impact the Wider Study Area's overall appeal or deter tourists.

7.3.718 Construction will also result in members of the Project workforce having to seek accommodation in locations otherwise used for tourism uses. To display compliance with paragraph 5.13.7 of NPS EN-1 (DESNZ, 2024a) ES Chapter 15 considers the capacity at the Local Planning Authority level to accommodate an influx of non-local construction workers. National Grid anticipates that 50% of workers will stay in camping and caravan sites, 20% in short-term lets, 20% in serviced accommodations, and 10% commuting from home. With a peak workforce of 1,720 workers, around 1,548 are expected to require temporary accommodation, primarily shared, and spread across the district due to the linear nature of construction.

7.3.719 VisitBritain data indicates a surplus of 10,215 bedspaces available during peak season in the East of England, suggesting sufficient capacity to accommodate the workforce without affecting tourist accommodation in the Wider Study Area Project. Given the relatively small workforce compared to other projects and available accommodations, the impact on visitor bedspaces is considered very low, with temporary, short-term, negligible adverse effects that are not significant.

7.3.720 The potential impact on the tourism economy from construction works is assessed as low, with effects considered temporary, short-term, and negligible. Significant adverse effects on visitor accommodation are not anticipated, and the overall tourism economy within the Wider Study Area is expected to remain stable during construction.

7.3.721 ES Chapter 15 establishes temporary impacts from the proposed development that would negatively impact the context for tourism along the route of the Project. However, as these impacts are temporary whilst construction works are ongoing, and these works will not be along the whole route at once, there is no conflict with Local Plan policies that seek to protect tourism uses and the tourism industry.

Built and Other Assets and Recreational Land

7.3.722 Built and other assets and recreational land have been considered together as the implications in planning policy terms are alike in that the correlating planning policy relates primarily to the loss of open spaces.

7.3.723 Table 15.22 of ES Chapter 15 identifies the potential construction impacts, including visual effects, potential noise and air quality effects on built and other assets in the Local Study Area and Table 15.28 considers the operational impacts. Appendix 15.1 of the ES considers the impacts upon built and other assets within 3 km of the Order Limits.

7.3.724 There will be a requirement during construction and operation to acquire rights or develop within the area of several of these assets. In some cases, such as at White Notley Football Club there are only temporary impacts during construction works. At this site, one of the playing fields will temporarily be unusable. However, the field will be restored following the completion of works.

7.3.725 Operationally there is a greater impact on the assets where infrastructure will be located within the area they occupy, for example where a pylon is located within a site, such as at Orsett Golf Course and Maple Park. In these cases, the Project will not permanently impact the use of these assets and has been designed to mitigate impacts where possible. However, in some instances, the Project will preclude the use of sites for certain uses. Where this is the case, National Grid has sought to provide a suitable alternative, such as in the case of the Essex International Scout Jamboree, where discussions are ongoing regarding potential compensation. In other cases, it has not been possible to provide alternative sites, and this is primarily where there are interactions with areas currently used for angling or aviation.

7.3.726 NPS EN-1 (DESNZ, 2024a) Section 5.5 requires a consideration of the impacts on aviation. Accordingly, impacts on aviation from the Project have been assessed and the findings of this have been summarised in Appendix 15.2 of the ES (document reference 6.15.A2) (Revision C). The work to consider the impact on aviation identify Chase Farm Aerodrome as the only site significantly impacted by the Project. Here, the Project may preclude the use of the airfield. The Project has been realigned to lessen impact, and it is not possible due to constraints to re-align it any further.

7.3.727 It is considered that the proposed construction of overhead lines is not likely to comply with the recommended clearance parameters. Therefore, a permanent closure of the facility is anticipated. A summary of aviation impacts arising from the Project, including the Chase Farm Airstrip, is provided in Appendix 15.2: Summary of Aviation Impact (document reference 6.15.A2) (Revision C).

7.3.728 Local plan policy relevant to this topic relates to the protection of open spaces and recreational areas. The loss of the use of areas of open space is considered within the Land Use Including Open Space, Green Infrastructure and Green Belt section of this Statement

7.3.729 The Project has sought to avoid impact on open space where possible. Where impacts have been identified, it is considered that these have been justified, and all alternatives have been considered. If it is considered that an impact has not been justified it is considered, fundamentally, that the benefits of the Project (including need) outweigh the potential loss of function or use of open space at all sites considered, in accordance with paragraph 5.11.32 of NPS EN-1 (DESNZ, 2024a).

7.3.730 Health and wellbeing Local Plan policies are also applicable given that these assets offer the opportunity for exercise and access to green infrastructure which provides an associated mental health benefit. As set out, the loss of open space is only proposed where surpluses exist, or replacement provision is proposed and therefore in those instances sufficient space for activities that benefit physical and mental health will be available within the locality.

Recreational Routes

7.3.731 Many routes that transverse the Project will be diverted during the construction phase as they will not be useable or are required for access to the works areas. In some cases, rights across these routes will be retained to provide access to infrastructure during the operational phase.

7.3.732 Sections of three PRoWs will be permanently impacted in Tendring. Two of these will be permanently closed resulting in the loss of 20 metres of PRoW and a third will be re-routed which will result in a journey length increase of 15 metres. The impacts of these permanent changes are considered negligible. Otherwise, all routes impacted during construction will be restored.

7.3.733 Local Plan policy exists to protect these routes, and particularly PRoWs. To ensure that they remain useable through construction diversions have been put in place. These have been designed to minimise additional journey distances, re-join existing routes and improve route connectivity. Details on diversions can be found in the Outline PRoW Management Plan (document reference 7.6) (Revision D). The minor permanent impacts to PRoW provision are not considered to conflict with any relevant policy and resultantly there would be no conflict with policy seeking to protect recreational routes.

Planning and Development

7.3.734 The Project has been designed to avoid planning applications and local plan allocations, where practicable, to reduce the potential effects on land planned for future development. The Project has either considered the planning application in the design, with provision of mitigation measures, or through a SoCG or preparing a SoCG. Potential severance or 'sterilisation' of land is anticipated to be mitigated. There are three overlaps with Local Plan Allocations identified, however, these are not anticipated to have sterilisation, or severance impacts on these developments. Appendix A: considers the implications of these overlaps.

7.3.735 The only potential Local Plan conflicts in relation to these interactions relates to the siting of pylons on the Dunton Hills Garden Village site, and the resultant loss of open space, and these impacts are considered in Appendix B of this Planning Statement.

Mitigation

7.3.736 An assessment of the socio economic impacts associated with the Project has been undertaken and reported in ES Chapter 15: Socio Economics and Recreation. The assessment has taken into consideration the applicant assessment policies contained with NPS EN-1 (DESNZ, 2024a), paragraphs 5.13.2 to 5.13.7 (inclusive). In accordance with paragraph 5.13.3, National Grid has engaged with the local authorities to help inform the assessment.

7.3.737 In accordance with paragraph 5.13.8 of NPS EN-1 the Project has been developed in accordance with the mitigation hierarchy to mitigate potential adverse socio economic (and recreational) effects during construction and operation of the Project. ES Chapter 15: concludes that with embedded mitigation and control management measures, there are considered to be no likely significant adverse socio-economic, recreation and tourism effects expected as a result of the Project for the majority of assets.

7.3.738 The assessments do conclude that there are likely to be adverse effects during the construction and operation of the Project. Short term adverse effects during construction will arise e.g. temporary land take of land on the site of the Essex Jamboree and temporary land take from the Paxman Angling Club, Porters Farm and camping area of Ardleigh Caravan and Camping Park. In addition, there will be temporary closure and diversion resulting in over 500m increase in journey length of eight PRoW (footpaths and bridleway) within Mid Suffolk, Colchester, Chelmsford and Brentwood. In accordance with paragraph 5.11.30 of NPS EN-1 (DESNZ, 2024a), mitigation and management measures have been devised to avoid and/or reduce the adverse effects on PRoW, which are set out in the Outline PRoW Management Plan (document reference 7.6) (Revision D).

7.3.739 ES Chapter 15: Socio Economics and Recreation (document reference 6.15) (Revision C). There could also be a minor benefit to the local economy in terms of the construction workforce spending money in the form of accommodation and food (induced spend). Based on the approximate workforce presented in Chapter 4: Project Description (document reference 6.4) (Revision B), the maximum peak day construction workforce is anticipated to be approximately 1,720 FTE. This is a relatively modest number when compared to large-scale developments in other sectors.

7.3.740 In response to NPS EN-1 (DESNZ, 2024a) paragraph 5.13.12 any local community investment including training opportunities would be captured under the National Grid Community Grant Scheme and dealt with separately to the EIA out with the application for development consent as per the 'Guidance: Community funds for transmission infrastructure' (DESNZ, 2025d).

7.3.741 Permanent effects arising during the construction and operation of the Project where an existing use is unable to continue, for example the potential that the Project will not comply with the recommended clearance parameters for airstrips, and therefore, a permanent closure of the Chase Farm Airstrip facility is anticipated. As described in ES Chapter 15: Socio Economics and Recreation (document reference 6.15) (Revision C) and within the Open Space Assessment at Paragraph 7.3.462 and Appendix B of this Planning Statement identifies the permanent loss of the fishing lake north west of Ardleigh.

7.3.742 Control and management measures have been included to mitigate any adverse socio-economic, recreation and tourism effects. Such measures which include traffic control measures are set out in Outline CoCP (document reference 7.2) (Revision G).

7.3.743 Overall, the Project is considered to be in accordance with national and local policies with regard to the acceptability of socio-economic, recreation and tourism impacts.

Traffic and Transport (NPS EN-1 Section 5.14)

National Planning Policy

7.3.744 Section 5.14 of NPS EN-1 (DESNZ, 2024a) sets out NPS traffic and transport policy relating to the Project. Paragraph 5.14.1 recognises that the transport of materials, goods and personnel to and from a development during all project phases can have a variety of impacts including economic, social and environmental effects.

7.3.745 Paragraph 5.14.5 of NPS EN-1 (DESNZ, 2024a) requires applicants to include a Transport Appraisal within the ES, where a project is likely to have significant transport implications. Paragraph 5.14.6 requires applicants to consult with National Highways and Highways Authorities with regard to the assessment and mitigation that informs the application.

7.3.746 Paragraph 5.14.14 states that the '*Secretary of State may attach requirements to a consent where there is likely to be substantial HGV traffic that*

- *control numbers of HGV movements to and from the site in a specified period during its construction and possibly on the routing of such movements*
- *make sufficient provision for HGV parking, and associated high quality drive facilities either on the site or at dedicated facilities elsewhere, to support driver welfare, avoid 'overspill' parking on public roads, prolonged queuing on approach roads and uncontrolled on-street HGV parking in normal operating conditions*
- *ensure satisfactory arrangements for reasonably foreseeable abnormal disruption, in consultation with network providers and the responsible police force'*.

7.3.747 Paragraph 5.14.18 of NPS EN-1 (DESNZ, 2024a) recognises that energy NSIPs may result in substantial impacts on the surrounding infrastructure, and requires the applicant to mitigate these impacts, including during the construction phase. Paragraph 5.14.21 states that, '*The Secretary of State should only consider refusing development on highways grounds if there would be an unacceptable impact on*

highway safety, residual cumulative impacts on the road network would be severe, or it does not show how consideration has been given to the provision of adequate active public or shared transport access and provision.'

7.3.748 Section 9 of the NPPF (MHCLG, 2025) covers 'Promoting sustainable transport' and the PPG provides advice on 'Transport evidence bases in plan making and decision taking' and 'Travel Plans, Transport Assessments and Statement'. These policies and guidance are similar to those in NPS EN-1 (DESNZ, 2024a) and are therefore not repeated here.

Local Planning Policy

7.3.749 Relevant Local Transport Plans for the Project comprise:

- Local Transport Plan 4, 2021-2036 (Norfolk County Council, 2022)
- Suffolk Local Transport Plan 2011-2031, Part 1 Transport Strategy (Suffolk County Council, 2016)
- Essex Transport Strategy: The Local Transport Plan for Essex (Essex County Council, 2011)
- Thurrock Transport Strategy 2013-2026 (Thurrock Council, 2022).

7.3.750 Relevant development plan policies include, the Greater Norwich Local Plan policy P2 (Sustainable Communities), South Norfolk Development Management Policies Document policies DM 3.8 (Design principle applying to all development) and DM 3.11 (Safety and the free flow of traffic), Breckland Council Local Plan policies TR01 (Sustainable Transport Network) and TR02 (Transport Requirements), Babergh and Mid Suffolk Joint Local Plan policy LP29 (Safe Sustainable and Active Transport), Colchester Borough Local Plan policies PP1 (Generic Infrastructure and Mitigation Requirements) and DM20 (Promoting Sustainable Transport and Changing Travel Behaviour), Tendring Local Plan policies SPL3 (Sustainable Design), CP1 (Sustainable Transport and Accessibility) and D11 (Infrastructure Delivery and Impact Mitigation, Braintree Local Plan policies SP6 (Infrastructure and Connectivity) and LPP42 (Sustainable Transport), Chelmsford Local Plan policies Strategic Policy 69 (Infrastructure Requirements) and Strategic Policy S10 (Securing Infrastructure and Impact Mitigation), Brentwood Local Plan policies MG05 (Developer Contributions), BE09 Sustainable Means of Travel and Walkable Streets) and BE12 (Mitigating the Transport Impacts of Development) and Thurrock Core Strategy policy PMD10 (Transport Assessments and Travel Plans) which seek to ensure that appropriate transport infrastructure is in place or provided to serve the needs of the development and that it does not prejudice the safe and free flow of traffic and existing pedestrian routes.

Assessment

7.3.751 ES Chapter 16: Traffic and Transport (document reference 6.16) (Revision B) details the likely significant effects of traffic and transport during the construction phase of the Project. The effects during operation were scoped out as this phase is expected to generate a very low level of vehicle movements. The traffic and transport significance of effects has been assessed in relation to the following environmental impacts:

- Driver delay and public transport delay to passengers

- Pedestrian, cyclist, and horse-rider delay
- Pedestrian, cyclist, and horse-rider severance
- Pedestrian, cyclist, and horse-rider amenity
- Pedestrian, cyclist, and horse-rider fear and Intimidation
- Parking and loading
- Collisions and road safety.

7.3.752 The assessments presented in the ES are supported by the following documents:

- Outline CTMP (document reference 7.3) (Revision F)
- Outline PRoW Management Plan (document reference 7.6) (Revision D)
- Transport Assessment (document reference 7.11) (Revision B).

7.3.753 The Outline CTMP (document reference 7.3) (Revision F) provides details of the proposed traffic management of delivery vehicles and other traffic generated during the construction phase at this stage of the Project. It identifies measures designed to avoid and reduce the effect wherever possible between construction site traffic and other road users. The Outline CTMP would be developed further and implemented by the Main Works Contractor(s) to ensure that all traffic movements associated with the Project's construction works operate in a compliant manner.

7.3.754 Control measures specific to Traffic and Transport are included within the Outline CTMP (document reference 7.3) (Revision F) and will be applied during the construction phase of the Project. The Main Works Contractor(s) and National Grid will prepare additional documentation to manage construction related movements to and from site. This may include the following:

- Implement a delivery management system
- Implement a Construction Employee Management Plan
- Construction Environmental Management Plan.

7.3.755 Environmental appraisal has been an integral part of the Project design from the outset, which has meant that the Project has been able to avoid environmentally sensitive features as far as reasonably practicable.

7.3.756 National Grid has also embedded measures into the design of the Project to avoid or reduce significant effects that may otherwise be experienced during construction of the Project.

7.3.757 Embedded measures are those that are intrinsic to and built into the design of the Project, which are presented in Table 4.2 of ES Chapter 4: Project Description (document reference 6.4) (Revision B). Embedded measures relevant to Traffic and Transport are summarised below:

- The inclusion of a largely continuous haul road to reduce effects on the local highway network during construction, that would only be discontinued at major obstructions along the corridor (major roads, railways, areas of environmental or historical significance and/or major watercourses)
- Construction vehicles will use the haul road to move along the site, reducing construction traffic on the local road network.

7.3.758 Standard mitigation measures, comprising management activities and techniques, would be implemented during construction of the Project to limit effects through adherence to good site practices and achieving legal compliance.

7.3.759 The Outline CoCP (document reference 7.2) (Revision G) contains relevant good practice measures relating to Traffic and Transport. These measures include, but are not limited to:

- GG05: Staff and operatives working on the Project will undergo training to increase their awareness of environmental issues as applicable to their role. Specific training needs will be identified and provided prior to undertaking any site work for all personnel involved in work activities that could result in an adverse effect on the environment. Topics will include but not be limited to:
  - Pollution prevention and pollution incident response
  - Dust management and control measures
  - Location and protection of sensitive environmental sites and features
  - Awareness of protected environmental areas around sensitive features
  - Working hours and noise and vibration reduction measures
  - Working with potentially contaminated materials
  - Waste management and storage
  - Flood risk response actions
  - Tree root protection areas
  - Agreed traffic routes, access points, etc
  - Interaction with road users, such as pedestrians, cyclists and horse riders.
- GG09: The Main Works Contractor(s) will undertake regular visual site inspections to check conformance to the Management Plans – which will be defined within the DCO
- GG30: Members of the community and local businesses will be kept informed regularly of the works through active community liaison. This will typically include the notification of 'noisy activities', heavy traffic periods and start and end dates of key phasing. A contact number will be provided which members of the public can use to raise any concerns or complaints about the Project. All construction-related complaints will be logged by the Main Works Contractor(s) in a complaints register, together with a record of the responses given and actions taken.

Driver Delay

7.3.760 The assessment concludes that significant effects are anticipated with regard to driver delay on 12 PARs used by construction traffic. It should be noted that significant effects are identified during the peak construction activity which would be realised over a short duration (e.g. one week). Outside of this period the construction flows would be lower but over a longer duration. Therefore, the level of significance would be reduced. Short-term temporary road closures associated with the open-cut cable swathe are also expected on some roads. These closures are likely to be for no more than four weeks and will be either managed or a road closure with a diversion. Additional roads are expected to be managed through: Managed/ Road

Open/ Single Lane Running/ Single Lane Running with widening. Minimal driver delay is expected; therefore the magnitude of impact would be short-term minor adverse, and not significant. Monitoring of any subsequent delay/congestion along the PARs and at junctions will be undertaken by the appointed Construction Logistics Manager, as secured through the CTMP.

Bus Passenger Delay

7.3.761 The impact to bus passenger delay would primarily be attributed to the increase in traffic flows along the PARs due to changes to traffic flows associated with committed developments and as a result of construction vehicles associated with the Project. In addition, delay may also occur through any proposed changes to bus routeing or relocation of bus infrastructure as a result of temporary planned road closures or highway mitigation works, where an increase in walking distance or overall journey time may be impacted by the Project.

7.3.762 The assessment presented in ES Chapter 16: Traffic and Transport (document reference 6.16) (Revision B) has identified the potential for significant (negative) effects on 12 PARs with regard to bus passenger delay.

Pedestrians, Cyclists and Horse Riders – Delay

7.3.763 An assessment has been undertaken to identify where PRoWs interact with the Project and construction activities, e.g. proposed overhead line and undergrounding cabling construction swathe and haul roads and the construction effects on delay/increased journey time.

7.3.764 Disruption and delay to PRoW users has been minimised as much as reasonably practicable, with options to keep PRoWs open, or to manage the access (as far as possible). Where this is not possible, the existing PRoW will be stopped up and a temporary diversion provided via the shortest, or most feasible alternative route. Temporary diversions would be clearly marked at both ends with signage explaining the diversion, the duration of the diversion and a contact number for any concerns. Details of the strategy for PRoWs and the management regimes can be found within the Outline Public Rights of Way Management Plan (document reference 7.6) (Revision D).

7.3.765 Table 16.12 of ES Chapter 16: Traffic and Transport (document reference 6.16) (Revision B) provides a summary of the temporary closures and diversions of PRoWs and the net change in distance travelled as a result of the proposed alternative routeing where an increase of the diversion length exceeds 500 m that is equivalent to approximately six minutes of increase in journey time, considering a walking speed of 5 km/h. All the temporary diversions are illustrated within the Access, Rights of Way and Public Rights of Navigation Plans (document reference 2.5) (Revisions A-D) and the extent of the diversion outlined in Schedule 7 of the Draft DCO (document reference 3.1) (Revision G).

7.3.766 In general, long-term neutral or slight effects are expected for the majority of the PRoWs subject to diversion and overall are not significant. Although notable increases are expected on the footpaths presented in Table 16.14, with long-term moderate to large effects, it should be noted that these are leisure routes and an increase in walking distance may not necessarily have adverse effects.

7.3.767 There are no expected long-term closures or diversions of footways or the cycle network as a result of the construction activities of the Project. However, several cycle routes that are located on the PARs will experience a temporary increase in traffic during construction but over a short duration.

Pedestrians, Cyclists and Horse Riders – Severance

7.3.768 The assessment of pedestrian, cyclist, and horse-rider severance effects arising as a result of changes in traffic through the construction phase is presented on Table A16.4.4 Significance of Effect Pedestrian, cyclist, and horse-rider Severance in Appendix 16.4: Traffic and Transport Construction Effects (document reference 6.16.A4) (Revision B).

7.3.769 The significance of effect for all the road links for pedestrian, cyclist, and horse-rider severance is classified as temporary, short-term, slight or neutral adverse effects and not significant.

Pedestrians, Cyclists and Horse Riders – Amenity

7.3.770 The assessment of effects on pedestrian, cyclist, and horse-rider amenity arising as a result of changes in traffic through the construction phase is presented on Table A16.4.5: Significance of Effect Pedestrian, cyclist, and horse-rider Amenity in Appendix 16.4: Traffic and Transport Construction Effects (document reference 6.16.A4) (Revision B). The assessment identified eight PARs where the potential effects for pedestrian, cyclist, and horse-rider amenity would be temporary, short-term, moderate or large adverse and deemed significant.

Pedestrians, Cyclists and Horse Riders – Fear and Intimidation

7.3.771 The assessment of pedestrian, cyclist, and horse-rider fear and intimidation effects arising through the construction phase is presented in Table A16.4.6: Significance of Effect Pedestrian, cyclist, and horse-rider Fear and Intimidation in Appendix 16.4: Traffic and Transport Construction Effects (document reference 6.16.A4) (Revision B). The assessment shows that the potential significance of effect on pedestrian, cyclist, and horse-rider fear and intimidation for all PARs is deemed as temporary, short-term, slight or neutral adverse and not significant.

Road Safety

7.3.772 The likely significant effects on road safety as a result of the Project due to temporary increases in traffic flow on roads during project peak year construction for each PAR have been assessed using baseline personal injury collision data (2021-2023). The safety of road users has been assessed along all road links and junctions, and at temporary and permanent Safety Action Plans (SAPs).

7.3.773 As set out in the CTMP (document reference 7.3) (Revision F), the driver information pack will include areas with road safety concerns. Additionally, the construction traffic drivers will be subject to a driving briefing that will set out safe driving behaviours, specific routes to follow and any potential conflict points.

7.3.774 Whilst the addition of any amount of traffic can increase the risk of collisions, it is considered that for the majority of road links the temporary increase in construction traffic associated with the Project is unlikely to materially affect safety. This is subject to the additional mitigation identified on road links for pedestrian, cyclist, and horse-rider severance and amenity, fear and intimidation; and embedded mitigation included in the CTMP (document reference 7.3) (Revision F). The overall effects on road user safety from the construction phase will be temporary, short-term, minor adverse and not significant.

Parking and Loading

7.3.775 Temporary parking suspensions are proposed at informal kerb side parking and at signed parking bays where there are carriageway width restrictions. This will ensure the safe two-way movement of HGVs and AILs is maintained along the PAR.

7.3.776 The PARs affected by temporary loss of parking provision as a result of the Project are as follows:

- Old Ipswich Road (Link PAR33) - Temporary suspension of the parking bay on the eastern side of Old Ipswich Road opposite the Dragonfly Hotel and informal kerbside parking spaces along the section of Old Ipswich Road located under the A12. The suspension is expected only during arrival/departure of AIL vehicles. he duration of the impact will therefore be limited to periods of less than four weeks. Alternative parking nearby is available, albeit with a charge at the Dragonfly hotel. Therefore, the magnitude of impact has been classified as minor, and the significance of effect is slight given the low sensitivity of receptors
- Spinks Lane (Link PAR43) - Temporary suspension of informal kerbside parking during arrival/departure of AIL vehicles. The duration of the impact will therefore be limited to periods of less than four weeks. School keep clear carriageway entrance markings are already provided with no stopping Mon-Fri 8-9.30 and 2.30-4pm restrictions in place outside the school. Alternative parking locations are available on nearby roads. Therefore, the magnitude of impact has been classified as minor, and the significance of effect is slight or moderate given high sensitivity of receptors
- Highfields Road (Link PAR43) - Temporary suspension of informal kerbside parking during arrival/departure of AIL vehicles. The duration of the impact will therefore be limited to periods of less than four weeks. Alternative parking locations are available on nearby roads. Therefore, the magnitude of impact has been classified as minor, and the significance of effect is slight or moderate given high sensitivity of receptors.

7.3.777 In relation to parking and loading on the above PARs, there would be temporary, short-term, slight or moderate adverse effects, which are deemed not significant.

Summary of Assessment

7.3.778 In summary, with the implementation of appropriate mitigation measures, including the Outline CTMP, the construction of the Project and traffic generated by the Project are not expected to result in any significant adverse environmental effects relating to traffic and transport. It is also not expected that the Project will have a significant impact on the Strategic Road Network (SRN) or local highway network in terms of their capacity and highway safety. Effects resulting from the diversion of a limited number of PRoWs during construction and operation will be managed appropriately in accordance with the Outline Public Rights of Way (PRoW) Management Plan (document reference 7.6) (Revision D).

7.3.779 Overall, the Project would not have an unacceptable impact on highway safety or result in severe residual cumulative impacts on the SRN or local road network. The Project also include measures in the Outline CTMP (document reference 7.3) (Revision F) to encourage sustainable transportation for the workforce, in a way which reduces both environmental and social impacts on the local area. The Project is therefore in accordance with the transport and access policies of NPS EN-1 (DESNZ, 2024a), the NPPF (MHCLG, 2025) and the relevant local plans and transport plans.

Resource and Waste Management (NPS EN-1 Section 5.15)

National Planning Policy

7.3.780 Section 5.15 of NPS EN-1 (DESNZ, 2024a) sets out that Government policy on hazardous and non-hazardous waste is intended to protect human health and the environment by producing less waste and by using it as a resource wherever possible. Paragraph 5.15.8 requires that the '*applicant should set out the arrangements proposed for managing any waste produced and prepare a report that sets out the sustainable management of waste and use of resources through any relevant demolition, excavation and construction activities'*.

Assessment

7.3.781 Appendix B of the Outline CoCP, Outline SWMP (document reference 7.2.B) (Revision D) sets out the process for managing waste on the Project. The purpose of the Outline SWMP is to set out how the Project will seek to reduce the consumption of primary and raw materials and to encourage the use of secondary or recycled sources. It will also set out how the Project will follow the waste hierarchy by reducing waste produced first before considering alternatives such as reuse, recycling and repurposing. The Main Works Contractor(s) will be responsible for implementing the measures outlined within the SWMP and associated management plans.

Water Quality and Resources (NPS EN-1 Section 5.16)

National Planning Policy

7.3.782 ES Chapter 12: Hydrology and Land Drainage (document reference 6.12) (Revision B) details the existing baseline and the likely significant effects of the Project on the water environment with respect to surface water including surface water quality and land drainage and flood risk from all relevant sources.

7.3.783 Paragraph 5.16.1 and 5.16.2 of NPS EN-1 (DESNZ, 2024a) considers that infrastructure development can have adverse effects on water environments, whilst also recognising that during the construction, operation and decommissioning phases, infrastructure development can lead to increased demand for water, involve discharges to water and cause adverse ecological effects.

7.3.784 Paragraph 5.16.3 of NPS EN-1 (DESNZ, 2024a) states that '*the applicant should undertake an assessment of the existing status of, and impacts of the proposed project on, water quality, water resources and physical characteristics of the water environment, and how this might change due to the impact of climate change on rainfall patterns and consequently water availability across the water environment, as part of the ES or equivalent*.'

Local Planning Policy

7.3.785 Greater Norwich Local Plan Part 2 policy P2 (Sustainable Communities) South Norfolk Development Management Policies Document policies DM1.4 (Environmental Quality and Local Distinctiveness), DM3.14 (Pollution health and safety), Babergh and Mid Suffolk Joint Local Plan policy LP27 (Flood Risk and Vulnerability), Tendring District Local Plan policy PPL5 (Water Conservation, Drainage & Sewerage), Braintree Local Plan policies LPP66 (Protection, Enhancement, Management and Monitoring of Biodiversity) policy LPP 70 (Protecting and Enhancing Natural Resources, Minimising Pollution and Safeguarding from Hazards), Chelmsford Local Plan Strategic Policy S4 (Conserving and Enhancing the Natural Environment) and Brentwood Local Plan policies BE05 (Sustainable Drainage) and NE02 (Green and Blue Infrastructure seek to protect and / or enhance water quality.

Assessment

7.3.786 ES Chapter 12: Hydrology, Land Drainage and Flood Risk (document reference 6.12) (Revision B) details the likely significant effects of the Project on the water environment with respect to surface water. The baseline of the water environment is characterised in this chapter noting that within the study area that there are 38 main rivers in the Study Area, 26 of which are crossed by the Order Limits. There are also numerous tributaries of these rivers in the Study Area, which are classified as ordinary watercourses. There are numerous ponds and lakes, some of which are part of sites designated for nature conservation. Where surface waters play a key role in sustaining the designated interest features of these sites, they have been included as a receptor in the assessment, and potential effects have been assessed in collaboration with the Project ecologists. Ardleigh Reservoir is partially located within the Study Area. The assessment has been informed by a Water Framework Directive (WFD) Assessment (document reference 7.10).

7.3.787 National Grid has continued to engage with the Environment Agency throughout the design and evolution of the Project, through various consultation exercises and through thematic meetings. All engagement is recorded in the Draft Statement of Common Ground - Environment Agency (document reference 5.9.16). In addition, National Grid has continued to engage with the Local Authorities and specifically in this regard in their capacity as the Lead Local Flood Authority.

7.3.788 Discussions have informed the development of the FRA, amongst other matters. National Grid also circulated a draft version of the FRA to the Environment Agency and Lead Local Flood Authority ahead of the submission of the application for development consent for their consideration and comment. Subsequently, the consultees' feedback was taken into consideration whilst preparing the FRA submitted with the application for development consent. Details on the consultation undertaken can be found in section 1.3 of the FRA (document reference 7.9). The reporting from the FRA is summarised in this Planning Statement at paragraphs 7.3.221 to 7.3.236. The majority of the Project, including the new substations, proposed works to existing substations and the CSE compounds, would be located within Flood Zone 1 (where there is an annual chance of flooding from rivers and the sea of less than 1 in 1,000 (0.1%)). One CSE compound at Wenham Grove is partially situated in Flood Zone 3 (an annual chance of flooding from rivers of 1 in 100 (1%) or greater or with an annual chance of flooding from the sea of 1 in 200 (0.5%) or greater). However, this CSE would be situated within the defined LoD to avoid Flood Zone 3. The proposed temporary construction compounds would also be within Flood Zone 1.

7.3.789 The majority of the permanent Project infrastructure would be located outside of the areas shown to be at 'high' risk of surface water flooding in the Environment Agency Risk of Flooding from Surface Water map. Of the places where the Project interacts with the high risk zone for operation, the majority of these are access roads. However, the Tilbury North Substation and Tilbury North (Tilbury side) CSE compound would be located where the mapping indicates there are existing surface water overland flow routes. Potential for disruption to these flow routes would be mitigated.

7.3.790 A small number of pylons are proposed within river floodplains, for which compensatory storage would be provided, whereby the volume of storage that is lost for floodwaters is recreated by the Project by locally lowering ground levels. For pylons in the floodplain, associated floodplain storage losses have been calculated, and indicative floodplain storage compensation areas have been identified.

7.3.791 With regard to flood risk and drainage, future conditions have been forecast, drawing on current best practice guidelines, taking into account the likely impacts of climate change on rainfall intensities and river flows. These future conditions are considered to factor in resilience into the Project's design.

7.3.792 Details on how consultation responses have informed the assessment can be found in the Consultation Report (document reference 5.1) (Revision B). A series of water environment thematic meetings have been held with the Environment Agency, local authorities and the Local Lead Flood Authorities and the Water Management Alliance Internal Drainage Boards. Further information on these thematic meetings is set out in Table 12.1 of ES Chapter 12: Hydrology, Land Drainage and Flood Risk (document reference 6.12) (Revision B).

7.3.793 Table 5.1 of the Outline CoCP (document 7.2) sets out the measures that will be implemented to safeguard surface water and groundwater water quality and manage land drainage and flood risk during construction of the Project. It fulfils the purpose of and contains all the necessary measures that would be set out in a standalone Construction Surface Water Management Plan prepared by the appointed Contractor. The Plan will demonstrate how runoff across the site will be controlled to prevent any off-site increases in flood risk.

7.3.794 In accordance with good practice measure W13, the layout of the site compounds will be planned to control potential risks to surface water, groundwater and flooding.

7.3.795 The main site compound is assumed to be connected to mains water supply, subject to approvals from the relevant utility provider. Wastewater will undergo suitable treatment measures such as biodigesters or would be taken away by tankers to a suitable disposal unit.

7.3.796 No surface water discharges to watercourses or existing drainage systems have been identified to date. However, in accordance with good practice measure GG01, the Project will be delivered and operated in compliance with all relevant legislation, consents and permits, therefore any consents would be sought where appropriate. There is a low risk of the Project generating significant effects on surface water receptors.

7.3.797 The assessment presented in ES Chapter 12: Hydrology, Land Drainage and Flood Risk (document reference 6.12) (Revision B) has concluded that with mitigation measures (set out in the Outline CoCP (document reference 7.2) (Revision G)) in place there are no likely long term significant residual effects in relation to water environment receptors during the construction of the Project. Effects on watercourses, their water quality and hydromorphology, and effects on existing surface water interests (abstractions and discharges) are scoped out for operation (and maintenance) in accordance with the EIA Scoping Opinion (document reference 6.20).

7.3.798 Discussions would be held with the Environment Agency in relation to any required consents and permits necessary of the works, in accordance with commitment W01 in the Outline CoCP (document reference 7.2) (Revision G). The works would subsequently be carried out in accordance with the requirements of these consents, thereby safeguarding water environment receptors. Water pollution from permanent drainage will be avoided by timed inspections and maintenance by the Applicant, as required to safeguard surface and groundwater quality.

8. Decision-Making and Planning Balance

8.1 Introduction

8.1.1 This Planning Statement has appraised the Project against the requirements of relevant planning policy. Chapter 3 sets out the national need for the Project while Chapter 4 provides a section-by-section overview of the Project in respect to its physical context and a more detailed description of the proposed route alignment, whilst identifying the key planning constraints in each section which are then further assessed in Chapter 7.

8.1.2 Chapter 2 of this Planning Statement sets out how planning policy, as well as the requirements of the Electricity Act and the principles of the Holford and Horlock Rules, have been considered through the design development demonstrating how such policy and legislative objectives have been embedded into the design of the Project.

8.1.3 This chapter describes the Project's benefits and its significant adverse effects during construction and operation. The chapter then considers the overall planning balance, in view of the relevant NPS against which the application for development consent will be determined

8.1.4 Section 104(3) of the PA 2008 provides that the Application '*must be decided in accordance with any relevant national policy statement, except to the extent that one or more of subsections (4) to (8) applies'*.

8.1.5 The stated exceptions are:

- (4) this subsection applies if the Secretary of State is satisfied that deciding the application in accordance with any relevant national policy statement would lead to the UK being in breach of any of its international obligations
- (5) this subsection applies if the Secretary of State is satisfied that deciding the application in accordance with any relevant national policy statement would lead to the Secretary of State being in breach of any duty imposed on the Secretary of State by or under any enactment
- (6) this subsection applies if the Secretary of State is satisfied that deciding the application in accordance with any relevant national policy statement would be unlawful by virtue of any enactment
- (7) this subsection applies if the Secretary of State is satisfied that the adverse impact of the proposed development would outweigh its benefits
- (8) this subsection applies if the Secretary of State is satisfied that any condition prescribed for deciding an application otherwise than in accordance with a national policy statement is met.

8.1.6 Section 104(2) states that in deciding an application for development consent the Secretary of State must have regard to:

- Any relevant national policy statement
  - The appropriate marine policy documents
- Local impact reports
- Prescribed matters
- Any other matters which the Secretary of State thinks are both important and relevant to the Secretary of State's decision.

8.1.7 The following sections present a summary of the evidence to allow the SoS to grant development consent for the Project in accordance with Section 104 of the PA 2008.

8.2 Section 104(3) of the PA 2008

8.2.1 The relevant NPSs in respect of the Project are NPS EN-1 (DESNZ, 2024a), NPS EN-3 DESNZ, 2024c) and NPS EN-5 (DESNZ, 2024b). The SoS must therefore decide the Application in accordance with these NPSs. Section 7 of this Planning Statement details the Project's compliance with these NPSs. The accompanying Policy Compliance Document (document reference 5.7) demonstrates that the Project is in accordance with these NPSs.

8.2.2 Section 3 of NPS EN-1 sets out the urgent need for significant amounts of new large-scale low carbon energy infrastructure to meet the government's energy objectives, with paragraph 3.2.6 of the NPS EN-1 stating that:

'The Secretary of State should assess all applications for development consent for the types of infrastructure covered by this NPS on the basis that the government has demonstrated that there is a need for those types of infrastructure, which is urgent, as described for each of them in this Part.'

8.2.3 Paragraphs 3.3.65 to 3.3.66 of NPS EN-1 state:

'There is an urgent need for new electricity network infrastructure to be brought forward at pace to meet our energy objectives.

The security and reliability of the UK's current and future energy supply is very highly dependent on having an electricity network which will enable new renewable electricity generation, storage, and interconnection infrastructure that our country needs to meet the rapid increase in electricity demand required to transition to net zero while maintaining energy security. The delivery of this important infrastructure also needs to balance cost to consumers, accelerated timelines for delivery and the minimisation of community and environmental impacts.'

8.2.4 Paragraph 3.3.62 of NPS EN-1 explains that the '*Government has concluded that there is a critical national priority (CNP) for the provision of nationally significant low carbon infrastructure'*.

8.2.5 Paragraph 4.1.2 states that 'The Energy White Paper and British Energy Security Strategy emphasises the importance of the government's net zero commitment and efforts to fight climate change, as well as the need to maintain a secure and reliable energy system. The Levelling Up White Paper calls on the Government to ensure investment in the transition to Net Zero benefits less well-performing parts of the UK, reducing emissions, facilitating economic development and the creation of jobs'.

8.2.6 Paragraph 4.1.3 of NPS EN-1 is a key consideration in the determination of this application (emphasis added)

*'**Given the level and urgency of need for infrastructure of the types covered by the energy NPSs set out in Part 3 of this NPS, the Secretary of State will start with a presumption in favour of granting consent to applications for energy NSIPs.** That presumption applies unless any more specific and relevant policies set out in the relevant NPSs clearly indicate that consent should be refused.'*

8.2.7 It is not considered that there are any relevant policies which would warrant a refusal of this application.

8.2.8 Paragraph 4.2.4 of NPS EN-1 explains that there is a CNP for the provision of nationally significant low carbon infrastructure and defines the project types for low carbon infrastructure at paragraph 4.2.5.

8.2.9 The Project is a nationally significant infrastructure project which is CNP Infrastructure. In accordance with paragraphs 3.3.65 and 3.3.66 of NPS EN-1, the Project will provide the urgently needed reinforcement to the transmission system in the South East of England and East Anglia. Without reinforcement, the capacity of the existing network in East Anglia and the South East is insufficient to accommodate the connection of proposed new power sources connecting in the area.

8.2.10 East Anglia's 400 kV electricity transmission network was built in the 1960s. It was built to supply regional demand, centred around Norwich and Ipswich. For many years, the only significant power stations generating in the East Anglia region were the Sizewell A and the Sizewell B nuclear power stations, Spalding North and Sutton Bridge gas fired power stations, and some further smaller 132 kV connected gas fired power stations.

8.2.11 This generation capacity has recently been added to by several offshore windfarms with the existing generation totalling 6,552.4 MW of installed capacity. This is expected to grow substantially in coming years. In the East Anglia region, connection agreements have been signed for 26,919.9 MW of new generation (total generation of 33,472.3 MW minus existing generation of 6,552.4 MW). These future connection agreements comprise a large volume of offshore wind generation (including East Anglia Offshore Wind), gas-fired generation, energy storage projects, and a nuclear power station (at Sizewell C).

8.2.12 This reinforcement will ensure that, in accordance with national and local policies and targets, the Project will improve the existing electricity transmission network, and will contribute to energy independence, the UK's decarbonisation requirements and climate change targets, and assist in ensuring the supply of energy remains secure, reliable and affordable.

8.2.13 NPS EN-1 Paragraph 4.2.15 states that '*Where residual non-HRA or non MCZ impacts remain after the mitigation hierarchy has been applied, these residual impacts are unlikely to outweigh the urgent need for this type of infrastructure*.', or in other words, it is unlikely that consent will be refused on the basis of these residual impacts. As further set out in paragraph 4.2.15, the exceptions to this presumption of consent relate to circumstances in which residual effects onshore and offshore would present 'an unacceptable risk' to:

Human health and public safety

8.2.14 The ES concludes the Project will not result in significant adverse effects on human health and wellbeing (see Section 7.2.104 of this Planning Statement for further details) and ES Chapter 10: Health and Wellbeing (document reference 6.10) (Revision C).

8.2.15 Matters of public safety and pollution control are also considered where appropriate throughout the ES, including ES Chapter 10: Contaminated Land, Geology and Hydrogeology (document reference 6.9) (Revision B) and ES Appendices 6.9.A1: Baseline Information and Preliminary Contaminated Land Risk Assessment (document reference 6.9.A1) (Revision B), Groundwater Baseline and Qualitative Groundwater Risk Assessment (document reference 6.9.A3) (Revision B), Traffic and Transport Construction Effects (document reference 6.16.A4) (Revision B), Flood Risk Assessment (document reference 7.9), Outline CTMP (document reference 7.3) (Revision F) and Electric and Magnetic Field Compliance Report (document reference 7.8) (Revision B)

8.2.16 Management plans are submitted with the Application which secure the implementation of measures during construction and operation which would seek to avoid or reduce risks relating to pollution and emissions, including Outline CoCP (document reference 7.2) (Revision G) and accompanying appendices comprising the Outline SWMP (document reference 7.2.B) (Revision D), Outline Soil Resource Plan (document reference 7.2.D) (Revision D) Outline Noise and Vibration Management Plan (document reference 7.2.F) (Revision D), Outline Flood Warning and Excavation Plan (document reference 7.2.G) (Revision C), Greenhouse Gas Reduction Strategy (document reference 7.2.H) (Revision B).

8.2.17 The Statement of Statutory Nuisance (document reference 5.4) describes the matters that constitute ‘statutory nuisances’ within Section 79(1) of the Environmental Protection Act 1990 (EPA 1990) and considers whether the Project has the potential to cause nuisance, concluding that, with good practice measures in place (included in the abovementioned management plans), no breach of Section 79(1) of the EPA 1990 is expected as a result of the Project.

8.2.18 In light of the above, the Project would not present an unacceptable risk to human health and public safety.

Defence

8.2.19 National Grid has consulted with the MOD Defence Infrastructure Organisation (DIO) and the operator of the military aerodrome Wattisham Flying Station (WFS). As set out in ES Appendix 6.15.A2: Review of Aviation Impact (document reference 6.15.A2) (Revision C), consultation has identified that the Project alignment infringes the statutory safeguarding zones surrounding the aerodrome, as well as a potential conflict of interest between the Project and the safeguarding criteria for the aerodrome’s STAR NG radar. Furthermore, consultation has identified the Project’s infringement of the statutory safeguarding zone surrounding the MOD’s East 2 WAM Network, specifically the North WAM technical asset, related to air traffic services. The Project alignment was also confirmed to fall within MOD Low Flying Areas (LFA) 5 and 10, within which military aircraft may conduct low level flight training.

8.2.20 National Grid’s continued engagement with the WFS operator and the DIO recognises the need for MOD assessment of potential impacts on the identified military assets, appropriately informed through the provision of detailed Project

design information. On undertaking its own assessment of the Project proposals, the MoD confirmed it had no safeguarding concerns regarding the WFS aerodrome. Following minor design changes, National Grid is seeking the reconfirmation of this position.

8.2.21 In relation to potential impacts on the STAR NG and East 2 WAM technical assets, National Grid is awaiting the outcome of MOD technical and operational assessments. With respect to the confirmed impact of the Project as an obstacle within LFAs 5 and 10, the DIO has advised that the MOD will require a condition to any consent issued to ensure that sufficient data is submitted for Project structures to be accurately charted to enable deconfliction with military aviation. National Grid has confirmed to the DIO that it intends to support this requirement. National Grid is developing Statements of Common Ground with both the DIO and WFS, which it intends to submit during Examination.

Irreplaceable Habitats

8.2.22 Irreplaceable habitat are those habitats which take significant time to restore, recreate or replace once they are lost, often because of their age, diversity or uniqueness. Ancient Woodland and Veteran Trees are both identified as irreplaceable habitat.

8.2.23 The Ancient Woodland and Veteran Tree Strategy (document reference 7.4.B) (Revision C) outlines the principal measures that are required to help avoid, minimise, and compensate for the potential ecological effects of the Project on ancient woodland and veteran trees, during and post construction, as per the mitigation hierarchy. Due to the nature of both ancient woodland and veteran trees being 'irreplaceable habitat', additional and bespoke mitigation, which comprises measures over and above any embedded and standard mitigation measures, has been developed which considers each ancient/ or veteran feature independently. This strategy also describes the embedded mitigation which has influenced the Project design in order to avoid and/or reduce impacts to ancient woodland and/or veteran trees for completeness.

8.2.24 Specific Project commitments have been made as standard mitigation, to remove impacts to ancient woodlands. As a result of these Project commitments impacts associated with five ancient woodlands have been completely removed (Mann/Parson's Wood, Stonefield Strip, Sheepcote's Wood, Botneyhill Wood and Millers Wood). No works will be undertaken (in line with Project commitments B20-B24 set out within the Outline CoCP (document reference 7.2) (Revision G)) within or within 15 m of these ancient woodlands. Impacts have also been reduced at one ancient woodland (Rivenhall Thicks) by Project commitment B25, set out within the Outline CoCP (document reference 7.2) (Revision G).

8.2.25 Complete removal of impacts to the remaining four ancient woodlands and Rivenhall Thicks (and the associated 15 m buffer) are unavoidable, as the proposed works relate to the removal, undergrounding or modification of existing third-party infrastructure (11 kV, 33 kV, 132 kV), with the existing assets already located within the associated woodland or 15 m RPA.

8.2.26 Within three of these ancient woodlands (Round Wood, Rivenhall Thicks and Writtle-Writtlepark Wood) minor excavation works are required to remove the existing assets. Modification to an existing pylon located within Little Bladen's Wood is required and minor excavation to facilitate the 11 kV undergrounding is required 12 to 15 m from Clapgate Wood. Mitigation measures have been proposed to ensure no significant long term residual effects on ancient woodland are encountered as a result of the Project.

8.2.27 Rainbow Wood and Ashen Shaw is affected by the LTC project. The Norwich to Tilbury Project will have no direct effects on Rainbow Wood and Ashen Shaw ancient woodland, the Project will affect the area of proposed the LTC DCO mitigation planting. An alternative tree planting area has been included within the Project Order Limits, which will provide space for this ancient woodland mitigation adjacent to the retained areas of Rainbow Wood LWS if LTC is taken forward to construction and the mitigation planting is required.

8.2.28 A total of 112 trees and three groups have been surveyed within the Project Study Area as veterans. Four individual veteran trees require removal and a further 15 veteran trees and two veteran groups require crown management to facilitate the overhead line clearance requirements.

8.2.29 The final mitigation measures, remediation works and long term monitoring are to be agreed at detailed design stage with the Project arboriculturist and the relevant landowners on a case by case basis.

The Achievement of Net Zero

8.2.30 Consistent with the Government's Net Zero target, there has been, and continues to be, growth in the volume of renewable and zero carbon generation that is seeking to connect to the electricity transmission system in the East Anglia and South East regions. UK Government policy clearly sets out the critical requirement for significant reinforcement of the transmission system to facilitate the connection of renewable energy sources and to transport electricity to where it is used. In particular, the British Energy Security Strategy (HM Government, 2022) sets targets for the connection of up to 50 GW of offshore wind by the 2030s as a key part of a strategy for secure, clean and affordable British energy for the long term.

8.2.31 The Project makes a significant contribution to Net Zero by providing significant reinforcements to the transmission system which will facilitate the connection of future sources of renewable and low carbon power generation along the coast and therefore will facilitate the achievement of Net Zero.

Flood Risk

8.2.32 A FRA (document reference 7.9) has been submitted as part of the application for development consent focussing on flood risk from fluvial, tidal/coastal, pluvial (surface water) and groundwater sources. The FRA (document reference 7.9) has concluded that the Project during its construction would be generally at low risk of flooding from rivers. Locally higher risks, particularly to temporary works within main river floodplains, would be reduced through embedded and good practice measures set out in the Outline CoCP (document reference 7.2) (Revision G). These measures would also protect construction workers, limit damages to construction equipment and materials and also limit any impacts of the Project on fluvial flood risk as set out in ES Chapter 12: Hydrology, Land Drainage and Flood Risk (document reference 6.12) (Revision B). During the operation of the Project, there would be low risk of fluvial flooding and there would be no increase in flood risk as a consequence of the Project's operation, subject to implementation of the recommended compensatory storage described in the FRA.

8.2.33 The Project would not present an unacceptable flood risk.

Conclusions on EN-1 paragraph 4.2.15

8.2.34 As set out above, the Project will not present an unacceptable risk to or unacceptable interference with:

- Human health and public safety
- Defence
- Flood risk.

8.2.35 The Project will necessitate the felling of four veteran trees. Veteran trees are acknowledged as being irreplaceable, therefore full compensation is unachievable. Compensation Planting will include a combination of new planting, sapling relocation, seed bank for local provenance, and financial contributions to local tree planting organisations to plant and maintain new areas of planting off-site.

8.2.36 The Project makes a significant contribution to Net Zero by providing significant reinforcements to the transmission system which will facilitate the connection of future sources of renewable and low carbon power generation along the coast and therefore will facilitate the achievement of Net Zero.

8.2.37 The presumption in favour of consent for CNP infrastructure is therefore not affected with regard to these exceptions.

CNP Infrastructure

8.2.38 As illustrated in Figure 3: *Application of CNP in decisions relating to Habitats Regulations Assessments* in NPS EN-1 (DESNZ, 2024), the presumption of consent does not apply either in the case of residual effects relating to a HRA or a MCZ, with paragraph 4.2.19 of NPS EN-1 (DESNZ, 2024) advising that, in that case, the SoS will need to consider making a derogation under the Habitats Regulations. An HRA Report (document reference 5.3) has been submitted as part of the application for development consent. The HRA Report concluded there would be no significant adverse effects on the integrity of the Norfolk Valley Fens SAC and the Stour and Orwell Estuaries SPA and Ramsar Site with regard to hydrology once mitigation measures identified in the Outline CoCP (document reference 7.2) (Revision G). The HRA Report concludes that it does not need to progress onto Stage 3 of the HRA process (to consider if proposals that would have an adverse effect on integrity of a European site qualify for an exemption) and the Project is compliant with the NPS in relation to HRA.

8.2.39 Therefore, there is no need for the SoS to consider making a derogation under the Habitats Regulations and the presumption of consent for CNP infrastructure still stands.

8.2.40 As a result of the above, as stated in paragraph 4.2.16 of NPS EN-1 (DESNZ, 2024), '*the Secretary of State will take as the starting point for decision-making that such infrastructure is to be treated as if it has met any tests which are set out within the NPSs, or any other planning policy, which requires a clear outweighing of harm, exceptionality or very special circumstances*'.

8.2.41 Paragraph 4.2.17 goes on '*This means that the Secretary of State will take as a starting point that CNP Infrastructure will meet the following, non-exhaustive, list of tests:*

- *where development within a Green Belt requires very special circumstances to justify development*
- *where development within or outside a Site of Special Scientific Interest (SSSI) requires the benefits (including need) of the development in the location proposed to clearly outweigh both the likely impact on features of the site that make it a SSSI, and any broader impacts on the national network of SSSIs*
- *where development in nationally designated landscapes requires exceptional circumstances to be demonstrated and*
- *where substantial harm to or loss of significance to heritage assets should be exceptional or wholly exceptional*'.

8.2.42 The following takes each of these tests in turn.

Green Belt

8.2.43 The Project is routed through the Metropolitan Green Belt between Chelmsford and the new Tilbury North Substation in Thurrock. Paragraphs 7.3.497 to 7.3.537 of this Planning Statement consider the Projects compliance with Green Belt policy. The assessment concludes that the overhead line infrastructure should be considered to be an engineering operation and as such should not be regarded as inappropriate development in the Green Belt. National Grid's position is that the proposed Tilbury North substations and CSE compound works may be considered inappropriate development as they would not preserve the openness of the Green Belt. Very special circumstances would be required to justify their acceptability. The planning statement concludes that there are very special circumstances to justify inappropriate development in the Green Belt which include:

- The UK Government policy requires significant reinforcement of the transmission system to facilitate the connection of renewable energy sources to transport electricity to where it is used
- The British Energy Security Strategy sets targets for the connection of up to 50GW of offshore wind by 2030s as a key part of a strategy for secure, clean and affordable British energy for the long term
- New connections for offshore wind and nuclear power generation projects, and for interconnectors, are expected into East Anglia by 2030. These connections are being constructed or expected to connect into substations at Necton, Norwich Main, Bramford, Friston and Sizewell
- Without reinforcement, the capacity of the East Anglia existing network is insufficient to accommodate the connection of the proposed new power sources. Therefore, reinforcement of the network is required
- The requirement to meet net zero by 2050, to replace the fossil fuels that once powered the economy to low-carbon electricity
- By reinforcing the capacity of East Anglia, the Project will address the need to be able to accommodate the connection of the proposed new power sources, namely offshore wind and nuclear power generation projects, as required by 2030.

8.2.44 The UK Government policy requires significant reinforcement of the transmission system to facilitate the connection of renewable energy sources to transport electricity to where it is used

8.2.45 The British Energy Security Strategy sets targets for the connection of up to 50GW of offshore wind by 2030s as a key part of a strategy for secure, clean and affordable British energy for the long term

8.2.46 New connections for offshore wind and nuclear power generation projects, and for interconnectors, are expected into East Anglia by 2030. These connections are being constructed or expected to connect into substations at Necton, Norwich Main, Bramford, Friston and Sizewell

8.2.47 Without reinforcement, the capacity of the East Anglia existing network is insufficient to accommodate the connection of the proposed new power sources. Therefore, reinforcement of the network is required.

8.2.48 The requirement to meet net zero by 2050, to replace the fossil fuels that once powered the economy to low-carbon electricity

8.2.49 By reinforcing the capacity of East Anglia, the Project will address the need to be able to accommodate the connection of the proposed new power sources, namely offshore wind and nuclear power generation projects, as required by 2030

8.2.50 The Clean Power 2030 Report (NESO 2024) states that 'Three projects have been identified as critical to delivering a network which supports the clean power pathways, but at present have delivery dates after 2030. Support is therefore needed to bring these projects forward for 2030 delivery. These are projects in East Anglia and in the southeast that are critical for connecting offshore wind in the North Sea and supporting the flow of clean power. Our assessment suggests that without these projects, the clean power objective would not be achieved, leaving the clean power target short by around 1.6% in 2030 (assuming a typical weather year) and consumers could face extra constraint costs of around £4.2 billion in 2030.' The Project is specified as two of those three projects. The critical and urgent nature of the Project is therefore also recognised in the strongest terms in a recent report in achieving Clean Power 2030 objectives.' Norwich to Tilbury comprises two of the three projects.

Sites of Special Scientific Interest

8.2.51 In line with national policy requirements, the Project has been designed following the mitigation hierarchy and has avoided impacts where possible through the routeing and siting process. Environmental appraisal has been an integral part of the Project design from the outset, which has meant that the Project has been able to avoid environmentally sensitive features including SSSIs as far as reasonably practicable. The Project avoids all direct interaction with SSSIs. National Grid's application of the mitigation hierarchy is set out within ES Chapter 8: Ecology and Biodiversity (document reference 6.8) (Revision C) and included in the Statement of Common Ground produced with Natural England (document reference 5.9.14).

Nationally Designated Landscapes

8.2.52 Section 7.3.370 to 7.3.428 of this Planning Statement and ES Appendix 13.5 National Landscape Assessment Study (document reference 6.13.A5) (Revision B) describes the effects of the Project on Dedham Vale National Landscape during construction and operation. Paragraph 4.2.17 and 5.10.32 in NPS EN-1 confirms that development consent in nationally designated landscapes can only be granted in exceptional circumstances and should be demonstrated to be in the public interest. Paragraph 5.10.33 of NPS EN-1 confirms that the SoS should ensure that any

projects consented in these designated areas should be carried out to high environmental standards. It is considered that the Project meets the tests set out in paragraph 5.10.32, as discussed below:

8.2.53 The need for the development - Chapter 3 of the Planning Statement and the Strategic Options Back Check and Review Report (document reference 7.17) explains that the Project will reinforce the transmission system in East Anglia and the South East. In summary, in accordance with NPS EN-1 the Project will provide infrastructure that is CNP where need is fully established and for which the presumption in favour of granting development consent is engaged.

8.2.54 As described in ES Chapter 3: Alternatives (document reference 6.3) (Revision B) in defining the Project routeing at the Strategic Options Stage the assessment focused on whether the Bramford to EACN Substation connection should route directly through the Dedham Vale National Landscape (using underground cables within the National Landscape) or take a longer route around it via the Twinstead Tee area.

8.2.55 A decision was taken by National Grid to adopt underground technology through a more westerly part of the Dedham Vale National Landscape, achieving greater separation from sensitive ecology receptors and from areas of particular focus for National Landscape visitors.

8.2.56 Routes avoiding the National Landscape by passing north of Colchester presented significant additional challenges, including greater technical complexity with multiple constrained sections at Layham, Boxford, and Lamarsh Lane, increased construction complexity, and the need for additional crossings of existing infrastructure such as the proposed Bramford to Twinstead overhead lines. Moreover, routes north of Colchester may still result in adverse effects on the setting of the National Landscape.

8.2.57 The direct route with underground cables was selected as it halves the connection length, avoids creating a third connection between Bramford and Twinstead, and better complies with the Holford Rules, despite requiring underground cable mitigation through the National Landscape.

8.2.58 It is considered that permanent detrimental effects on the environment, landscape and recreational opportunities within the National Landscape have been avoided through undergrounding and careful consideration of routeing and siting through the National Landscape.

8.2.59 On the basis of the above and the clear and compelling need for the Project as set out in this Planning Statement, it is considered exceptional circumstances therefore exist to justify the Project in the Dedham Vale National Landscape. As demonstrated by the needs case, the Project would be in the public interest. It is considered that the Project would be in compliance with this test.

Assessment of Substantial Harm to or Loss of Significance to Heritage Assets

8.2.60 ES Chapter 11: Historic Environment provides an assessment of the Projects likely significant effects on designated and non-designated heritage assets. The Assessment of Harm to Designated Heritage Assets (Appendix 11.7 of the ES) assesses harm predicted upon designated assets in accordance with the NPSs. The assessment concludes Project will not result in any substantial harm to designated heritage assets.

8.2.61 The Project has been carefully designed to avoid, reduce or mitigate potentially significant effects on cultural heritage and archaeology assets. Whilst the Project will not result in substantial harm to designated heritage assets it will result in the loss of significance to heritage assets due to the introduction of temporary and / or permanent plant, machinery and infrastructure into the setting. However, this loss of significance is necessary to achieve the substantial public benefit of delivering CNP infrastructure that outweighs the heritage impact. This is supported by paragraph 4.2.16 and 4.2.17 of NPS EN-1 (DESNZ, 2024) which provides that the SoS will take as the starting point for decision-making that CNP infrastructure is to be treated as if it has met any tests which are set out within the NPSs, or any other planning policy, which requires a clear outweighing of harm, exceptionality or very special circumstances.

Summary - EN-1 paragraphs 4.2.15-4.2.17

8.2.62 Based on the above, it is established that in the case of the Project, that any tests which require a clear outweighing or harm, exceptionally or in very special circumstances have been met. National Grid has set out in this Planning Statement that the benefits of the Proposed Development clearly and demonstrably outweigh residual adverse effects after the implementation of mitigation measures. The Project is in accordance with the Energy NPSs and the CNP presumption of consent should apply.

Section 104(7) of the PA 2008: Planning Balance

8.2.63 In deciding the Application in accordance with Section 104(3) of the PA 2008 the SoS must be satisfied that '*the adverse impacts of the proposed development would outweigh its benefits*' (Section 104(7)). To determine this, a balance of the Project's adverse impacts against its benefits must be carried out. This overall planning balance is presented below.

8.2.64 Paragraph 4.1.5 of NPS EN-1 (DESNZ, 2024) sets out how the SoS, when making a decision, will weigh '*adverse impacts against its benefits'*. The glossary associated with NPS EN-1 (DESNZ, 2024) confirms that in making a decision, the SoS will apply the following hierarchy of weight:

- Limited
- Moderate
- Great
- Significant
- Substantial.

8.2.65 The following paragraphs have regard to the conclusions of the planning appraisal in Section 7 of this Planning Statement with respect to the potential environmental, social and economic impacts of the Project and apply the planning balancing exercise in accordance with S104 of the PA 2008. ES Chapter 18: Summary (document reference 6.18) (Revision B) also summarises the position on likely significant residual effects of the Project.

Positive Impacts

Net Zero

8.2.66 As set out in Chapter 3 of this Planning Statement, consistent with the Government's Net Zero target, there has been, and continues to be, growth in the volume of renewable and zero carbon generation that is seeking to connect to the electricity transmission system in the East Anglia and South East regions. UK Government policy clearly sets out the critical requirement for significant reinforcement of the transmission system to facilitate the connection of renewable energy sources and to transport electricity to where it is used. In particular, the British Energy Security Strategy (HM Government, 2022) sets targets for the connection of up to 50 GW of offshore wind by the 2030s as a key part of a strategy for secure, clean and affordable British energy for the long term.

8.2.67 The Project is required particularly to support offshore wind projects, which in turn are required to meet the Government's targets for the connection of up to 50 GW of offshore wind by 2030. This offshore generation is a key part of a strategy for secure, clean and affordable British energy for the long term. The need for the Project is clear and urgent.

8.2.68 East Anglia's 400 kV electricity transmission network was built in the 1960s. It was built to supply regional demand, centred on Norwich and Ipswich. For many years, the only significant power stations generating in the East Anglia region were the Sizewell A and the Sizewell B nuclear power stations, Spalding North and Sutton Bridge gas fired power stations, and some further smaller 132 kV connected gas fired power stations.

8.2.69 This generation capacity has recently been added to by several offshore windfarms with the existing generation totalling 6,552.4 MW of installed capacity. This is expected to grow substantially in coming years. In the East Anglia region, connection agreements have been signed for 26,919.9 MW of new generation (total generation of 33,472.3 MW minus existing generation of 6,552.4 MW). These future connection agreements comprise a large volume of offshore wind generation (including East Anglia Offshore Wind), gas-fired generation, energy storage projects, and a nuclear power station (at Sizewell C).

8.2.70 Without reinforcement, the capacity of the East Anglia and South East existing network is insufficient to accommodate the connection of the proposed new power sources. The 'Thermal Boundary Export Limit' – the physical maximum energy capacity the system can accommodate during planned system faults – would be exceeded, preventing export of power to demand centres beyond East Anglia. In these circumstances, generators connecting in the area would be required to reduce their output and would be compensated via a 'constraint' payment. These costs would be passed on to end consumers. National Grid ESO (now NESO) analysis shows that, in this case, predicted constraint costs are likely to significantly exceed those of reinforcement.

8.2.71 In November 2024, the National Energy System Operator published Clean Power 2030: Advice on achieving clean power for Great Britain by 2030 (NESO, 2024). This report states that '*Three projects have been identified as critical to delivering a network which supports the clean power pathways, but at present have delivery dates after 2030. Support is therefore needed to bring these projects forward for 2030 delivery. These are projects in East Anglia and in the southeast that are critical for connecting offshore wind in the North Sea and supporting the flow of clean power.*

Our assessment suggests that without these projects, the clean power objective would not be achieved, leaving the clean power target short by around 1.6% in 2030 (assuming a typical weather year) and consumers could face extra constraint costs of around £4.2 billion in 2030.' The Project is specified as two of those three projects. The critical and urgent nature of the project is therefore also recognised in the strongest terms in a recent report in achieving Clean Power 2030 objectives.

8.2.72 The Clean Power report notes the need to accelerate transmission projects to ensure that they can help to deliver the new sources of clean power generation by 2030. There is a need for the Project to be delivered at pace to achieve the Clean Power 2030 target and realise the benefits.

8.2.73 NESO's (2024b) Clean Power 2030 report identifies the need for the Project to be delivered by 2030. National Grid has, in conjunction with NESO, undertaken the necessary exercises/studies and it is now important the Project makes progress at pace to ensure NESO's ambition for Clean Power 2030 is realised.

Biodiversity Net Gain

8.2.74 The Environment Act 2021 introduces a mandatory requirement for 10% BNG, for new developments consented under the TCPA to ensure that they enhance biodiversity. It is anticipated that NSIPs, consented through a DCO under the PA 2008, would be subject to the BNG requirement from May 2026. The Project is anticipated be submitted in August 2025 and therefore prior to the BNG mandatory requirement for NSIP applications.

8.2.75 Despite BNG not yet being a mandatory requirement for NSIPs, National Grid has committed to deliver 10% BNG with wider environmental and societal benefits on all construction projects requiring formal planning or consent, including Norwich to Tilbury. As there is no guidance for BNG on NSIPs, guidance devised for TCPA applications has been applied and modified as relevant, as agreed with Natural England.

8.2.76 Accounting for permanent and temporary habitat removal and habitat management and all proposed on-site planting and enhancement, the Project is predicted to result in an on-site net loss -8.25% for area habitat units, a net gain in hedgerow units of 10% and net gain in watercourse units of 10.04%. Table 8.1 details the additional units required to achieve a 10% gain in area habitats.

Table 8.1 Summary of biodiversity units for the Project

Habitat Type	Baseline	Post-Development BU	Net Unit Change	Total Net % Change	Offsite BU Deficit Required to achieve 10% BNG
Area habitat Units	6389.56	5862.56	-526.99	-8.25%	1165.95
Hedgerow Units	1009.23	1079.22	+69.97	**+10.00%**	0.00
Watercourse Units	118.74	131.40	+12.60	**+10.65**	0.00

8.2.77 National Grid will continue to work with contractors to further reduce impact and seek ways to achieve the targeted +10% BNG target within the Project and will continue to liaise with third-party stakeholders in order to secure any off-site compensation required to deliver the BU deficit.

8.2.78 Discussions are currently taking place between National Grid and the WaLOR scheme (Suffolk Wildlife Trust, 2025), a landscape recovery scheme which is located in the same geographic area as the Project. This project is seeking to deliver a number of BNG units in addition to the delivery of the WaLOR scheme and National Grid has discussed the opportunity to deliver approximately 600 area habitat units. This could comprise a mixture of woodland, other neutral grassland as well as the potential to deliver wetland mosaic habitats. The final mix of units and location will be explored as the WaLOR scheme develops. Suffolk Wildlife Trust has also identified Market Weston Fen a habitat bank in Suffolk that comprises mixed scrub and other neutral grassland. National Grid is currently in discussion with both parties to sign an Expression of Interest and updated details will be provided accordingly.

8.2.79 Essex Wildlife Trust has issued a letter to National Grid confirming that they are happy to assist with the requirement of approximately 400 units in Essex, which include other neutral grassland, mixed scrub, individual trees and acid grassland. National Grid will continue to work with Essex Wildlife Trust to identify potential sites as the Project progresses.

8.2.80 National Grid is continuing these discussions with the Wildlife Trusts and other third parties in regard to securing the off-site units through a legal agreement (unilateral undertaking under s.106 of the Town and Country Planning Act 1990), and progress on such discussions will be provided accordingly.

Further the Purpose

8.2.81 National Landscapes: Duty to Seek to Further the Purposes Report (s85 of Countryside and Rights of Way Act 2000) (document reference 5.10) sets out the current status of National Grid's consideration of its duty, in relation to the Project, to seek to further the purpose of the National Landscape, which is to 'conserve and enhance natural beauty' in accordance with section 85 of the CRoW Act (as amended by section 245 LURA 2023). This duty was introduced in 2023 and strengthens the previous version of section 85 of the CRoW Act which required relevant authorities to 'have regard' to the statutory purpose of National Landscapes.

8.2.82 The design of the Project has considered the Protected Landscapes and sought to avoid harm and identify whether measures can be embedded in the design in accordance with Defra guidance when seeking to contribute and further the purpose of the designation.

8.2.83 In addition to taking the National Landscape into consideration through all stages of the Project design as explained above, in line with the Defra guidance (Defra, 2024) additional 'appropriate, reasonable and proportionate steps' are under consideration in respect of the duty to seek to further the statutory purposes of the National Landscape. This is ongoing and being progressed in consultation with the DVNL Partnership Team and key stakeholders. The current position is set out below and a further update will be provided during the Examination on the final proposed measures.

8.2.84 Whilst engagement is ongoing, feedback supported the provision of a financial contribution to support the delivery of a range of measures to further the purposes. Such an approach has been followed on a number of other NSIPs where the s85 duty (as amended by section 245 LURA 2023) has been engaged. In addition, there has been consideration of an initial feasibility study in respect of the potential for the future removal of an existing 132 kV overhead line operated by UKPN (the PJ Line).

8.2.85 With regard to the provision of a financial contribution, feedback from the National Landscape Team supported a financial contribution directed to the National Landscape Partnership. The financial contribution will be utilised to deliver benefits and provide enhancements to further the statutory purposes of the National Landscape in accordance with the objectives of the existing and future Management Plans. Given the delivery timeframe for the Project, the draft Dedham Vale National Landscape and Stour Valley project area Management Plan 2026-2031, which is being consulted upon until September 2025, is being utilised as a framework to identify the projects which could be delivered. The projects identified would also equally comply with the current Management Plan. At the time of the scoping exercise when the initial measures were identified the draft Management Plan 2026-31 had not been published

8.2.86 The amount of the contribution will be based on the identification of a number of projects which aim to conserve and enhance the natural beauty of the Dedham Vale National Landscape and in with the Management Plans and in accordance with the Defra guidance (Defra, 2024) will be appropriate, reasonable and proportionate having regard to the impacts of the Project on the National Landscape.

8.2.87 This work has commenced already with the projects under consideration to be funded by the financial contribution being shaped around the draft Management Plan 2026-31 themes and principles identified to deliver the strategy aims for the themes. This is in addition to identifying funding for resourcing to deliver the projects and support for existing projects. A list of potential projects and resourcing proposed by the National Landscape Team under consideration has been set out in Annex A of Appendix A of the National Landscapes – Duty to Seek to Further the Purposes Report (s85 Countryside and Rights of Way Act 2000) (document reference 5.10).

8.2.88 With regard to the rationalisation of existing electricity infrastructure, it is understood from an initial discussion with UKPN that in the longer term the delivery of the Project could potentially, from a network perspective, enable part of the PJ Line removal. However, this would be a substantial costly and complex project with significant works required to the UKPN network with uncertain timescales. A number of factors would need to be resolved to facilitate its removal including technical matters, funding, consenting, planning permission, land ownership, UKPN interests and operational requirements. A commitment to removal of the PJ Line is not considered appropriate or proportionate to include as part of the Project works in the DCO given its anticipated cost, complexity and current uncertain status and taking account of the significance of effects to the National Landscape.

8.2.89 National Grid is therefore proposing the preparation of an initial feasibility study to assess feasibility for the potential PJ Line removal (including a review of the technical solution, funding, consenting, land ownership, operational requirements, programme and delivery options) in the longer term. This would be limited to a feasibility exercise and any steps beyond that regarding potential planning for the removal of the PJ Line would be for future consideration with relevant stakeholders (including UKPN and Ofgem from a funding perspective) entirely outside of the Project and DCO.

Neutral Impacts

8.2.90 Air Quality: There will be no significant residual adverse effects on air quality during construction and operation of the Project therefore these matters should be afforded limited weight in the planning balance.

8.2.91 Ecology and Biodiversity There will be no significant residual adverse effects on Ecology and Biodiversity during construction and operation of the Project therefore these matters should be afforded limited weight in the planning balance.

8.2.92 Contaminated Land, Geology and Hydrogeology: There will be no significant residual adverse effects on Contaminated Land, Geology and Hydrogeology during construction and operation of the Project therefore these matters should be afforded limited weight in the planning balance.

8.2.93 Health and Wellbeing: There will be no significant residual adverse effects on Health and Wellbeing during construction and operation of the Project therefore these matters should be afforded limited weight in the planning balance.

8.2.94 Hydrology, Land Drainage and Flood Risk: There will be no significant residual adverse effects on Hydrology, Land Drainage and Flood Risk during construction and operation of the Project therefore these matters should be afforded limited weight in the planning balance.

8.2.95 Landscape and Visual: Effects on the special qualities of Dedham Vale National Landscape would reduce to minor and not significant (adverse) during operation once the underground cables are covered over and land use and landcover reinstated as far as possible.

8.2.96 Noise and Vibration: There will be no significant residual adverse effects on Noise and Vibration during the operational phase of the Project therefore these matters should be afforded limited weight in the planning balance.

8.2.97 Traffic and Transport: There will be no significant residual adverse effects on Traffic and Transport during the operational phase of the Project therefore these matters should be afforded limited weight in the planning balance.

Negative Impacts

8.2.98 **Agriculture and Soils**: There would be temporary loss of production of 3,461 ha of agricultural land during construction. Of this, 2,923 ha (84.4%) are mapped as Grades 1, 2 and 3a (best and most versatile land). There will be 172.7 ha of best and most versatile agricultural land taken out of agricultural production permanently, which would constitute an irreversible loss of one or more soil functions (in particular the impact on BMV land). This should be afforded limited negative weight in the planning balance.

8.2.99 **Historic Environment**: ES Chapter 11: Historic Environment (document reference 6.11) (Revision D) and Assessment of Harm to Designated Assets (document reference 6.11.A7) (Revision B) concludes that the Project would not result in substantial harm to any designated assets. ES Chapter 11: Historic Environment (document reference 6.11) (Revision B) has assessed that during construction there is the potential for significant effects on 156 designated heritage assets (15 in Section A, 48 in Section B, 10 in Section C, 23 in Section D, 33 in Section E, eight in Section F, 14 in Section G, and five in Section H) and 71 non-designated assets (eight in Section A, 31 in Section B, five in Section C, 12 in Section D, four in Section

E, five in Section F and six in Section H) due to changes in their settings that affect their values during the construction phase of the Project. During operation (including maintenance) it is predicted that there would be likely significant effect on 41 (two in Section A, 11 in Section B, one in Section C, 12 in Section D, three in Section E, four in Section F, six in Section G, and two in Section H) designated heritage assets and 29 non-designated (eight in Section A, eight in Section B, seven in Section D, three in Section F, and three in Section H) assets due to changes in their settings that affect their values.

8.2.100 Upper less than substantial harm is assessed where the changes within the setting of the designated asset (or elements of its setting) that contribute to its value would significantly alter a large proportion of the setting of the asset that contributes to its value. The assessment for Appendix 11.7 (document reference 6.11.A7) (Revision B) has considered all adverse effects to designated heritage assets and concludes that none of the harm is of a scale to be classified as upper less than substantial harm.

8.2.101 The Project has been carefully designed to avoid, reduce or mitigate potentially significant effects on cultural heritage and archaeology assets. However, due to the statutory tests outlined in the Infrastructure Planning (Decisions) Regulations 2010, the SoS, when making a decision, is duty-bound to have regard to whether a scheme preserves or affects heritage assets, with this being afforded great weight against the Project due to this statutory duty. Given that the Assessment of Harm to Designated Assets (document reference 6.11.A7) (Revision B) demonstrates that the Project results in less than substantial harm, this is afforded moderate negative weight in the planning balance. Whilst the Project will not result in substantial harm to designated heritage assets it will result in the loss of significance to heritage assets due to the introduction of temporary and / or permanent plant, machinery and infrastructure into the setting. However, this loss of significance is necessary to achieve the substantial public benefit of delivering CNP infrastructure that outweighs the heritage impact. This is supported by paragraph 4.2.16 and 4.2.17 of NPS EN-1 (DESNZ, 2024) which provides that the SoS will take as the starting point for decision-making that CNP infrastructure is to be treated as if it has met any tests which are set out within the NPSs, or any other planning policy, which requires a clear outweighing of harm, exceptionality or very special circumstances..

8.2.102 **Landscape and Visual**: As reported in ES Chapter 13: Landscape and Visual (document reference 6.13) (Revision B) significant adverse landscape effects during construction are predicted for all of the LCTs and LCAs which would be directly affected by construction activity within the Order Limits of the Project. These significant effects are related to the introduction of construction activity and equipment, including the loss of some landscape features including farmland and field boundary vegetation. Significant effects are also anticipated for some LCAs and LCTs outside of the Order Limits, up to a distance of approximately 1.5 km. These significant effects are related to the perception of construction activity and the effect this has on identified key characteristics of the landscape.

8.2.103 Significant adverse effects during construction are predicted for visual receptors within all of the Visual Receptor Areas (VRAs) that would be directly affected by construction activity within the Order Limits. These significant effects are related to the introduction of construction activity into close to medium distance views of residents, recreational receptors and road users. Significant effects are expected to extend up to approximately 1.5 km in some instances, for example where there are open, elevated and/or wide views towards construction activity. In some VRAs significant effects would be more contained, for example where views of construction activity are filtered and screened by vegetation or topography.

8.2.104 During construction, direct impacts on the special qualities of the Dedham Vale National Landscape have been identified.

8.2.105 During Operation (including maintenance) at Year 1 of operation, there would be significant landscape effects for most of the LCAs and LCTs which would be directly affected by the introduction of an overhead line, CSE compound or substation/substation extension. Significant effects would also extend to the surrounding landscape, up to a distance of approximately 1.5 km. There would also be significant landscape effects along the route of the sections of underground cable, where reinstated vegetation would still be immature. These effects would reduce due to maturing of the reinstatement planting, which would later integrate the areas by Year 15.

8.2.106 At Year 1 of operation, there would be significant adverse visual effects related to the introduction of the proposed overhead line, CSE compounds, substations or substation extensions into close to medium distance views on visual receptors within most of the VRAs which are directly affected by the Project. By Year 15 of operation, effects on visual receptors would reduce to not significant, as a result of reinstated planting and landscape mitigation.

8.2.107 Embedded mitigation has sought to minimise landscape effects as far as practicable. The impact upon landscape character and visual amenity is an inevitable consequence of the land-use change resulting from the Project. Paragraph 5.10.5 of NPS EN-1 (DESNZ, 2024) acknowledges that '*virtually all nationally significant energy infrastructure projects will have adverse effects on the landscape*' and paragraph 5.10.13, that '*all proposed energy infrastructure is likely to have visual effects for many receptors around proposed sites*'. For CNP infrastructure, '*the need case will outweigh the residual effects in all but the most exceptional cases*' (paragraph 4.1.7 of NPS EN-1 (DESNZ, 2024)). As explained in paragraphs 7.2.2 - 7.2.58 of this Planning Statement, the presumption in favour of consent is engaged.

8.2.108 The landscape and visual impacts weigh against the Project, and should be afforded moderate to great negative weight in the planning balance. It is considered that these impacts are not sufficient to outweigh the need for the Project as CNP low carbon infrastructure in accordance with 4.2.15 of EN-1.

8.2.109 **Noise and Vibration (construction):** Construction noise on Bentley Road. The predicted noise increase at a specific property on Bentley Road is 11.4 dB due to the increase in construction traffic, which is a large magnitude (adverse) impact. Additionally, the absolute noise level would be above the construction noise Significant Observed Adverse Effect Level (SOAEL), principally due to the small distance between the property and the carriageway.

8.2.110 **Socio-Economic, Recreation and Tourism**: ES Chapter 15: Socio-Economic, Recreation and Tourism (document reference 6.15) (Revision C) has identified that there would be temporary, short term moderate adverse effects following the requirement for the temporary acquisition of land from the Paxman Angling club, Porter's Farm, and the camping area of Ardleigh Caravan and Camping Park and Orsett Golf Course. Visible pylons and overhead lines would have visual effect on Ardleigh Caravan and Camping Park during operation of the Project resulting in Permanent long-term moderate adverse effects.

8.2.111 The temporary closure and diversion resulting in over 500 m increase in journey length of eight PRoW (footpaths and bridleway) during construction within Mid Suffolk, Colchester, Chelmsford and Brentwood would result in temporary, short-term, moderate adverse.

8.2.112 Temporary, short term, major adverse effects have been identified arising from the temporary land take from Essex International Jamboree, temporary acquisition of land from the southern section of the Angling Lake West of Basildon for the purposes of overhead line construction and third-party work (i.e. UKPN dismantling works).

8.2.113 The proposed construction of overhead lines is not likely to comply with the recommended clearance parameters for airstrips, and therefore, a permanent closure of the Chase Farm Airstrip facility is anticipated.

8.2.114 Permanent, long-term, moderate adverse effects have been identified as arising from the Permanent acquisition of land from the entire extent of the angling club fishing lake (north-west of Ardleigh) to construct the proposed pylon and overhead line.

8.2.115 **Traffic and Transport** (construction): ES Chapter 16: Traffic and Transport (document reference 6.16) (Revision B) has identified the following significant residual effects: during peak construction activity, 12 PARs would experience increased volume of traffic, leading to driver delay.

8.2.116 During peak construction activity, 12 PARs would experience increased volume of traffic, leading to public transport passenger delay.

8.2.117 Nine PARs where effects on pedestrian, cyclist and horse-rider amenity could arise due to changes in traffic through the construction phase.

Cumulative Effects

8.2.118 A number of Inter-Project and Infra-Project Cumulative Effects have been identified and reported in ES Chapter 17: Cumulative Effects (document reference 6.17) (Revision B). Inter-Project cumulative effects are the combined effects that arise when two or more separate project affect the same receptors. Intra-Project cumulative effects are those that may arise when several different effects resulting from the same Project have the potential to affect a single receptor.

Intra-Project Cumulative Effects

8.2.119 A number of PRoWs, cycle routes and minor roads across all Project Sections would be affected during construction, in terms of access/severance of routes, delay in journey time, noise and visual effects, fear and intimidation. Owing to the significance of visual impacts within 500 m of the Order Limits, and as further mitigation is unlikely to be practicable, it is anticipated that the residual cumulative effect of visual and noise amenity effects with access and delay effects would lead to a significant intra-project cumulative effect on pedestrians, cyclists and horse riders.

8.2.120 No Intra-Project cumulative effects have been reported during the operation (and maintenance) of the Project.

Inter-Project Cumulative Effects

8.2.121 No Inter-Project Effects have been reported during construction and operation for:

- Air Quality
- Ecology and Biodiversity
- Contaminated Land, Geology and Hydrogeology
- Health and Wellbeing

- Hydrology, Land Drainage and Flood Risk
- Noise and Vibration
- Socio-Economics, Recreation and Tourism.

8.2.122 Adverse Inter-Project Cumulative are reported during construction and operation for Agriculture and Soils. The Project has a major adverse effect on its own due to permanent loss of BMV land, therefore any further loss of BMV land associated with the shortlisted other developments would be cumulatively significant. As effects relate to the permanent loss of agricultural land there are no additional mitigation measures that could be adopted to reduce effects.

8.2.123 The Historic Environment cumulative effects assessment has identified three other development that would result in significant adverse cumulative effects with the Project. This would affect one scheduled monument, and one grade II listed building, which would experience moderate adverse and significant cumulative effects during construction and operation.

8.2.124 The Cumulative Effects arising from the Project and the construction and operation of the Bramford to Twinstead, LTC, Chelmsford North East Bypass along with a further 47 shortlisted projects (reducing to 29 during operation) identified in ES Chapter 13: Landscape and Visual (document reference 6.13) (Revision B) have the potential to contribute to significant inter-project effects on landscape and visual receptors during construction.

Planning Balance Summary

8.2.125 As demonstrated in Section 7 of this Planning Statement and above, the key adverse impacts of the Project relate to the temporary and permanent loss of best and most versatile agricultural land, significant effects upon landscape and visual receptors and the less than substantial harm to heritage assets and intra-project cumulative effects on PRoW diversions.

8.2.126 The benefits of the Project are substantial in terms of its contribution to the transition to net zero and moderate in terms of ecology and nature conservation, leading to a balance in favour granting development consent for the Project. In terms of the Subsection 104(7), it is considered that the benefits of the Project clearly outweigh its adverse impacts.

8.3 Section 104(4) to (8) of the PA 2008: Other Exceptions

8.3.1 In addition to Section 104(7), there are other exceptions which apply to the SoS's decision under Section 104(3) which are set out section 104(4), 104(5), 104(6) and 104(8) of the PA 2008.

8.3.2 Section 104(4) applies if deciding an application in accordance with any relevant national policy statement would lead to the UK being in breach of any of its international obligations. There is no evidence to suggest that the granting of the DCO for the Project would lead to the UK being in breach of any of its international obligations.

8.3.3 Section 104(5) applies if deciding an application in accordance with any relevant national policy statement would lead to the SoS being in breach of any duty imposed on the SoS by or under any enactment. There is no evidence to suggest that the granting of the DCO for the Project would lead the SoS to be in breach of any such duty.

8.3.4 Section 104(6) applies if deciding an application in accordance with any relevant national policy statement would be unlawful by virtue of any enactment. There is no evidence to suggest that the granting of the DCO for the Project would be unlawful by virtue of any enactment.

8.3.5 Section 104(8) applies if any condition prescribed for deciding an application otherwise in accordance with a national policy statement is met. There is no evidence to suggest that any condition is met in relation to the Project.

8.3.6 Based on the above, subsections 104(4), (5), (6) and (8) of the PA 2008 are not engaged with respect to the Project and therefore do not apply to the SoS's decision to grant development consent for the Project.

8.4 Section 104(2) of the PA 2008: Regard Had in the SoS's Decision

8.4.1 In making the decision under Section 104(3) of the PA 2008 the SoS must have regard to any relevant national policy statement; the appropriate marine policy documents; Local impact reports; Prescribed matters; and any other matters which the SoS thinks are both important and relevant to the decision.

8.4.2 Section 8.2 above summarises the Project's compliance with the relevant NPSs with detailed compliance presented in Chapter 7 and within the Policy Compliance Report (document reference 5.7).

8.4.3 Local Impact Reports are expected to be prepared by the host authorities (Norfolk County Council, Suffolk County Council, Essex County Council, South Norfolk Mid Suffolk District Council, Babergh District Council, Colchester City Council, Tendring District Council, Braintree District Council, Chelmsford City Council, Brentwood Borough Council, Basildon Borough Council and Thurrock Council) for the examination of the Application. The Project is in accordance with local policy to the extent that it is important and relevant, as demonstrated in the Planning Compliance Document (document reference 5.7).

8.4.4 In terms of prescribed matters, it has been demonstrated that a decision to grant a DCO for the Project would have regard to the matters prescribed by Regulations 3 and 7 of the Infrastructure Planning (Decisions) Regulations 2010 (as amended). In relation to Regulation 3, the Project has regard to preserving heritage assets and their setting as set out in Section 7.3.320 of this Planning Statement and ES Chapter 11: Historic Environment (document reference 6.11) (Revision D).

8.4.5 In relation to Regulation 7, biodiversity conservation and enhancement is addressed in Sections 7.3.42 to 7.3.177 of this Planning Statement and ES Chapter 8: Ecology and Biodiversity (document reference 6.8) (Revision C) and the HRA Report (document reference 5.3).

8.4.6 This Planning Statement provides evidence of the Project's compliance with the relevant prescribed matters and relevant policy and other matters National Grid considers are likely to be important and relevant, to inform the SoS's decision as to whether to grant a DCO for the Project.

8.5 Conclusion

8.5.1 This Planning Statement has demonstrated that the Project is in accordance with NPS EN-1 (DESNZ, 2024a), NPS EN-3 (DESNZ, 2024c) and NPS EN-5 (DESNZ, 2024b). Paragraph 4.1.3 of NPS EN-1 (DESNZ, 2024a) sets out a presumption in favour of granting consent for energy NSIPs. There is also a presumption that the urgent need for CNP infrastructure, such as the Project, will '*in general outweigh any other residual impacts not being addressed by the application of the mitigation hierarchy*' (paragraph 3.3.63). The Project will help meet the urgent need for CNP infrastructure to meet '*energy objectives, together with the national security, economic, commercial, and net zero benefits'* (Paragraph 3.3.63 of NPS EN-1 (DESNZ, 2024a)).

8.5.2 The consultation draft NPS EN-1 (DESNZ, 2025a) proposes a further strengthening of the CNP case for development. Clean Power 2030 is first and foremost in the revised CNP policy section with the opening paragraph now stating, '*Government has concluded that there is a critical national priority (CNP) for the provision of nationally significant low carbon infrastructure to meet the Clean Power 2030 Mission and net zero'*.

8.5.3 Given the specific circumstances of the Project identified in the Clean Power 2030 report (NESO, 2024) as critical to delivering the Clean Power 2030 pathways then great material weight and importance should be applied in the decision-making process, as suggested by the transitional arrangements of the draft new NPSs.

8.5.4 None of the limited exceptions in Section 104(4)-(8) of the PA 2008 apply to the decision to be made by the SoS to grant development consent for the Project. In particular, the adverse impacts that should be afforded weight against the Project relate to loss of significance of and less than substantial harm to heritage assets, localised significant effects upon landscape and visual receptors, loss of BMV land and intra- and inter-project cumulative effects. These impacts are significantly outweighed by the very substantial public interest benefits of the Project. The Project design has evolved through the application of the mitigation hierarchy as reported within this Planning Statement, the ES (document reference 6.1 to 6.18) (Revision B – C) and Design Development Report (document reference 5.15) (Revision B).

8.5.5 Where residual effects exist, it is considered that any proposed measures to off-set or compensate for residual adverse effects is compensation. Such compensation measures (e.g. creating or enhancing natural landscape features outside of the Order Limits) are not a compulsory part of the mitigation hierarchy. The residual effects that remain following the application of the mitigation hierarchy then falls to the Planning Balance.

8.5.6 As identified in national policy and the Government's energy strategy there is an urgent and critical need to bring forward low carbon infrastructure to meet targets for decarbonisation and net zero. The Project will contribute to the delivery of these policy aims, by improving the existing electricity transmission network to accommodate the connection of proposed new power sources in East Anglia.

8.5.7 It is clear that there is a compelling case and established need for the Project and that it will deliver national economic, social and environmental benefits in line with the Government's clear objectives of delivering sustainable development.

8.5.8 The Project will also deliver other more localised socio-economic and environmental benefits. These include significant ecological enhancements and employment generation during construction.

8.5.9 The analysis of planning policy compliance demonstrates that the need for the Project is supported by national planning policy, marine policy and other national energy and environmental policy, and that the Project addresses relevant national, marine and local planning policies through its design, avoiding sensitive areas and limiting adverse impacts where practicable.

8.5.10 In terms of the overall planning balance, the clear and substantial benefits of the Project clearly outweigh any adverse impacts. The presumption in favour of consent in as described at Paragraph 4.1.7 of NPS EN-1 (DESNZ, 2024a) sets out that for CNP Infrastructure that '… *the need case will outweigh residual effects in all but the most exceptional circumstances'*. It considered that the residual effects reported in the ES are unlikely to outweigh the urgent need for this type of infrastructure and that any tests set out in the NPS or other planning policy are to be treated as if they have been met.

8.5.11 This Planning Statement has demonstrated that the Project is in accordance with the relevant national policy statements and local policy considered to be important and relevant and that substantial weight should be given to need when considering applications for consent under the PA 2008. Given the above, there is a clear and compelling case for the Norwich to Tilbury DCO to be made.

Abbreviations

Abbreviation	Full Reference
AC	Alternating Current
AIL	Abnormal Indivisible Load
AIS	Air Insulated Switchgear
AONB	Area of Outstanding Natural Beauty
BNG	Biodiversity Net Gain
BPA	British Pipeline Agency
BPM	Best Practicable Means
CCC	Committee on Climate Change
CoCP	Code of Construction Practice
CRoW Act	Countryside and Rights of Way Act 2000
CSE	Cable Sealing End
CTMP	Construction Traffic Management Plan
CWS	Country Wildlife Site
DASSI	Design Approach for Site-Specific Infrastructure
DC	Direct Current
DCLG	Department for Communities and Local Government
DCO	Development Consent Order
DESNZ	Department for Energy Security and Net Zero
EACN	East Anglia Connection Node
EIA	Environmental Impact Assessment
EMF	Electric and Magnetic Field
ES	Environmental Statement
ESO	Electricity System Operator
FTE	Full Time Equivalent
GIS	Gas Insulated Switchgear
HDD	Horizontal Directional Drilling
HGV	Heavy Goods Vehicle
HVDC	High Voltage Direct Current

Abbreviation	Full Reference
IAQM	Institute of Air Quality Management
ICNIRP	International Commission on Non-Ionizing Radiation Protection
km	kilometre
kV	kilovolt
LEMP	Landscape and Ecological Management Plan
LoD	Limits of Deviation
LNR	Local Nature Reserve
LTC	Lower Thames Crossing
LURA	Levelling-up and Regeneration Act
LVAC	Low Voltage Alternating Current
LWS	Local Wildlife Site
NDC	Nationally Determined Contribution
NESO	National Energy System Operator
NETS SQSS	National Electricity Transmission System Security and Quality of Supply Standard
NGET	National Grid Electricity Transmission
NMU	Non-Motorised User
NPS	National Policy Statement
NRMM	Non-Road Mobile Machinery
NSR	Noise Sensitive Receptor
PA 2008	Planning Act 2008
PAR	Primary Access Route
The Project	Norwich to Tilbury
PRoW	Public Right of Way
SAC	Special Area of Conservation
SPA	Special Protection Area
SRN	Strategic Road Network
SSSI	Site of Special Scientific Interest
SWMP	Site Waste Management Plan
TCPA	Town and Country Planning Act 1990

Abbreviation	Full Reference
UK	United Kingdom
UKPN	UK Power Networks
WaLOR	Waveney and Little Ouse Recovery

Glossary

Term	Description
Abnormal Indivisible Loads	A large load which cannot 'without undue expense or risk of damage' be divided into two or more smaller loads for the purposes of being transported by road, and which exceeds limits set out in terms of weight (>44 tonnes), length (>18.65 m), and width (>2.9 m).
Additional mitigation measures	Comprises measures over and above embedded and standard mitigation measures to reduce environmental effects. This would include, but not be limited to, mitigation required for protected species.
Alignment	The proposed overhead line and underground cable route.
Ancient woodland	Land that has been continually wooded since at least 1600 in England. Regarded as 'irreplaceable habitat' in national planning policy and guidance. Ancient woodland greater than 2 ha is recorded on the Natural England Ancient Woodland Inventory.
Angle/tension pylon	Pylon where a horizontal insulator string attaches the conductors. Tension or 'angle' pylons are used at points where the overhead line alignment changes direction.
Archaeological remains	The material remains of human activity from the earliest periods of human evolution to the present. These may be buried traces of human activities, sites visible above ground, or moveable artefacts.
Archaeological Mitigation Strategy and Outline Written Scheme of Investigation	Sets out the scope, guiding principles and methods for the planning and implementation of additional archaeological mitigation works associated with the construction of the Project.
Authorised development	The development and associated development described in Part 1 of Schedule 1 (authorised development) of the draft Development Consent Order and any other development authorised by the Order, which is development within the meaning of s32 of the PA 2008.
Bellmouth	A flared vehicular access point connecting a construction site to the public highway, designed to accommodate turning movements by large vehicles.
Best practicable means	A term used under the Control of Pollution Act 1974 and Environmental Protection Act 1990 to refer to measures which are reasonably practicable, having regard to local conditions and circumstances, to the current state of technical knowledge and to financial implications, concerning the mitigation of noise and other potential nuisance.

Term	Description
Biodiversity	The variability among living organisms from all sources including terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part: this includes diversity within species, between species and of ecosystems.
Biodiversity Net Gain	An approach for developments to ensure habitats for wildlife are left in a measurably better state than they were before the development.
Biosecurity	Measures aimed at preventing the spread of harmful organisms (e.g. viruses and bacteria) to crops and livestock in order to reduce the risk of transmission of infectious diseases.
Busbar	The common connection point of two or more transmission circuits.
Circuit	A set of wires along which current flows and returns. It is necessary to have a complete circuit for current to flow. The National Grid standard for overhead lines operating at 400 kV is for pylons to carry two circuits, each consisting of three phases, i.e. a double circuit configuration.
Cable	An insulated conductor designed for underground installation.
Cable Sealing End	Structures used to transfer transmission circuits between underground cables and overhead lines.
Cable Sealing End compound	Electrical infrastructure used as the transition point between overhead lines and underground cables. A compound on the ground acts as the principal transition point.
Cable Sealing End platform	Electrical infrastructure used as the transition point between overhead lines and underground cables. A platform on the pylon acts as the principal transition point.
Catenary Wire	A catenary wire is a tensioned wire rope suspended between two anchor points
Code of Construction Practice	A code of construction practice sets out the standards and procedures to which a developer (and its contractors) must adhere in order to manage the potential effects of construction works.
Commitments	Measures that a developer commits to delivering as part of a project, with the purpose of limiting, mitigating or compensating potential effects of the project.
Conductor	The overhead wire that carries electricity from one place to another, for example the line between two pylons.
Conservation Area	An area of special architectural or historic interest, the character or appearance of which it is desirable to preserve or enhance as defined in s69(1)(a) in the Planning (Listed Building and Conservation Areas) Act 1990.

Term	Description
Construction Traffic Management Plan	Plan detailing the procedures, requirements and standards necessary for managing the traffic effects during construction of the Project so that safe, adequate and convenient facilities for local movements by all transport modes are maintained throughout the construction process.
Contaminated Land	Land where a substance or contaminant is in or under the land which has the potential to cause significant harm or the significant possibility of significant harm to human health, property or protected species, or significant pollution or the significant possibility of significant pollution to controlled waters.
Corona discharge	An electrical discharge caused by the ionisation of fluid such as air surrounding a conductor carrying a high voltage. It represents a local region where the air (or other fluid) has undergone electrical breakdown and become conductive. A corona occurs at locations where the strength of the electric field (potential gradient) around a conductor exceeds the dielectric strength of the air.
County Wildlife Site	Non-designated areas of land important for their wildlife and nature conservation value.
Culvert	A channel or pipe that carries water below the level of the ground.
Design Appraisal for Site-Specific Infrastructure	Document developed by National Grid to outline the design principles that can be taken forward into the detailed design, set out an approach to the design of site-specific infrastructure of non-linear works, and to detail those elements of the design which have some flexibility in their appearance.
Dewatering	The removal of groundwater (e.g. by pumping) to keep a below-ground works area dry.
Development Consent Order	A statutory instrument which grants consents and other rights to build a Nationally Significant Infrastructure Project, as defined by the PA 2008.
Distribution Network Operator	Companies that own and operate the power lines and infrastructure that connect the National Grid network to individual properties.
Easement	A legal right in perpetuity granting National Grid the right to install, use, maintain, replace, renew and remove its equipment.
Electric and Magnetic Fields	All equipment that generates, distributes or uses electricity produces Electric and Magnetic Fields (EMF), and EMFs also occur naturally. Electric fields are created by differences in voltage: the higher the voltage, the stronger the resultant field. Magnetic fields are created when electric current flows: the greater the current, the stronger the magnetic field.
Embedded design measures	Mitigation measures are those that are intrinsic to and built into the design of the Project.

Term	Description
Environmental Impact Assessment (EIA)	An assessment of the likely effects of a development project on the environment, which is reported in an Environmental Statement that is publicised and consulted on and taken into account in the decision on whether a project should proceed.
Environmental Areas	These are locations identified for environmental embedded measures, mitigation and/or Biodiversity Net Gain/environmental enhancement.
Environmental Statement (ES)	The main output from the EIA process, an ES is the report required to accompany an application for development consent (under the Infrastructure Planning (EIA) Regulations 2017) to inform public and stakeholder consultation and the decision on whether a project should be allowed to proceed. The EIA Regulations set out specific requirements for the contents of an ES for Nationally Significant Infrastructure Projects.
Environmental topic	A subject area covered within the EIA, for example landscape and visual or biodiversity.
Flood Risk Assessment	A Flood Risk Assessment is an assessment of the risk of flooding, particularly in relation to residential, commercial and industrial land use. In England and Wales, the Environment Agency requires a Flood Risk Assessment to be submitted alongside planning applications in areas that are known to be at risk of flooding.
Full-time equivalent	Unit of measurement used to calculate the total full time hours worked by staff.
Full line tension gantries	Types of gantries which allow conductors to connect into a substation or compound directly from a pylon, without requiring a bulky terminal pylon. This allows a larger span between the final pylon and the gantry.
Gantry	An overhead bridge-like structure supporting electrical equipment. A transition point from overhead line equipment to equipment in a compound.
Greenhouse gases	The term ‘greenhouse gases’ refers to a number of chemicals in the earth’s atmosphere such as carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O).
Groundwater	Water that is in the ground. This is usually referring to water in the saturated zone below the water table.
Habitats Regulations Assessment	The process by which plans and projects are assessed as to whether they are likely to have a significant effect on a European site either alone or in combination with other plans or projects, under the Conservation of Habitats and Species Regulations 2017 (as amended).
Haul road	A route used by construction traffic within the Order Limits to access a working area from a site access point.
Heavy Goods Vehicles	Goods vehicles weighing more than 3,500 kg.

Term	Description
High voltage	275,000 volts and over. National Grid's transmission lines generally operate at 275,000 and 400,000 volts. Lower voltage lines, such as 132,000 volts and 33,000 volts, are generally owned by local distribution companies.
High voltage alternating current	The transmission and distribution of electrical energy using alternating current (AC) at high voltage levels.
Horizontal directional drilling	Trenchless method for the installation of pipes, in a shallow arc using a surface-launched drilling rig. In particular, it applies to large-scale crossings in which a fluid filled pilot bore is drilled without rotating the drill string, and this is then enlarged by a washover pipe and back reamer to the size required for the product pipe.
Insulator	Used to attach the conductors to the pylons, preventing electrical discharge to the steelwork.
Kilovolt	1,000 volts
Landscape character	A distinct, recognisable and consistent pattern of elements in the landscape that makes one landscape different from another, rather than better or worse.
Lattice pylon	Pylon type widely used on the national electricity transmission networks. Both standard lattice pylons (approximately 50 m in height) and low hight lattice pylons (approximately 40 m in height) are proposed on the Project.
Light Goods Vehicles	Goods vehicle weighing 3,500 kg or less.
Limits of Deviation (LoD)	LoD allow for adjustment to the final positioning of the permanent features, for example to avoid localised constraints or unknown or unforeseeable issues that may arise. This could include previously unidentified poor ground conditions which require a pylon to be moved slightly for geotechnical reasons, such as ground stability. The horizontal LoD define the parameters within which the position on the ground of proposed permanent features may deviate from the position shown on the plans. This applies to both linear (for example overhead lines and underground cables) and non-linear (for example the new EACN Substation and CSE compounds) proposed infrastructure. Vertical LoD limit the maximum vertical height, or the depth below ground, of any new infrastructure.
Listed building	A measure of a building's special architectural and historic interest. There are three categories of listed buildings, Grades I, II* and II, depending on the level of interest.
Local Nature Reserve	Sites dedicated by the Local Planning Authority under Section 21 of the National Parks and Access to the Countryside Act 1949 for nature conservation which have wildlife or geological features that are of special interest locally.

Term	Description
Major Accidents	A major accident is an event that threatens immediate or delayed serious environmental effects to human health, welfare and/or the environment and requires the use of resources beyond those of the client or its appointed representatives (i.e., contractors) to manage. Major accidents can be caused by disasters resulting from both man-made and natural hazards.
Local Planning Authority	The public authority whose duty it is to carry out specific planning functions for a particular area.
Lux	Measurement of the amount of light produced.
Main Works Contractor(s)	Contractor(s) appointed by National Grid to construct the Project
Mitigation	The action of reducing the severity and magnitude of change (impact) to the environment. Measures to avoid, reduce, remedy or compensate for significant adverse effects.
National Electricity Transmission System Security and Quality of Supply Standard	The NETS SQSS sets out a coordinated set of criteria and methodologies that the Transmission Licensees shall use in the planning and operation of the National Electricity Transmission System.
National Landscape (an Area of Outstanding Natural Beauty)	Formally designated under the National Parks and Access to the Countryside Act of 1949 to protect areas of the countryside of high scenic quality that cannot be selected for National Park status due to their lack of opportunities for outdoor recreation (an essential objective of National Parks). As of November 2023, all AONBs became 'National Landscapes'. This reflects ambitions for the areas to play a key part in the international '30 by 30' commitment (to protect and conserve a minimum of 30% of land and sea for biodiversity by 2030).
Nationally Significant Infrastructure Project	Typically a large scale development of national importance that requires development consent from the Secretary of State, under the PA 2008.
Order Limits	The maximum extent of land within which the authorised development may take place.
Overhead line	Conductor (wire) carrying electric current, strung from pylon to pylon.
Overhead Line Craftperson	Person who constructs the overhead line infrastructure
Overhead line refurbishment	Repair and renewal of conductors, pylon painting, earthwire, fittings and insulators and, where necessary, remedial works to the pylon and foundations.
Permanent access	Access required to infrastructure during the operational phase of the Project, for operational and maintenance purposes.

Term	Description
Piling	Engineering process of installing elongated structural elements, known as piles, into the subsoil. This technique is employed to transfer structural loads to deeper, more competent strata, thereby providing stable foundations for construction projects. Essentially, it addresses situations where surface soils lack sufficient bearing capacity to support intended structures.
Primary Access Routes (PAR)	These are the roads on the local road network that would be used by construction vehicles between the strategic road network and the access points within the Order Limits.
Project Section	Geographical 'sections' have been identified that break the Project down into smaller units for ease of description within the documentation. These Project Sections are broken down into eight sections based largely on Local Planning Authority boundaries.
Public Right of Way (PRoW)	A footpath, bridleway or byway accessible to all members of the public.
Pulling site	A site where the winching equipment that is used to pull through the new conductors is located.
Pylon	Structures that support the overhead line (conductors).
Scoping	Scoping is the process of determining the content and extent of matters that should be covered in the Environmental Impact Assessment.
Scoping Report	Report determining the content and extent of matters that should be covered in the Environmental Impact Assessment.
Site access points	A location connecting a construction site to the public highway.
Standard mitigation measures	Comprise management activities and techniques, which would be implemented throughout construction of the Project to limit effects through adherence to good site practices.
Statutory Undertakers	Persons with regulatory powers and duties, such as gas, electricity, water and transport providers or transmitters.
Subsoil	Weathered soil layer extending between the natural topsoil and the unweathered basal layer (geological parent material, either solid or drift) below.
Substation	Substations are used to control the flow of power through the electricity system. They are also used to change (or transform) the voltage from a higher to lower voltage to allow it to be transmitted to local homes and businesses.
Suspension pylon	Pylon where conductors are suspended by a vertical insulator string. Suspension pylons support the conductors on straight stretches of overhead line.

Term	Description
Temporary overhead line diversions and pylons	Temporary diversions of existing overhead line may be required to ensure electricity flows are maintained at all times during construction of the Project to limit the disruption to the electricity network. These typically comprise a short section of overhead line with temporary structures or pylons which electricity flows are diverted along.
Tensioning site	A site where the new conductor is fed out from during construction. This also includes a tensioning winch to keep the conductor off the ground.
Terminal pylon	Pylons erected at the end of the overhead line to terminate the line at substations or where overhead lines are connected to underground cables. Because of the uneven load on one side of the pylons, much deeper and heavier foundations are required on the unloaded side.
Transmission line	A National Grid overhead line and underground cable which transmits electricity between National Grid's substations. Power is transmitted at high voltages (275 kV or above) between power stations where it is generated and the local electricity supply networks of the regional Distribution Network Operators where it is transformed to lower voltages (132 kV or below) for supply via distribution lines to local communities.
Transport Assessment	Transport Assessment is a comprehensive and systematic process that sets out transport issues relating to a proposed development. It identifies what measures will be taken to deal with the anticipated transport effects of the Project. It is separate to Chapter 16: Traffic and Transport (document reference 6.16) (Revision B).
Trenchless crossing	A crossing installation method that has limited above-ground disturbance which is used to avoid a sensitive feature such as an environmental feature.
Triple Araucaria conductors	Triple Araucaria conductor design is the least electrically stressed conductor system that National Grid uses. It is the best design for reducing the effects of line crackle (corona discharge).
Topsoil	Material which developed originally at the top of the soil profile and is characteristically darker in colour and has a higher organic matter content than subsoil material.
Temporary construction compounds	Temporary compounds installed during the construction phase of the Project. Each compound may contain storage areas including laydown areas, soils storage and areas for equipment and fuel, drainage, generators, car parking and offices and welfare areas (portacabins).
UK Power Networks	UK Power Networks (Operations) Limited (registered company number 03870728) and/or its affiliate Eastern Power Networks plc (registered company number 02366906) as applicable.
Underground cable	An insulated conductor carrying electric current designed for underground installation. Underground cables link together two Cable Sealing End compounds.

Term	Description
Value engineering	Value engineering in transmission projects involves a systematic approach to optimising the project's value by finding the most cost-effective way to achieve its essential functions without compromising quality or performance. It is a team effort that examines all aspects of the project, from planning to construction, to identify areas where costs can be reduced or improved without sacrificing the project's objectives.
Visibility splay	Areas of tree/vegetation removal, typically where access points are, to enable a driver to see down the road and know when the road is clear.
Voltage	The electrical potential difference between two points.
Water Framework Directive	The Water Framework Directive (2000/60/EC) commits European Union member states to achieve good qualitative and quantitative status of all water bodies. It is transposed into law in England and Wales via The Water Environment (Water Framework Directive) (England and Wales) 2017 Regulations, which were retained via the European Union (Withdrawal) Act 2018.
Working area	Working area required to construct elements of the Project, such as pylons, underground cables, CSE compounds.

Bibliography

Department for Business, Energy & Industrial Strategy (BEIS) (2020). Energy White Paper: Powering our Net Zero Future.

CPRSS National Grid. (2022). Corridor and Preliminary Routeing and Siting Study (CPRSS).

DDR National Grid. (2023). Design Development Report (June 2023).

DDR National Grid. (2024)). Design Development Report April 2024).

Department for Business Energy and Industrial Strategy. (2022). British Energy Security Strategy.

Department for Communities and Local Government. (2013). Planning Act 2008: Guidance on associated development applications for major infrastructure projects. Retrieved from *https://assets.publishing.service.gov.uk/media/5a7b5f04ed915d3ed9063f36/Planning_Act_2008_-_Guidance_on_associated_development_applications_for_major_infrastructure_projects.pdf* Accessed 19 May 2025

Department for Communities and Local Government. (2013). The Department for Communities and Local Government's Planning Act 2008: Application form guidance (2013).

Department for Communities and Local Government. (2015). The Department for Communities and Local Government's Planning Act 2008: Guidance on the pre-application process (2015).

Department for Energy Security and Net Zero (DESNZ). (2024a). Overarching National Policy Statement for Energy (EN-1). Retrieved from *https://assets.publishing.service.gov.uk/media/65bbfbdc709fe1000f637052/overarching-nps-for-energy-en1.pdf* Accessed 1 August 2025

Department for Energy Security and Net Zero (DESNZ). (2024b). National Policy Statement for Electricity Networks Infrastructure (EN-5). Retrieved from *https://assets.publishing.service.gov.uk/media/65a78a5496a5ec000d731abb/nps-electricity-networks-infrastructure-en5.pdf* Accessed 1 August 2025

Department for Energy Security and Net Zero (DESNZ). (2024c). National Policy Statement for Renewable Energy Infrastructure (EN-3). Department for Energy Security and Net Zero (DESNZ). Retrieved from *https://assets.publishing.service.gov.uk/media/65a7889996a5ec000d731aba/nps-renewable-energy-infrastructure-en3.pdf* Accessed 1 August 2025

Department for Energy Security and Net Zero (DESNZ) (2025a). Draft: Overarching National Policy Statement for energy (EN-1). Retrieved from *https://www.gov.uk/government/consultations/planning-for-new-energy-infrastructure-2025-revisions-to-national-policy-statements/draft-overarching-national-policy-statement-for-energy-en-1-accessible-webpage* Accessed 1 August 2025

Department for Energy Security and Net Zero (DESNZ) (2025b). Draft: National Policy Statement for renewable energy infrastructure (EN-3). Retrieved from *https://assets.publishing.service.gov.uk/media/6809f0588c1316be7978e7cb/draft-nps-en-3.pdf* Accessed 1 August 2025

Department for Energy Security and Net Zero (DESNZ) (2025c). Draft: National Policy Statement for electricity networks infrastructure (EN-5). Retrieved from

Department for Energy Security and Net Zero (DESNZ) (2025d). Guidance: Community funds for transmission infrastructure.

https://assets.publishing.service.gov.uk/media/681dda13c66deec8488f7e66/draft-nps-en-5-electricity-networks-infrastruture.pdf Accessed 1 August 2025

H.M Government. (2009). The APFP Regulations.

H.M Government. (2010). The Infrastructure Planning (Compulsory Acquisition) Regulations 2010.

H.M Government. (2017). The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (the 'EIA Regulations').

H.M. Government. (2020). The Ten Point Plan for a Green Industrial Revolution.

H.M. Government. (2021). Net Zero Strategy: Build Back Greener.

HM Government. (2010). Infrastructure Planning (Decisions) Regulations 2010 (as amended) (the Decisions Regulations). Retrieved from *https://www.legislation.gov.uk/ukdsi/2010/9780111490266/contents* Accessed 19 June 2025

HM Government. (2018). A Green Future: Our 25 Year Plan to Improve the Environment.

HM Government. (2023). Powering up Britain.

HM Government. (2023). Powering up Britain: Energy Security Plan.

HM Government. (2023). Powering up Britain: Net Zero Growth Plan.

HM Treasury. (2022). The Growth Plan.

ICNIRP. (1998). International Commission on Non-Ionizing Radiation Protection (ICNIRP) guidelines.

Ministry of Housing, Communities and Local Government (MHCLG) (2016). Planning Practice Guidance (PPG).

Ministry of Housing, Communities and Local Government (MHCLG) (2024a). Planning Act 2008: Pre-application stage for Nationally Significant Infrastructure Projects.

Ministry of Housing, Communities and Local Government (MHCLG) (2024b). Planning Act 2008: Acceptance Stage for Nationally Significant Infrastructure Projects

Ministry of Housing, Communities and Local Government (MHCLG) (2024c) Planning Act 2008: Content of a Development Consent Order required for Nationally Significant Infrastructure Projects

Ministry of Housing, Communities and Local Government (MHCLG) (2025). National Planning Policy Framework.

National Grid. (2006). NGC Substations and the Environment: Guidelines on Siting and Design ('Horlock Rules'). Retrieved from *https://www.nationalgrid.com/sites/default/files/documents/13796-The%20Horlock%20Rules.pdf*

Accessed 18 June 2025

National Grid. (2012). Our Approach to Options Appraisals.

National Grid. (2016). National Grid's commitments when undertaking works in the UK – Our stakeholder, community and amenity policy. Retrieved from *https://www.nationalgrid.com/electricity-transmission/document/81026/download* Accessed 18 June 2025

National Grid. (2016). Our Stakeholder, Community and Amenity Policy.

National Grid. (2022). Corridor and Preliminary Routeing and Siting Study Report. Retrieved from *https://www.nationalgrid.com/electricity-transmission/document/142461/download* Accessed 15 August 2025.

National Grid. (2022). Our Approach to Consenting.

National Grid. (2022). Strategic Options Report and Corridor and Preliminary Routeing and Siting Study (CPRSS).

National Grid. (2022a, 2023c, 2025c). Feedback Report.

National Grid. (2023a2, 2024a3, 2025a4). Strategic Options Backcheck and Reviews (SOBR).

National Grid. (2023b5, 2024b6, 2025b7). Design Development Reports (DDR).

National Grid. (2024). National Grid Electricity Transmission Response to the ESO East Anglia Network Study (March 2024).

National Grid. (2024). Strategic Options Backcheck and Review. Retrieved from *https://www.nationalgrid.com/document/354546/download* Accessed 10 August 2025.

National Grid. (n.d.). The Holford Rules. Retrieved from *www.nationalgrid.com/sites/default/files/documents/13795-The%20Holford%20Rules.pdf* Accessed 4 July 2025.

NESO. (2024). Clean Power 2030.

NESO. (2024). Clean Power 2030 Action Plan: A New Era of Clean Electricity.

SOBR National Grid. (2023). Strategic Options Report Backcheck and Review (SOBR, National Grid 2023).

SOBR National Grid. (2024). Strategic Options Backcheck and Review.

The Planning Inspectorate. (2018). Nationally Significant Infrastructure Projects - Advice Note Nine: Rochdale Envelope. Retrieved from *https://www.gov.uk/government/publications/nationally-significant-infrastructure-projects-advice-note-nine-rochdale-envelope/nationally-significant-infrastructure-projects-advice-note-nine-rochdale-envelope* Accessed 18 July 2025

The Planning Inspectorate. (2024). The Planning Inspectorate's Nationally Significant Infrastructure Projects: Acceptance stage for Nationally Significant Infrastructure Projects (April 2024).

The Planning Inspectorate. (2024). The Planning Inspectorate's Nationally Significant Infrastructure Projects: Advice on the Consultation Report (April 2024).

The Planning Inspectorate. (2024). The Planning Inspectorate's Nationally Significant Infrastructure Projects: Advice on the Preparation and Submission of Application Documents (August 2024).

The Planning Inspectorate. (2024). The Planning Inspectorate's Nationally Significant Infrastructure Projects: Advice on the Preparation and Submission of Application Documents (August 2024).

The Planning Inspectorate. (2024). The Planning Inspectorate's Nationally Significant Infrastructure Projects: Content of a Development Consent Order required for Nationally Significant Infrastructure Projects (April 2024).

The Planning Inspectorate. (2024). The Planning Inspectorate's Nationally Significant Infrastructure Projects: Pre-application stage for Nationally Significant Infrastructure Projects (April 2024).

The Planning Inspectorate. (2024a). Nationally Significant Infrastructure Projects: Advice on the Preparation and Submission of Application Documents. Retrieved from *https://www.gov.uk/guidance/nationally-significant-infrastructure-projects-advice-on-the-preparation-and-submission-of-application-documents#full-publication-update-history* Accessed 15 July 2025

The Planning Inspectorate. (2024b). Nationally Significant Infrastructure Projects: Advice pages. Retrieved from *https://www.gov.uk/guidance/nationally-significant-infrastructure-projects-advice-on-good-design* Accessed 15 July 2025.

UK Government. (1989). Electricity Act 1989. Retrieved from *https://www.legislation.gov.uk/ukpga/1989/29/contents* Accessed 15 July 2025.

UK Government. (1990). Town and Country Planning Act 1990. Retrieved from *https://www.legislation.gov.uk/ukpga/1990/8/contents* Accessed 15 July 2025.

UK Government. (2008). Planning Act 2008. Retrieved from *https://www.legislation.gov.uk/ukpga/2008/29/contents* Accessed 15 July 2025.

UK Government. (2009). The Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009. Retrieved from *https://www.legislation.gov.uk/uksi/2009/2264/contents/made* Accessed 15 July 2025.

UK Government. (2011). The Localism Act 2011. Retrieved from *https://www.legislation.gov.uk/ukpga/2011/20/contents* Accessed 15 July 2025.

UK Government. (2015). The Town and Country Planning (Development Management Procedure) (England) Order 2015. Retrieved from *https://www.legislation.gov.uk/uksi/2015/595/contents* Accessed 25 July 2025.

Greater Norwich Local Plan (adopted 2024) *Retrieved from https://www.gnlp.org.uk/* Access 1 August 2025

South Norfolk Local Plan Site Specific Allocations and Policies Document (adopted 2015) *Retrieved from https://www.southnorfolkandbroadland.gov.uk/planning/future-development/local-plans/current-local-plan/site-specific-allocations-and-policies-document* Accessed 8 August 2025.

South Norfolk Local Plan Development Management Policies Document *(adopted 2015) Retrieved from https://www.norwich.gov.uk/info/20221/development_management_polices_plan* Accessed 8 August 2025.

South Norfolk Local Plan *Wymondham Area Action Plan (adopted 2015) Retrieved from https://www.southnorfolkandbroadland.gov.uk/asset-library/imported-assets/wymondham-area-action-plan-1.pdf* Accessed 8 August 2025.

Shaping the future of Long Stratton, Long Stratton Area Action Plan, South Norfolk Council (adopted 2016) *Retrieved from* https://www.southnorfolkandbroadland.gov.uk/asset-library/imported-assets/long-stratton-area-action-plan-adopted-may-2016-1.pdf Accessed 8 August 2025.

Diss and District Neighbourhood Plan (adopted 2023) *Retrieved from* https://www.midsuffolk.gov.uk/documents/d/mid-suffolk/ddnp_adopted_oct23 Accessed 8 August 2025.

Mulbarton Neighbourhood Plan (adopted 2016) *Retrieved from* https://www.southnorfolkandbroadland.gov.uk/asset-library/imported-assets/mulbarton-neighbourhood-plan-0.pdf Accessed 8 August 2025.

Tasburgh Neighbourhood Plan (adopted 2024) *Retrieved from* https://www.southnorfolkandbroadland.gov.uk/asset-library/imported-assets/tasburgh-neighbourhood-plan-adopted-version-accessiblity-checked-reduced-size.pdf Accessed 8 August 2025.

Norfolk County Council, Norfolk Minerals and Waste Development Framework: Core Strategy and Minerals and Waste Development Management Policies Development Plan Document 2010-2026 *(adopted 2011) Retrieved from* https://www.gnlp.org.uk/ Accessed 5 August 2025.

Norfolk County Council Community and Environmental Services, Norfolk Minerals and Waste Development Framework: Minerals Site Specific Allocations Development Plan Document (adopted 2013, amendments adopted 2017) *Retrieved from* https://www.gnlp.org.uk/ Accessed 7 August 2025.

Norfolk County Council Environment, Transport and Development Department, Norfolk Minerals and Waste Development Framework: Waste Site Specific Allocations Development Plan Document (adopted 2013) *Retrieved from* https://www.southnorfolkandbroadland.gov.uk/asset-library/imported-assets/cd7.2-norfolk-core-strategy-and-minerals-and-waste-dpd-2011.pdf Accessed 18 July 2025.

Norfolk County Council Local Transport Plan 4 Strategy 2021-2036 [Combined with Local Transport Plan 4 Implementation Plan] (adopted 2022) *Retrieved from* https://www.north-norfolk.gov.uk/media/9005/i10-local-transport-plan-4-strategy-implementation-plan-2021-2036.pdf Accessed 25 May 2025.

Guidance for the delivery of a Food and Agriculture Hub for Broadland and South Norfolk, Supplementary Planning Document (adopted 2014) *Retrieved from* https://www.southnorfolkandbroadland.gov.uk/asset-library/imported-assets/food-hub-supplementary-planning-documents-spd.pdf Accessed 8 April 2025.

South Norfolk Council Guidelines for Recreation Provision *in New Residential Developments Supplementary Planning Document (adopted 2018) Retrieved from* https://www.southnorfolkandbroadland.gov.uk/asset-library/imported-assets/open-space-spd-3.pdf Accessed 8 April 2025.

Norwich Research Park Development Framework Supplementary Planning Document South Norfolk Council (adopted 2009) *Retrieved from* https://www.southnorfolkandbroadland.gov.uk/asset-library/imported-assets/nrp-development-framework-spd-march09-0.pdf Accessed 8 April 2025.

South Norfolk Place-Making Guide Supplementary Planning Document (adopted 2012) *Retrieved from* https://www.southnorfolkandbroadland.gov.uk/asset-library/imported-assets/south-norfolk-place-making-guide-spd-0.pdf Accessed 8 April 2025.

South Norfolk Place-Making Guide Supplementary Planning Document (adopted 2012) *Retrieved from https://www.southnorfolkandbroadland.gov.uk/planning/future-development/supplementary-planning-documents/south-norfolk-landscape-character-assessments* Accessed 8 April 2025.

South Norfolk landscape character assessments (published 2001 and updated in 2012) *Retrieved from https://www.southnorfolkandbroadland.gov.uk/planning/future-development/supplementary-planning-documents/south-norfolk-landscape-character-assessments* Accessed 8 April 2025.

Norfolk County Council Parking Guidelines for new developments in Norfolk Supplementary Planning Document (revised 2022) *Retrieved from https://www.norfolk.gov.uk/media/20274/Norfolk-Parking-Guidelines-2022/pdf/36norfolk-parking-guidelines-2022_1.pdf?m=1712148453820* Accessed 8 April 2025.

Breckland Local Plan (adopted 2023) *Retrieved from https://www.breckland.gov.uk/media/16659/Adopted-Breckland-Local-Plan/pdf/Appendix_4_-_Breckland_District_Council_Local_Plan.pdf?m=1704795365193* Accessed 1 August 2025.

Norfolk County Council, Norfolk Minerals and Waste Development Framework: Core Strategy and Minerals and Waste Development Management Policies Development Plan Document 2010-2026 (adopted 2011) *Retrieved from https://www.north-norfolk.gov.uk/media/9022/j3-core-strategy-minerals-waste-development-management-policies-dpd-2010-2026.pdf* Accessed 8 August 2025.

Norfolk County Council Community and Environmental Services, Norfolk Minerals and Waste Development Framework: Minerals Site Specific Allocations Development Plan Document (adopted 2013, amendments adopted 2017) *Retrieved from https://www.north-norfolk.gov.uk/media/9021/j4-mineral-site-specific-allocations-development-plan-document.pdf* Accessed 25 July 2025

Norfolk County Council Local Transport Plan 4 Strategy 2021-2036 [Combined with Local Transport Plan 4 Implementation Plan] (adopted 2022) *Retrieved from https://www.north-norfolk.gov.uk/media/9005/i10-local-transport-plan-4-strategy-implementation-plan-2021-2036.pdf* Accessed 25 July 2025

Breckland Council, Adopted Site Specific Policies and Proposals Development Plan Document (Saved Policies) (adopted in 2012) *Retrieved from https://www.breckland.gov.uk/media/7462/Site-Specific-Policies-and-Proposals-Development-Plan-Document-2012/pdf/Site_Specific_Policies_and_Proposals_Development_Plan_Document_2012.pdf?m=1700737027787* Accessed 25 July 2025.

Breckland Council, Adopted Thetford Area Action Plan DPD: Historic Past, Healthy Future (adopted July 2012) *Retrieved from https://www.breckland.gov.uk/media/1893/Thetford-Area-Action-Plan/pdf/Final_Adopted_TAAP_reduced.pdf* Accessed 31 July 2025

Croxton, Brettenham and Kilverstone Neighbourhood Plan (Adopted 2019) *Retrieved from https://www.breckland.gov.uk/media/12956/Croxton-Brettenham-Kilverstone-Joint-Neighbourhood-Plan-Final/pdf/JNP_CLEAN_COPY_FINAL_UPDATED.pdf?m=1632329097123* Accessed 15 August 2025.

Babergh and Mid Suffolk Joint Local Plan: Part 1 (adopted 2023) *Retrieved from https://www.midsuffolk.gov.uk/documents/d/asset-library-54706/babergh-and-mid-suffolk-joint-local-plan-part-1-nov-2023* Accessed 15 August 2025.

Suffolk County Council, Suffolk Minerals and Waste Local Plan (adopted 2020) *Retrieved from* *https://www.suffolk.gov.uk/planning-waste-and-environment/suffolk-minerals-and-waste-plan* Accessed 15 August 2025.

Suffolk County Council, Suffolk Local Transport Plan 2011-2031 Part 1 - Transport Strategy (adopted 2011) *Retrieved from* *https://www.suffolk.gov.uk/asset-library/imported/2011-07-06-Suffolk-Local-Plan-Part-1-lr.pdf* Accessed 1 August 2025.

Stowmarket Area Action Plan, Mid Suffolk's New Style Local Plan, Mid Suffolk District Council (adopted 2013) *Retrieved from* *https://www.midsuffolk.gov.uk/documents/d/mid-suffolk/stowmarket-area-action-plan-21-02-13* Accessed 13 August 2025.

Ashes Farm Development Brief and Delivery Framework, Mid Suffolk District Council (adopted 2016) *Retrieved from* *https://www.midsuffolk.gov.uk/documents/d/mid-suffolk/ashes-farm-development-brief-delivery-fra* Accessed 15 August 2025.

Chilton Leys Development Brief Supplementary Planning Document, Babergh District Council and Mid Suffolk District Council (adopted 2013) *Retrieved from* *https://www.midsuffolk.gov.uk/documents/d/mid-suffolk/chiltonleysconsultstatement* Accessed 15 August 2025.

Mill Lane, Stowmarket (The Proposed Stowmarket Business and Enterprise Park) Development Brief Supplementary Planning Document Mid Suffolk District Council (adopted 2014) *Retrieved from* *https://www.midsuffolk.gov.uk/documents/d/mid-suffolk/milllanedevbriefadopted* Accessed 13 August 2025.

Edgecomb Park, Stowmarket Development Brief Supplementary Planning Document Mid Suffolk District Council (adopted October 2014) *Retrieved from* *https://www.midsuffolk.gov.uk/documents/d/mid-suffolk/edgecombparkdevbriefoct2014* Accessed 1 August 2025.

Land South of Union Road Development Brief April 2016 Mid Suffolk District Council (adopted 2016) *Retrieved from* *https://www.midsuffolk.gov.uk/documents/d/mid-suffolk/unionroadplanningstatementapr2016* Accessed 5 April 2025.

Mid Suffolk Local Development Framework Supplementary Planning Document for Social Infrastructure Including Open Space, Sport and Recreation (adopted 2010) *Retrieved from* *https://www.midsuffolk.gov.uk/documents/d/mid-suffolk/open-space-msdc-spd-final-01-04-10* Accessed 1 August 2025.

Babergh and Mid Suffolk District Councils Housing Supplementary Planning Document, (adopted 2024) *Retrieved from* *https://www.midsuffolk.gov.uk/documents/d/asset-library-54706/babergh-and-mid-suffolk-housing-spd-november-2024* Accessed 5 April 2025.

Babergh and Mid Suffolk Intensive Livestock and Poultry Supplementary Planning Document (adopted 2024) *https://www.midsuffolk.gov.uk/documents/d/asset-library-54706/babergh-and-mid-suffolk-intensive-livestock-and-poultry-farming-spd-november-2024* Accessed 6 August 2025.

Beyton Neighbourhood Plan (adopted 2024) *Retrieved from* *https://www.midsuffolk.gov.uk/documents/d/mid-suffolk/beyton-np-ref-version-feb24* Accessed 1 August 2025.

Botesdale and Rickinghall Neighbourhood Plan (adopted 2020) *Retrieved from* *https://www.midsuffolk.gov.uk/documents/d/mid-suffolk/boterick-np-adopted-jan20* Accessed 1 August 2025.

Debenham Neighbourhood Plan (adopted 2019) *Retrieved from* *https://www.midsuffolk.gov.uk/documents/d/mid-suffolk/debenham-np-adopted-mar19* Accessed 5 April 2025.

Diss and District Neighbourhood Plan (adopted 2023) *Retrieved from* *https://www.midsuffolk.gov.uk/documents/d/mid-suffolk/ddnp_adopted_oct23* Accessed 13 August 2025.

Drinkstone Neighbourhood Plan (adopted 2021) *Retrieved from* *https://www.midsuffolk.gov.uk/documents/d/mid-suffolk/drinkstone-np-referendum-version* Accessed 5 April 2025.

Elmswell Neighbourhood Plan (adopted 2023) *Retrieved from* *https://www.midsuffolk.gov.uk/documents/d/mid-suffolk/elmswell_np_ref_version_oct23* Accessed 5 April 2025.

Eye Neighbourhood Plan (adopted 2021) *Retrieved from* *https://www.midsuffolk.gov.uk/documents/d/mid-suffolk/eye-np-referendum-version* Accessed 5 April 2025.

Fressingfield Neighbourhood Plan (adopted 2020) *Retrieved from* *https://www.midsuffolk.gov.uk/documents/d/mid-suffolk/fressingfield-np-referendum-version* Accessed 5 April 2025.

Haughley Neighbourhood Plan (adopted 2019) *Retrieved from* *https://www.midsuffolk.gov.uk/documents/d/mid-suffolk/haughley-np-referendum-plan-version* Accessed 5 April 2025.

Laxfield Neighbourhood Plan (adopted 2022) *Retrieved from* *https://www.midsuffolk.gov.uk/documents/d/mid-suffolk/laxfield-np-ref-version* Accessed 5 April 2025.

Mendlesham Neighbourhood Plan (adopted 2022) *Retrieved from* *https://www.midsuffolk.gov.uk/documents/d/mid-suffolk/mendlesham-np-mod-ref-version* Accessed 1 August 2025.

Needham Market Neighbourhood Plan (adopted 2022) *Retrieved from* *https://www.midsuffolk.gov.uk/documents/d/mid-suffolk/n-market-np-ref-version* Accessed 1 August 2025.

Redgrave Neighbourhood Plan (adopted 2022) *Retrieved from* *https://www.midsuffolk.gov.uk/documents/d/mid-suffolk/redgrave-np-ref-version* Accessed 5 April 2025.

Stradbroke Neighbourhood Plan (adopted 2019) *Retrieved from* *https://www.midsuffolk.gov.uk/documents/d/mid-suffolk/stradbroke-np-adopted-mar19* Accessed 5 April 2025.

Stowupland Neighbourhood Plan (adopted 2019) *Retrieved from* *https://www.midsuffolk.gov.uk/documents/d/mid-suffolk/stowupland-np-referendum-version* Accessed 1 August 2025.

Thorndon Neighbourhood Plan (adopted 2022) *Retrieved from* *https://www.midsuffolk.gov.uk/documents/d/mid-suffolk/thorndon-np-ref-version* Accessed 5 April 2025.

Thurston Neighbourhood Plan (adopted 2019) *Retrieved from* *https://www.midsuffolk.gov.uk/documents/d/mid-suffolk/thurston-np-adopted-oct19* Accessed 5 April 2025.

Walsham le Willows Neighbourhood Plan (adopted 2023) *Retrieved from* *https://www.midsuffolk.gov.uk/documents/d/mid-suffolk/walshamlewillows_np_ref_version_nov23* Accessed 5 April 2025.

Wilby Neighbourhood Plan (adopted 2021) *Retrieved from* *https://www.midsuffolk.gov.uk/documents/d/mid-suffolk/wilby-np-adopted-may21* Accessed 5 April 2025.

Woolpit Neighbourhood Plan (adopted 2022) *Retrieved from* *https://www.midsuffolk.gov.uk/documents/d/mid-suffolk/woolpit-np-ref-version-oct22-1-* Accessed 5 April 2025.

Babergh and Mid Suffolk Joint Local Plan: Part 1 (adopted 2023) *Retrieved from* *https://www.midsuffolk.gov.uk/documents/d/asset-library-54706/babergh-and-mid-suffolk-joint-local-plan-part-1-nov-2023* Accessed 1 August 2025.

Saved policies from the Babergh Local Plan Alteration No.2 (adopted 2006) *Retrieved from* *https://www.babergh.gov.uk/w/babergh-local-plan* Accessed 1 August 2025.

Saved policies from the Babergh Local Plan 2011-2031 Core Strategy (adopted 2014) *Retrieved from* *https://www.babergh.gov.uk/documents/d/babergh/tbd-1* Accessed 1 August 2025.

Suffolk County Council, Suffolk Minerals and Waste Local Plan (adopted 2020) *Retrieved from* *https://www.suffolk.gov.uk/planning-waste-and-environment/suffolk-minerals-and-waste-plan* Accessed 1 August 2025.

Suffolk County Council, Suffolk Local Transport Plan 2011-2031 Part 1 - Transport Strategy (adopted 2011) *Retrieved from* *https://www.suffolk.gov.uk/asset-library/imported/2011-07-06-Suffolk-Local-Plan-Part-1-lr.pdf* Accessed 1 August 2025.

Babergh and Mid Suffolk Housing Supplementary Planning Document (adopted 2024) *Retrieved from* *https://www.babergh.gov.uk/documents/d/asset-library-54706/babergh-and-mid-suffolk-housing-spd-november-2024* Accessed 1 August 2025.

Babergh and Mid Suffolk Intensive Livestock and Poultry Supplementary Planning Document (adopted 2024) *Retrieved from* *https://www.babergh.gov.uk/documents/d/asset-library-54706/babergh-and-mid-suffolk-intensive-livestock-and-poultry-farming-spd-november-2024* Accessed 1 August 2025.

Babergh and Mid Suffolk Biodiversity and Trees Supplementary Planning Document (adopted March 2025) *Retrieved from* *https://www.babergh.gov.uk/documents/d/babergh/babergh-and-mid-suffolk-biodiversity-and-trees-spd-march-2025* Accessed 1 August 2025.

Aldham Neighbourhood Plan (adopted 2020) *Retrieved from* *https://www.babergh.gov.uk/documents/d/babergh/h23-aldham-neighbourhood-plan* Accessed 5 April 2025.

Assington Neighbourhood Plan (adopted 2022) *Retrieved from* *https://www.babergh.gov.uk/documents/d/babergh/assington-np-ref-version-1-* Accessed 7 April 2025.

Bentley Neighbourhood Plan (adopted 2022) *Retrieved from* *https://www.babergh.gov.uk/documents/d/babergh/bentley-np-ref-version* Accessed 7 April 2025.

Boxford Neighbourhood Plan (adopted 2022) *Retrieved from* *https://www.babergh.gov.uk/documents/d/babergh/boxford-ndp-adopted-oct22* Accessed 7 April 2025.

Chelmondiston Neighbourhood Plan (adopted 2022) *Retrieved from* *https://www.babergh.gov.uk/documents/d/babergh/chelmondiston-np-referendum-version* Accessed 5 April 2025.

East Bergholt Neighbourhood Plan (adopted 2016) *Retrieved from* *https://www.babergh.gov.uk/documents/d/babergh/east-bergholt-np-july16* Accessed 7 April 2025.

Elmsett Neighbourhood Plan (adopted 2019) *Retrieved from* *https://www.babergh.gov.uk/documents/d/babergh/elmsett-np-adopted-dec19* Accessed 7 April 2025.

Great Waldingfield Neighbourhood Plan (adopted 2023) *Retrieved from* *https://www.babergh.gov.uk/documents/d/babergh/gt_waldingfield_np_ref_version_oct23* Accessed 7 April 2025.

Holbrook Neighbourhood Plan (adopted 2023) *Retrieved from* *https://www.babergh.gov.uk/documents/d/babergh/holbrook-np-referendum-version-* Accessed 7 April 2025.

Lavenham Neighbourhood Plan (adopted 2016) *Retrieved from* *https://www.babergh.gov.uk/documents/d/babergh/lavenham-adopted-np-july16* Accessed 7 April 2025.

Lawshall Neighbourhood Plan (adopted 2024) *Retrieved from* *https://www.babergh.gov.uk/documents/d/babergh/lawshall-np-review-apr-2024* Accessed 3 April 2025.

Leavenheath Neighbourhood Plan (adopted 2023) *Retrieved from* *https://www.babergh.gov.uk/documents/d/babergh/leavenheath_np_ref_version* Accessed 7 April 2025.

Little Cornard Neighbourhood Plan (adopted 2022) *Retrieved from* *https://www.babergh.gov.uk/documents/d/babergh/little-cornard-np-referendum-version* Accessed 7 April 2025.

Little Waldingfield Neighbourhood Plan (adopted 2022) *Retrieved from* *https://www.babergh.gov.uk/documents/d/babergh/little-waldingfield-np-referendum-version* Accessed 4 April 2025.

Long Melford Neighbourhood Plan (adopted 2022) *Retrieved from* *https://www.babergh.gov.uk/documents/d/babergh/long-melford-np-referendum-version-* Accessed 7 April 2025.

Newton Neighbourhood Plan (adopted 2022) *Retrieved from* *https://www.babergh.gov.uk/documents/d/babergh/newton-np-ref-version* Accessed 7 April 2025.

Sproughton Neighbourhood Plan (adopted 2023) *Retrieved from* *https://www.babergh.gov.uk/documents/d/babergh/sproughton_np_ref_version_oct23* Accessed 1 August 2025.

Stutton Neighbourhood Plan (adopted 2023) *Retrieved from* *https://www.babergh.gov.uk/documents/d/babergh/stutton-np-adopted-july23* Accessed 4 April 2025.

Whatfield Neighbourhood Plan (adopted 2022) *Retrieved from* *https://www.babergh.gov.uk/documents/d/babergh/whatfield-np-ref-version* Accessed 7 April 2025.

Wherstead Neighbourhood Plan (adopted 2023) *Retrieved from* *https://www.babergh.gov.uk/documents/d/babergh/wherstead-np-ref-version* Accessed 7 April 2025.

Colchester City Local Plan 2013-2033: North Essex Authorities' Shared Strategic Section 1 Plan, adopted February 2021 *Retrieved from* *https://cbccrmdata.blob.core.windows.net/noteattachment/CBC-Local-Plan-North-Essex-Authorities-Shared-Strategic-Section-1-Post%20Committee%20Colchester%2028th%20Jan%2021.pdf* Accessed 1 August 2025.

Colchester City Local Plan 2017-2033 Section 2 (adopted July 2022) *Retrieved from* *https://cbccrmdata.blob.core.windows.net/noteattachment/CBC-null-section-2-local-plan-update-Colchester%20Borough%20Council%20Local%20Plan%202017-2033%20Section%202%20Final.pdf* Accessed 1 August 2025.

Essex and Southend-on-Sea Waste Local Plan (adopted 2017) *Retrieved from* *http://www.southend.gov.uk/downloads/file/5194/adopted_waste_local_plan* Accessed 8 August 2025.

Essex Minerals Local Plan (adopted 2014) *Retrieved from* *https://www.essex.gov.uk/sites/default/files/migration_data/files/assets.ctfassets.net/knkzaf64jx5x/5UZuVtnjZbJ81olvZoZKVX/90acfc65df6fa8ee8ab20df3f0cda1c8/essex-minerals-local-plan-adopted-july-2014.pdf* Accessed 1 August 2025.

Copford and Easthorpe Neighbourhood Plan (adopted 2023) *Retrieved from* *https://cbccrmdata.blob.core.windows.net/noteattachment/CBC-Copford-with-Easthorpe-Neighbourhood-Plan-Copford-with-Easthorpe-Neighbourhood-Plan-Copford%20with%20Easthorpe%20Neighbourhood%20Plan%202023-2033.pdf* Accessed 7 April 2025.

Tiptree Neighbourhood Plan (adopted 2023) *Retrieved from* *https://cbccrmdata.blob.core.windows.net/noteattachment/CBC-null-230517-Tiptree-NP-2022---Adopted-230517%20Tiptree%20NP%202022%20-%20Adopted.pdf* Accessed 2 April 2025.

Boxted Neighbourhood Plan (adopted 2016) *Retrieved from* *https://cbccrmdata.blob.core.windows.net/noteattachment/Boxted%20Neighbourhood%20Plan.pdf* Accessed 1 August 2025.

Eight Ash Green Neighbourhood Plan (adopted 2019) *Retrieved from* *https://cbccrmdata.blob.core.windows.net/noteattachment/Eight%20Ash%20Green%20Neighbourhood%20Plan.pdf* Accessed 1 August 2025.

Marks Tey Neighbourhood Plan (adopted 2022) *Retrieved from* *https://cbccrmdata.blob.core.windows.net/noteattachment/CBC-null-Marks-Tey-NP-Document-010222%20Marks%20Tey%20NP%20with%20front%20cover.pdf* Accessed 1 August 2025.

Myland and Braiswick (adopted 2023) *Retrieved from* *https://cbccrmdata.blob.core.windows.net/noteattachment/CBC-null-Myland-and-Braiswick-Neighbourhood-Development-Plan-(Reviewed-2022-2023)-Myland%20&%20Braiswick%20NP%20(Reviewed%202022-23)%20final%20draft.pdf* Accessed 7 April 2025.

Wivenhoe Neighbourhood Plan (adopted 2019) *Retrieved from* *https://cbccrmdata.blob.core.windows.net/noteattachment/Wivenhoe%20Neighbourhood%20Plan.pdf* Accessed 7 April 2025.

West Bergholt Neighbourhood Plan (adopted 2019) *Retrieved from* *https://cbccrmdata.blob.core.windows.net/noteattachment/CBC-Neighbourhood-plan-West-bergholt-neighbourhood-plan-WBNP%20Final%20updated%20Oct%202024%20final_compressed%20(1).pdf* Accessed 1 August 2025.

Tendring District Local Plan 2013-2033 and beyond, comprising:

Tendring District Local Plan 2013-2033 and Beyond: North Essex Authorities' Shared Strategic Section 1 (adopted 2021) *Retrieved from* *https://www.tendringdc.gov.uk/sites/default/files/documents/planning/Planning_Policy/Section_1/Tendring%20District%20Local%20Plan%202013-2033%20and%20Beyond%20-%20Section%201_AC.pdf* Accessed 4 August 2025.

Tendring District Local Plan 2013-2033 and Beyond: Section 2 (adopted 2022) *Retrieved from* *https://www.tendringdc.gov.uk/sites/default/files/documents/planning/Planning_Policy/Section_2/Tendring%20District%20Local%20Plan%202013-2033%20and%20Beyond%20-%20Section%202_AC.pdf* Accessed 4 August 2025.

Alresford Neighbourhood Plan (adopted 2021) *Retrieved from* *https://legacy.tendringdc.gov.uk/sites/default/files/documents/planning/Planning_Policy/Alresford/Alresford%20NP%20-%20June%202021.pdf* Accessed 7 April 2025.

Ardleigh Neighbourhood Plan (adopted 2024) *Retrieved from* *https://legacy.tendringdc.gov.uk/sites/default/files/documents/planning/Planning_Policy/Ardleigh/Ardleigh%20Neighbourhood%20Plan%202020-2033.pdf* Accessed 1 August 2025.

Elmstead Neighbourhood Plan (adopted 2024). *Braintree District Council Local Plan 2033 Section 1 (adopted 2021) Retrieved from* *https://legacy.tendringdc.gov.uk/sites/default/files/documents/planning/Planning_Policy/Elmstead/Elmstead%20Neighbourhood%20Plan.pdf* Accessed 7 April 2025.

Braintree District Council Local Plan 2033 Section 1 (adopted 2021) *Retrieved from* *https://www.braintree.gov.uk/downloads/file/3022/local-plan-2013-2033-section-1-adopted-febraury-2021-* Accessed 1 August 2025.

Braintree District Council Local Plan 2033 Section 2 (adopted 2022) *Retrieved from* *https://www.braintree.gov.uk/downloads/file/3553/local-plan-2033-s1-and-s2-pdf-minus-maps* Accessed 5 August 2025.

Braintree District Council Local Development Framework Affordable Housing Supplementary Planning Document (adopted 2006) *Retrieved from* *https://www.braintree.gov.uk/downloads/file/2027/affordable-housing-spd-may-2006* Accessed 5 August 2025.

Braintree District Council Local Development Framework Essex Coast RAMS Supplementary Planning Document (adopted 2020) *Retrieved from*

https://www.braintree.gov.uk/downloads/file/2026/essex-coast-rams-braintree-spd-adoption-statement Accessed 1 August 2025.

Braintree District Council Local Development Framework External Artificial Lighting Supplementary Planning Document (adopted 2009) *Retrieved from* https://www.braintree.gov.uk/downloads/file/2031/external-artificial-lighting-spd-september-2009 Accessed 2 July 2025.

Braintree District Council Local Development Framework Open Space Supplementary Planning Document (adopted 2009) *Retrieved from* https://www.braintree.gov.uk/downloads/file/2030/open-space-spd-november-2009 Accessed 2 July 2025.

Bradwell with Pattiswick Neighbourhood Plan (adopted 2019) *Retrieved from* https://www.braintree.gov.uk/directory-record/1062523/bradwell-with-pattiswick-neighbourhood-plan-adopted-july-2019 Accessed 1 April 2025.

Coggeshall Neighbourhood Plan (adopted 2021) *Retrieved from* https://www.braintree.gov.uk/directory-record/1059603/coggeshall-neighbourhood-plan-adopted-july-2021 Accessed 1 August 2025.

Cressing Neighbourhood Plan (adopted 2020) *Retrieved from* https://www.braintree.gov.uk/directory-record/1062521/cressing-neighbourhood-plan-adopted-february-2020 Accessed 1 August 2025.

Feering Neighbourhood Plan (adopted 2023) *Retrieved from* https://www.braintree.gov.uk/directory-record/1062519/feering-neighbourhood-plan-adopted-version-january-2023 Accessed 1 August 2025.

Hatfield Peverel Neighbourhood Plan (adopted 2019) *Retrieved from* https://www.braintree.gov.uk/directory-record/1064014/hatfield-peverel-neighbourhood-plan-review-adopted-sept-24 Accessed 1 April 2025.

Kelvedon Neighbourhood Plan (adopted 2022) *Retrieved from* https://www.braintree.gov.uk/directory-record/1062231/kelvedon-np-appendices-vol-2-adopted-july-2022 Accessed 1 August 2025.

The Salings *Neighbourhood Plan (adopted 2021) Retrieved from* https://www.braintree.gov.uk/directory-record/1062546/the-salings-neighbourhood-plan-october-2021 Accessed 3 April 2025.

Chelmsford Local Plan: Our Planning Strategy 2013 to 2036 (adopted 2020) *Retrieved from* https://www.chelmsford.gov.uk/media/id1jmniz/chelmsford-local-plan-may-2020-includes-a1-plans.pdf Accessed 1 August 2025.

Chelmsford Town Centre Public Realm Strategy Supplementary Planning Document Chelmsford Borough Local Development Framework 2001-2021 (adopted 2011) *Retrieved from* https://www.chelmsford.gov.uk/media/ol5mzcaw/eb-134-chelmsford-town-centre-public-realm-strategy.pdf Accessed 2 July 2025.

Little Baddow Neighbourhood Plan (adopted 2023) *Retrieved from* https://www.chelmsford.gov.uk/media/ifyhgbik/little-baddow-neighbourhood-plan.pdf Accessed 1 August 2025.

Broomfield Neighbourhood Plan (adopted 2025) *Retrieved from* https://www.chelmsford.gov.uk/media/wbubjvuu/broomfield-neighbourhood-plan-march-2025.pdf Accessed 1 August 2025.

Sandon Neighbourhood Plan (adopted 2023) *Retrieved from https://www.chelmsford.gov.uk/media/zhecoekw/sandon-neighbourhood-plan.pdf* Accessed 1 April 2025.

South Woodham Ferrers Neighbourhood Plan (adopted 2021) *Retrieved from https://www.chelmsford.gov.uk/media/siwly0yk/swf-neighbourhood-plan-dec-21.pdf* Accessed 1 April 2025.

Writtle Neighbourhood Plan (adopted 2021) *Retrieved from https://www.chelmsford.gov.uk/media/eggpjkaa/writtle-neighbourhood-plan-dec-21.pdf* Accessed 1 August 2025.

Chelmsford West End Vision 2017 (adopted 2017) *Retrieved from https://www.chelmsford.gov.uk/media/10inkytd/eb-081-west-end-vision.pdf* Accessed 14 July 2025.

Basildon District Council Local Plan Saved Policies (adopted 2007) *Retrieved from https://www.basildon.gov.uk/media/598/Basildon-District-Local-Plan-Saved-Policies-September-2007/pdf/Basildon_District_Local_Plan_Saved_Policies_-_September_2007.pdf?m=1540381932580* Accessed 1 August 2025.

Basildon District Council Compliance Review of the Saved 1998 Local Plan Policies with the Revised 2023 NPPF (adopted 2024) *Retrieved from*

https://www.basildon.gov.uk/media/11990/Basildon-Council-Compliance-Review-of-the-Saved-Policies-with-the-2023-NPPF-Feb-2024/pdf/Basildon_Council_-_Compliance_Review_of_the_Saved_Policies_against_the_2023_NPPF_-_Feb_2024_65vhyeh4.pdf?m=1711368304603 Accessed 1 August 2025.

Basildon Borough Planning Obligations Strategy Supplementary Planning Document (adopted 2015) *Retrieved from https://www.basildon.gov.uk/media/6282/Planning-Obligations-Strategy-July-2015/pdf/Basildon_Council_-_Planning_Obligations_Strategy_-_July_2015.pdf?m=1439554648337* Accessed 15 July 2025.

Essex and Southend-on-Sea Waste Local Plan (adopted 2017) *Retrieved from http://www.southend.gov.uk/downloads/file/5194/adopted_waste_local_plan* Accessed 1 August 2025.

Essex Minerals Local Plan (adopted 2014) *Retrieved from https://www.essex.gov.uk/sites/default/files/migration_data/files/assets.ctfassets.net/knkzaf64jx5x/5UZuVtnjZbJ81olvZoZKVX/90acfc65df6fa8ee8ab20df3f0cda1c8/essex-minerals-local-plan-adopted-july-2014.pdf* Accessed 1 August 2025.

Brentwood Borough Council Local Plan 2016-2033 (adopted 2022) *Retrieved from https://www.brentwood.gov.uk/sites/default/files/documents/20124/533660/Brentwood+Local+Plan+2016-2033+Adopted+March+2022.pdf* Accessed 1 August 2025.

Brentwood Local Plan Planning Obligations Supplementary Planning Document (adopted 2023) *Retrieved from https://www.brentwood.gov.uk/media/610* Accessed 1 August 2025.

Brentwood Borough Council Dunton Hills Garden Village Supplementary Planning Document (adopted 2023) *Retrieved from https://www.brentwood.gov.uk/sites/default/files/2023-02/BBC-DGV-SPD-230131.pdf* Accessed 12 May 2025.

Essex Coast Recreational Disturbance Avoidance and Mitigation Strategy Supplementary Planning Document (adopted 2020) *Retrieved from https://document.brentwood.gov.uk/pdf/18092020094200000000.pdf* Accessed 13 April 2025.

Brentwood Town Centre Design Guide Supplementary Planning Document (adopted 2019) *Retrieved from https://document.brentwood.gov.uk/pdf/02122019172603000000.pdf* Accessed 31 March 2025.

Brentwood Borough Council Appendix 2 Vehicle Parking Standards Supplementary Planning Document (adopted 2011) *Retrieved from https://document.brentwood.gov.uk/blp/app2.html* Accessed 31 March 2025.

Shopfront guidance for Brentwood Town Centre Supplementary Planning Document, (adopted 2010) *Retrieved from https://document.brentwood.gov.uk/pdf/29032010093647u.pdf* Accessed 1 August 2025.

Essex Design Guide Urban Place Supplement Supplementary Planning Document (adopted 2007) *Retrieved from https://www.uttlesford.gov.uk/media/4421/The-Essex-Design-Guide-Urban-Place-Supplement-2005/pdf/Essex_Design_Guide__-_Urban_Place_Supplement_2005.pdf?m=1683230949100* Accessed 31 March 2025.

Ingatestone and Fryerning Neighbourhood Plan (adopted 2022). *Retrieved from https://www.brentwood.gov.uk/sites/default/files/documents/20124/625854/IFNP%2BAdopted%2BVersion%2B2022.pdf* Accessed 1 August 2025.

Thurrock Local Development Framework, Core Strategy and Policies for management of Development (adopted 2015) *Retrieved from https://www.thurrock.gov.uk/sites/default/files/assets/documents/core_strategy_adopted_2011_amended_2015.pdf* Accessed 1 August 2025.

Thurrock Borough Local Plan 1997 Saved Policies (adopted 1997). Retrieved from *https://www.thurrock.gov.uk/sites/default/files/assets/documents/local_plan_complete.pdf* Accessed 1 August 2025.

Appendix A. Committed Developments Overlapping with Order Limits

nationalgrid

Appendix A
Committed Developments Overlapping with Order Limits

Appendix A Committed Developments Overlapping with Order Limits

Table A.1: Table containing an overview of the committed developments (those developments where an application or Development Consent Order has been approved) overlapping with the Order Limits for the Project. - ES Chapter 17: Cumulative Effects (document reference 6.17) (Document Reference B) and Appendix A3 Inter-Project Cumulative Effects of ES Chapter 17 presents the full assessment of the cumulative impacts between the committed developments, pending planning applications and Development Consent Orders, and the Development Plan Allocations for each Local Authority overlapping with the Order Limits for the Project.

The location of the developments listed below are shown on Figure 17.2 Long List of 'Other Developments' Considered within the Cumulative Impacts Assessment Overview (document reference 16.17.2).

Please note, refused or withdrawn applications have been excluded from the table.

The data freeze date: 1st April 2025.

Local Authority Reference	Applicant	Site Location	Development Description	Status	Decision or submitted	Commentary	Reference
Section A: South Norfolk Council							
EN010080 (2021/2573)	Orsted	Hornsea Project: Three Offshore Windfarm.	National Infrastructure Development Consent Order for Hornsea Project Three Offshore Wind Farm (Planning Inspectorate Reference: EN010080)	Development Consented	Approved 25/11/2021	This is a consented application for development which overlaps with the Order Limits for the Project. The cables connecting the Hornsea Three Offshore Windfarm to Norwich Substation will interact with the proposed permanent environmental and mitigation area, and the overhead line. The submission documents state that construction was planned to commence in 2021 spamming 6 years to 2027 but could be constructed in two phases including the potential for an overlap or a gap between the completion of construction of one phase and the start of another. It is unlikely that the Project's construction programme (anticipated to commence in 2027, should consent be granted in 2027, and continue to 2031) would overlap with Hornsea Project's programme in a way which could impact National Grid's ability to construct or operate the Project. The Order Limits of the project have been designed to avoid significant cumulative effects impacting with the consented Hornsea Three Offshore Windfarm DCO. Due to this interaction National Grid are in discussion with the developer and are preparing a SoCG which will be finalised at a later date	A/1
2024/1336	National Grid Electricity Transmission	Norwich Main Substation Mangreen Hall Lane Dunston Norfolk NR14 8PG	Extension of the existing Norwich Main 400 kV Substation to the west and includes associated temporary access roads. Works include: Extension of the existing substation platform to the west by approximately 250m x 188m. Extension of main and reserve busbar to accommodate addition of customer bays. New bus sections. Bus couplers and circuit breakers. Infrastructure works for customer connections. Extension of substation perimeter to accommodate the new infrastructure and the delivery of a minimum of 10% biodiversity net gain, linked with the proposed Landscape Mitigation Strategy	Approved	01/05/2024	The consented Norwich Main substation extension is required to connect new sources of electricity generation to the National Electricity Transmission System. The development involves an extension to the existing Norwich Main substation. The Project will connect into the substation extension, specifically with the environmental and mitigation area, overhead line, and two pylons. The proposed substation extension would help to accommodate infrastructure for customer connections including the Norwich to Tilbury Project. Norwich Main Substation is a National Grid owned asset therefore discussions around interactions between the two projects will be managed internally.	A/2
EN010109 (2022/1991)	Equinor	Sheringham and Dudgeon Extension Projects	Sheringham Extension Project has a maximum installed capacity of 317 MW, while Dudgeon Extension Project has a maximum installed capacity of 402 MW. Joint export cable system, offshore and onshore, connecting to the national grid transmission network at Norwich Main Substation	Development Consent	05/09/2022	This consented development consent order overlaps with the Order Limits for the Project. There is an area of land in common for both infrastructure projects within the Order Limits (land in the vicinity of Hall Green Cottages and Vale Farm). These elements would interact with the Order Limits for the project specifically the proposed environmental and mitigation area, and the overhead line. Having reviewed the submission documentation it is understood that the Sheringham and Dudgeon Extension project proposes an	**A/3**

Local Authority Reference	Applicant	Site Location	Development Description	Status	Decision or submitted	Commentary	Reference
						open cut crossing through the area of land in common to accommodate the cables and the erection of an onshore substation to connect into Norwich Main Substation. The application documentation states that the earliest construction start date for the Sheringham and Dudgeon Extension project main works is expected to be 2025 and the latest is 2028. There would be a two year period of onshore construction prior to start of offshore construction. If both phases of the project are built sequentially the project could be built in 8 years. The construction programmes as currently proposed will conflict. National Grid are in discussion with the developer and are preparing a SoCG which will be finalised at a later date.	
2024/3750	Innova	Hall Farm Land North Of Hickling Lane Swainsthorpe Norfolk NR14 8DS	The development of a 400MW Energy Storage System, including a 132-400kV substation and associated infrastructure	Pending Consideration	16/12/2024	The proposed development would interact with the Order Limits of the Project. Drawing V16 of the layout plan submitted by Innova to South Norfolk Council (2nd April 2025), illustrates the proposed development connecting into the Norwich Main Substation Extension. The proposed energy storage unit is positioned to the east of the proposed overhead line route order limits with the only additional overlap between the two projects associated with an over sail of a permanent access road (providing a connection between the energy storage unit and the B1113. It is noted that National Grid have included alternative order limits to the alignment to the east which would over sail the proposed energy storage unit. The application documentation states that subject to planning approval a 5-year implementation programme will be required. The proposal is reliant on construction of the Norwich Main Substation extension to connect to the Grid network, which in itself could take several years to complete. Due to the nature and scale of the proposed development and the prospect of significant cumulative effects around Norwich Main Substation (see Appendix A3 Inter-Project Cumulative Effects of ES Chapter 17: Cumulative Effects (document reference 6.17.A3), a SoCG with Innova has been prepared. See the SoCG - Innova (Battery Storage Systems) (**document reference 5.9.25**) which considers the project's relationship with the Norwich to Tilbury Project. .	**A/4**
2021/2495	EDF Renewables	Land North And South Of Brick Kiln Lane Swainsthorpe Norfolk	Installation of a solar farm comprising: ground mounted solar panels, access tracks; inverter/transformers, substation; storage, spare parts and welfare cabins, underground cables and conduits, perimeter fence; CCTV equipment, temporary new site entrance and access track, temporary construction compounds, and associated infrastructure and planting scheme. Application is accompanied by an environmental statement	Approved	09/11/2021	The northeast portion of the red line boundary for the proposed development overlaps with the Order Limits for the Project. Sections of the overhead line would over sail the solar panels and associated electrical connections as well as crossing the projects site's entrance and track road (to the north of the site joining onto Church Road). No new pylons are proposed within the area where solar panels are proposed. A pylon is proposed immediately adjacent to the site's entrance and track road. The projects supporting documents do not specify an anticipated construction start date however it does appear that several applications to discharge conditions to allow enabling works to start have been approved in 2024, it is therefore assumed that works will likely start in 2025. A further planning application was submitted by EDF Energy (reference 2022/2350) for the Installation of underground electrical connection and communication cables between Bloy's Grove Solar Farm and Norwich Main Substation. This planning application interacts with the Order Limits at the Norwich Main substation.	**A/5**

Local Authority Reference	Applicant	Site Location	Development Description	Status	Decision or submitted	Commentary	Reference
						National Grid has ongoing engagement with EDF Energy on this project and are preparing a SoCG which will be finalised at a later date.	
2023/0617 & 2023/3858	EDF Renewables	Land North Of Hickling Lane Swainsthorpe Norfolk	Construction and operation of a battery storage facility, underground cabling, fencing, drainage infrastructure, landscape planting and site access road on land to the north of Hickling Lane and up towards the Norwich National Grid Substation	Approved	09/03/2023	The approved development's underground cables connecting the battery storage facility to Norwich Main Substation interacts with the Order Limits in areas to the east and north of Norwich Main Substation. These consented works interact with an overhead line substation compound and the eastern edge of the environmental area reserved for mitigation planting around Norwich Main substation. The cable routeing into the Norwich Main substation was subject to a second planning application (reference 2023/3858) which was approved by South Norfolk District Council on 9th December 2024. The alternative cable alignment presented as part of this application broadly follows the same alignment to the east and north of the Norwich Main substation. The point of connection is further to the west of the existing Norwich Main substation. National Grid has been in discussions with the Applicant in respect to their proposed development and it is not considered that the proposed development would impact on National Grid's ability to construct or operate the Project.	**A/6**
2023/1055	Ralos Projects	Land Off Marsh Lane Bracon Ash Norfolk	Ground mounted solar panel array and ancillary equipment	Approved	18/04/2023	There is an overlap between the proposed development and the Order Limits of the Project with the conductors between pylon RG18 and RG19 over sailing the proposed solar arrays. National Grid has been in discussions with the applicant in respect to their proposed development and it is not considered that the proposed development would impact on National Grid's ability to construct or operate the Project.	**A/7**
2021/1399	Yare Power Limited	Land off Mangreen Hall Lane	Development of battery storage facility with associated infrastructure.	Approved	16/08/2021	The battery storage facility is located to the north of the existing Norwich Main substation. The application was consented on 21 August 2021 with a condition requiring its implementation before the expiry of three years from the date of decision. There is no record of any pre-commencement conditions being discharged or works commencing on site. Accordingly, it is considered that the application has lapsed and has been superseded by application reference 2023/3858 which has a similar red line boundary - see details in entry A/6.	**A/8**
Section B – Mid Suffolk District Council							
DC/23/05426	Aura Power Developments Limited	Land North Of Lion Road Palgrave Part In The Parishes Of Wortham And Diss	Cross Boundary Planning Application - Installation of a solar farm comprising: ground mounted fixed tilt bifacial solar panels; access tracks; string inverters; transformers; electrical connection compound; storage containers; underground cables and conduits; perimeter fence; temporary construction compound and associated infrastructure and planting scheme. (EIA Development).	Approved n	21/11/2023	The proposed solar farm planning application area covers an area of 49.1 hectares of which 13 hectares would be covered by solar panels. The Order Limits for the Project would interact with the eastern portion of the solar development site. There is no direct interaction between the pylon locations and proposed solar panels. Pylon RG91 is located within an area identified by the applicant on drawing GBR.0010.DEV.M4.001.0.D.h (February 2025) as a wildflower planting area with skylark mitigation. As there is no physical overlap of built development, the proposed development would not impact on National Grid or Aura Power's ability to implement their respective proposals.	**B/1**
DC/22/02667	Pathfinder Clean Energy UK Dev Ltd	Grange Farm Old Bury Road Palgrave Suffolk IP22 1AZ	Mixed use development comprising installation of a ground mounted solar photovoltaic (PV) farm; along with continued agricultural use, ancillary	Approved	23/05/2022	The proposed development for ground mounted solar PV interacts with the Order Limits of the Project near the development's west boundary. Several conditions attached to the planning decision have been discharged however	**B/2**

Local Authority Reference	Applicant	Site Location	Development Description	Status	Decision or submitted	Commentary	Reference
			infrastructure, substation, security fencing, landscaping provision, ecological enhancements and associated works.			there are outstanding conditions which need to be discharged before the development can lawfully commence. It is likely that construction could realistically begin in summer 2025 onwards. This means that the solar PV will likely be constructed before the Project. National Grid has carefully considered the routeing alignment between this solar farm development and the Aura proposal described above. As described in the Design Development Report (April 2024) the 2024 preferred draft alignment deviates through a different solar farm development than the 2023 preferred draft alignment. This alternative further to the east would transfer effects from one planned solar farm development to another, though subject to final design of the solar farm and the overhead line alignment, the more eastern alignment would reduce the interaction with solar panels from three pylons (on the 2023 preferred draft alignment) to one (2024 preferred draft alignment). The Project includes proposals to mitigate an existing third party 132kV overhead line (PFK overhead line) which is currently routed through the application site pylons (PKF35 and PKF4) which interact with the solar farm proposal will be removed. Given the status of the respective applications, UKPN will connect the solar farm to electricity distribution network as identified in the planning application submission. Subject to the award of development consent, UKPN will provide an alternative means of connection to mitigate the removal of the PKF overhead line. In summary, it is not considered that the Project would detrimentally impact on the delivery of the Pathfinder Clean Energy proposals.	
DC/24/01357	Mr. Bullock	Potters Farm Cotton Road Mendlesham IP14 5SR	Full Planning Application - Change of use of a farm building to a space suitable for short term holiday lets (Retention of).	Approved	16/05/2024	The consented development adjoins the boundary of the Order Limits where a permanent access route to pylons is proposed. As there is no physical overlap of built development or uses (including access points), the proposed development would not impact on National Grid's ability to construct or operate the pProject.	**B/3**
DC/24/04421	BT Openreach	Mill Lane Creeting St Peter Suffolk IP6 8QL	Development by a Statutory Undertaker - BT Openreach - Erection of 13 No. 9m Light Poles.	Raise No Objection	24/10/2024	The development involves the erection of 13no. 9 metre tall wooden poles along Mill Lane. The location of the light poles would interact with the temporary haul road and would be oversailed by the overhead line. Due to the nature of this development National Grid do not consider the light poles to impact the construction or operation of the Project.	**B/4**
DC/21/01320	Mr and Mrs Pressley	Land East of Hadleigh Road Somersham Suffolk	Full Planning Application - Use of land as private smallholding/kitchen garden and for the keeping of horses. Construction of riding arena, stables, borehole and shed, polytunnels, pig pen, chicken coop and fencing/gates. Siting of 3no. Storage Container	Approved	08/07/21	The proposed development and the Order Limits for the Project would overlap. The Project's permanent access route would share the same access as the proposed development's existing access. Interaction is limited to oversail of part of the small holding and interaction with the temporary haul road for the Project near the northern end of the Applicants access. The interaction between the two projects is not therefore of a nature that could impact the enjoyment of the small holding or the Project coming forward.	**B/5**
DC/20/05895	Bramford Green Limited	Land To The South Of Church Farm Somersham And Land To The East Of The Channel Burstall, In Suffolk	Full Planning Application - Installation of renewable energy generating station, comprising ground-mounted photovoltaic solar arrays and battery-based electricity storage containers together with substation, inverter/transformer stations, site accesses, internal access tracks,	Appeal Allowed	17/03/23	This planning application was preceded by EIA Screening Request for a solar farm and battery storage facility (reference DC/20/03320) and two EIA Scoping Requests (DC/20/03574 and DC/20/04125) covering a larger area than this planning application submission. The proposal for a solar farm and battery energy proposal was refused on 17th February 2023. Planning consent was subsequently	**B/6**

Local Authority Reference	Applicant	Site Location	Development Description	Status	Decision or submitted	Commentary	Reference
			security measures, access gates, other ancillary infrastructure, landscaping and biodiversity enhancements including Nature Areas.			awarded on appeal. The Project interacts with the consented solar farm by over sailing the proposed cable connection between the solar farm and its point of connection within the Bramford substation. It is noted that no pre-commencement conditions have been discharged and that a revised planning application has been submitted for the scheme (reference DC/23/02118) as described below.	
DC/23/02118	Bramford Green Limited	Land To The South Of Church Farm, Somersham, IP8 4PN And Land To The East Of The Channel, Burstall, IP8 4JL In Suffolk	Installation of renewable led energy generating station comprising ground-mounted photovoltaic solar arrays and battery-based electricity storage containers together with substation, inverter/transformer stations, site accesses, internal access tracks, security measures, access gates, other ancillary infrastructure, landscaping and biodiversity enhancements including Nature Areas ('Free Go' application following refusal of MSDC Ref: DC/20/05895)(accompanied by EIA Statement)	Approved	03/05/2023	As above, this application supersedes application DC/20/05895. The Project interacts with the consented solar farm by over sailing the proposed cable connection between the solar farm and its point of connection within the Bramford substation. As there is no physical overlap of built development or uses (including access points), the proposed development would not impact on National Grid's ability to construct or operate the pProject, nor should the Project constrain the implementation of this consented planning application.	**B/7**
DC/21/00060	Bramford Green Limited	Land To The East Of The Channel, Burstall Hill	Installation of renewable energy generating station including battery storage	Approved	17/02/2023	Duplication of application DC/23/02118 (ref B/7).	**B/8**
DC/23/04729	Enso Energy Limited	Bramford Solar Farm And Battery Storage Facility And On Adjoining Land, Land East Of The Channel, Burstall, (Part In The Parish Of Bramford) IP8 4JL	Cross Boundary Planning Application - Installation of underground cable.	Approved	09/01/2024	The proposed modified underground cable routeing to connect the solar farm and BESS facility to Bramford Substation interacts with the Order Limits for the Project in particular two new pylons and UKPN infrastructure to be dismantled pursuant to the Project. The interaction between the two projects will be limited to below ground interaction during construction which can be managed through National Grid's standard crossing agreement. The interaction between the two projects will not adversely affect the implementation of the respective proposals.	**B/9**
EN010056	East Anglia Three Limited	Offshore approximately 69km from Port of Lowestoft	East Anglia THREE Offshore Windfarm	Approved	07/08/2017	This is a consented application for development consent which overlaps with the Order Limits for the Project. The infrastructure connecting the East Anglia Three Offshore Windfarm to Bramford Substation will overlap with the proposed overhead line and accordingly the Order Limits for the Project. It is common for several developments of this nature to feed into a substation. It is understood that the enabling works for the East Anglia Three project commenced in July 2022. The application documentation states that construction works will take up to 41 months (3.2 years) to complete therefore works will likely finish in early 2026. The East Anglia Three DCO works will not therefore conflict with the project's proposed construction programme. National Grid have prepared a SoCG with Scottish Power Renwables. See SoCG – Scottish Power Renewables (EA1 and EA3) (**document reference 5.9.30**).	**B/10**
EN020002 (DC/21/01605)	National Grid Electricity Transmission	Bramford To Twinstead	Construction and operation of a new double circuit electricity transmission network reinforcement of c.29 km, consisting of overhead lines, underground cables, a grid supply point substation and associated development.	Approved	12/09/2024	This is a consented application for development consent which overlaps with the Order Limits for the Project. The infrastructure associated with the Bramford to Twinstead overhead lines DCO will interact with the proposed overhead line and accordingly the Order Limits for the Project at Bramford Substation. The Project has taken into account the routeing and siting of the Bramford to Twinsted project along with proposed mitigation areas.	**B/11**

Local Authority Reference	Applicant	Site Location	Development Description	Status	Decision or submitted	Commentary	Reference
DC/24/05090	Clearstone Energy	Land Adjacent To Bullen Lane Bramford IP8 4JN	Planning Application. Construction, operation and maintenance of a Battery Energy Storage System (BESS) with associated infrastructure and works including highway access, landscaping and biodiversity enhancements.	Approved	21/10/2024	The consented development is located to the east of Bramford Substation. The application red line boundary also shows the underground grid connection to Bramford Substation overlapping with the Order Limits for the Project. National Grid has been cognisant of the interaction between the two project and has adjusted its proposed mitigation measures to remove any potential conflict between the two proposals. The interaction between the two projects will be limited to below ground interaction during construction which can be managed through National Grid's standard crossing agreement. The interaction between the two projects will not adversely affect the implementation of the respective proposals.	**B/12**
DC/21/05468	Bramford Power Ltd	Land To The South Of Bullen Lane Bramford Suffolk	Full Planning Application - Construction and operation of a 100MW Battery Energy Storage System, and related infrastructure with associated access, landscaping and drainage	Approved	07/07/2022	The approved BESS development is located to the east of the Bramford Substation and is enclosed by the Order Limits for the Project. Both the development and the Project seek to use Bullen Lane as an access route to their sites. An existing access from the development site onto Bullen Lane will be used and it is identified that this will be upgraded. Aside from the shared use of Bullen Lane, which is identified as a primary access route for the Project, there is limited crossover between the two developments. As there is no physical overlap of built development or uses, the proposed development would not impact on National Grid's ability to construct or operate the Project nor would the Project constrain the implementation and operation of this consented development.	**B/13**
DC/19/03008	Pivot Power	Land Adjacent To Bramford Substation Bullen Lane Bramford IP8 4JH	Installation and operation of a 49.9 MW Battery Storage Facility	Approved	23/09/2019	The proposed access points for the proposed development overlaps with the Order Limits for the Project. However, due to the nature and scale of the proposed development and the fact there is no physical overlap of built development, the proposed development would not impact on National Grid's ability to construct or operate the Project, nor would the Project constrain the implementation and operation of this consented development.	**B/14**
DC/23/03630	Pivoted Power LLP	Land To The South Of Bullen Lane Bramford Ipswich Suffolk IP8 4JD	Full Planning Application - Creation of drainage detention basin, underground pipe, interceptor and gravel strip	Approved	06/10/2023	Planning consent was granted for surface water management works to serve the above permitted battery storage facility (application reference DC/19/0300). The consented scheme is an alternative to a previous withdrawn proposal that responds to concerns raised by the lead local flood authority, ecology adviser and the Wildlife Trust. Whilst the proposed development is encircled by the Project it is excluded from the order limits. As such, there will be no adverse effect associated with the implementation of either of the projects.	**B15**
DC/22/01861	Pivoted Power LLP	National Grid Bramford Substation And Arable Field To The East Bullen Lane Bramford IP8 4JL	Planning Application. Installation of underground power cables (between two National Grid owned assets) on land within and east of the National Grid Bramford Substation site, Bullen Lane, Bramford.	Approved	01/08/2022	The works subject to this consented application comprise an underground cable connection between the consented 49.9MW battery storage facility (application reference DC/19/03008) and the Bramford Substation to connect an approved battery storage facility to Bramford Substation. As there is no physical overlap of built development or uses, the proposed development would not impact on National Grid's ability to construct or operate the Project	**B/16**
DC/22/06309	Anglian Water	Anglian Water Services Bury To Colchester Pipeline Woodlands Road Raydon Suffolk	Hybrid Planning Application - Full Application for Bury St Edmunds to Colchester 69km Pipeline Scheme and associated above ground infrastructure at Raydon Water and Rushbrooke Water	Approved	03/10/2023	The consented water pipeline intersects the Order Limits for the Project in three locations: to the south of Chattisham; to the northeast of Raydon; and south of Higham. The northernmost interaction near Chattisham dissects the proposed overhead line route and the boundary of the	**B/17**

Local Authority Reference	Applicant	Site Location	Development Description	Status	Decision or submitted	Commentary	Reference
			Treatment Works and Wherstead Water Reservoir. Outline Application for above ground infrastructure at Little Saxham Water Reservoir, Little Whelnetham, Nedging Tye Water Reservoir, Hadleigh Water Reservoir and Great Horkesley with all matters reserved except for Access. (Accompanied by EIA Statement)			pipeline's consent is sited approximately 40 metres to the south of pylon JC25. The interaction near Raydon and Higham relate to access roads for the Project and do not interact with any proposed pylons. The application documentation states that enabling works for the Anglian Water pipeline project will commence in early 2023, whilst the main construction phase will begin immediately after the enabling works and is anticipated to be completed by early 2024. Notwithstanding that the construction programmes as currently proposed do not anticipate a conflict; discussions with Anglian Water are ongoing. As part of these discussions, National Grid have developed a Statement of Common Ground with Anglian Water to agree measures to prevent any conflict between the two projects, and to clearly set out the responsibilities of both parties in terms of maintaining an ongoing and collaborative dialogue throughout the pre-construction and construction phases of both sets of works.	
N/A	Econergy	EcoPower Suffolk Limited	A Solar Farm with an anticipated generating capacity of up to 300MW, comprising photovoltaic (PV) solar panels, a Battery Energy Storage System (BESS), and associated development, with a planned connection to the existing National Grid electricity substation at Leys Lane, Yaxley, Suffolk.	Pre-application	31/01/2025	The application relating to this DCO is expected to be submitted between April and June 2026. The documents published on the developer's website show an indicative red line boundary for 5 parcels of land for the solar arrays and the indicative cable corridor route. Based on this information the solar farm and the Project's order limits would directly interact at various parcels of land north of Gislingham village. At present there will likely be interaction with pylon RG107, and pylon 110 to 118. Because of this interaction National Grid are in discussion with the developer and are preparing a SoCG which will be finalised at a later date.	**B/18**
Section C – Babergh District Council, Colchester Council and Tendring District Council							
Babergh District Council							
DC/23/05073	Hugh Partridge	Land At Rookery Farm Wenham Road Copdock And Washbrook IP8 3EZ	Application to determine if Prior Approval is required for a Proposed: Erection of a building for Agricultural use. Town and Country Planning (General Permitted Development) (England) Order 2015 as amended Schedule 2, Part 6 - Erection of agricultural building.	Formal approval not required.	29/11/2023	The Project includes order limits through Rookery Farm to provide a permanent access road to the overhead line. The implementation of the Project would not constrain the ability to implement the agricultural building proposal.	C1
DC/24/03965	Mr Robert Willis	Lark Hall Sandpits Lane Holton St Mary Colchester Suffolk	Application for Listed Building Consent - Erection of single storey front extension.	Approved	30/10/2024	Lark Hall is identified as being in proximity to the underground cable corridor. The property itself has been excluded from the order limits. The implementation of the Project will not constrain the implementation of this consent.	C2
Colchester							
223183	Anglian Water	Anglian Water Pipeline, Dedham to Great Horkesley	Proposed hybrid planning application for the proposed Bury St Edmunds to Colchester Pipeline Scheme with full planning consent sought for a proposed 69 kilometre pipeline and associated above ground infrastructure at Raydon Water Treatment Work	Approved	08/11/2023	The consented water pipeline intersects the Order Limits for the Project in proximity to Docura's Farm, Langham where the Project is proposing an underground cable swathe, temporary cable haul road and temporary drainage. The application documentation states that enabling works for the Anglian Water pipeline project will commence in early 2023, whilst the main construction phase will begin immediately after the enabling works and is anticipated to be completed by early 2024. Notwithstanding that the construction programmes as currently proposed do not anticipate a conflict; discussions with Anglian Water are ongoing. As part of these discussions, National Grid have prepareda Statement of Common Ground with Anglian Water to agree	C3

Local Authority Reference	Applicant	Site Location	Development Description	Status	Decision or submitted	Commentary	Reference
						measures to prevent any conflict between the two projects, and to clearly set out the responsibilities of both parties in terms of maintaining an ongoing and collaborative dialogue throughout the pre-construction and construction phases of both sets of works. See Draft Statement of Common Ground Anglian Water (document reference 5.9.26).	
Tendring							
22/00393/AGRIC	Mr Bruce Marshall	Spindles Farm Home Farm Lane Ardleigh Colchester Essex CO7 7LU	Proposed erection of agricultural steel framed building.	Prior Approval not required	06/04/2022	The proposal's red line boundary extends across the extent of the agricultural holding however the proposed agricultural steel barn is located within the cluster of barns already present on site which sit outside the Project's Order Limits. Therefore, there is no interaction between the Project and any physical development and therefore no impact on National Grid's ability to construct or operate the Project or impact on the existing facility's ability to operate.	C/4
EN010115	Five Estuaries Offshore Wind Farm Ltd	Located off the East coast of England, approximately 37km offshore from Suffolk. Connection point is the East Anglian Connection Node	Five Estuaries is an offshore wind farm to generate in excess of 300MW. The project will be comprised of (but not limited to): • an offshore wind farm, including wind turbine generators and associated foundations and array cables; • transmission infrastructure, including offshore substations and associated foundations, offshore and onshore export cables (underground), including associated transition bays and jointing bays, an onshore substation, and connection infrastructure into the national grid.	Development is at Decision stage with a recommendation due to be made in September 2025.	17/06/2025	The proposed development includes up to 79 turbines with a maximum tip height of 370m and would be located approximately 37km at its closest point off the coast of south Suffolk. Coming ashore at Sandy Point between Frinton-on-Sea and Holland-on-Sea in Tendring, Essex, underground cables then travel approximately 22km to a new substation located to the west of Little Bromley. Finally, underground cables will connect the new substation to the proposed adjacent East Anglia Connection Node substation, part of National Grid's Norwich to Tilbury Project. As a customer connection, National Grid and Five Estuaries Offshore Wind Farm are developing Heads of Terms to manage the interface between the two projects. See Heads of Terms – Five Estuaries (document reference 5.9.50).	C/5
EN010119	North Falls Offshore Wind Farm Ltd	An offshore electricity generating station approximately 24.5km from its nearest point at the Port of Lowestoft.	Single offshore array area covering an area of 95 kilometres with up to 57 wind turbine generators, installation of underground cables and associated infrastructure.	Project is at Examination stage.	TBC	The offshore export cable route runs from the offshore location for 24km to landfall near Kirby Brook, Essex. Onshore export cables will then transport the electricity in a broadly westerly direction approximately 24km to the proposed onshore substation located west of Little Bromley, near Ardleigh, before it enters the national electricity network at the East Anglian Connection Node, part of the Norwich to Tilbury Project. As a customer connection, National Grid and North Falls Offshore Wind Farm are developing Heads of Terms to manage the interface between the two projects. See Heads of Terms – North Falls (document reference 5.9.53).	C/6
21/02070/FUL	Lawford Power Ltd	Land adjacent to Lawford Grid Substation Ardleigh Road Little Bromley Essex CO11 2QB	Construction and operation of a 50MW Battery Energy Storage System, and related infrastructure with associated access, landscaping and drainage	Approved	28/09/2022	This BESS development and the Project will interact at Ardleight Road from where the BESS development proposes to take access from. The Project seeks to utilise Ardleigh Road as a primary access for construction. Due to this interaction, National Grid are in discussion with the developer and are preparing a SoCG which will be finalised at a later date.	C/7
20/00594/FUL	Flying Trade Group PLC	Land adjoining Ipswich Road and Wick Lane Ardleigh Essex CO7 7QL	Full planning for food storage and distribution facility and associated parking, logistics yard and offices	Approved	13/07/2023	The Order Limits for the Project overlaps with the southern extent of the Flying Trade Group site, where the new overhead line is proposed. One pylon (pylon TB19) would sit central to the development site. Pylon TB19 would be sited on the north boundary of Flying Trade Group site's red line boundary in an area which is not proposed for built development, as shown in drawing number 2748_100D – Site Layout which forms part of the application documents.	C/8

Local Authority Reference	Applicant	Site Location	Development Description	Status	Decision or submitted	Commentary	Reference
						National Grid has actively engaged with the promoters of developments to the north and south of Wick Lane near the junction with the old Ipswich Road (around TB20). Through those discussions modifications have been agreed to the arrangements for all developments such that co-existence is possible. Due to this interaction National Grid are in discussion with the developer and are preparing a SoCG which will be finalised at a later date.	
ESS/07/20/TEN	Sewells Reservoir Construction Ltd	Crown Quarry (Wick Farm), Old Ipswich Road, Ardleigh, CO7 7QR	Continuation of winning and working of minerals associated with the construction of a public water storage reservoir without compliance with condition 2 (approved details), condition 34 (restoration/permission end date) and condition 39 (no additional buildings, fixed plant or machinery) attached to application ref: ESS/57/04/TEN to allow changes to operational areas, the phasing of the development and the shape and capacity of the completed reservoir; an additional period of time to complete the development; the provision of an additional car parking area; a new workshop building; and the installation and use of a bagging facility	Resolved to be Granted subject to conditions & legal agreement	20/12/2023	There is physical overlap between the Order Limits for the Project and the proposed development's north boundary where a pylon is proposed. The application is for continuation of the current mineral extraction activities and the construction of a public water storage reservoir. National Grid has sought to minimise the potential impact on the mineral site and future restoration proposals through the positioning and siting of the overhead line and pylon TB20. Due to this interaction National Grid are in discussion with the developer and are preparing a SoCG which will be finalised at a later date.	C/9
23/01033/DETAIL	SRC Group and Hills Building Group	Crown Quarry Old Ipswich Road Ardleigh Essex CO7 7QR	Reserved Matters Application for Access, Appearance, Landscaping, Layout and Scale following Outline Planning Permission 19/01939/OUT (for a business park development comprising of B1, B2 and B8 storage, the construction of a new internal access from the existing access road, relocation of the existing temporary quarry office to a new building together with associated car / cycle parking).	Approved	31/10/2023	A large portion of the area within the proposed development's red line boundary, which proposes a business park, is located within the Order Limits for the Project. However, the interaction with the overhead line will be limited to the northeast corner of the site. There is no permanent development associated with the Project proposed within this site. The development discharged all pre-commencement conditions in December 2024 and therefore it is presumed development will commence during 2025. National Grid has actively engaged with the promoters of developments to the north and south of Wick Lane near the junction with the old Ipswich Road (around TB20). Through those discussions modifications have been agreed to the arrangements for all developments such that co-existence is possible.	C/10
20/01783/FUL	RVL Properties Ltd	Systematic Business Park Old Ipswich Road Ardleigh Essex CO7 7QL	Construction of up to 30 'start-up' business units under flexible E(g), B2 and B8 use and associated development.	Approved	10/12/2021	The proposed development slightly overlaps with the Order Limits near the development's south boundary. The development has now been constructed and appears to be operational. Given the marginal interaction the proposed development would not impact on National Grid's ability to construct or operate the Project or impact on the existing facility's ability to operate.	C/11
Section D – Colchester City Council							
212006	Mr R Strathern	Fordham Place, Bergholt Road, Fordham Colchester CO6 3NU	Excavation of reservoir for agricultural irrigation purposes with access track	Prior Approval Required (Approved)	13/08/21	This is a consented application for development consent which overlaps with the Order Limits for the Project, particularly in relation to part of an access track around the irrigation reservoir. The consent appears to have been implemented. As there is no physical overlap of built development or uses, the proposed development would not impact on National Grid's ability to construct or operate the Project nor constrain the use of the reservoir.	D/1

Local Authority Reference	Applicant	Site Location	Development Description	Status	Decision or submitted	Commentary	Reference
240279	Essex and Suffolk River Trust	Last East of, Fiddlers Hill, Fordham Heath Colchester	The restoration of wetland features and habitats at Fiddler's Hill Meadow through naturalising the river with its floodplain by lowering the river bank at two locations (maximum 60cm deep) and the excavation of very shallow scrapes (maximum 30 cm deep) and ponds (maximum 90 cm deep). Extension of fen habitat (maximum 30m deep), tree planting and the installation of interpretation boards. Re-use of excavated soil on site outside of the flood zone to extend scrub, hedgerow and woodland habitats.	Approved	06/01/2025	The proposed development site is part of the wider Woodland Trust Fordham Hall Estate. The proposed overhead line and a new pylon will be sited within the development's red line boundary. In addition a temporary construction access road is proposed which will route through the site.	D/2
Section E – Braintree District Council							
24/02658/FUL	PS Renewables	Proposed Solar Farm Land East Of Littlebury Coggeshall Road Feering Essex	Installation of a solar farm with associated works.	Approved	03/04/2025	There are two areas where the Project would overlap with this consented solar farm. To the east, National Grid is proposing to underground a section of UKPN's PZD 33kV overhead line which includes a section which over sails the solar farm site. It is noted from the applicants Landscape Mitigation Plan (drawing 0877-SHRSK-XX-XX-DR-L-1000 Rev 06) that no solar panels are proposed in this part of the site. On the western boundary of the consented solar farm site, the Project Order Limits interact with the solar farm access road and temporary construction compound. In this area, National Grid is proposing an overhead line crossing protection access road. it is not considered that the proposed development would impact on National Grid's ability to construct or operate the Project nor constrain the implementation of this planning consent.	E/1
21/03579/OUT	Parker Strategic Land Ltd	Land South West Of Coggeshall Road Kelvedon Essex	Outline planning application (with all matters reserved apart from access) for up to 600 dwellings, including up to 75 units sheltered housing accommodation, the proposed provision of a primary school, and provision of public open space including associated landscape planting with associated infrastructure, drainage measures, earthworks and provision of new footpath/cycleway route towards Coggeshall.	Pending	07/12/2021	There is physical overlap of the proposed development within the Order Limits where green infrastructure (including drainage, pedestrian/cycling access) is proposed by Parker Strategic Land Ltd along Coggeshall Road (as illustrated on drawing RG-M-11 Rev G). The Project would over sail the proposed green infrastructure. A temporary access from Coggeshall Road is also proposed. The proposed development would not impact on National Grid's ability to construct or operate the Project. Aside from the potential for a temporary interface, it is not considered that the Project would constrain the implementation of this development if consented.	E/2
ESS/12/20/BTE	Blackwater Aggregates	Bradwell Quarry, Church Road, Bradwell, CM77 8EP, and land south of Cuthedge Lane	Extraction of 6.5 million tonnes of sand and gravel (from Site A7 as identified in the Essex Minerals Local Plan 2014) including the retention of the existing access onto the A120, the processing plant (including sand and gravel washing plant), office and weighbridge, ready mix concrete plant, bagging unit, DSM plant, water and silt management systems. In addition, extension of the internal haul road into Site A7 and access for private and support vehicles to the Site A7 contractors' compound via Woodhouse Lane and Cuthedge Lane. Restoration of Site A7 to agriculture and biodiversity (species rich grassland and wetland).	Approved	22/06/2022	A single pylon (TB84) and a small portion of overhead line pursuant to the Order Limits of the Project is proposed within the extended portion of the Bradwell Quarry site. The pylon would not be located within the quarry's limits of extraction. Therefore, the Project will not sterilise any minerals proposed to be quarried, and quarrying will not impinge upon the Project. Due to this interaction National Grid are in discussion with the developer and are preparing a SoCG which will be finalised at a later date.	E/3

Local Authority Reference	Applicant	Site Location	Development Description	Status	Decision or submitted	Commentary	Reference
21/03735/FUL	Novus Renewable Services Limited	Land West Of Park Road Rivenhall Essex	Installation of solar farm and associated development.	Approved	13/07/2023	The solar farm was consented on appeal. The Project over sails the solar farm site with a single pylon (TB94) located in the application site. National Grid has sought to minimise direct impacts by positioning the pylon in proximity to a proposed access road and transformer location. National Grid has consider that the proposed development would not impact on National Grid's ability to construct or operate the Project.	E/4
22/00860/FUL	Mr Stuart Philpot	Cressing Farm Witham Road Cressing Essex CM77 8PD	Development of equestrian facility including 28 stables, office/store, hay store, manege, horsewalker and associated parking and change of use of land to grazing paddocks.	Approved	22/08/2022	The Order Limits for the Project overlaps the red line boundary of the proposed development near the proposal's south boundary. A pylon is proposed within the area of overlap. It is noted that a recent application has been made for a solar development on the site and two adjoining parcels of land therefore it is thought that the permission relating to the equestrian facility will not be implemented and will lapse in August 2025. In the event the application is implemented before it lapses National Grid will seek to enter into an agreement with the landowner to separate the proposed pylon construction compound from the equestrian field to ensure no interaction during construction.	E/5
24/02673/FUL	Eden CF Solar Ltd.	Land South West Of Cressing Temple Witham Road Cressing Essex	Solar Farm with up to 13.8MWac of export capacity, comprising the installation of solar photovoltaic panels and associated infrastructure including customer substation, DNO substation, inverter and transformer substations, customer cabin, spare parts container, storage containers, maintenance tracks, fencing, security cameras, landscape planting, swales and associated works including grid connection.	Approved	07/01/25	The Applicant has an interest in land which is within the Order Limits for the Project where a pylon and the overhead line are proposed. The proposed solar farm would not extend to the whole red line boundary. The land in common between the two projects will remain as existing woodland and grassland free from any built development (as indicated for by the Landscape Plan accompanying the application (102F)). The proposed development would not impact on National Grid's ability to construct or operate the project or constrain the implementation of the solar farm project should planning consented be awarded.	E/6
19/02226/FUL	Mr S Philpot	Cressing Farm Witham Road Cressing Essex CM77 8PD	Retrospective application for the Change of Use of land from redundant gravel pit to Equestrian Facility together with the retention of 2 stable buildings, storage containers, manege; with associated parking and grazing.	Approved	10/07/2020	The Order Limits for the Project overlaps marginally with the development for the change of use of land to an equestrian facility where the project proposes to use the same permanent access as the equestrian facility. It is not considered that the Project would materially impact on the function or use of the site.	E/7
24/02680/FUL	Mr S Philpot	Cressing Farm Witham Road Cressing Essex CM77 8PD	Change of use of agricultural land to horse grazing.	Approved	10/04/2025	The Order Limits for the Project overlaps marginally with the development for the change of use of land to horse grazing where the project proposes to use the same permanent access as the horse grazing field. It is not considered that the Project would materially impact on the function or use of the site.	E/8
Section F – Chelmsford City Council							
EN010118	Longfield Solar Energy Farm Limited	The land within the Order Limits is located to the south of the settlement of Fuller Street, north east of Chelmsford, north of Boreham and Hatfield Peverel and west of Gamble's Green and Terling.	Construction, operation, maintenance and decommissioning of a solar photovoltaic (PV) electricity generating facility with a total generating capacity up to 50MW (AC), an energy storage facility and an export/import connection to the National Grid.	Approved	26/06/2023	The Longfield Solar Farm covers an area of approximately 453 hectares. There is an overlap between the order limits of the Longfield Solar Farm and the Project at the northern extent of the solar farm site. National Grid is proposing to modify an existing UKPN PSB overhead line which will necessitate the creation of an access from Terling Hall Road, through Leylands Farm around the eastern edge of the site into an area identified in the Development Consent Order as an area of habitat management. It is not considered that the Project would materially impact on the function or use of the site.	F/1

Local Authority Reference	Applicant	Site Location	Development Description	Status	Decision or submitted	Commentary	Reference
CC/CHL/85/21 (and 21/02050/CM)	Essex County Council	Land between Beaulieu Park (north of Generals Lane), Boreham Parish, and Deres Bridge Roundabout on A131, Great & Little Leighs Parish, to the northeast of Chelmsford.	Chelmsford Northeast Bypass (CNEB): A single carriageway road between Roundabout 4 of the Beaulieu Park Radial Distributor Road (RDR1) and a new roundabout on the A131 at Chatham Green plus dualling of the existing A131 between Chatham Green and Deres Bridge roundabout. With one intermediate roundabout, 3 road overbridges and 1 pedestrian/cycle/horse overbridge. Together with other associated works and landscaping.	Approved	04/04/2022	The proposed development is for a new bypass which intersects the Order Limits of the Project between two pylons north of Stonage Wood. As there will be no physical interactions the overlap between the two projects does not impact on National Grid's ability to construct or operate the Project, or impact on the proposed development's use or operation.	F/2
ESS/70/17/CHL & 18/00073/CM	Tarmac Ltd	Roxwell Quarry, Roxwell Road, Roxwell, Chelmsford, Essex, CM1 4LT	For continuation of development permitted by planning permission ESS/05/15/CHL without compliance with conditions 2, 3, 15 to allow the restoration of Area Z, the Former Plant Site and Brittons Hall Farm Landfill Site to be completed by 31 December 2019. ESS/05/15/CHL was for the following development the modification to the restoration profile and the restoration scheme for the non-hazardous landfill arising from overtipping of approx. 85,250 cubic metres (part retrospective). Enhanced restoration of a former landfilling area by the importation of inert materials and biosolids to enable agricultural after-use and restoration scheme for the former mineral processing plant site to woodland, nature conservation and agricultural after-uses (including retention of hardstanding and workshop). All to be completed by 31 December 2015	Approved	18/04/2018	The Order Limits of the Project overlap land within the proposed development's red line boundary. The Applicants land affected by the over sail of the overhead line is proposed to be restored to grassland and woodland. The plans accompanying the application do not show any built development within this portion of the site that could be impacted by the over sail. As there will be no physical interactions the overlap between the two projects does not impact on National Grid's ability to construct or operate the Project, or impact on the proposed development's use or operation.	F/3
18/00254/FUL	Writtle University College	Land South West Of Spinney House Cow Watering Lane Writtle Chelmsford Essex	Change of use of land to equestrian grazing and construction of permeable all-weather access tracks	Approved	05/04/2018	The proposed development relates to two parcels of land, only one of the parcels of land located either side of Writtle College Cow Watering Lane Campus. Only the western parcel identified in the planning permission would be impacted by the Project. Within this parcel of land there will be overlap between the proposed development and the proposed overhead line and a pylon. The land is proposed to be used for equestrian grazing therefore there will be no physical overlap between built form that could impact National Grid's ability to construct or operate the Project.	F/4
Section G – Brentwood Borough Council and Basildon Borough Council							
23/00453/FUL, 23/00454/GUL, 23/00455/FUL and 23/00456/FUL (Brentwood)	Mr and Mrs Sharp	Land At Margaretting Hall Estate Church Lane Ingatestone Essex	Construction of a Hay Barn, Construction of a detached cow barn (1), Construction of a detached cow barn (2), and Construction of a detached cow barn (3).	Approved	All applications approved 05/06/2023	The red line boundary for the four consented applications just overlaps with the proposed Order Limits where the Project over sails the access road to the barns. Part of the access road will be used temporarily as a construction access. However, the built development falls outside the proposed Order Limits. As there is no physical overlap of built development, proposed development would not impact on National Grid's ability to construct or operate the Project.	G/1
24/01263/FUL (Brentwood) and 24/01262/FULL (Basildon)	Conrad Energy	Land Adjacent To Billericay Power Generation Plant Old Church Lane Mountnessing Essex CM13 1UP	Construction and operation of a Solar PV Farm together with ancillary infrastructure and equipment, landscaping and access.	Approved	30/04/2025 (Brentwood) 01/05/2025 (Basildon)	The Applicant for the solar development has an interest in two parcels of land to the east and south of Clapgate Wood which overlap with the Order Limits for the Project. The solar farm proposal red line boundary directly interacts with the location of two pylons (TB203 and TB204) and permeant	G/2

Local Authority Reference	Applicant	Site Location	Development Description	Status	Decision or submitted	Commentary	Reference
						access routes. Within the parcel of land to the south of Clapgate Wood, National Grid is proposing to remove an existing 11kV overhead line and place it underground. National Grid's proposed pylons would be sited directly within the land proposed for solar arrays. The supporting submission documents indicate that the construction phase would last 6-9 months therefore is unlikely to be any overlap in the construction programmes for the two projects. National Grid have amended the overhead line alignment in this location to avoid direct interaction with the solar arrays. As there is no physical overlap of built development, proposed development would not impact on National Grid's ability to construct or operate the Project.	
24/00373/OUT	Mr David Parish	Oakleigh Farm Rayleigh Road Hutton Essex CM13 1SE	Outline application for the demolition of existing industrial units, livery, and stable and the conversion of existing commercial and residential building to two residential dwellings alongside construction of five new dwellings to create 7 x 4 bed dwellings (layout and scale for determination with access, landscaping and appearance reserved).	Approved	20/09/2024	Outline planning permission was secured for the development of the farm buildings into seven dwellings. National Grid has included a permanent overhead line access through this site. The consented planning application broadly maintains the same built development plots as the existing farm compound. As there is no physical overlap of built development, proposed development would not impact on National Grid's ability to construct or operate the Project.	G/3
21/00834/FUL (Brentwood) 21/00758/FULL (Basildon)	Low Carbon Ltd (Crouch Solar Farm)	Park Farm Dunton Road Herongate Brentwood Essex CM13 3SG 21/	Construction and operation of a solar farm together with all associated works, equipment and necessary infrastructure	Approved	23/12/2021 (Brentwood) 11/04/2024 (Basildon) on appeal	The approved solar development will be delivered across 5 zones. The submission documents show that Development Zones 2, 3 and 5 of the proposal will directly interact with the Order Limits in particular the overhead line, a pylon (TB224), and a permanent access route. Part of the solar development (Zone 1 and 2) has already been constructed and appears to be operational. National Grid are engaging with Low Carbon Ltd to confirm whether the remaining zones subject to the planning permission will be developed or not.	G/4
21/01525/OUT (Brentwood)	CEG Land Promotions Ltd and Mr P S Dunne and Mrs E A Dunne	Entire Land East Of A128 South Of A127 Tilbury Road West Horndon Essex	Second Additional submission following EIA Regulation 25 information request: amended highway drawings: (Shortened description). Please refer to the application form for full description. Outline application with all matters reserved apart from Access, for: the construction of a Garden Community which includes up to 3,700 dwellings, 3 care homes, 5 gypsy/travellers pitches, secondary and primary schools, children's nurseries and creches. Employment hub, village centre and neighbourhood hubs, mobility hub, community sports hub, football, hub, cricket ground, green and blue infrastructure, sustainable drainage system, accesses to A128 Tilbury Road, footpath and cycle link to the A127 and other associated infrastructure and works including noise barrier, demolition of structures and undergrounding of the overhead lines.	Approved	13/09/2021	The Order Limits interact with the southeast portion of the proposals red line boundary. Within this part of the Order Limits the works proposed include dismantling of UKPN overhead line and erecting new overhead line infrastructure. The application documentation (Parameter Plan) shows the southeast portion of the site earmarked for future use as 'Multifunctional Open Space' with development parcels however the exact location of residential properties is not shown. An opportunity has however been identified that reduces the impacts to the garden village proposal by siting any new overhead line infrastructure within a corridor formed by the Building Proximity Distance (BPD), which provides a safety zone around a proposed gas pipeline, to be kept free from any occupied buildings within an 80m distance from the pipeline (the BPD has been confirmed with Gas Transmission and Distribution who are the owner and operator of this pipeline). National Grid considers that the routeing proposals through the site will minimise any potential adverse effects on the Dunton Hills Garden Village. National Grid and CEG Land Promotions are continuing to engage and are preparing a SoCG which will be finalised at a later date.	G/5
24/00729/FULL	Crest Nicholson Operations Ltd	Land To The East Of Lower Dunton Road Dunton Basildon Essex	Redevelopment of the site to provide 146 residential dwellings (Class C3); provision of strategic landscape; provision of new	Awaiting Decision	28/06/24	There is interaction between the Order Limits for the Project and the residential development proposed as part of this application near the UKPN overhead line and two UKPN	G/6

Local Authority Reference	Applicant	Site Location	Development Description	Status	Decision or submitted	Commentary	Reference
			vehicular and pedestrian access routes and associated infrastructure.			pylons, both of which are to be dismantled as part of the Project. The UKPN overhead line currently over sails the north portion of the residential development where an attenuation basin and open space is proposed. Once dismantled there will be no interaction. The works associated with dismantling the overhead line and pylon removal will not interact with any residential properties therefore can be undertaken without impacting on the amenity of these properties.	
Section H – Thurrock Council							
24/01069/FUL	Flextricity	Flextricity Lime Kilns Energy Centre Lower Dunton Road Bulphan Essex	Installation of a Battery Energy Storage System (BESS), diesel generator with associated fuel tank, hardstanding area and cable corridor route	Approved	19/12/2024	The proposed development is for the installation of a BESS and other elements to the side of an existing electrical substation located to the east of the proposed developments red line boundary. There is overlap with the Project's proposed cable route and a UKPN pylon to be dismantled as part of Project and associated mitigation undergrounding. UKPN will be managing interface agreements with the applicant relating to the dismantling of the pylon. With regards to the interaction with the Project's cable National Grid are in discussion with the developer and are preparing a SoCG which will be finalised at a later date.	H/1
20/01491/FUL and 23/01498/CV	Cedar Tech Developments Ltd	Sub Station Lower Dunton Road Bulphan Essex	Battery energy storage facility with associated access road, security fence and infrastructure	Approved	05/02/2021	The red line boundary for the battery energy storage facility overlaps with the proposed Order Limits. Within the consented development site, National Grid is proposing to route a UKPN cable as part of a mitigation proposals to remove a section of the existing PAB line. The underground cable is routed to the west of the site and will be remote from the battery energy storage infrastructure. In addition to the permanent works, UKPN have identified a proposed temporary construction compound within additional land falling within the Applicant's boundary but not within the red line boundary for the proposed development. The temporary construction compound would be accessed from an existing access off Lower Dunton Road, separate to the one for the proposed development. There would not therefore be any interaction between any permanent infrastructure proposed as part of the Project and the approved battery storage development. Since the original application in 2021 a subsequent application has been approved in March 2024 to vary several conditions attached to the decision (no 2 (approved plans), 4 (external materials), 5 (CEMP), 6 (soft landscaping scheme), 7 (arboricultural method statement), 8 (ecology report) and 10 (noise). The interaction between the Project and with the 2023 proposal is the same as that with the 2021 proposal. As there is no physical interaction between any built development therefore the project can be undertaken without impacting on National Grid's ability to construct or operate the Project, or on the ability of the battery storage development to operate.	H/2
13/00543/FUL and 18/00269/NMA	MS Power Projects Ltd	Fairwind Farm Lower Dunton Road Bulphan Essex	30 year operation (and subsequent decommissioning) of a series of ground mounted solar photovoltaic (PV) arrays together with control/transformation enclosures, underground cabling, security fencing, CCTV poles, cameras and other associated development (e.g. additional hedgerow planting) for the purpose of	Approved	25/11/2013	This is an existing operation solar farm development within the order limits. The Project will over sail this site, pylons will be position to the north and south. As there is no physical overlap of built development, proposed development would not impact on National Grid's ability to construct or operate the Project. National Grid has developed an interface agreement with MS Power Projects Ltd. See Letter –	H/3

Local Authority Reference	Applicant	Site Location	Development Description	Status	Decision or submitted	Commentary	Reference
			producing up to 10 megawatt peak of renewable electricity.			Fairwinds Solar (Lightsource BP/Vantage) (document reference 5.9.31).	
22/01636/FUL	A.Russell (Farms) Ltd	Lime Kiln Farm Brentwood Road Bulphan Essex	Agricultural storage barn	Approved	06/12/22	The Order Limits for the Project interact with the red line boundary for a new agricultural storage barn. The approved barn has been constructed. The interaction is with agricultural land associated with the barn and not the barn itself therefore there is no physical interaction with the barn and the Order Limits.	H/4
22/00948/FUL	City of London Corporation	Pipeline Borough Boundary To Horndon On The HIll Dennis Road South Ockendon Essex	Decommissioning of underground gas pipeline with filling and associated temporary construction compounds	Approved	04/11/2022	The Order Limits for the Project overlap the gas pipeline proposed for decommissioning. The interaction would be limited to overlap with a proposed construction access which will cross the gas pipeline works. As there is no physical interaction between any built development therefore the project can be undertaken without impacting on National Grid's ability to construct or operate the Project.	H/5
10/50235/TTGOUT	Barratt Homes	Land West Of Butts Lane Stanford Le Hope Essex	Redevelopment of 15ha area comprising part of existing golf course and agricultural land for up to 350 residential dwellings together with associated infrastructure including: new vehicular accesses onto Butts Lane, on-site vehicular, cycle and footway network, amenity space, landscaping, a community building (Use Class D2- Assembly and Leisure) and Doctors Surgery (Use Class D1 - Non-Residential Institution). Landscaping, including limited re-profiling of land on parts of the 15ha development site, 51.5ha of strategic open space, including formal and informal recreation uses. Change of use of existing golf clubhouse as cafe and/or information centre in connection with the strategic open space. Outline application with all matters reserved for the means of access to the site.	Appeal allowed	12/03/2012	The proposed development (and the subsequent reserved matters permission reference: 13/00446/REM) red line boundary overlaps with two pylons within the Order Limits of the Project. The residential development has been constructed and is occupied. The proposed pylons would be sited within a portion of the development reserved for strategic open space comprising of grassed land. As there is no physical interaction between any built development therefore the proposal can be undertaken without impacting on National Grid's ability to construct or operate the Project.	H/6
20/01297/CV	Clearserve	Clearserve Ltd Rainbow Shaw Quarry Hoford Road West Tilbury Essex SS17 0PJ	Application for the variation of condition no 1 of application 19/01276/CV to continue the importation of material for recycling or infilling void spaces until 31 March 2025, and for the restoration, landscaping and after use of the site to be completed in accordance with agreed details on or before 31 March 2026	Approved	23/12/2020	The application seeks to extend the operational date of the recycling facility until March 2025 after which the site would be restored to greenfield with landscaping on or before 31st March 2026. Discussions are ongoing around moving equipment within the Order Limits to a vacant part of the quarry site to ensure there is no physical interaction between the project and the quarry operations and future proposals.	H/7
Lower Thames Crossing TR010032	National Highways	Lower Thames Crossing	New road crossing connecting Kent, Thurrock and Essex. Approximately 14.5 miles (23km) in length, it will connect to the existing road network from the A2/M2 to the M25 with two tunnels (one southbound and one northbound) running beneath the River Thames.	Approved	25/03/2025	The Order Limits interact with the red line boundary for Lower Thames Crossing (from north of Orsett Heath Academy and east of Tilbury Substation). The supporting documentation states that construction works would start in early 2025 (likely to be pushed back to late 2025 following delay in planning decision) with construction taking up to 6 years taking the construction end date to 2031. The construction program for Lower Thames Crossing would therefore overlap with that of Norwich to Tilbury resulting in cumulative impacts. Due to the nature and scale of the proposed development and the prospect of significant cumulative effects (see ES Chapter 17: Cumulative Effects (document reference 6.17) (Revision B) and Appendix A3 Inter-Project Cumulative Effects of ES Chapter 17) arising from the two projects	H/8

Local Authority Reference	Applicant	Site Location	Development Description	Status	Decision or submitted	Commentary	Reference
						having a similar construction timeline, a SoCG with this applicant has been prepared. See the SoCG prepared with National Highways (document reference 5.9.20) which considers the Project's relationship with this DCO.	
EN010092-002767	Thurrock Power Ltd	Thurrock Flexible Generation Plant North of the existing Tilbury National Grid substation off Station Road, Thurrock, RM18 8UL	Construction and operation of Gas Reciprocating engines with up to 600 MW electrical capacity and Battery Storage with up to 150 MW electrical capacity	Consent granted	06/02/2022	The interaction between the Order Limits and the DCO is in an area north of Tilbury substation where the underground cables associated with the Project interact with the proposed generation plant. There will also be interaction between the Project's underground cables and the area designated for habitat creation and enhancement associated with the DCO. The development has been constructed. The accompanying documents suggest that the development would be operational by Q3 2023 therefore is also likely already operational. The interaction between the two projects will be limited to interaction between the two projects' access tracks which can be managed through National Grid's standard crossing agreement The interaction between the two projects will not adversely affect the implementation of the respective proposals.	H/9
19/01709/FUL	Ingrebourne Valley Ltd	Ingrebourne Valley Ltd Orsett Quarry Buckingham Hill Road Linford Essex SS17 0PP	Mineral extraction at Walton Hall Farm for processing on land at Orsett Quarry, erecIngrtion of a processing plant and ancillary activities at Orsett Quarry, importation and treatment of reclamation material with progressive restoration to farmland with landscape planting at Walton Hall Farm followed by mineral extraction at Orsett Quarry, reclamation and infilling at Orsett Quarry followed by landscape restoration works at Orsett Quarry. [Revised plans and additional documents] [Amended description]	Awaiting decision	21/11/2019	The Project proposes to use Orsett Quarry's existing access as a temporary construction access. There will be slight interaction between the temporary construction access and the proposed development's northwest boundary. The plans accompanying the application for the proposed development do not show any new permanent development, other than the site office and car parking already present, within this area. The Applicant intends to use this portion of the site for a stocking area for Phase 1 – 7 which will cover the 15 years the mineral site will operate for. As such, no built infrastructure is proposed pursuant to the Project in this location. Therefore, the proposed development would not impact on National Grid's ability to construct or operate the Project or impact on the existing facility's ability to operate.	H/10
23/00897/SCO	Clearbrook Group Plc	Land Adjacent Sandown Road Collingwood Farm Quarry And East Quarry Stanford Road Orsett Essex	Request for a Scoping Opinion pursuant to Part 4(15) of the Town and Country Planning (Environmental Impact Assessment) Regulations 2017: Proposed residential-led mixed-use development comprising of approximately 775 residential dwellings (Class C3), with a new village centre and public square; land for a junior school; sports pitches; external amenity spaces; eco-parkland for informal recreation and nature conservation; new pedestrian routes and cycleway connections; landscaping; and associated works.	EIA required	12/07/2023	The request for a scoping opinion relates to a new residential development being brought forward on land east of Southfields on two parcels of land. The southern portion of the red line boundary relating to the scoping opinion request overlaps with the Order Limits of the Project where three pylons are proposed. There is also overlap with a UKPN asset to be dismantled as part of the Project. The proposed development's documentation shows the proposed site masterplan which earmarks development parcels, a Multi Use Games Area, a community building and areas of landscaping to be sited within the area of overlap. National Grid are in discussion with the applicant around the overhead line alignment in this portion of the route to minimise interaction with the project.	H/11
25/00333/SCO	Bloor Homes	Land East Of Chadwell St Mary Brentwood Road Chadwell St Mary Essex	Request for an EIA Scoping Opinion for residential development of up to 1,500 dwellings (Use Class C3), a primary school (Use Class F1), retail floor space and healthcare floor space as part of a mixed use neighbourhood centre (Use Classes E, F1, F2, C3, C2, Sui Generis hot food takeaway, drinking establishment), site accesses and highway works (Scenario A without Lower Thames	Awaiting decision	24/03/2025	The proposal is currently at EIA scoping stage. The Scoping Report submitted to Thurrock Council sought to support the preparation of the outline planning application with all matters for future determination, save for three means of vehicular access (one from Linford Road, one from Brentwood Road and one from Holford Road). The site subject to this EIA Screening was also included in a Thurrock Council's Local Plan Review Regulation 18 consultation between December 2023 and February 2024.	H/12

Local Authority Reference	Applicant	Site Location	Development Description	Status	Decision or submitted	Commentary	Reference
			Crossing and Scenario B with Lower Thames Crossing), associated infrastructure, ancillary works, green and blue infrastructure including sustainable drainage systems, ecological habitat areas, childrens play areas, public open space, playing fields and Suitable Alternative Natural Greenspace			National Grid is currently reviewing the interaction between the Bloor Homes proposal and the Order Limits of the Project. National Grid have commenced discussions with Bloor Homes with a view to preparing a SoCG. See SoCG.	
19/01662/FUL	Iceni Projects Ltd	Langdon Hills Golf And Country Club Lower Dunton Road Bulphan Essex RM14 3TY	Hybrid application for the redevelopment of Langdon Hills Golf and Country Club. Detailed approval sought for: a redesigned club house (with health spa, reception area; restaurant area; bar areas; function areas (for 250 guests); professional golf shop; gym; swimming pool; changing rooms; office space; kitchens and food preparation areas and other necessary ancillary areas). The creation of a new health led community to include, 84 no. homes for independent living - extra care (over 55's use class C2); 36 no. apartments for independent living extra care (Use Class C2); 42 no. close care apartments and a 64-bed residential care home with dementia facilities (Use Class C2); 4 no. key worker apartments (Use Class C3) encompassing a care workers administration health hub. Demolition of existing buildings (clubhouse, hotel and green keepers building) and supporting infrastructure to include: a reconfigured main car park; a new car park for the golf academy; widening of the existing vehicular access onto the Lower Dunton Road; landscaping; new bowling green; new walkways; erection of a security gatehouse and security surveillance. Outline approval sought for: 12 no. apartments for independent living extra care (Use Class C2); a new golf academy (with driving range; tuition areas and function space for 150 guests); a new quick play golf course and a new redesigned green keepers building.	Approved	21/09/2022	The Project interacts with the approved residential development at Langdon Hills Golf and Country Club. The residential development seeks to deliver improvements to the existing golf club facilities whilst also redeveloping the southeast portion of the site to deliver residential development with associated facilities. The interaction is confined to only the northwest corner of the development's red line boundary which is partially oversailed by the overhead line alignment between pylon TB237 and TB238. The plans accompanying the planning application for the development do not show any new development in this portion of the site, it will remain operating as the golf course and driving range. National Grid have made contact with the applicant to discuss any queries the applicant may have around the interaction but to date the applicant has not expressed any concerns. National Grid will continue to review the interaction between the Rishco Leisure development and the Order Limits.	H/13

Appendix B. Open Space Assessment

nationalgrid

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B.1 Open Space Assessment Table

Table B1: Table containing an assessment of the impact of the Project on Open Space as defined in the footnote to paragraph 5.11.1 of NPS EN-1 (DESNZ, 2024a).

This assessment considers whether the use or function of land defined as open space will be directly or indirectly impacted as a result of the Project. The Table identifies whether an open space use or function is lost due to direct impacts of the Project. Where direct impacts are identified further assessments are either provided within Table B1, Appendix 0 in the case of OS/46 and OS/47, and Appendix B.3 in the case of OS/105. It considers the impact on sites within and adjacent to the Order Limits that are considered to fall within the definition on a precautionary interpretation.

Reference numbers are allocated to each area of open space, and the sites can be viewed in Figure 1 of the Planning Statement.

Table B1 Open Space Assessment

Site	Distance	Purpose and Use of Space	Assessment	Loss	Reference
Strip of green infrastructure to south of consented Norwich Main Extension.	Within	This is a strip of green infrastructure approximately 1km long which is sited to the immediate south of the Norwich Main Substation and consented extension. It comprises of an existing tree belt and vegetation. The land is publicly accessible and is used for travelling along PRoWs (PRoW) Swardeston BR12 and Stoke Holy Cross BR3 which are routed through the green infrastructure. Therefore, there is an open space use along the route of the PRoW.	A narrow section of the existing green infrastructure will be oversailed by conductors connecting into the Norwich Main Substation extension from pylon RG1. The existing PRoW will be protected, and views of the Project will be screened where possible. No permanent development will take place on the parcel of green infrastructure. It will be necessary to remove or manage existing trees beneath the overhead line on this land. National Grid has committed to a 3:1 replacement for individual trees and trees within groups. Where possible, trees will be replanted in the same, or in close proximity to, the location from which they were removed. If constraints preclude tree planting in the same or in close proximity to where they were removed, tree planting will be undertaken as close as possible to the original location. If it is not possible to provide tree planting within the Order Limits, then offsite provision as close to the Order Limits as possible will be provided. This strip of green infrastructure is located adjacent to the Norwich Main Substation where land has been identified as an Environmental Area within the Outline Landscape and Ecological Mitigation Plan (document reference 7.4), where landscape and visual mitigation will be provided, as well as offering ecological value. Details of this mitigation are set out in Appendix D of the LEMP. In terms of permanent impact, this land will only be oversailed and there will be no direct impact on the use of the land for travelling along as a public footpath. As a result, the functionality and connectivity of the green infrastructure is maintained. In view of this, consideration of whether this land is surplus to requirements is not engaged. In terms of permanent impact on the use of land as providing amenity value to the PRoW, if and in so far as the Project has an indirect effect on the use of the open space then such an impact is significantly outweighed by the benefits of the Project (including need), and having regard to the mitigation the Project has offered in respect of the indirect effect on the open space.	No	OS/1
Green infrastructure, Hickling Lane	Within	This is an area of green infrastructure which comprises of a strip of mixed woodland planting to the north of Hickling Lane which is approximately 500m in length. The land itself is not identified as publicly accessible, however, a PRoW runs along the adjacent Hickling Lane and thus the green infrastructure provides potential visual amenity value when viewed from here. An existing 400 kV overhead line oversails this land.	A narrow section of the strip of green infrastructure will be oversailed by conductors between pylons RG5 and RG6. No permanent development will take place on the parcel of green infrastructure. A temporary haul road is also proposed on this parcel. The siting of these will entail hedgerow and vegetation removal. Following completion of works, hedgerows will be reinstated at the earliest appropriate opportunity within the correct planting season. Given that these works will be temporary and the land will be restored there will be no permanent impact on use and	No	OS/2

Site	Distance	Purpose and Use of Space	Assessment	Loss	Reference
			functionality as a result of the temporary works. Whilst this land is not identified as publicly accessible it has been included in this assessment on a precautionary basis as it falls within the definition of green and blue infrastructure and may have some public amenity value. However, there will be no direct effect from the Project on the use or function of this area of green infrastructure. In terms of permanent impact on the use of land as providing amenity value to the PRoW, if and in so far as the Project has an indirect effect on the use of the open space, such an impact is significantly outweighed by the benefits of the Project (including need), and having regard to the mitigation the Project has offered in respect of the indirect effect on the open space. It will be necessary to remove or manage existing trees beneath the overhead line on this land. In locations where replacement standard tree planting is unsuitable due to the new overhead lines and underground cables, low height and shallow rooted scrub species will be included as alternative planting. Species mixes will allow for low growing and shallow rooted tree/scrub species as an alternative in these locations. This green infrastructure is located near to the Norwich Main Substation where land has been identified as an Environmental Area within the Outline Landscape and Ecological Mitigation Plan (document reference 7.4), where landscape and visual mitigation will be provided, as well as offering ecological value. Details of this mitigation are set out in Appendix D of the LEMP.		
The Common, Swainsthorpe (also known as Church Road)	Within	The Common comprises of two small parcels of Common land located to the west of Swainsthorpe. Both of these areas of Common are limited to roadside verge, with the westernmost being a thin hedged strip and the easternmost having a cluster of trees sited on it. Neither parcel lends itself to being useable recreationally. The westernmost parcel is currently oversailed by an existing 400kV overhead line.	The westernmost parcel of The Common is sited immediately to the north of pylon RG8 and a narrow section of this will be oversailed by conductors between pylons RG7 and RG8. This parcel is also oversailed by an existing 400 kV overhead line. No permanent development will take place on this land. Permanent works are proposed within the highway (Church Road) to underground an existing UKPN 11kV overhead line. Bellmouth junctions serving a temporary haul road are also proposed on this land. The siting of these will entail hedgerow and vegetation removal. Following completion of works, hedgerows will be reinstated at the earliest appropriate opportunity within the correct planting season. Given that these works will be temporary in their impact above ground and the land will be restored there will be no permanent impact on use and functionality as a result of the temporary works. The second parcel of The Common is located approximately 35 metres to the east of pylon RG8. This land has a minor overlap with the Order Limits as a buffer has been created around an area where an existing third party 11kV overhead line will be undergrounded and connected to an existing cable. As this is third party infrastructure, the exact location of the existing cable isn't known accurately. Therefore, works may take place to underground the cable in the small area of overlap between the Order Limits and the westernmost parcel. Whilst there would be temporary impacts on the open space, these works would have no permanent impact above ground. The westernmost parcel of The Common, which will be oversailed, is not useable as open space as it is a thin strip of hedgerow and verge and has been identified on a precautionary basis only. Therefore, there will be no direct or indirect impact on the use or function of this area of open space. In view of this, consideration of whether this land is surplus to requirements is not engaged.	No	OS/3

Site	Distance	Purpose and Use of Space	Assessment	Loss	Reference
			It will be necessary to remove or manage existing trees beneath the overhead line and above the undergrounded cables on this land, albeit these works will be limited due to the presence of the existing overhead line. In locations where replacement standard tree planting is unsuitable due to the new overhead lines and underground cables, low height and shallow rooted scrub species will be included as alternative planting. Species mixes will allow for low growing and shallow rooted tree/scrub species as an alternative in these locations. This green infrastructure is located near to the Norwich Main Substation where land has been identified as an Environmental Area within the Outline Landscape and Ecological Mitigation Plan (“LEMP”) (document reference 7.4), where landscape and visual mitigation will be provided, as well as offering ecological value. Details of this mitigation are set out in Appendix D of the LEMP.		
Flordon Common	Adjacent	Flordon Common covers almost 14 hectares of land in the valley of a small tributary of the River Tas which rises in the Hethel / Wreningham area. About 10 hectares are classified as a Site of Special Scientific Interest (SSSI) because of the rare plants and creatures found in this fenland habitat. The remaining 4 hectares include the village recreation area near The Street and the area west of the road to Hapton, known as 'Further Common'. Flordon Common is a registered Common, part of which forms part of the Norfolk Valley Fens Special Area of Conservation.	Flordon Common is located to the south east of pylon RG24. The Order Limits abut the Common but there are no direct or indirect impacts on its use and function as Common land.	No	OS/4
Area of green and blue infrastructure (ordinary watercourse) to the north of Marsh Lane.	Within	Area of green and blue infrastructure (ordinary watercourse). The area of green and blue infrastructure crossed by the overhead line is not identified as being publicly accessible. Therefore, it is identified on a precautionary basis as the land falls within the definition of green infrastructure.	The existing green and blue infrastructure will be oversailed by conductors between pylons RG24 and RG25. The green and blue infrastructure is currently crossed by an 11kV overhead line. This existing overhead line is to be removed and undergrounded within the area of green infrastructure. No permanent above ground development will take place on this parcel. As stated, this area of green and blue infrastructure has been identified on a precautionary basis as it falls within the definition of green and blue infrastructure. However, the land is not publicly accessible and there will be no permanent development on this area. In view of this, there will be no direct or indirect effects from the Project on the use or function of this area of green and blue infrastructure and therefore consideration of whether this land is surplus to requirements is not engaged. It will be necessary to remove or manage existing trees beneath the overhead line and above the undergrounded cables on this land. In locations where replacement standard tree planting is unsuitable due to the new overhead lines and underground cables, low height and shallow rooted scrub species will be included as alternative planting. Species mixes will allow for low growing and shallow rooted tree/scrub species as an alternative in these locations. Following the completion of works, all temporarily impacted watercourses will be reinstated to their former state, or better. This will include the replacement of any substrate or vegetation that was temporarily removed.	No	OS/5
Former railway line to Ashwellthorpe Railway Station	Within	Former Wymondham to Forncett railway line, which was opened in 1881, closing to passengers in 1939 and to goods services in 1951. Sections of the route of the former railway line are identified by Natural England as green infrastructure. The former railway line is now dominated by lowland woodland. The land is not identified as being publicly accessible and is	The land will be oversailed by conductors between pylons RG26 and RG27. No permanent development will take place on the parcel of green infrastructure.	No	OS/6

Site	Distance	Purpose and Use of Space	Assessment	Loss	Reference
		only identified on a precautionary basis as it falls within the definition of green infrastructure.	A temporary haul road is also proposed through this land. The siting of this will entail woodland removal. Given that these works will be temporary in their impact and the land will be restored there will be no permanent impact on use and functionality as a result of the temporary works. The woodland removal will not be replaceable on site due to the conflict with overhead lines but will be addressed as set out below. This land has been identified on a precautionary basis as it falls within the definition of green infrastructure, however, it is not publicly accessible. In view of this, there will be no direct or indirect effect from the Project on use of this area of open space and consideration of whether this land is surplus to requirements is not engaged. It will be necessary to remove or manage existing trees beneath the overhead line on this area of woodland. National Grid has committed to a 3:1 replacement for individual trees and trees within groups. Where possible, trees will be replanted in the same, or in close proximity to, the location from which they were removed. If constraints preclude tree planting in the same or in close proximity to where they were removed, tree planting will be undertaken as close as possible to the original location. If it is not possible to provide tree planting within the Order Limits, then offsite provision as close to the Order Limits as possible will be provided.		
Lowland mixed deciduous woodland to west of Stickfer Lane	Within	This site comprises of a corridor of woodland planting identified by Natural England as green infrastructure. The green infrastructure itself is not identified as being publicly accessible and has thus been identified on a precautionary basis. However, PRoW Tacolneston 9 is routed along the north of the woodland, thus the green infrastructure provides potential visual amenity value when viewed from here.	The site will be oversailed by conductors between pylons RG33 and RG34. No permanent development will take place on the parcel of green infrastructure. A temporary haul road is also proposed through this land. The siting of this will entail woodland removal. Given that these works will be temporary and the land will be restored there will be no permanent impact on use and functionality as a result of the temporary works. The woodland removal will not be replaceable on site due to the conflict with overhead lines but will be addressed as set out below. This site has been identified on a precautionary basis as it falls within the definition of green and blue infrastructure, however, it is not publicly accessible. In view of this, there will be no direct effect from the Project on the use of this area as open space and therefore consideration of whether this land is surplus to requirements is not engaged. In terms of permanent impact on the use of land as providing amenity value to the PRoW, if and in so far as the Project has an indirect effect on the use of the open space then such an impact is significantly outweighed by the benefits of the Project (including need), and having regard to the mitigation the Project has offered in respect of the indirect effect on the open space. It will be necessary to remove or manage existing trees beneath the overhead line on this area of woodland. National Grid has committed to a 3:1 replacement for individual trees and trees within groups. Where possible, trees will be replanted in the same, or in close proximity to, the location from which they were removed. If constraints preclude tree planting in the same or in close proximity to where they were removed, tree planting will be undertaken as close as possible to the original location. If it is not possible to provide tree planting within the Order Limits, then offsite provision as close to the Order Limits as possible will be provided.	No	OS/7

Site	Distance	Purpose and Use of Space	Assessment	Loss	Reference
Brick Kiln Lane	Adjacent	Brick Kiln Lane, Bunwell Hill is designated as a County Wildlife Site within the South Norfolk Site Specific Allocations and Policies Document (2015). PRoW Bunwell 18 is sited between the Order Limits and Brick Kiln Lane, and thus the open space provides amenity value to the setting of the PRoW.	Pylon RG48 is located to the north west of Brick Kiln Lane County Wildlife Site. The Order Limits abut the site but there is no overlap and resultantly there is no impact on its use or function as open space.	No	OS/8
River Tas	Within	The River Tas is a river which flows northwards through South Norfolk, towards Norwich. Natural England mapping identifies the River Tas as Blue Infrastructure, and trees run along the northern bank, which would be green infrastructure. No marine recreational assets are located near this interaction between the Project and the River. The River Tas at this location is not identified as being publicly accessible. Therefore, this site has been identified on a precautionary basis as it falls within the definition of green and blue infrastructure.	The River Tas will be oversailed by conductors between pylons RG49 and RG50 to the east of Rat Hole. No permanent development will take place along the river. A temporary haul road will be constructed to cross the river. The means of watercourse crossing will be removed and the area reinstated once localised construction works have been completed. These construction works will be temporary in nature and would have no permanent impact on the use or function of the land. This site has been identified on a precautionary basis as it falls within the definition of green and blue infrastructure, however, it is not publicly accessible. In view of this, there will be no direct or indirect effect from the Project on this area of open space and consideration of whether this land is surplus to requirements is not engaged. It will be necessary to remove or manage existing trees beneath the overhead line and above the undergrounded cables on this land along the banks of the river. In locations where replacement standard tree planting is unsuitable due to the new overhead lines and underground cables, low height and shallow rooted scrub species will be included as alternative planting. Species mixes will allow for low growing and shallow rooted tree/scrub species as an alternative in these locations. Following the completion of works, all temporarily impacted watercourses will be reinstated to their former state, or better. This will include the replacement of any substrate or vegetation that was temporarily removed.	No	OS/9
Shelfanger Grove	Within	Shelfanger Grove is described as a woodland predominately made up of deciduous trees providing habitat for wildlife. Shelfanger Grove does not have any formal Public Rights of Way through it, and Natural England Green Infrastructure mapping indicates that the site is not thought to be publicly accessible, but the green infrastructure provides potential public amenity value. Therefore, the site is identified on a precautionary basis as it falls within the definition of green infrastructure.	The Project has been routed to the east of the main parcel of Shelfanger Grove, however, a tract of it will be oversailed by conductors between RG69 and RG70. No permanent development will take place on the parcel of green infrastructure. A temporary haul road is also proposed through this land. The siting of this will entail woodland removal. Given that these works will be temporary and the land will be restored there will be no permanent impact on use and functionality as a result of the temporary works. The woodland removal will not be replaceable on site due to the conflict with overhead lines but will be addressed as set out below. This area of green infrastructure has been identified on a precautionary basis as it falls within the definition of green and blue infrastructure, however, it is not publicly accessible. In view of this, there will be no direct or indirect effect from the Project on the use of this open space and consideration of whether this land is surplus to requirements is not engaged. It will be necessary to remove or manage existing trees beneath the overhead line on this area of woodland. National Grid has committed to a 3:1 replacement for individual trees and trees within groups. Where possible, trees will be replanted in the same, or in close proximity to, the location from which they were removed. If constraints preclude tree planting in the same or in close proximity to where they were removed, tree planting will be	No	OS/10

Site	Distance	Purpose and Use of Space	Assessment	Loss	Reference
			undertaken as close as possible to the original location. If it is not possible to provide tree planting within the Order Limits, then offsite provision as close to the Order Limits as possible will be provided.		
Baynards Green	Within	Baynards Green comprises of two parcels of Common land located to the north west of Roydon. The sites form an irregular triangular shape bounded by Bressingham Road to the north and Baynards Lane to the east. The site includes an existing informal access track from Bressingham Road and a number of scattered mature trees. An existing UKPN 11kV overhead line crosses the land. The land doesn't lend itself to recreational uses by virtue of its scale and layout.	The two parcels of Baynards Green are located to the south east of pylon RG82. There is a minimal overlap between the Order Limits and the southernmost parcel of open space. No works are proposed on this parcel, and it is likely that there will be no oversailing of it based on the current indicative alignment. However, because the Order limits overlap to a minor extent with the parcel and because the lateral limits of deviation extend the width of the Order Limits this plot has been identified as within the Order Limits on a precautionary basis. Therefore, consideration of whether this land is surplus to requirements is not engaged.	No	OS/11
Waveney and Little Ouse Recovery Project	Within	The Waveney and Little Ouse Recovery Project (WaLOR Project) is a Landscape Recovery scheme, funded by DEFRA (Department for Environment, Food & Rural Affairs), that aims to enhance the natural heritage of the landscape and combat declines in biodiversity, whilst performing climate enhancing changes. It encompasses large swathes of land along these upper courses of these Rivers, in Suffolk. No marine recreational assets are located near this interaction between the Project and the River Waveney, which is oversailed. There are several Public Rights of Way in close proximity to the Project and the WaLOR Project, however, the parcels of land themselves that comprise the WaLOR Project are not publicly accessible. There is a recreational use along the routes of the PRoWs.	The Project interacts with the WaLOR Project to the west and south of Roydon. The interaction with the WaLOR Project has been subject to ongoing discussions between National Grid and the Suffolk Wildlife Trust, and a Statement of Common Ground has been drafted, and agreement is sought with regard to how to manage the interaction (document reference 5.9.18). The naturalisation of the River Weavney as part of the WaLOR Project, and engagement with the Suffolk Wildlife Trust on this, was a primary reason proposals to underground through the Waveney Valley were not taken forward. Pylons RG82, RG86, RG87 and RG89 will be sited within the boundaries of the WaLOR Project, and as a result there will be oversails from conductors in several locations. This land is not publicly accessible, however, there are PRoWs which will be oversailed. No permanent development will take place that will obstruct the use of the PRoWs and resultantly there will be no direct impact on the use or function of these. In terms of permanent impact on the use of land as providing amenity value to the PRoW, if and in so far as the Project has an indirect effect on the use of the open space then such an impact is significantly outweighed by the benefits of the Project (including need), and having regard to the mitigation the Project has offered in respect of the indirect effect on the open space.	No	OS/12
Roydon Fen	Adjacent	Roydon Fen, is an area of Common Land and a Local Nature Reserve. It is owned by South Norfolk District Council and managed by the Suffolk Wildlife Trust. During the twentieth century, the area became dominated by wet woodland, but the Trust has restored the eastern section to fen habitat through mowing. The site now supports a variety of characteristic fen plants, including marsh helleborine, marsh fragrant orchid, and sawsedge. Visitors can access the reserve via the Angles Way PRoW, which follows the northern boundary of the site. Thus, this site is used as open space along the route of the PRoWs.	Royden Fen is located to the south east of pylon RG87. There is no overlap between the Order Limits and the Fen and resultantly there is no direct or indirect impact upon the areas of this site that are open space.	No	OS/13
Mid-Suffolk District Council					
Wortham Ling	Adjacent	Wortham Ling is a 53.2-hectare biological Site of Special Scientific Interest and area of Common Land located north of Wortham in Suffolk. This nature reserve, managed by the Suffolk Wildlife Trust since 1982,	Wortham Ling is located to the west of pylon RG88. There is no overlap between the Order Limits and the site and resultantly there is no direct or indirect impact upon the areas of this site that are open space.	No	OS/14

Site	Distance	Purpose and Use of Space	Assessment	Loss	Reference
		lies along the southern edge of the River Waveney and is crossed by rural lanes, with the Angles Way long-distance PRoW running along its southern boundary. As the largest area of lowland heath in the region, Wortham Ling is a registered Common that historically served as grazing land for villagers' sheep and geese. The site is accessible via several roads and PRoWs including PRoW 5944 from the northwest and southeast, with a main path running through it. This site is used as open space along the route of the PRoWs.			
Lowland mixed deciduous woodland between Lion Road and Old Bury Road.	Within	Strip of woodland between Lion Road and Old Bury Road identified by Natural England as green infrastructure. PRoW 5890 runs parallel to the east of the woodland. Whilst the woodland is not publicly accessible, it provides amenity value to the PRoW, due to the proximity to the PRoW.	The Project proposes oversailing a small section of this green infrastructure with conductors between pylons RG94 and RG95. The PRoW adjacent to the woodland is also oversailed. No permanent development will take place that will obstruct the PRoW. This site has been identified on a precautionary basis as it falls within the definition of green infrastructure, however, it is not publicly accessible. In view of this, there will be no direct effect from the Project on the use or function of this area of open space. In terms of permanent impact on the use of land as providing amenity value to the PRoW, if and in so far as the Project has an indirect effect on the use of the open space then such an impact is significantly outweighed by the benefits of the Project (including need), and having regard to the mitigation the Project has offered in respect of the indirect effect on the open space. It will be necessary to remove or manage existing trees beneath the overhead line on this area of woodland. National Grid has committed to a 3:1 replacement for individual trees and trees within groups. Where possible, trees will be replanted in the same, or in close proximity to, the location from which they were removed. If constraints preclude tree planting in the same or in close proximity to where they were removed, tree planting will be undertaken as close as possible to the original location. If it is not possible to provide tree planting within the Order Limits, then offsite provision as close to the Order Limits as possible will be provided.	No	OS/15
Roadside verges, Old Bury Road	Within	This space is identified as Common land and comprises of verges and hedgerow located along and off Old Bury Road, to the east of Wortham. As they are verges and hedgerow, they are not useable for recreational purposes.	Pylon RG95 is located to the east of these areas of Common land. The only interaction between the Common land and the Project is a proposed utility connection for a temporary compound and an access route to UKPN existing pylons (PKF28 and PKF29). The utility line crosses a small strip of the Common Land and will only be required on a temporary basis to serve the temporary compound. The access route is pre-existing and there are no proposals to modify this. These roadside verges have been identified on a precautionary basis as they are Common Land and would fall within the definition of green infrastructure. However, as they comprise of thin strips of hedgerow and verge, they are not useable for recreational purposes. The siting of the utilities line will be temporary and therefore there will be no permanent direct or indirect impact on the use of this open space in this location. In view of this, consideration of whether this land is surplus to requirements is not engaged. The installation of the utility line may entail the loss of vegetation and hedgerow. However, following the completion of works and removal of the utilities hedgerows will be reinstated at the earliest appropriate opportunity	No	OS/16

Site	Distance	Purpose and Use of Space	Assessment	Loss	Reference
			within the correct planting season. This will ensure there are no permanent losses of green infrastructure.		
The Marsh CRoW (Thrandeston Marsh)	Within	The Marsh is defined within the Babergh Mid Suffolk Open Space Assessment as open land. The Marsh is considered to be a general green space for walking and enjoying the countryside, and therefore there is a recreational use on this land.	The Marsh is an area of Common land located to the east of pylon RG96. National Grid has included proposals to underground a section of UKPN's 132kV PFK overhead line south of Palgrave and to the west of Mellis. To minimise watercourse crossings for the replacement cable and to avoid crossing a railway line, a section of the underground cable needs to be routed through The Marsh. This will be along the eastern border of the Common Land. The undergrounding of the cables at the Marsh will entail hedgerow and vegetation removal. To mitigate impacts, as part of design, the undergrounding swathe has been reduced to 20 m in width through the designated site to reduce direct impacts. Following completion of works, hedgerows and vegetation will be reinstated at the earliest appropriate opportunity within the correct planting season. The removal of the overhead lines along the existing overhead line to the west of the Marsh will allow for the natural regeneration of vegetation in this location, which is considered to have a long-term ecological benefit. In locations where replacement standard tree planting is unsuitable due to the undergrounding of the cables hallow rooted scrub species will be included as alternative planting. Species mixes will allow shallow rooted tree/scrub species as an alternative in these locations. Whilst these works would have temporary impacts above ground, there would be no permanent direct or indirect impact on the use of the open space as the permanent impact would be underground. In view of this, consideration of whether this land is surplus to requirements is not engaged.	No	OS/17
Existing lowland mixed deciduous woodland between Seethings Wood and Melis Common	Within	Woodland identified by Natural England as green infrastructure. The woodland is currently oversailed by UKPN 132kV PKF overhead line. Natural England Green Infrastructure Mapping does not identify the land as publicly accessible and there are no PRoWs routed through it. Therefore, the site is identified on a precautionary basis as it falls within the definition of green infrastructure.	This woodland is located to the west of proposed pylon RG100. No permanent development is proposed within the woodland. Instead, National Grid is proposing to remove a third-party overhead line within the woodland and route the Project adjacent to it, broadly parallel with the existing overhead line. The section of the overhead line to be removed will be placed underground and routed to the east, remote from the green infrastructure. This land has been identified on a precautionary basis as it falls within the definition of green infrastructure. As the Project will be routed alongside the woodland and the overhead line to be removed is sited within it, It is considered that the Project will result in betterment to this woodland. Natural regeneration of woodland post construction is proposed for woodlands where existing third-party infrastructure is being removed from woodlands and this is considered a long-term ecological benefit, as the woodland would have been subject to an existing vegetation management regime under the existing overhead lines.	No	OS/18
Mellis Common CRoW Land	Within	Mellis Common is a 59-hectare nature reserve located in Mellis, Suffolk, and is managed by the Suffolk Wildlife Trust. The Common is described as having remained largely unchanged for centuries and continues to be maintained using traditional methods such as grazing and hay cutting. It supports a variety of flora, including green-winged orchids, sulphur clover, and adder's-tongue ferns, while owls can often be seen hunting small mammals in the area. Access to the site is available via Mellis Road.	Mellis Common, which encloses Mellisash Road, is located within the Order Limits to the north east of pylon RG103. Conductors will oversail Mellisash Road which is identified as being part of Mellis Common between pylons RG102 and RG103. A temporary haul road is proposed, which will intersect with the Common land on either side of Mellisash Road. The construction works for the haul road will be temporary in nature and would have no direct or indirect impact on the use of the land as highway and verge.	No	OS/19

Site	Distance	Purpose and Use of Space	Assessment	Loss	Reference
		The part of Mellis Common that interacts with the Project is a highway and verge and is not useable for recreational purposes. The Order Limits do not interact with the main section of the Common.	National Grid have included proposals to underground a section of UKPN's 132kV PFK overhead line south of Palgrave to the west of Melis. This section of overhead line, which currently oversails the Mellis Common Land, will be undergrounded. The underground cable is routed to the west of the Mellis Common in part to avoid interactions. It is necessary to cross the Common land where the designation routes along the public highway (Mellisash Road). Whilst this would have temporary impacts, there would be no permanent direct or indirect impact on this area of common land. With regard to the oversail, as set out, the portion of Mellis Common being oversailed is not useable as open space. Therefore, there will be no direct or indirect impact on the use of the open space in this location. In view of this, consideration of whether this land is surplus to requirements is not engaged.		
Furze Way CRoW Land	Within	Furze Way is classified as Amenity Greenspace in the Babergh Mid Suffolk Open Space Assessment. It is also identified as registered Common land which is identified as being appreciated for enhancing the enjoyment of the surrounding countryside and contributing to the overall aesthetic appeal of the Furze Way cul-de-sac. An existing pylon serving a 132kV overhead line is sited on Furze Way. The use of Furze Way Common is as a byway providing access to a series of scattered residential properties and a bridleway beyond.t.	Pylon RG106 will be sited to the north east of this area of CRoW Land. Conductors will oversail a narrow section of Furze Way, between pylons RG106 and RG107. A permanent access road to RG106 is sited through this land, however, this is an existing right of way and no works to formalise this are proposed. An existing pylon serving a 132kV overhead line (PKF overhead line), which is sited within the CRoW land, is proposed to be removed and undergrounded. With regard to the oversail, as set out, the portion of Furze Way being oversailed is not useable for recreational purposes. Therefore, there will be no direct or indirect impact on use of this open space in this location. In view of this, consideration of whether this land is surplus to requirements is not engaged. Furthermore, this land is already oversailed and has a pylon sited on the land. Therefore, the Project is considered to provide betterment to given that it proposes the removal of an existing pylon on Furze Way and will only result in an oversail as pylon RG106 has been sited outside of the CRoW Land. Natural regeneration of woodland post construction is proposed for woodlands where existing third-party infrastructure is being removed from woodlands, and this is considered a long-term ecological benefit. This land would have to be managed under the proposed overhead lines, however, there would be opportunities for natural regeneration in place of the pylon being removed.	No	OS/20
Coldham Grove, Thornham Estate Woods	Adjacent	Coldham Grove is an area of woodland that forms a part of the wider Thornham Estate Woodland. This land is identified as a County Wildlife Site.	Pylon RG120 will be sited to the west of Coldham Grove. There is no overlap between the Order Limits and Site and resultantly there will be no direct or indirect impact on open space in this location. In view of this, consideration of whether this land is surplus to requirements is not engaged.	No	OS/21
River Dove and strip of woodland along its banks.	Within	This site is the River Dove and a strip of woodland planting either side of it. Natural England identify the woodland as green infrastructure without public access. No marine recreational assets are located near this interaction between the Project and the River. PRoW 6007 is routed between Wickham Road and the River Dove. Thus, site is used as open space along the route of the PRoWs.	The Project will oversail this section the River Dove and green infrastructure with conductors between pylons RG124 and RG125 oversailing. No permanent infrastructure will be sited on this land. This land is not publicly accessible, however, there are PRoWs which will be oversailed. No permanent development will take place that will obstruct the PRoWs and resultantly there will be no direct impact on the use of these. It will be necessary to remove or manage existing trees beneath the overhead line in the area of woodland along the river. National Grid has committed to a 3:1 replacement for individual trees and trees within groups. Where possible, trees will be replanted in the same, or in close proximity to, the location from	No	OS/22

Site	Distance	Purpose and Use of Space	Assessment	Loss	Reference
			which they were removed. If constraints preclude tree planting in the same or in close proximity to where they were removed, tree planting will be undertaken as close as possible to the original location. If it is not possible to provide tree planting within the Order Limits, then offsite provision as close to the Order Limits as possible will be provided. In terms of permanent impact on the use of land as providing amenity value to the PRoW, if and in so far as the Project has an indirect effect on the use of the open space then such an impact is significantly outweighed by the benefits of the Project (including need), and having regard to the mitigation the Project has offered in respect of the indirect effect on the open space.		
Waste Land	Within	Waste land is a parcel of Common land that comprises of an unnamed lane and its verges, and the land is considered to be used as such. Therefore, there is no recreational use on this land.	Pylon RG126 will be located to the south of this area of Common land. The Common land is sited within the Order Limits and will be oversailed by conductors between pylons RG125 and RG126. No permanent development is proposed on the Common land. A temporary haul road, associated bellmouth junctions and the undergrounding of an existing BT overhead line is also proposed on this parcel. These works will entail hedgerow and vegetation removal. Following completion of works, hedgerows will be reinstated at the earliest appropriate opportunity within the correct planting season. Given that these works will be temporary and the land will be restored there will be no permanent impact on use and functionality as a result of the temporary works. This area of Common land is not useable recreationally as it is a thin strip of hedgerow and verge. Therefore, there will be no direct or indirect impact on use of the open space in this location. In view of this, consideration of whether this land is surplus to requirements is not engaged.	No	OS/23
River Gipping	Within	The River Gipping is the upper, freshwater, section of the River Orwell. The River Gipping's source is located near Menlesham Green, and it runs to Ipswich, where it becomes the River Orwell at Stokes Bridge, when the river becomes tidal. The River Orwell runs on to Felixstowe where it enters the North Sea. In total, the Rivers Gipping and Orwell total 28 miles in length from source to mouth. The Gipping Valley River Path (PRoW 4316) is a 17-mile PRoW between Ipswich and Stowmarket which follows the northern bank of the River Gipping. No marine recreational assets are located near this interaction between the Project and the River. However, Action for Access mapping identifies there is an accepted right to paddle for canoeists along the majority of the course of the river. Therefore, the river is used recreationally insofar as a right to paddle exists.	The construction of pylon RG165 would take place within 10m of the River Gipping and it will be oversailed by conductors between pylons RG165 and RG166. No permanent development is proposed on the land. The oversailing of the river will not prohibit its use associated with the right to paddle. Therefore, there will be no direct or indirect impact on the use of this open space. In view of this, consideration of whether this land is surplus to requirements is not engaged.	No	OS/24
Great Newton Wood	Adjacent	Great Newton Wood is identified within the Barergh Mid Suffolk Local Plan as Ancient Woodland and a County Wildlife Site. The land is not identified as publicly accessible on Natural England Green Infrastructure Mapping. Therefore, the land has been identified on a precautionary basis as it falls within the definition of green infrastructure.	Pylon RG172 will be located to the north west of Great Newton Wood. The Order Limits surround the woodland, however, there is no overlap as the woodland falls outside the Order Limits. This site has been identified on a precautionary basis as it falls within the definition of green infrastructure, however, it is not publicly accessible. In view of this, there will be no direct or indirect effect from the Project on the use of this open space and consideration of whether this land is surplus to requirements is not engaged. The Project has made a commitment for no physical works or breaking ground within 15m of Ancient Woodland where at	No	OS/25

Site	Distance	Purpose and Use of Space	Assessment	Loss	Reference
			all possible, with demarcation measures to be used during construction to ensure this 15m buffer is not breached.		
Little Newton Wood	Adjacent	Little Newton Wood is defined within the Barergh Mid Suffolk Local Plan as Ancient Woodland and a County Wildlife Site. The adjacent Hill House Lane includes PRoW 4023. The land is not identified as publicly accessible on Natural England Green Infrastructure Mapping. Therefore, the site has been identified on a precautionary basis as it falls within the definition of green infrastructure.	Pylon RG172 will be located to the west of Little Newton Wood. The adjacent Hill House Lane is included in the draft Order Limits for UKPN third party undergrounding works. However, there is no overlap between the Order Limits and Little Newton Wood itself, and these works will have no permanent above ground impacts. This site has been identified on a precautionary basis as it falls within the definition of green infrastructure, however, it is not publicly accessible. In view of this, there will be no direct or indirect effect from the Project on this open space and consideration of whether this land is surplus to requirements is not engaged. The Project has made a commitment for no physical works or breaking ground within 15m of Ancient Woodland where at all possible, with demarcation measures to be used during construction to ensure this 15m buffer is not breached.	No	OS/26
Lowland, mixed deciduous woodland	Within	Existing woodland identified as green infrastructure by Natural England. The land is not identified as publicly accessible on Natural England Green Infrastructure Mapping. Therefore, the site has been identified on a precautionary basis as it falls within the definition of green infrastructure.	The Project will oversail this section of green infrastructure with conductors between pylons RG178 and RG179. No permanent development is proposed within the woodland. This site has been identified on a precautionary basis as it falls within the definition of green infrastructure, however, it is not publicly accessible. In view of this, there will be no direct or indirect effect from the Project on this open space and consideration of whether this land is surplus to requirements is not engaged. It will be necessary to remove or manage existing trees beneath the overhead line on this area of woodland. National Grid has committed to a 3:1 replacement for individual trees and trees within groups. Where possible, trees will be replanted in the same, or in close proximity to, the location from which they were removed. If constraints preclude tree planting in the same or in close proximity to where they were removed, tree planting will be undertaken as close as possible to the original location. If it is not possible to provide tree planting within the Order Limits, then offsite provision as close to the Order Limits as possible will be provided.	No	OS/27
Lower Wood	Adjacent	Little Newton Wood is defined within the Barergh Mid Suffolk Local Plan as Ancient Woodland and this is also as green infrastructure by Natural England. The land is not identified as publicly accessible on Natural England Green Infrastructure Mapping. Therefore, the site has been identified on a precautionary basis as it falls within the definition of green infrastructure.	Pylon RG179 will be located to the south east of Lower Wood and there is no overlap between the Project and this site. This site has been identified on a precautionary basis as it falls within the definition of green infrastructure, however, it is not publicly accessible. In view of this, there will be no direct or indirect effect from the Project on this open space and consideration of whether this land is surplus to requirements is not engaged. The Project has made a commitment for no physical works or breaking ground within 15m of Ancient Woodland where at all possible, with demarcation measures to be used during construction to ensure this 15m buffer is not breached.	No	OS/28
Barking Tye Common	Within	Barking Tye Common is a public open space located in the heart of Barking Tye. The Common is intersected by several PRoWs, providing opportunities for visitors to explore and enjoy the area. To the north lies	Barking Tye Common is located to the south east of RG180. The Order Limit has a minor overlap with the Common as a permanent right of access is required along an existing lane at its boundary. As this is an existing lane that is only required for access no works are proposed within the Common.	No	OS/29

Site	Distance	Purpose and Use of Space	Assessment	Loss	Reference
		Barking Recreation Ground, which includes a playground for young children. Meanwhile, the southern area is understood to be playing fields. The area of the Common that interacts with the Project is used as highway and thus does not fall within an area of open space used for public recreation.	Resultantly, there would be no direct or indirect impact on the use or function of the land as open space. The main section of the Common is not impacted by the Project and has no interaction with the Order Limits.		
Middle Wood	Adjacent	Middle Wood is a 23.3-hectare (58-acre) area designated as a biological Site of Special Scientific Interest (SSSI) and classified as an ancient and semi-natural woodland within the Babergh Mid Suffolk Local Plan. It is located to the northwest of Offton, Suffolk. This medieval coppice-with-standards woodland sits on wet boulder clay and boasts a rich and diverse ground flora, including species characteristic of ancient woodlands. Oak is the predominant standard tree, and the woodland is home to various orchids, such as the Common twayblade, early purple orchid, and butterfly orchid. Whilst a PRoW circles the site (W-566/014/0), it is not identified as publicly accessible on Natural England Green Infrastructure Mapping. Therefore, the site has been identified on a precautionary basis as it falls within the definition of green infrastructure.	Pylon RG189 will be located to the west of Middle Wood and there is no overlap between the Project and this site. This site has been identified on a precautionary basis as it falls within the definition of green infrastructure, however, it is not publicly accessible. In view of this, there will be no direct or indirect effect from the Project on this open space and therefore consideration of whether this land is surplus to requirements is not engaged. The Project has made a commitment for no physical works or breaking ground within 15m of Ancient Woodland where at all possible, with demarcation measures to be used during construction to ensure this 15m buffer is not breached.	No	OS/30
Somersham Park	Within	Somersham Park is an ancient Woodland and County Wildlife Site which is crossed by a number of Public Rights of Way. The site has a recreational use along the route of the PRoWs.	Pylon RG201 will be located on land to the north of Somersham Park and there is a minor overlap between the Order Limits and the Park. No works are proposed within Somersham Park, and it is likely that there will be no oversailing of Somersham Park based on the current indicative alignment. However, because the Order limits overlap to a minor extent with Somersham Park and because the lateral limits of deviation extend the width of the Order Limits this plot has been identified as within the Order Limits on a precautionary basis. Therefore, consideration of whether this land is surplus to requirements is not engaged. The Project has made a commitment for no physical works or breaking ground within 15m of Ancient Woodland where at all possible, with demarcation measures to be used during construction to ensure this 15m buffer is not breached.	No	OS/31
Fore and Bushey Groves	Within	Fore and Bushey Groves are two areas of woodland. According to Natural England's mapping tool, the groves are inaccessible. Therefore, the site has been identified on a precautionary basis as it falls within the definition of green infrastructure.	Pylon RG206 will be located to the west of Fore Grove and Bushey Grove. There is an overlap between the Order Limits and the Groves due to an existing third party 33kV overhead line, which is to be undergrounded in this location. These works will result in tree and vegetation removal. However, natural regeneration of woodland post construction is proposed for woodlands where existing third-party infrastructure is being removed from woodlands and this is considered a long-term ecological benefit, as the woodland would have been subject to an existing vegetation management regime under the existing overhead lines. As the works will not have a permanent impact above ground and the Groves are not publicly accessible, having been identified on a precautionary basis, it is not considered that the Project would impact on the function or use of this space. Therefore, consideration of whether this land is surplus to requirements is not engaged.	No	OS/32
Millers Wood	Adjacent	Millers Wood is described as an Ancient and Semi Natural woodland within the Babergh Mid Suffolk Local Plan.	Millers Wood will be located to the north east of Bramford Substation. The Order Limits along Bullen Lane (which is to be used as a primary access	No	OS/33

Site	Distance	Purpose and Use of Space	Assessment	Loss	Reference
		PRoW W-155/002/0 runs north along its western border off Bullen Lane. Therefore, there is a recreational use along the route of the PRoW.	route) abuts Millers Wood to the north. No vegetation clearance or tree felling is proposed within the woodland. Millers Wood has been identified on a precautionary basis as it falls within the definition of green infrastructure, however, it is not publicly accessible. No works will take place on this land and therefore the Project would not impact on the function or use of this space. In view of this, there will be no direct or indirect effect from the Project on use of this area of open space and consideration of whether this land is surplus to requirements is not engaged. The Project has made a commitment for no physical works or breaking ground within 15m of Ancient Woodland where at all possible, with demarcation measures to be used during construction to ensure this 15m buffer is not breached.		
Bullen Wood	Adjacent	Bullen Wood is described as an Ancient Woodland and County Wildlife Site. PRoW 3166 is routed to the east and restricted byway 3164 forms the southern boundary of this site. Therefore, there is a recreational use along the route of the PRoW.	Bullens Wood will be located to the east of Bramford Substation. A PRoW transverses the eastern boundary of the wood, allowing public access in this location. The Order Limits enclose the woodland, however, there is no overlap between the woodland and the Order Limits, and no works are proposed in this area. Therefore, there would be no impact on the use and function of the woodland and consideration of whether this land is surplus to requirements is not engaged. The Project has made a commitment for no physical works or breaking ground within 15m of Ancient Woodland where at all possible, with demarcation measures to be used during construction to ensure this 15m buffer is not breached.	No	OS/34
Round Wood and Elms Grove	Within	Round Wood is described as Ancient and Semi Natural woodlands within the Babergh Mid Suffolk Local Plan and Round Wood and Elms Grove is identified as a County Wildlife Site. PRoW 3166 forms the western boundary and PRoW 3163 is also routed along the northern, eastern and southern boundary. Thus, site is used recreationally along the route of the PRoWs.	Round Wood will be located within the Order Limits. An existing overhead line and associated pylon (PHB30) is sited within it and this line and pylon PHB30 are proposed to be removed. These works will have a temporary impact above ground, and these works will result in tree and vegetation removal. Natural regeneration of woodland post construction is proposed for woodlands where existing third-party infrastructure is being removed from woodlands and this is considered a long-term ecological benefit, as the woodland would have been subject to an existing vegetation management regime under the existing overhead lines. There would no impact on the use and function of the wood as open space. Indeed, due to the removal of the pylon and overhead line, there would likely be an improvement in the provision of open space.	No	OS/35
Babergh					
Burstall Long Wood	Adjacent	Burstall Long Wood is described as an Ancient and Semi Natural woodland within the Babergh Mid Suffolk Local Plan. The woodland is also a County Wildlife Site. PRoWs W-486/005/0, W-486/006/0 and W-486/007/0 provide public access around the woodland. Thus, the site has a recreational use along the route of the PRoWs.	Pylon JC09 will be located to the east of Burstall Long Wood, and the Order Limits abut the land it is sited on. A permanent access route is also located alongside the woodland edge. There is no overlap between the Order Limits and the woodland and resultantly there is no impact upon its function and use. Therefore, consideration of whether this land is surplus to requirements is not engaged. The Project has made a commitment for no physical works or breaking ground within 15m of Ancient Woodland where at all possible, with demarcation measures to be used during construction to ensure this 15m buffer is not breached.	No	OS/36

Site	Distance	Purpose and Use of Space	Assessment	Loss	Reference
Sproughton Park	Within	Sproughton Park is a County Wildlife Site located on the eastern bank of the River Gipping. It comprises of modified grassland, neutral grassland, and bramble scrub. There are also coppices of trees throughout the site. This Park is not identified as publicly accessible on Natural England Green Infrastructure Mapping. However, PRoWs transverse it and thus there will be a recreational use along these routes.	Pylon JC16 will be located within the CWS resulting in the permanent loss of a small area of land. A temporary haul road will be required up to the pylon working area from the north but would not cross the river to the south. An existing 132 kV overhead line that currently oversails the CWS will be removed and undergrounded on the same alignment through the CWS. The very eastern extent of the CWS is crossed by a permanent access for the Project (right of way only), which makes use of an existing track and would be used for ongoing maintenance. There is a PRoW to the south east of the Parl (PRoW 2867), and the works to underground the existing 132 kV overhead line would temporarily impact this. This PRoW is located some distance from where pylon JC16 is sited on land not publicly accessible, therefore, there is no recreational use in this location. Consequently, it is not considered that the Project would have a direct or indirect impact on the use and function of parts of Sproughton Park that are used as open space (i.e. the PRoWs). Therefore, consideration of whether this land is surplus to requirements is not engaged. It will be necessary to remove or manage existing trees beneath the overhead line and above the undergrounded cables on this land. In locations where replacement standard tree planting is unsuitable due to the new overhead lines and underground cables, low height and shallow rooted scrub species will be included as alternative planting. Species mixes will allow for low growing and shallow rooted tree/scrub species as an alternative in these locations. The removal of existing infrastructure will allow for natural regeneration of trees in locations where removals are taking place, which may result in long-erm ecological benefits, as trees will no longer be managed in these locations.	No	OS/37
Hintlesham Fisheries	Within	Hintlesham Fisheries are located on Fenn Farm to the south east of Burstall and to the west of Ipswich. The site comprises of four lakes accessible for angling. Together, the lakes are approximately 10 acres in size. The site is private but accessible on a day ticketing basis and an online booking system allows for bookings to be made in advance at three of the lakes. Hintlesham Fisheries offer opportunities for sport and recreation for fishing (providing a fishing rod licence is in place and a booking has been made).	The fisheries are located within the Order Limits as an existing 132kV overhead line and the existing pylon PCB5 are sited immediately to the west of the fishing lakes. These assets are operated by a third party. The overhead lines from this transmission route oversail the centre of the fisheries site. Proposed pylons JC15 and JC16 are going to be sited approximately 100 metres from the nearest fishing lake, and at their closest, the overhead lines running between these two pylons will be approximately 60 metres from this lake. 30 metres either side of overhead lines is an established distance for excluding angling on safety grounds. Given that the overhead lines are double this distance from the fishing lakes, there will be no need to prohibit fishing at this location and therefore this open space use is retained. Proposed pylons JC15 and JC16 will be sited some distance outside of the area used for fishing. Pylon JC15 will be sited on agricultural land and pylon JC16 will be sited within Sproughton Park County Wildlife Site (Site Reference OS/38), as discussed above. Therefore, proposed pylons JC15 and JC16 and the overhead lines that run between them will not have a direct or indirect impact on the use or function of the open space, as the pylons are not sited within the fisheries, and the overhead lines that run between them are far enough away from the lakes that they do not impact upon fishing provision. Therefore, consideration of whether this land is surplus to requirements is not engaged.	No	OS/38

Site	Distance	Purpose and Use of Space	Assessment	Loss	Reference
			Temporary works associated with the construction of the Project are proposed in close proximity to the easternmost fishing lake, including areas for the construction of pylons JC15 and JC16 and temporary haul roads. However, these works by nature would not have a permanent impact. The Project proposes to underground the existing overhead lines at the site and remove pylon PCB5. This would entail temporary works to lay the cables, which will run between two of the lakes, and remove the existing pylon. These temporary works would include the construction of a compound on the site and access routes through it. The removal of pylon PCB5 and undergrounding or the overhead lines in this location will provide an improved context for fishing at Hintlesham Fisheries in terms of visual amenities and the quality of the open space. This may facilitate an increase in the provision of fishing, as fishing will now be safe on areas of the lakes previously within 30 metres of overhead lines. There will also be opportunities for natural regeneration for trees beneath the removed overhead lines given that this area will no longer be subject to a vegetation management regime. In view of the potential improvements associated with the removal of pylon PCB5 and the undergrounding of the existing overhead lines, as well as the limited permanent impacts of installation of pylons JC15 and JC16, it is likely that the Project will have an overall benefit for the function and use of Hintlesham Fisheries.		
Vauxhall Christian Trust	Within	Vauxhall Christian Trust is a private sport facility and camping site and bookings are required to access the stie. The site's camping season runs from 1st March to 31st October. Alongside the camping facilities provided, the site includes a swimming pool and sports hall with markings for four badminton courts, one Futsal and one netball court, thus offering opportunities for sport and recreation. The site also includes a boating lake for canoeing.	The sports facilities identified are associated with the main use of camping on the site. National Grid is proposing to use the private access to the campsite from Woodlands Road to provide a permanent means of access to pylons JC31, JC32 and JC33. The routeing of this access road, using an existing private road within the land will not adversely affect the recreational use or function. Resultantly, it is not considered that the Project would have a direct or indirect impact on the function or use of this space and as a result consideration of whether this land is surplus to requirements is not engaged.	No	OS/39
Former Hadleigh Railway Line north of CESC No1. Little Wenham	Within	The former Hadleigh Railway Line now forms a woodland corridor and is identified as green infrastructure. The section of the Hadleigh Railway is identified as being part of a promoted cycle route in the Babergh Development Framework: A Green Infrastructure Framework for Babergh (August 2012). However, it is not apparent that plans for its development exist. The site is partly used as Bridleway 2812 where it overlaps with the Order Limits and thus has a recreational use along the route of this. However, this diverts out of the Order Limits and does not follow the route of the former Railway in its entirety through the Order Limits. Therefore, the site has been identified on a precautionary basis as it falls within the definition of green infrastructure.	The Project will transfer from an overhead line into underground cabling immediately to the south of the former Railway Line. This is the commencement of the section of the Project that is being undergrounded to transverse the Dedham Vale Area of Outstanding Natural Beauty. A cable sealing end compound will be built in this location, and the former railway line will be oversailed by conductors between pylon JC33 and JC34 and JC35, which will serve the cable sealing end compound. Bridleway 2812 follows a section of the green infrastructure from Raydon Road into the Order Limits before diverting to the north east towards Vauxhall. This Bridleway will need to be temporarily stopped up as it leaves the former Railway Line and heads east. However, its use will recommence following the completion of the Project The Project oversails a part of the former Railway that is not a part of the Bridleway, and no open space use exists in this location. Instead, this part of the former Railway is identified on a precautionary basis given that it falls within the definition of green infrastructure. Accordingly, there will be no direct or indirect impact on the open space and consideration of whether this land is surplus to requirements is not engaged.	No	OS/40

Site	Distance	Purpose and Use of Space	Assessment	Loss	Reference
			It will be necessary to remove or manage existing trees beneath the overhead line on this area of woodland. National Grid has committed to a 3:1 replacement for individual trees and trees within groups. Where possible, trees will be replanted in the same, or in close proximity to, the location from which they were removed. If constraints preclude tree planting in the same or in close proximity to where they were removed, tree planting will be undertaken as close as possible to the original location. If it is not possible to provide tree planting within the Order Limits, then offsite provision as close to the Order Limits as possible will be provided. These losses will be offset as this the former Railway Line is located adjacent to the Wenham Grove CSE Compound where land has been identified as an Environmental Area within the Outline Landscape and Ecological Mitigation Plan (document reference 7.4), where landscape and visual mitigation will be provided, as well as offering ecological value. Details of this mitigation are set out in Appendix D of the LEMP.		
Higham Meadow	Within	Higham Meadow is a County Wildlife Site. Natural England Green Infrastructure Mapping does not identify any public access to the site. The County Wildlife Site is identified as including lowland mixed deciduous woodland and modified grassland. The eastern boundary of the site is bounded by bridleway 2899 which also crosses through the site. Thus, there will be an open space use along this route.	The area of the Project to be undergrounded as it transverses Dedham Vale Area of Outstanding Natural Beauty will be located to the south and east of Higham Meadow. The Order Limits extend into the site as a temporary attenuation drainage line and outfall area are located here. This area is located some way from the bridleway and therefore there is no open space use in the location of the interaction. Accordingly, there will be no direct or indirect impacts in terms of open space uses from the Project in this location.	No	OS/41
River Stour	Within	The River Stour is approximately 75km long and forms most of the county boundary between Suffolk to the north and Essex to the south. The river is not a designated site but is utilized for various recreational activities, including canoeing, paddling, and kayaking. Fishing takes place to the west between Nayland to Langham and to the east at Henny Street. The Stour Valley Path (identified as PRoW 139/1 where it interacts with the Project) follows an east west route to the south of the River Stour and Black Barn (within Colchester). Therefore, there are recreational uses along the length of the river.	The River Stour is the only main river that would be crossed by the underground cable sections of the Project. National Grid is proposing to cross the River Stour using trenchless crossing techniques (an example of which is Horizontal Directional Drilling). The LoD and Order Limits have been widened at the crossing of the River Stour to allow for either eastern and western options or only one (eastern only or western only), subject to detailed design of the trenchless crossing methods and detailed GI. During construction there will be a temporary impact on the recreational and amenity use of the riverbanks either side of the River Stour associated with the horizontal directional drilling launch locations. Once the works are complete there will be no direct or indirect impact on the use or function of this open space. Therefore, consideration of whether this land is surplus to requirements is not engaged. Following the completion of works, all temporarily impacted watercourses will be reinstated to their former state, or better. This will include the replacement of any substrate or vegetation that was temporarily removed.	No	OS/42
Colchester					
Black Brook	Within	Black Brook is a watercourse identified as a Local Wildlife Site and is identified as such within the Colchester City Council Local Plan (Local Wildlife Site Co136 Black Brook). Black Brook is described as an extensive mosaic of habitats forming an important wildlife corridor on the eastern edge of Boxted Cross. Black Brook and the wider green infrastructure associated with the Local Wildlife Site are not identified as being publicly accessible. However, a	The area of the Project to be undergrounded, as it transverses Dedham Vale Area of Outstanding Natural Beauty, will be located to the west of the section of Black Brook where an overlap exists. The Order Limits extend into the site as a temporary attenuation drainage line and outfall area are located here. This area is located some way from the bridleway and therefore there is no open space use in the location of the	No	OS/43

Site	Distance	Purpose and Use of Space	Assessment	Loss	Reference
		bridleway (PRoW 139/20) follows the northern edge of the woodland planting from Nightingale Hill to Denham Road.	interaction. Accordingly, there will be no direct or indirect impacts from the Project on this use of this land as open space in this location. The cables will be laid using an open cut technique, requiring the clearance of vegetation, any vegetation loss would be allowed to naturally regenerate following completion of works based on existing seed bank.		
Harrow Wood	Adjacent	Harrow Wood is designated as a Local Wildlife Site under the Colchester City Council Local Plan. A linear access corridor (PRoW EX/135/31) runs through its centre and the rest of the woodland is inaccessible.	The Cable Sealing End Compound at Great Horkesley (EACN side) will be located to the south of Harrow Wood. There is no overlap between the Order Limits and Harrow Wood and resultantly there will be no direct or indirect impact on the use of this land as open space.	No	OS/49
Fordham Hall Estate and River Colne	Within	Fordham Hall Estate is a Woodland Trust site. Set within the Colne Valley, the site was gifted to the Trust in 2002. Formerly an area of arable farmland the Woodland Trust have planted over 120 hectares of native woodland and 60 hectares has been converted to grassland. Fordham Hall Estate is publicly accessible with a free car park off Ponders Road. The site includes a network of 19km of unsurfaced paths, some of which are noted to be Public Rights of Way including bridleways. The Essex Way, a long-distance PRoW, broadly follows the River Colne along the southern extent of the site. It is understood that much of the site is subject to third party grazing licences. Whilst public access is permissible, visitors are only allowed to deviate from the PRoW where the land is occupied by the Woodland Trust only. Therefore, there is a recreational open space use along the PRoWs throughout the site. In partnership with the Trust, Essex and Suffolk Rivers Trust secured planning permission from Colchester City Council (reference 240279) in January 2025 for the restoration of wetland features and habitats at Fiddler's Hill Meadow. The planning application area includes the Fordham Bridge Meadow Local Wildlife Site. No marine recreational assets are located near this interaction between the Project and River. However, it is understood that angling is permissible along the length of the river.	The Project is routed largely to the east of the Fordham Hall Estate and will both oversail swathes of the Estate and site three pylons within it. The permanent and temporary works proposed through the Fordham Hall Estate will have an impact on the site, both in terms of the permanent siting of pylons and the need to manage woodland planting in proximity to overhead lines. A temporary haul road will be constructed through the site, access will be taken from Fossett Lane, running broadly parallel with Project, providing construction access to TB47 and TB48. Based on the current Project Design, Pylon TB46 will be positioned on the Fordham Hall Estate to the south of Fossetts Lane. The pylon is positioned on an area of immature woodland planting, avoiding any of the PRoWs. Pylon TB46 is within an area of the estate which is not farmed and within land leased by the Woodland Trust. Therefore, as a precautionary approach it has been assumed that the area around TB46 is publicly accessible. Pylon TB47 will be positioned outside of the Fordham Hall Estate (boundaries identified on the Woodland Trust website). Pylon TB48 will be positioned within Fordham Hall Estate to the east of Mill Road. The pylon is positioned within an area identified as modified grassland. This area is part of the Essex and Suffolk Rivers Trust planning application for the restoration of wetland features. The proposed pylon location does not impact on the area of works around the River Colne associated with the wetland restoration. This pylon is remote from any PRoW. TB49 will be positioned within the Fordham Hall Estate on an area of modified grassland. this is to the north of the Essex Way long distance PRoW and River Colne. To the north of TB49, cathodic protection measures are proposed on an existing high-pressure gas main. To the south, an existing 11kV overhead line will be dismantled and undergrounded as part of a mitigation proposal. The River Colne is oversailed however there are no recreational uses identified on this section. This River has been identified on a precautionary basis given that it is blue infrastructure. However, there are no direct or indirect impacts on the use of the river as open space. If angling uses do take place, then given the extent of the river, there is suitable provision elsewhere The proposed location for the permanent works is outside the publicly accessible areas of the Fordham Hall Estate. Therefore, the pylons themselves would not have a direct or indirect impact on the parts of the Estate that fall within the definition of open space. Whilst there is no permanent impact on the use of the PRoWs, the Project will oversail them. In terms of permanent impact on the use of land as providing	No	OS/50

Site	Distance	Purpose and Use of Space	Assessment	Loss	Reference
			amenity value to the PRoW, if and in so far as the Project has an indirect effect on the use of the open space then such an impact is significantly outweighed by the benefits of the Project (including need), and having regard to the mitigation the Project has offered in respect of the indirect effect on the open space. The proposals avoid areas of woodland within the Estate. However, it will be necessary to remove or manage existing trees beneath the overhead line along hedgerows. In locations where replacement standard tree planting is unsuitable due to the new overhead lines and underground cables, low height and shallow rooted scrub species will be included as alternative planting. Species mixes will allow for low growing and shallow rooted tree/scrub species as an alternative in these locations. Given that permanent pylon works are proposed within the wider Fordham Hall Estate, and that a precautionary approach is being taken in the case of TB46, the assessment has considered whether there is a surplus of open space within the locality. A recent Local Authority Open Space Assessment identifies a surplus of open space within the locality. Colchester Borough Council Open Space Report (April 2023) identifies a current provision of 2.95ha per 1000 population of natural and semi-natural greenspace in the area including Fordham Hall Estate, and the wider Colchester area as a whole has provision of 3.07ha per 1000 population. The Open Space Assessment Report identifies 1.8ha per 1000 population as a standard for the Borough. Therefore, there is a surplus both within the locality of Fordham Hall Estate and the wider Colchester Borough of natural and semi-natural greenspace. The findings from the Colchester Borough Council Open Space Report demonstrate that there is a surplus of this type of open space in Colchester, in accordance with the requirements of NPS EN1.		
Fiddlers Wood	Adjacent	Fiddlers Wood is an ancient woodland and noted as a Local Wildlife Site in the Colchester City Council Local Plan. Fiddlers Wood is also designated as a Green Space in Eight Ash Green Neighbourhood Plan. A Linear Access Corridor (PRoW EX/134/41) runs through the Wood. The Neighbourhood Plan indicates that the woodland has amenity and local distinctive value through emphasising the importance of protecting this space to preserve and reinforce the rural character of the village.	Pylon TB50 will be located to the west of Fiddlers Wood. There is no overlap between the Order Limits and Fiddlers Wood and resultantly there is no direct or indirect impact on this area of open space. Therefore, consideration of whether this land is surplus to requirements is not engaged	No	OS/51
Fordham Heath Common	Within	Two parcels of land on Green Lane form part of Fordham Heath Common and are noted as CROW Act Land. The larger portion of the Common is situated in the hamlet of Gallows Green. This site contains woodland planting and two water bodies and is visible useable as open space. To the west is a smaller parcel which runs as a thin strip to the north of Green Lane and comprises of a highway verge and hedgerow. The Project interacts with this smaller parcel and this land is not useable for recreational purposes. The larger parcel is located outside of the Order Limits.	Fordham Heath Common will be oversailed by conductors between pylons TB53 and TB54. A temporary haul road and associated bellmouth junctions are also proposed on this parcel. The siting of these will entail hedgerow and vegetation removal. Following completion of works, hedgerows will be reinstated at the earliest appropriate opportunity within the correct planting season. Given that these works will be temporary and the land will be restored there will be no permanent on use and functionality as a result of the temporary works. The westernmost parcel of Fordham Heath Common, which will be oversailed, is not useable for recreational purposes as it is a thin strip of hedgerow and verge. Therefore, there will be no direct or indirect impact on the use and function of the open space in this location. In view of this, consideration of whether this land is surplus to requirements is not engaged. A larger parcel is sited to the east of TB53. This is excluded from the Order Limits. It is considered that there will be no impact on the use or function of	No	OS/52

Site	Distance	Purpose and Use of Space	Assessment	Loss	Reference
			this land. It will be necessary to remove or manage existing trees beneath the overhead line on the easternmost parcel. In locations where replacement standard tree planting is unsuitable due to the new overhead lines and underground cables, low height and shallow rooted scrub species will be included as alternative planting. Species mixes will allow for low growing and shallow rooted tree/scrub species as an alternative in these locations.		
Aldham Hall Wood	Adjacent	Aldham Hall Wood is an Ancient Woodland and is designated as a Local Wildlife Site under the Colchester City Council Local Plan. The wood is also a Green Space as identified in Eight Ash Green NP although outside their boundary. The wood is dissected by PRoW EX/123/15 but the site is not identified as accessible on Natural England Green Infrastructure Mapping. Therefore, there is only an open space use along the route of the PRoW.	Pylon TB55 is located to the north of Aldham Hall Wood. There is no overlap between the Order Limits and Aldham Hall Wood and resultantly there is no direct or indirect impact upon this area of open space it.	No	OS/53
Church House Wood,	Adjacent	Church House Wood is an Ancient Woodland and is designated as a Local Wildlife Site under the Colchester City Council Local Plan. The site is not identified as accessible on Natural England Green Infrastructure Mapping. Therefore, the site has been identified on a precautionary basis as it falls within the definition of green infrastructure.	Pylon TB59 is located to the south east of Church House Wood. There is no overlap between the Order Limits and the Wood and resultantly there is no direct or indirect impact upon its function and use as open space. Therefore, consideration of whether this land is surplus to requirements is not engaged. The Project has made a commitment for no physical works or breaking ground within 15m of Ancient Woodland where at all possible, with demarcation measures to be used during construction to ensure this 15m buffer is not breached.	No	OS/54
Roman River	Within	The Roman River is a main river that flows entirely through Essex. It is a tributary of the River Colne, flowing into its tidal estuary below Colchester. A Bridleway (PRoW 123/20) crosses the Roman River via an existing bridge to the west of TB60, heading north across the Sudbury to Marks Tey Railway Line. PRoW 123/18 connects into the bridleway to the south of the Roman River. Therefore, there is an open space use insofar as the river offers amenity value to the nearby PRoW.	The Roman River and PRoW 123/18 will be oversailed by conductors between TB60 and TB61. During construction a temporary haul road will be created between TB60 and TB61, continuing in a westerly direction to Brook Road. The section of temporary haul road between TB60 and TB61 will utilise part of the existing bridleway, and this will be diverted during construction. Upon completion of the construction works, the temporary haul road will be removed, and the land will be reinstated. No permanent works are proposed that would obstruct the route of the PRoW. Therefore, there will be no direct impact on the use of this open space. In terms of permanent impact on the use of land as providing amenity value to the PRoW, if and in so far as the Project has an indirect effect on the use of the open space then such an impact is significantly outweighed by the benefits of the Project (including need), and having regard to the mitigation the Project has offered in respect of the indirect effect on the open space. It will be necessary to remove or manage existing trees beneath the overhead line on the riverbanks. In locations where replacement standard tree planting is unsuitable due to the new overhead lines and underground cables, low height and shallow rooted scrub species will be included as alternative planting. Species mixes will allow for low growing and shallow rooted tree/scrub species as an alternative in these locations. Following the completion of works, all temporarily impacted watercourses will be reinstated to their former state, or better. This will include the replacement of any substrate or vegetation that was temporarily removed.	No	OS/55
Stonefield Strip	Adjacent	Stonefield Strip is an area of woodland designated as a Local Wildlife Site under the Colchester City Council Local Plan.	Pylon TB61 is proposed to be located to the north west of Stonefiled Strip. There is no overlap between the Order Limits and Stonefield Strip and	No	OS/56

Site	Distance	Purpose and Use of Space	Assessment	Loss	Reference
		Bridleway EX/123/20 is sited between the space and the Order Limits, but the site is not identified as publicly accessible on Natural England Green Infrastructure Mapping. Therefore, there is an open space use insofar as the site offers amenity value to the nearby PRoW.	resultantly there is no direct or indirect impact upon its function and use as open space.		
Fishing Lake Little Bromley Road	Within	Private Fishing Lake to the north of Little Bromley Road. This site is used for angling, so has an open space use as it offers opportunities for sport and recreation.	The Order Limits overlap with a fishing lake to the north of Little Bromley Road and pylon TB5. The undergrounding of cables is proposed to the south of this lake, as well as temporary works associated with the undergrounding of existing UKPN third party 11kV infrastructure. No other permanent development is proposed within this land. Due to the nature of the works proposed in this area there would be no direct or indirect impact on the use or function of the open space for angling. The site is not within 30m of the overhead lines and therefore angling would not be sterilised. Therefore, consideration of whether this land is surplus to requirements is not engaged	No	OS/44
Glebe Corner	Within	Glebe Corner is located adjacent to Harwich Road on the edge of the settlement of Ardleigh. The land is identified in the Ardleigh Neighbourhood Plan as a Local Green Space designation. The land is designated as a Local Green Space for its landscape, heritage and ecological value, and there is no reference to recreational uses. Instead, it is evident that the land is in agricultural use. Therefore, the site has been identified on a precautionary basis given this designation.	An existing 33 kV overhead line will be replaced by an underground cable which will be routed through Glebe Corner. The undergrounding works will result in a temporary above ground impact on this land These works will have no permanent above ground impact as the land will be restored following the completion of works. Therefore, consideration of whether this land is surplus to requirements is not engaged. Further consideration of the sites designation as a Local Green Space is provided within the Policy Compliance Document (document reference 5.7).	No	OS/45
Fishing Lake north of Colchester Road	Within	The fishing lake and existing Public Rights of Way (PRoW 158_4 and 158_22) form part of a Local Green Space designated in the adopted Ardleigh Neighbourhood Plan. The Ardleigh Neighbourhood Plan states that by virtue of the PRoW this space '*has been used for recreational walking by villagers for hundreds of years. It provides the only glimpse of open countryside available from Colchester Road (within the built-up area of the village').* PRoW 158_4 is routed south to north from Colchester Road to the immediate west of Ardleigh St. Mary's Church of England School. PRoW 158_22 is routed east to west from Dead Lane to The Street. This PRoW follows the southern edge of the fishing lake. The fishing lake itself is identified as being a private site. The recreational use of the site for angling means it falls within the definition of open space.	The Project will oversail the fishing lake at a diagonal angle between pylon TB13 and TB14. The presence of a 400kV overhead line and the need to maintain a 30m clearance for angling activities prevents angling activities from continuing on this site, and therefore there will be a direct impact on the use of the site. National Grid has proposed to create a replacement fishing lake to the immediate east, however, there has been no agreement on this. National Grid have also sought to identify alternative means of alignment to avoid this fishing lake. These alternatives are described in the Design Development Report (document reference 5.15). Given that the Project will result in the loss of the use and function of this open space for angling, an additional assessment has been undertaken to understand the availability of angling facilities in the local area. This assessment can be found in appendix B2. The assessment finds that this site and site OS/48 are surplus to requirements, as there is a strong provision of alternative facilities within the locality, and that there are no standout cost or quality reasons that would justify their retention. Further to this, it is considered that the positive benefits of the Project (including need) outweigh the loss of the angling provision and taking into account the mitigation which has been proposed. In respect of the oversail of the PRoW within this open space, if and in so far as the Project has an indirect impact on the use of the open space by way of introducing a visually intrusive feature in the open space in the form of oversailing conductors then such an impact is significantly outweighed by the benefits of the Project (including need), and having regard to the mitigation the Project has offered in respect of the indirect effect on the open space.	Yes	OS/46

Site	Distance	Purpose and Use of Space	Assessment	Loss	Reference
			Further consideration of the sites designation as a Local Green Space is provided within the Policy Compliance Document (document reference 5.7).		
Fishing Lake at Ardleigh Reservoir	Within	Ardleigh Reservoir covers 48.5 hectares, supplying water to both Anglian Water and Affinity Water. The reservoir is also used for recreational activities including sailing, angling and is used by the University of Essex Rowing Club. Access to the Reservoir is private and day tickets for angling are required. The area of the reservoir to the north of Wick Lane is identified as being private land with access for fishing by permit only (there are no Public Rights of Way around this section of the reservoir). There is an existing 11kV overhead line which crosses over this section of the reservoir. To the south are a number of Public Rights of Way and informal paths. The southern section of the reservoir includes the Ardleigh Reservoir Treatment Plant, Fishery Office and Ardleigh Sailing Club.	The Project will oversail Ardleigh Reservoir to the north of Wick Lane. The overhead line will crosse the reservoir diagonally from south east to north west. The alignment necessitates the removal and undergrounding of UKPN's existing 11kV overhead line. The presence of the 400kV overhead line will introduce a restriction on fishing activities within 30m of the overhead line, so there will be an impact on the use of the open space. Given that angling will only be precluded along a 30 metres swathe, it will remain possible to use other areas at this part of Ardleigh Reservoir. However, the Project will result in the loss of the use and function of this open space for angling insofar as it relates to a 30m swathe along the route of the OHL, and therefore an additional assessment has been undertaken to understand the availability of angling facilities in the local area. This assessment can be found in appendix B2. The assessment finds that the provision of angling at this site and site OS/47 are surplus to requirements, as there is a strong provision of alternative facilities within the locality, and that there are no standout cost or quality reasons that would justify their retention. Further to this, it is considered that the positive benefits of the Project (including need) outweigh the loss of the angling provision.	Yes	OS/47
Former Ardleigh Showground	Within	The former Ardleigh Showground is subject to a planning consent from Essex County Council for mineral extraction (application reference ESS/07/20/TEN) which received a resolution to grant planning permission in December 2023. National Grid has noted that the Ardleigh Showground is subject to a minerals application for the continued winning and working of minerals associated with the construction of a public water storage reservoir. The application includes proposals for a wider restoration scheme which includes provision for public access with works to be completed by 14 March 2031. Therefore, a future use as open space may come forward.	National Grid has taken into account the final restoration proposals and sought to position pylon TB20 in a location which will minimise the impact on the future amenity use of this site as well as a consented food storage and distribution facility to the north. It is anticipated the Project will come forward in advance of the proposed restoration works being implemented.	No	OS/48
Braintree					
Coggeshall Hall Farm and River Blackwater	Within	Coggeshall Hall Farm is defined as a Local Wildlife Site within Braintree Council's Local Plan. Coggeshall Hall Farm is also captured in Feering Neighbourhood Plan as a visually important space. The River Blackwater runs through the site. No marine recreational assets are located near this interaction between the Project and the River Blackwater, and the site is not identified as accessible on Natural England Green Infrastructure Mapping. Therefore, the site has been identified on a precautionary basis as it falls within the definition of green infrastructure.	The Project will oversail a thin strip of the Coggeshall Hall Farm LWS and the River Blackwater between pylons TB78 and TB79. No permanent development is proposed within these sites. A new single span bridge would be installed over the River Blackwater to accommodate a temporary haul road. A permanent access road transvers the site and River to the north, making use of an existing track (right of access only). The works to construct the haul road would be temporary. Furthermore, Coggeshall Hall Farm has been identified on a precautionary basis as it falls within the definition of green infrastructure. Therefore, there will be no direct or indirect effect from the Project on this open space and consideration of whether this land is surplus to requirements is not engaged. It will be necessary to remove or manage existing trees beneath the overhead line on the banks of the river. National Grid has committed to a 3:1 replacement for individual trees and trees within groups. Where possible, trees will be replanted in the same, or in close proximity to, the location from	No	OS/57

Site	Distance	Purpose and Use of Space	Assessment	Loss	Reference
			which they were removed. If constraints preclude tree planting in the same or in close proximity to where they were removed, tree planting will be undertaken as close as possible to the original location. If it is not possible to provide tree planting within the Order Limits, then offsite provision as close to the Order Limits as possible will be provided. Following the completion of works, all temporarily impacted watercourses will be reinstated to their former state, or better. This will include the replacement of any substrate or vegetation that was temporarily removed.		
Pantlings Lane (Common Land)	Within	Pantlings Lane is identified as being Common land. A bridleway (PRoW 92/1) extends along the Pantlings Lane between Monks Farm Cottage connecting (via other bridleways) to Cuthedge Lane. This Common land is only highway verge, hedgerow, and lane and no recreational use exists on it.	Pantlings Lane will be oversailed by conductors between pylons TB84 and TB85. A temporary haul road is also proposed on this parcel. The siting of this will entail hedgerow and vegetation removal. Following completion of works, hedgerows will be reinstated at the earliest appropriate opportunity within the correct planting season. Given that these works will be temporary and the land will be restored there will be no permanent impact on use and functionality as a result of the temporary works. This site has been identified as it is Common land, however, it is not useable for recreational purposes. In view of this, there will be no direct or indirect effect from the Project on this open space, and consideration of whether this land is surplus to requirements is not engaged. It will be necessary to remove or manage existing trees beneath the overhead line on this land. In locations where replacement standard tree planting is unsuitable due to the new overhead lines and underground cables, low height and shallow rooted scrub species will be included as alternative planting. Species mixes will allow for low growing and shallow rooted tree/scrub species as an alternative in these locations.	No	OS/58
Woodland around Porters Farm, Kelvedon	Within	The woodland around Porters Farm is identified as green infrastructure by Natural England. Incorporating Ruffian Wood which was planted in 2005 to commemorate the 200th Anniversary of the Battle of Trafalgar in 1805. Porters Farm is a family business incorporating a 10-acre secure dog-walking field, a rustic, off-grid Shepherd's Hut and 18th century traditional Essex Barn. The use of this site relates to commercial dog walking, and this does not fall within the definition of open space.	Conductors will oversail Porters Farm between pylons TB90 and TB91. An existing 11kV overhead line to the east of the farm entrance would be removed and placed underground. The alignment of the existing 11kV overhead line would also be used temporarily as a construction haul road. This site has been identified on a precautionary basis as it comprises of green infrastructure. However, there is no open space use here. In view of this, there will be no direct or indirect effect from the Project on open space here, and consideration of whether this land is surplus to requirements is not engaged. It will be necessary to remove or manage existing trees beneath the overhead line and above the undergrounded cables on this land. In locations where replacement standard tree planting is unsuitable due to the new overhead lines and underground cables, low height and shallow rooted scrub species will be included as alternative planting. Species mixes will allow for low growing and shallow rooted tree/scrub species as an alternative in these locations.	No	OS/59
Rivenhall Thicks	Within	Rivenhall Thicks is defined as a Local Wildlife Site within Braintree Council's Local Plan. PRoW EX/105/11 dissects the woodland and thus there is a recreational use along the route of the PRoW.	Pylon TB96 will be located to the north west of Rivenhall Thicks. There is a small overlap between the Order Limits and Rivenhall Thicks associated with the removal of an existing 33kV pole in the corner of the Local Wildlife Site. This interaction is distant from the PRoW and as such there is no direct or indirect impact on the use of the PRoW on this land.	No	OS/60

Site	Distance	Purpose and Use of Space	Assessment	Loss	Reference
			Natural regeneration of woodland post construction is proposed for woodlands where existing third-party infrastructure is being removed from and this is considered a long-term ecological benefit, as the woodland would have been subject to an existing vegetation management regime under the existing overhead lines.		
River Brain and surrounding deciduous woodland.	Within	The River Brain is a tributary of the River Blackwater. The river and woodland along its banks are identified as green and blue infrastructure by Natural England. These areas are not identified as being publicly accessible and no Public Rights of Way have been noted in proximity. Furthermore, no marine recreational assets are located near this interaction between the Project and the River. Therefore, the site has been identified on a precautionary basis as it falls within the definition of green infrastructure.	The River Brain and deciduous woodland on its northern bank will be oversailed by conductors between TB101 and TB102. This site has been identified on a precautionary basis as it is green and blue infrastructure, however, there are no recreational uses identified at the site. In view of this, there will be no direct or indirect effect from the Project on this open space, and consideration of whether this land is surplus to requirements is not engaged. It will be necessary to remove or manage existing trees beneath the overhead line on this area of woodland. National Grid has committed to a 3:1 replacement for individual trees and trees within groups. Where possible, trees will be replanted in the same, or in close proximity to, the location from which they were removed. If constraints preclude tree planting in the same or in close proximity to where they were removed, tree planting will be undertaken as close as possible to the original location. If it is not possible to provide tree planting within the Order Limits, then offsite provision as close to the Order Limits as possible will be provided. A permanent access road will be routed across the river and through the woodland. However, this will use an existing access lane so requires now work. This will also be used during construction. During construction, SuDS basins will be sited within the woodlands, which will require temporary tree removal, however, these will be replanted after works in line with the Outline LEMP.	No	OS/61
White Notley FC	Within	White Notley Football Club was established in 1950 and is an FA accredited football club which serves the villages of White Notley, Faulkbourne and the surrounding area. The club have representation in junior, senior and veteran leagues. The football club have a mini-pitch and two full size grass pitches along with a club house at a site off Churchill Road. The football ground is for members of the club only and is not publicly accessible otherwise. As this is a football ground it falls within the definition of open space as it provides opportunities for sport and recreation.	Conductors will oversail White Notley Football Club between pylons TB103 and TB104. There are two pitches at the ground. In the short term, construction works may impact the second pitch, however, these would have no long-term impact. An existing track through the space will be retained as a permanent access route. No permanent works are proposed which would directly or indirectly impact the use of the pitches as playing fields. Therefore, there is no requirement to consider whether these pitches are surplus to requirements. Ongoing engagement is taking place between National Grid, the Football Club, Sport England and the Essex FA to ensure that impact on the operations of the football club will be limited during construction. Discussions indicate that any impacts are acceptable to these stakeholders. It may be necessary to remove or manage existing trees beneath the overhead line on this land, adjacent to the football pitches. In locations where replacement standard tree planting is unsuitable due to the new overhead lines and underground cables, low height and shallow rooted scrub species will be included as alternative planting. Species mixes will allow for low growing and shallow rooted tree/scrub species as an alternative in these locations.	No	OS/62

Site	Distance	Purpose and Use of Space	Assessment	Loss	Reference
Parson's and Queens Woods	Within	Parson's and Queens Woods are an Ancient Woodland, and they are identified as a Local Wildlife Site within Braintree Council's Local Plan. PRoW EX/76/1 runs along the eastern boundary of the woodland and PRoW1 76 runs along the southern and eastern boundary of the site. Therefore, there is a recreational use along the routes of these PRoWs. The Woods are not otherwise identified as publicly accessible.	The site is located adjacent to the Order Limits with a minor overlap near pylon TB122. The Order Limits at this location extend around an existing 132kV overhead line which is to be removed and undergrounded. As such it is not considered that the Project would have a direct or indirect permanent impact on the use of the PRoWs given that the permanent works will be underground and the land restored following the completion of the Project. Natural regeneration of woodland post construction is proposed for woodlands where existing third-party infrastructure is being removed from woodlands and this is considered a long-term ecological benefit, as the woodland would have been subject to an existing vegetation management regime under the existing overhead lines.	No	OS/63
Chelmsford					
River Ter and Woodland north of Goodmans Lane	Within	The River Ter is a 17-mile River. In this location, its banks include an area of lowland mixed deciduous woodland between Goodman Lane and the River Ter. The woodland and River Ter are not identified as being publicly accessible and no marine recreational assets are located near this interaction between the Project and the River. Accordingly, the site has been identified on a precautionary basis given that it falls within the definition of green and blue infrastructure.	Conductors will oversail the River Ter and woodland between pylons TB127 and TB128. An existing 11kV overhead line which crosses the woodland and river from the south east to north west will be removed and placed underground along Paulk Hall Lane. No permanent development is proposed that would impact on this site. A temporary haul road will be routed through the western section of the woodland with a crossing of the River Ter. Upon completion, these works will be removed, and the site will be restored. As set out, this site has been identified on a precautionary basis as it comprises of green and blue infrastructure. However, there is no recreational use here. In view of this, there will be no direct or indirect effect from the Project on this open space, and consideration of whether this land is surplus to requirements is not engaged. A PRoW exists to the north of the river and is oversailed, however, it is not considered that the interaction between the Project and this site would have any impact on the visual amenity value of this part of the PRoW, given the distance between the site and the PRoW. It will be necessary to remove or manage existing trees beneath the overhead line on this area of woodland. National Grid has committed to a 3:1 replacement for individual trees and trees within groups. Where possible, trees will be replanted in the same, or in close proximity to, the location from which they were removed. If constraints preclude tree planting in the same or in close proximity to where they were removed, tree planting will be undertaken as close as possible to the original location. If it is not possible to provide tree planting within the Order Limits, then offsite provision as close to the Order Limits as possible will be provided.	No	OS/64
Lowley's Farm Meadow and River Ter	Adjacent	Lowley's Farm is located within a broader area designated as Open Space in the Chelmsford Local Plan. To the southwest of this designation lies Orchid Meadow, identified within the Local Plan as a Local Wildlife Site. However, Natural England Green Infrastructure Mapping notes that most of the meadow and the surrounding open space are not publicly accessible. Therefore, the recreational use at the site is unclear. The Chelmsford Local Wildlife Site Review (2016) notes that this field is perhaps a small surviving remnant of a once more extensive floodplain grassland system and that old, relatively unimproved grasslands are a rare habitat in Essex.	Pylon TB 128 will be sited to the south east of the site, adjacent to Goodmans Lane. The River Ter flows along the eastern boundary of the site. The site is located outside the Order Limits, and no development will take place on it. Therefore, there will be no direct or indirect impact on it and consideration of whether this land is surplus to requirements is not engaged. At the River Ter, National Grid is proposing to remove an existing UKPN third party 11kV overhead line which will be undergrounded (crossing the River Ter). There will be no permanent impacts from these works and natural regeneration of woodland post construction is proposed for woodlands where existing third-party infrastructure is being removed. The swathe of land where replanting is not possible is significantly less for undergrounding than	No	OS/65

Site	Distance	Purpose and Use of Space	Assessment	Loss	Reference
		No marine recreational assets are located near this interaction between the Project and the River.	oversailing. Therefore, this is considered a long-term ecological benefit, as the woodland would have been subject to an existing vegetation management regime under the existing overhead lines.		
Lyonshall Wood	Adjacent	Lyonshall Wood is an Ancient Woodland designated as a Local Wildlife Site and an area of Open Space within the Chelmsford Local Plan. The Chelmsford Local Wildlife Site Review (2016) notes that this large ancient woodland retains important characteristics of ancient woodland especially with respect to the rich and diverse ground flora that it supports. Public PRoWs 46 221 and PROW48 221 run through the site. Two further PRoWs –50 221 and 47 221 run close to the site boundaries. Therefore, a recreational use exists along the route of these.	The site consists of an area of woodland, located to the east of where pylons TB130 and TB133 are proposed. The site is located outside the Order Limits, and no development will take place on it. Therefore, there will be no direct or indirect impact on the land and consideration of whether this land is surplus to requirements is not engaged. The Project has made a commitment for no physical works or breaking ground within 15m of Ancient Woodland where at all possible, with demarcation measures to be used during construction to ensure this 15m buffer is not breached.	No	OS/66
Stonage Wood	Adjacent	Stonage Wood is designated as a Local Wildlife Site and an area of Open Space within the Chelmsford Local Plan. The Chelmsford Local Wildlife Site Review (2016) notes that although there is some uncertainty about whether the wood is ancient, it is a good example of diverse Lowland mixed Deciduous Woodland. Natural England details that the Wood is bordered to PRoW EX/225/14. Therefore, a recreational use exists along the route of the PRoW.	Pylon TB133 will be sited to the north of this site. The site is located outside the Order Limits, and no development will take place on it. Therefore, there will be no direct or indirect impact on the land and consideration of whether this land is surplus to requirements is not engaged.	No	OS/67
Sheepcotes Wood	Adjacent	Sheepcotes Wood is an Ancient Woodland designated as a Local Wildlife Site and an area of Open Space within the Chelmsford Local Plan. The Chelmsford Local Wildlife Site Review (2016) notes that the structure and composition of this wood support documentary evidence that it is an ancient site. The site is not identified as accessible on Natural England Green Infrastructure Mapping. Therefore, the site has been identified on a precautionary basis as it falls within the definition of green infrastructure.	Pylon TB136 will be sited to the north west of this site. The site is located outside the Order Limits, and no development will take place on it. Therefore, there will be no direct or indirect impact on it and consideration of whether this land is surplus to requirements is not engaged. The Project has made a commitment for no physical works or breaking ground within 15m of Ancient Woodland where at all possible, with demarcation measures to be used during construction to ensure this 15m buffer is not breached.	No	OS/68
Langleys Deer Park and River Chelmer	Within	Langleys Deer Park is designated as a Local Wildlife Site, an area of Open Space and is a Registered Park and Garden within the Chelmsford Local Plan. The River Chelmer runs through the site. Therefore, there are recreational uses within the park. Langleys Deer Park is an early-18th-century park and woodland covering 63 hectares, which contains a late-19th-century formal garden. The Gardens are Grade II Listed. The Chelmsford Local Wildlife Site Review (2016) notes that parklands afford unique opportunities for wildlife with their scattered standard trees and extensive grasslands. Documentary evidence shows that this is an ancient landscape that is likely to be rich in all forms of wildlife, including invertebrates. Other habitats, such as the river corridor and stands of woodland, add to the overall habitat diversity. Five Public Rights of Way cross the site, (222, 67 222, 69 222, 71 222 and 101 222). The River Chelmer runs for 40 miles from the north west of Essex, through Chelmsford and into the River Blackwater near Maldon. No	The site consists of a large area of land to the west of where pylons TB137 – TB140 are proposed. There are minor overlaps between the Order Limits and no development will take place on it. Therefore, there will be no direct or indirect impact on it and consideration of whether this land is surplus to requirements is not engaged. The River Chelmer is within the estate and forms part of its western boundary. The river will be oversailed by conductors between TB139 and TB140. It is understood that there is no public access within the section of the River Chelmer which will be subject to the oversail. This part of the site has been identified on a precautionary basis as it comprises of green and blue infrastructure. However, there is no recreational use identified along the river. In view of this, there will be no direct or indirect effect from the Project on this open space, and consideration of whether it is surplus to requirements is not engaged. It will be necessary to remove or manage existing trees along the riverbank. In locations where replacement standard tree planting is unsuitable due to the new overhead lines and underground cables, low height and shallow rooted scrub species will be included as alternative planting. Species mixes will allow	No	OS/69

Site	Distance	Purpose and Use of Space	Assessment	Loss	Reference
		marine recreational assets are located near this interaction between the Project and the River. Therefore, the River itself is identified on a precautionary basis as blue infrastructure.	for low growing and shallow rooted tree/scrub species as an alternative in these locations.		
Sparrowhawk Wood	Adjacent	Sparrowhawk Wood is an Ancient Woodland and is designated as a Local Wildlife Site. The Chelmsford Local Wildlife Site Review (2016) notes that the structure and composition of this site is typical of many ancient woods in Essex. Natural England Green Infrastructure mapping indicates that the Wood is non accessible. PRoWs EX/225/29, off Woodhouse Lane, EX/222/78 off Lark's Lane, and EX/222/77 run along the northern and northeastern boundaries of the woodland. Therefore, there will be an open space use along the route of these PRoWs.	Pylon TB144 will be located to the north west of this site. The site is located outside the Order Limits, and no development will take place on it. Therefore, there will be no direct or indirect impact on it and consideration of whether this land is surplus to requirements is not engaged. The Project has made a commitment for no physical works or breaking ground within 15m of Ancient Woodland where at all possible, with demarcation measures to be used during construction to ensure this 15m buffer is not breached.	No	OS/70
Bedford Playing Fields	Adjacent	Bedford Playing Fields are a part of the facilities at King Edward VI Grammer School. The playing fields are listed as an Existing School, Further / Higher Education Establishment within the Chelmsford Local Plan. The Fields are only used in association with the school and there is no access to the general public. Located at Bedford Fields near Broomfield Hospital, this 30-acre area of green belt contains 5 rugby pitches, 5 football pitches, 2 cricket squares, 2 artificial wickets, athletics track and 2 hockey pitches. These are all available for hire along with a pavilion/changing rooms. The pitches are available to hire via King Edward VI Grammer School. Given that this site includes playing fields a recreational use exists, and it falls within the definition of open space.	The Project has been designed specifically so as to avoid any direct interaction with these sports pitches. They are located outside the Order Limits, and no development will take place on it. Therefore, there will be no direct or indirect impact on it and consideration of whether these pitches are surplus to requirements is not engaged.	No	OS/71
Border Wood	Adjacent	Border Wood is designated as a Local Wildlife Site and an area of Open Space in the Chelmsford Local Plan. Therefore, there is a recreational use on the land. The woodland surrounds an artificial lake, Tufnell Mere, which is leased by the Chelmsford Angling Association for fishing. Border Wood connects the Mere to a wider network of wildlife corridors. Border Wood's nature conservation value lies in its mosaic of wetland, woodland, and grassland habitats, contributing to its designation as a Local Wildlife Site. Additionally, the wood is highly regarded for its tranquil and peaceful character, as highlighted in the Broomfield Neighbourhood Plan (2021). The Chelmsford Local Wildlife Site Review (2016) notes that parts of the site clearly have a structure and composition that indicate an ancient status. The more recent woodland stand provides a useful habitat extension to the ancient stands. PRoW EX/214/2 runs along the southern boundary of the woodland.	The site consists of a linear area of woodland, aligned south west – north east, to the west of proposed pylon TB146. The Wood is located outside the Order Limits, and no development will take place on it. Therefore, there will be no direct or indirect impact on it and consideration of whether this land is surplus to requirements is not engaged.	No	OS/72
Bushy Wood	Adjacent	Bushy Wood is an Ancient Woodland and is designated as a Local Wildlife Site and Open Space in the Chelmsford Local Plan. Therefore, there is a recreational use on the land. The Chelmsford Local Wildlife Site Review (2016) notes that this woodland has a typical coppice and standard structure found in many	Bushy Wood consists of a generally square block of woodland, located to the west of proposed pylon TB150. Bushy Wood is located outside the Order Limits, and no development will take place on it. Therefore, there will be no direct or indirect impact on it and consideration of whether this land is surplus to requirements is not engaged.	No	OS/73

Site	Distance	Purpose and Use of Space	Assessment	Loss	Reference
		woods throughout Chelmsford, with species indicative of its ancient status. Natural England's Green Infrastructure Mapping indicates that the 5.1ha wood as inaccessible. PRoW 20 216 runs along the northern edge of the wood, away from the Project.	The Project has made a commitment for no physical works or breaking ground within 15m of Ancient Woodland where at all possible, with demarcation measures to be used during construction to ensure this 15m buffer is not breached.		
Scout Jamboree Site	Within	This site is an area of private land which is used every four years for the Essex Scout Jamboree.	National Grid has noted this private land is used every four years for the Essex Scout Jamboree and for other private hire events. It is not considered that the site constitutes open space, recreational land or green infrastructure. However, the site has been included in this assessment on a precautionary basis. National Grid has been engaging with the Scout Jamboree organisers and agreed that the event planned for 2028 will be relocated to avoid clashing with the construction of the Project. It is not considered that once operational, the Project would limit the Scout Jamboree taking place in future on this site.	No	OS/74
Reclaimed Landfill Park, Chignall St James (Former Roxwell Quarry Restoration Site) and River Can	Within	Brittons Hall Farm Landfill Site is a former sand and gravel mineral extraction site and forms one of a number of separate landfill areas at the Roxwell Quarry Complex. This landfill site has been restored following the cessation of landfill operations and now has public access along a circular restricted bridleway located on the land. The land is now identified as a nature park and a recreational use exists along the route of the restricted bridleway. The remainder of the park comprises of agricultural fields, land left for nature regeneration or green infrastructure. The River Can is a tributary of the River Chelmer and is approximately only 4.5 miles in length from source to mouth in Chelmsford. No marine recreational assets are located near this interaction between the Project and the River.	Pylons TB157 and TB158 will be located outside of the park (based on the planning application boundary identified on planning application ESS/70/17/CHL). Conductors associated with the Project oversail the reclaimed site in this location between these two pylons. Conductors between pylons TB158 and TB159 will also oversail the River Can to the south west of the former quarry and landfill. A temporary haul road is proposed through the former landfill and quarry site and across the River Can, which will include the construction of a single span bridge across the river. By nature, these works will not permanently result in the loss of the land, and it will be restored following the completion of works. No permanent development will take place on the park and therefore, there will be no direct impact on the use of the land as open space. With regard to the oversails, if and in so far as the Project has an indirect impact on the use of the open space then such an impact is significantly outweighed by the benefits of the Project (including need), and having regard to the mitigation the Project has offered in respect of the indirect effect on the open space. It will be necessary to remove or manage existing trees beneath the overhead line on in hedgerows that border the Park. In locations where replacement standard tree planting is unsuitable due to the new overhead lines and underground cables, low height and shallow rooted scrub species will be included as alternative planting. Species mixes will allow for low growing and shallow rooted tree/scrub species as an alternative in these locations.	No	OS/75
Roxwell Road and Brook	Within	Area of green infrastructure identified by Natural England to north of Roxwell Road and Roxwell Brook to the south. Natural England Green Infrastructure Mapping does not identify public access to this land. Therefore, the site has been identified on a precautionary basis as it falls within the definition of green and blue infrastructure.	Conductors will oversail an area of lowland mixed deciduous woodland and the Roxwell Brook between pylons TB161 and TB162. This site has been identified on a precautionary basis as it comprises of green and blue infrastructure. In view of this, there will be no direct effect from the Project on this area of green infrastructure, and consideration of whether this land is surplus to requirements is not engaged. It will be necessary to remove or manage existing trees beneath the overhead line on this area of woodland. National Grid has committed to a 3:1 replacement for individual trees and trees within groups. Where possible, trees will be replanted in the same, or in close proximity to, the location from which they were removed. If constraints preclude tree planting in the same or in close proximity to where they were removed, tree planting will be undertaken as close as possible to the original location. If it is not possible to	No	OS/76

Site	Distance	Purpose and Use of Space	Assessment	Loss	Reference
			provide tree planting within the Order Limits, then offsite provision as close to the Order Limits as possible will be provided.		
Tutney Pond	Adjacent	Tutney Pond is identified by Natural England as publicly accessible.	Tutney Pond is located to the north east of proposed pylon TB167, adjacent and to the west of Newney Green (Mossy's Path). Tutney Pond is located outside the Order Limits, and no development will take place on it. Therefore, there will be no direct or indirect impact on it and consideration of whether this land is surplus to requirements is not engaged.	No	OS/77
Lady Grove	Adjacent	Lady Grove is split into two designations. To the west Lady Grove is an area of replanted Ancient Woodland and is designated as Open Space in the Chelmsford Local Plan. Therefore, this area has a recreational use. To the east, the Grove is a Local Wildlife Site and Ancient Woodland. The Chelmsford Local Wildlife Site Review (2016) indicates that the Ancient woodland to the east comprises an area of neglected coppice and is much richer, ecologically, than the replanted area to the west. The Grove features a Caravan Park to its immediate north and is listed as non-accessible by Natural England. PRoW EX/238/66 runs along the eastern border of Lady Grove.	The site is located to the south west of proposed pylon TB170. Lady Grove is located outside the Order Limits, and no development will take place on it. Therefore, there will be no direct or indirect impact on it and consideration of whether this land is surplus to requirements is not engaged. The Project has made a commitment for no physical works or breaking ground within 15m of Ancient Woodland where at all possible, with demarcation measures to be used during construction to ensure this 15m buffer is not breached.	No	OS/78
Great / Little Edney Woods	Within	Great Edney and Little Edney Woods are two areas of Ancient Woodland and are designated as Local Wildlife Sites and Open Spaces in the Chelmsford Local Plan. Therefore, these woods have a recreational use. The Chelmsford Local Wildlife Site Review (2016) indicates that the woodland comprises an area of neglected coppice. It considers that these woodlands form part of the historic landscape of Writtle Forest and are demonstrably ancient. A number of PRoWs run through the site and close to the site boundaries – 223_36, 223_37, 223_39, 223_40 and 238_64. This includes the part of the site where the oversail exists and therefore there will be a recreational use along the route of the PRoW.	A narrow strip of the woodland is located immediately to the north of pylon TB177 and is oversailed by conductors between proposed pylons TB176 and TB177. The remainder of the woodland, which is significantly greater in size that this narrow strip, is located outside the Order Limits. PRoW 238_64 runs along this narrow strip. A temporary haul road is also proposed on this parcel. The siting of this will entail woodland removal. Following completion of works, woodland will be reinstated at the earliest appropriate opportunity within the correct planting season. Given that these works will be temporary and the land will be restored there will be no permanent impact on use and functionality as a result of the temporary works. No permanent development will take place within the Woods and therefore, there will be no direct impact on the use of the land as open space. With regard to the oversail of the PRoW, if and in so far as the Project has an indirect impact on the use of the open space such an impact is significantly outweighed by the benefits of the Project (including need), and having regard to the mitigation the Project has offered in respect of the indirect effect on the open space. It will be necessary to remove or manage existing trees beneath the overhead line on this area of woodland. National Grid has committed to a 3:1 replacement for individual trees and trees within groups. Where possible, trees will be replanted in the same, or in close proximity to, the location from which they were removed. If constraints preclude tree planting in the same or in close proximity to where they were removed, tree planting will be undertaken as close as possible to the original location. If it is not possible to provide tree planting within the Order Limits, then offsite provision as close to the Order Limits as possible will be provided.	No	OS/79
Writtle Park Wood	Within	Writtle Park Wood is an Ancient Woodland and is designated as a Local Wildlife Site and Open Space in the Chelmsford Local Plan. Therefore, this Wood has a recreational use.	The site is located to the west of pylon TB179. A small area of the site is located within the Order Limits where an existing 11kV UKPN overhead line will be removed. It is not considered that the	No	OS/80

Site	Distance	Purpose and Use of Space	Assessment	Loss	Reference
		The Chelmsford Local Wildlife Site Review (2016) indicates that the woodland comprises an area of neglected coppice. The woodlands form an integral part of the historic landscape of Writtle Forest. There is good documentary evidence to suggest an ancient status, which is also borne out by the structure and composition. PRoW 223_37 runs through the site in a south west – north east direction.	Project would have a direct or indirect impact on the function or use of the majority of this space apart from the works to remove the 11kV overhead line, which will be temporary. Natural regeneration of woodland post construction is proposed for woodlands where existing third-party infrastructure is being removed from woodlands and this is considered a long-term ecological benefit, as the woodland would have been subject to an existing vegetation management regime under the existing overhead lines.		
James' Spring	Adjacent	James Spring is an Ancient Woodland and is designated as a Local Wildlife Site and Open Space in the Chelmsford Local Plan. Therefore, James Spring has a recreational use. The Chelmsford Local Wildlife Site Review (2016) indicates that the structure and composition of the wood support documentary evidence that it is an ancient site.	James Spring is located outside the Order Limits to the north west of proposed pylon TB181, and no development will take place on it. Therefore, there will be no direct or indirect impact on it and consideration of whether this land is surplus to requirements is not engaged. The Project has made a commitment for no physical works or breaking ground within 15m of Ancient Woodland where at all possible, with demarcation measures to be used during construction to ensure this 15m buffer is not breached.	No	OS/81
Handley Green	Within	Handley Green is an area of Common Land and is designated as an Open Space in the Chelmsford Local Plan. The section of the Common Land oversailed is a track and verge and appears to be primarily used as a means of access for residents and landowners as opposed to a space of recreation.	Handley Green will be oversailed by conductors between pylons TB182 and TB181. No permanent works will take place on this Common Land. A permanent access route uses two existing field openings either side of the lane. There would be no physical works associated with these permanent access routes to pylons. They are proposed rights of access only to allow for any maintenance or refurbishment required. A temporary haul road and associated bellmouth junctions are also proposed on this land. The siting of these will entail hedgerow and vegetation removal. Following completion of works, hedgerows will be reinstated at the earliest appropriate opportunity within the correct planting season. Given that these works will be temporary and the land will be restored there will be no permanent impact on use and functionality as a result of the temporary works. With regard to the oversail, the portion of Handley Green being oversailed is not useable recreationally given that it is verge and a track Therefore, there will be no direct or indirect impact on the use or function of this area of common land in this location. In view of this, consideration of whether this land is surplus to requirements is not engaged. It will be necessary to remove or manage existing trees beneath the overhead line in the hedgerows either side of the Common Land. In locations where replacement standard tree planting is unsuitable due to the new overhead lines and underground cables, low height and shallow rooted scrub species will be included as alternative planting. Species mixes will allow for low growing and shallow rooted tree/scrub species as an alternative in these locations.	No	OS/82
Bushey Wood	Adjacent	Bushey Wood is an Ancient Woodland and is designated as a Local Wildlife Site and Open Space in the Chelmsford Local Plan. Therefore, Bushey Wood has a recreational use. The Chelmsford Local Wildlife Site Review (2016) indicates that the woodland has a varied native species canopy, and shrub layer structure. Its composition supports documentary evidence that this is an ancient woodland site.	Bushey Wood is located to the west of proposed pylon TB183. The land is located outside the Order Limits, and no development will take place on it. Therefore, there will be no direct or indirect impact on it and consideration of whether this land is surplus to requirements is not engaged. The Project has made a commitment for no physical works or breaking ground within 15m of Ancient Woodland where at all possible, with	No	OS/83

Site	Distance	Purpose and Use of Space	Assessment	Loss	Reference
		Natural England's Green Infrastructure Mapping indicates that the woods are not publicly accessible. The closest point of access is PRoW EX/226/13 that bounds the south of the wood.	demarcation measures to be used during construction to ensure this 15m buffer is not breached.		
Osbournes Wood	Adjacent	Osborne's Wood is an Ancient Woodland and is designated as a Local Wildlife Site and Open Space in the Chelmsford Local Plan. Therefore, there is a recreational use on this land. The Chelmsford Local Wildlife Site Review (2016) indicates that the woodland comprises an area of neglected coppice. The structure and composition of the wood, with Hornbeam coppice and Bluebell in the ground flora, is typical of many ancient woodlands in the area. Natural England's Green Infrastructure Mapping indicates that the woods are not publicly accessible.	Osbournes Wood is located to the south east of proposed pylon TB184 and to the west of the A12 Ingatestone Bypass. The land is located outside the Order Limits, and no development will take place on it. Therefore, there will be no direct or indirect impact on it and consideration of whether this land is surplus to requirements is not engaged. The Project has made a commitment for no physical works or breaking ground within 15m of Ancient Woodland where at all possible, with demarcation measures to be used during construction to ensure this 15m buffer is not breached.	No	OS/84
Stock Brook	Within	Stock Brook is a tributary of the River Wid, and the Brook is not identified as publicly accessible where it interacts with the Project. Therefore, there is no recreational use at this site and instead it has been identified on a precautionary basis as it falls within the definition of blue infrastructure. =	The Project will oversail the Stock Brook between pylons TB195 and TB196. A temporary haul road will cross the Stock Brook at an existing crossing point. These works are temporary in nature and will not have a permanent impact on the use or function of the open space. Following the completion of works, all temporarily impacted watercourses will be reinstated to their former state, or better. This will include the replacement of any substrate or vegetation that was temporarily removed. This Brook has been identified on a precautionary basis as it comprises of blue and green infrastructure. However, there is no recreational use here. In view of this, there will be no direct or indirect effect from the Project on this open space and consideration of whether this land is surplus to requirements is not engaged.	No	OS/85
Brentwood					
Seymour Playing Field & Anglo European School Grass Pitches	Adjacent	Seymour Field is officially designated as a playing field under the Ingatestone and Fryerning Neighbourhood Plan (2022). The field, along with its recently renovated pavilion, is overseen by the Ingatestone and Fryerning Parish Council. Public access to the field is limited, with the Parish Council committed to preserving and, where possible, enhancing the space. As part of this commitment, ongoing maintenance and improvements are being carried out to expand the capacity of the football pitch facilities. The field serves as a hub for recreational and sporting activities, hosting events such as horticultural shows, football matches, walking, dog walking, and general leisure. Additionally, the space supports habitats for local flora and fauna.	These sites comprise of two separate areas of land located to the west of proposed pylon TB187, either side of the Ingatestone Bypass. Both sites are located outside the Order Limits, and no development will take place on it. Therefore, there will be no direct or indirect impact on them and consideration of whether the parcels are surplus to requirements is not engaged.	No	OS/86
Spring Wood	Adjacent	Spring Wood is designated as a Local Wildlife Site in the Brentwood Local Plan The Brentwood Borough Local Wildlife Site Review (2012) indicates that, although not listed in the Ancient Woodland Inventory for Essex, the structure and composition of the western part of the site has characteristics typical of ancient woodland. Natural England's Green Infrastructure Mapping indicates that the woods are not publicly accessible. There is a PRoW EX/274/43 that bounds the	Spring Wood is located outside of the Order Limits to the east of pylon TB189. It is located outside the Order Limits, and no development will take place on it. Therefore, there will be no direct or indirect impact on it and consideration of whether this land is surplus to requirements is not engaged.	No	OS/87

Site	Distance	Purpose and Use of Space	Assessment	Loss	Reference
		woodland to its north / northeastern border. Therefore, there is a recreational use along the route of the PRoW.			
River Wid (1)	Within	The River Wid is a tributary of the River Can which flows to the south of Chelmsford. A PRoW follows the western bank of the river from Stock Lane/Ingatestone Road to Margaretting Hall Cottages. Signage adjacent to Stock Lane indicates that fishing is not permitted. Therefore, there is a recreational use along the route of the PRoW. No marine recreational assets are located near this interaction between the Project and the River, so there is no recreational use along the river itself.	The Project will oversail the River Wid between pylons TB189 and TB190. A temporary construction haul road will cross the River Wid. The haul road will be removed and site reinstated following the completion of the Project, and thus there will be no permanent impact. Following the completion of works, all temporarily impacted watercourses will be reinstated to their former state, or better. This will include the replacement of any substrate or vegetation that was temporarily removed. No permanent development will take place that interacts with the river and therefore, there will be no direct impact on the use of the land as open space. With regard to the oversail of the PRoW, if and in so far as the Project has an indirect impact on the use of the open space such an impact is significantly outweighed by the benefits of the Project (including need), and having regard to the mitigation the Project has offered in respect of the indirect effect on the open space.	No	OS/88
St Mary's Church	Adjacent	Churchyard / Cemetery associated with St Mary's Church (Grade II Listed). The land is publicly accessible similar to any churchyard.	St Mary's Church and Church grounds are adjacent to the Order Limits. The Order Limits in this location are associated with the undergrounding of an existing 11kV overhead line. This site is located outside the Order Limits, and no development will take place on it. Therefore, there will be no direct or indirect impact on this open space. Therefore, consideration of whether this land is surplus to requirements is not engaged.	No	OS/89
River Wid (2)	Within	The River Wid is a tributary of the River Can which flows to the south of Chelmsford. A PRoW continues from Buckwyns Close diagonally across an agricultural field to a point where the River Wyn and Stock Brook meet. There is no indication that this section of the River Wid is publicly accessible, and no marine recreational assets are located near this interaction with the river.	The Project will oversail the River Wid between pylons TB197 and TB198. A temporary construction haul road will cross the River Wid. The haul road will be removed and site reinstated following the completion of the Project, and therefore there would be no permanent impact on the use and function of the open space. Following the completion of works, all temporarily impacted watercourses will be reinstated to their former state, or better. This will include the replacement of any substrate or vegetation that was temporarily removed. No permanent development will take place that interacts with the river and therefore, there will be no direct impact on the use of the land as open space. With regard to the oversail of the PRoW, if and in so far as the Project has an indirect impact on the use of the open space such an impact is significantly outweighed by the benefits of the Project (including need), and having regard to the mitigation the Project has offered in respect of the indirect effect on the open space.	No	OS/90
Woodlands School Hutton Manor	Within	Woodlands School Hutton Manor is an independent school in Brentwood, providing learning experiences for children aged 3 months to 11 years. Outdoor facilities include football pitches, a small athletics space and general recreational space, the school also has a Multi-Use Games Area to the west. Therefore, there is an open space use here as the school provides opportunities for sport and recreation. The facilities are not publicly accessible, and access can only be gained in association with the school use.	National Grid is proposing to remove an existing 132kV overhead line which currently routes through the Woodlands School site. The overhead line will be replaced with an undergrounded cable. Whilst these works will have a temporary impact and disturbance there will be no permanent loss in playing field provision. The Project has been routed to the east of the Woodlands School site. It is not therefore considered that the Project would have a direct or indirect impact on the function or use of this space as open space.	No	OS/91

Site	Distance	Purpose and Use of Space	Assessment	Loss	Reference
Primstock Local Wildlife Site	Adjacent	Primstock is designated as a Local Wildlife Site within the Brentwood Local Plan. Natural England details no public access. The Brentwood Borough Local Wildlife Site Review (2012) highlights the possibility that the wood may be ancient. Bridleway EX/272/53 runs directly to the east and north, connecting the site to the wider PRoW network. Therefore, there would be a recreational use along the route of the PRoW.	The site is located to the west of PUB41 (an existing pylon) and proposed pylon TB212. The site is located outside the Order Limits, and no development will take place on it. Therefore, there will be no direct or indirect impact on it and consideration of whether this land is surplus to requirements is not engaged.	No	OS/92
Little Bladen's Wood & Blind Lane	Within	Little Bladen's Wood is designated as a Local Wildlife Site within the Brentwood Local Plan. The Brentwood Borough Local Wildlife Site Review (2012) notes that while not listed within the Essex Ancient Woodland Inventory its structure and floral composition suggests that it is largely, if not completely, ancient woodland. PRoW EX/307/16 connects the woods to the wider PRoW network. Therefore, there is a recreational use along the route of the PRoW.	The site is located to the west of proposed pylons TB212 and TB213. An existing 132 kV overhead line within the Local Wildlife Site will be removed providing a long-term benefit to the woodland. This will be replaced by underground cable, which seeks to avoids direct interaction with the woodland. A proposed permanent access route will be routed to the east of Little Bladen Wood. There would be no physical works associated with this route as it will use an existing lane. Natural regeneration of woodland post construction is proposed for woodlands where existing third-party infrastructure is being removed from woodlands and this is considered a long-term ecological benefit, as the woodland would have been subject to an existing vegetation management regime under the existing overhead lines.	No	OS/93
Herongate Wood Woodland Cemetery	Adjacent	Herongate Wood is listed as a Greenspace within the Brentwood Local Plan. Herongate Wood Woodland Cemetery was created to give a tranquil final resting place for people and a calm and quite place in nature for people to visit and remember their loved ones. The land is accessible similar to any churchyard.	The site is located to the west of proposed pylon TB220 and to the south of Billericay Road. The Wood and Cemetery is located outside the Order Limits, and no development will take place on it. Therefore, there will be no direct or indirect impact on it and consideration of whether this land is surplus to requirements is not engaged.	No	OS/94
Friern Manor Wood	Adjacent	Friern Manor Wood is shown as an Ancient and Semi-Natural Woodland and Local Wildlife Site on the Brentwood Local Plan Policies Map. The Brentwood Borough Local Wildlife Site Review (2012) notes that the southern section is characteristic of ancient woodland; the northern section being more characteristic of recent woodland. It is around 8.7ha in area. Natural England indicates that the woods are not accessible to the public. Therefore, the site has been identified on a precautionary basis as it falls within the definition of green infrastructure.	The site is located to the west of proposed pylon TB224. The site is located outside the Order Limits, and no development will take place on it. Therefore, there will be no direct or indirect impact on it and consideration of whether this land is surplus to requirements is not engaged. The Project has made a commitment for no physical works or breaking ground within 15m of Ancient Woodland where at all possible, with demarcation measures to be used during construction to ensure this 15m buffer is not breached.	No	OS/95
Dunton Hills Family Golf Centre	Within	Dunton Hills Family Golf Centre is an existing golf course comprising: • 18 hole course (par 72) • 18 hold course (all par 3) • Driving range (20 bays) • 18 hole putting course. The golf course also includes a club house and function venue. It operates on a pay per play basis. Two Public Rights of Way are identified as crossing the north east corner of the golf course (PRoW 313_68 and 313_69). The golf course is within the definition of open space.	The Project broadly follows the alignment of an existing high pressure gas pipeline and UKPN 132kV overhead line. The132kV UKPN overhead line will be removed and undergrounded as a part of the Project, which will result in several existing pylons at the golf course being removed. During construction a temporary haul road will cross part of the golf course resulting in temporary disruption. Pylon TB229 is proposed on the golf course, however, this will not interfere with any of the holes and the removal of several pylons at the Course as part of the Project will result in an overall improvement for the site in terms of use and function. Furthermore, in justifying the Local Plan allocation at the site, Brentwood Borough Council have established that the whole course is	Yes	OS/96

Site	Distance	Purpose and Use of Space	Assessment	Loss	Reference
		The golf course is part of a larger proposed site known as Dunton Hill Garden Village (DHGV) allocation identified in the Brentwood Local Plan 2016-2033 (Site Reference R01) and subject to an outline planning application (application reference 21/01525/OUT) for the construction of 3,700 dwellings, 3 care homes, 5 gypsy / travellers pitches, secondary and primary schools, employment and sports hub. Areas of open space identified on the masterplan associated with this development interact with the Project.	surplus to requirements and sufficient provision exists in the locality. Therefore, the loss of a small portion of the course, which does not impinge upon the provision of golfing, so is not considered to cause a direct or indirect impact. In response to the statutory consultation on the Project, Brentwood Borough Council identified concerns in relation to the impacts on the usability of open space and views of the Project from proposed open space within the future DHGV development. With regards to these comments and the impact on the future development more broadly, the Project interacts with an area of woodland planting and open space (as presented on the illustrative masterplan). As with the current arrangement it is not considered that the replacement of 132kV pylons with a 400kV pylon within the site would impact on the future function or use of this space. If and in so far as the Project has an indirect impact on the use of the open space such an impact is significantly outweighed by the benefits of the Project (including need), and having regard to the mitigation the Project has offered in respect of the indirect effect on the open space. It will be necessary to remove or manage existing trees beneath the overhead line within the Golf Centre. In locations where replacement standard tree planting is unsuitable due to the new overhead lines and underground cables, low height and shallow rooted scrub species will be included as alternative planting. Species mixes will allow for low growing and shallow rooted tree/scrub species as an alternative in these locations.		
Basildon					
Angling lake at Dukes Farm, accessed off Church Lane, Dunton	Within	This lake is 0.3ha and is located off Church Lane, Dunton. Engagement with the site owner indicates that the site is currently used for angling, with a day ticketing service provided.	This lake is oversailed by conductors between proposed pylons TB227 and TB228 and it is currently used for angling. Conductors between existing pylons PSC8 and PSC9 currently run along the southern edge of the pond, and these are to be dismantled and undergrounded as a result of the Project, which will entail a temporary impact. The presence of a 400kV overhead line and the need to maintain a 30m clearance for angling activities would prevent angling activities from continuing on this site. Therefore, there will be a loss of the use and function of this open space for the purposes of angling, and accordingly an assessment of provision must be made in accordance with paragraph 5.11.10 of EN-1. Following engagement with the landowner, it is understood that the site is currently used for angling on a day ticket basis. The lake is approximately 0.3ha in size, however, the existence of the conductors between PSC8 and PSC9 already prohibits angling along the southern side of the pond. Resultantly, the provision for angling at this pond is limited. There are a range of alternative sites for angling within 5 miles of the lake, for example: • Par Fishery, West Horndon, which has two lakes totalling approximately 8.5 acres. • Puddledock Farm Fishery, which has four lakes.	Yes	OS/97

Site	Distance	Purpose and Use of Space	Assessment	Loss	Reference
			• Northlands Park, which has two lakes totalling approximately six and a half acres. • Slough House Lake (Hayes Carp Fisheries), which is approximately 5 acres. Furthermore, in many cases, angling locations are not listed online, as it is understood is the case with this lake. Given this, it is apparent that there are several bodies of water in the area between Basildon and Upminster, near this lake, which may also be used for angling. Many of these are larger and do not have overhead lines in close proximity. This assessment has evidenced that there are several alternative options for angling within the locality. Given the limited useable area of the site, and the availability of angling locations nearby, the loss of this lake for angling is justified as it is surplus to requirements. Further to this, it is considered that the positive benefits of the Project (including need) outweigh the negatives associated with the loss of this small angling facility.		
Havering's Grove Brook and River Wid (3)	Within	The River Wid and Havering's Grove Brook are both main rivers. They converge at a point to the east of the Shenfield and Huton sewage treatment works. Both watercourses are identified as blue infrastructure by Natural England. No marine recreational assets are located near this interaction between the Project and the River. Therefore, there is no recreational use in this location.	The Project oversails the River Wid between proposed pylons TB202 and TB203. Havering's Grove Brook is then oversailed between proposed pylons TB203 and TB204. An existing UKPN overhead line will be removed and undergrounded beneath the River Wid. A temporary haul road will be required to provide access to the above identified pylons. This will require a crossing of the River Wid and Havering's Grove Book. Following the completion of works, all temporarily impacted watercourses will be reinstated to their former state, or better. This will include the replacement of any substrate or vegetation that was temporarily removed. This site has been identified on a precautionary basis as it comprises of blue and green infrastructure. However, there is no open space use here. In view of this, there will be no direct or indirect effect from the Project on open space here, and consideration of whether this land is surplus to requirements is not engaged.	No	OS/98
Round Wood	Adjacent	Round Wood is identified in the Basildon Local Plan as a Site of Importance to Nature Conservation. The site is identified as a Local Wildlife Site in the Basildon Borough Local Wildlife Site Register (2020) and the Basildon Council Local Wildlife Site Review (2021) The site contains a pond near the southern edge of the wood. It amounts to around 1.3ha in area. The site is believed to be in private ownership and is not publicly accessible.	The site is located to the south east of proposed pylon TB205. The site is located outside the Order Limits, and no development will take place on it. Therefore, there will be no direct or indirect impact on it and consideration of whether this land is surplus to requirements is not engaged.	No	OS/99
Botneyhill Wood	Adjacent	This land is identified as a Local Wildlife Site in the Basildon Borough Local Wildlife Site Register (2020) and the Basildon Council Local Wildlife Site Review (2021). The site is in private ownership and there is no public access. Therefore, the site has been identified on a precautionary basis as it falls within the definition of green infrastructure.	Proposed Pylon TB217 is located to the west Botney Wood. The site is located outside the Order Limits, and no development will take place on it. Therefore, there will be no direct or indirect impact on it and consideration of whether this land is surplus to requirements is not engaged.	No	OS/100

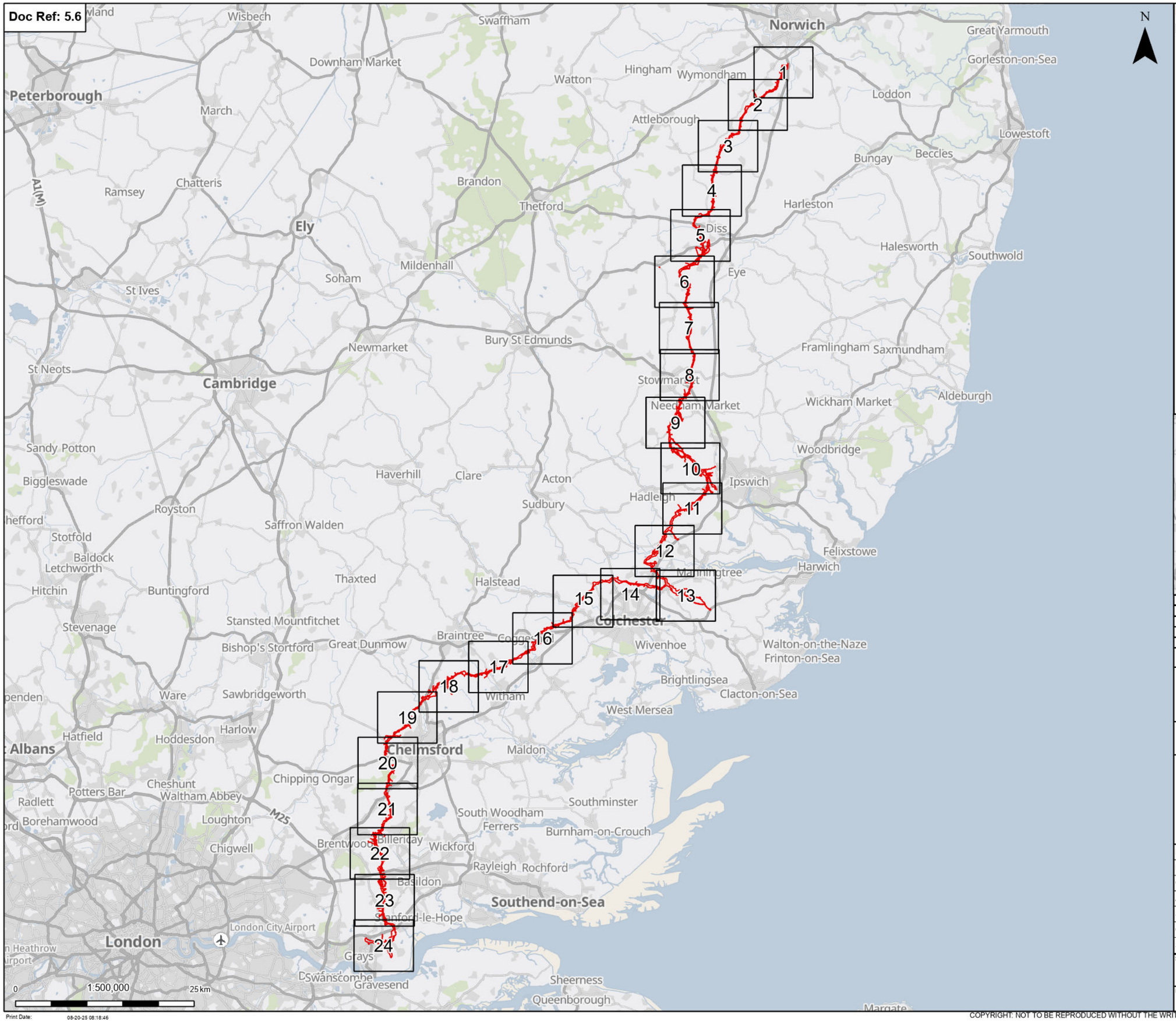
Site	Distance	Purpose and Use of Space	Assessment	Loss	Reference
Little Burstead Common	Adjacent	Little Burstead Common is identified as a Local Wildlife Site in the Basildon Borough Local Wildlife Site Register (2020) and the Basildon Council Local Wildlife Site Review (2021). It is centrally located within a cluster of important sites stretching from Billericay into Brentwood District and, as such, is an integral part of a wildlife corridor as well as having its own ecological interest. The site is listed as a Site of Importance to Nature Conservation in the Basildon Local Plan and is also identified as a Mosaic site amounting to some 3.8ha. By definition, Mosaic sites in the Plan contain a combination of natural features, including marshland and scrub. PRoW 307_166 runs broadly north – south through the site. Two further PRoWs, 307_19 and 307_20, run in an east – west direction through the northern part of the site and join PRoW 307_166.	Proposed Pylon TB217 is located to the south west of this site. The Common is located outside the Order Limits, and no development will take place on it. Therefore, there will be no direct or indirect impact on it and consideration of whether this land is surplus to requirements is not engaged.	No	OS/101
St Margarets Wood and Lane	Within	The site is identified as a Local Wildlife Site in the Basildon Borough Local Wildlife Site Register (2020) and the Basildon Council Local Wildlife Site Review (2021) The site consists of a triangular area of woodland, and an Ancient Green Lane, which runs south. The wood is believed to be of ancient origin, although it does not appear in the Ancient Woodland Inventory, as it is below the minimum size threshold. The lane is a valuable wildlife corridor. St Margarets Wood and Lane is listed as a Site of Importance to Nature Conservation and a Woodland within the Basildon Local Plan. The woodland is understood to be in private ownership, with no public access, but it can be viewed from the lane, which is a PRoW. Therefore, the woodland may be open space insofar as it potentially offers visual amenity value when viewed from the PRoW.	The Wood is located to the south of Billericay Road / Botney Hill Road and to the west of proposed pylon TB218. The Lane is oversailed by conductors between proposed pylons TB219 and TB220. A temporary haul road is also proposed on this parcel. The siting of this will entail hedgerow and vegetation removal. Following completion of works, hedgerows will be reinstated at the earliest appropriate opportunity within the correct planting season. Given that these works will be temporary and the land will be restored there will be no permanent impact on use and functionality as a result of the temporary works. No permanent development will take place on the site and therefore, there will be no direct impact on the use of the land as open space. In terms of permanent impact on the use of land as providing amenity value to the PRoW, if and in so far as the Project has an indirect effect on the use of the open space then such an impact is significantly outweighed by the benefits of the Project (including need), and having regard to the mitigation the Project has offered in respect of the indirect effect on the open space.	No	OS/102
Langdon Complex	Adjacent	Part of Langdon Complex is identified as a Local Wildlife Site in the Basildon Borough Local Wildlife Site Register (2020) and the Basildon Council Local Wildlife Site Review (2021). It is identified as a Site of Importance for Nature Conservation in the adopted Basildon District Local Plan. The site is shown as Public Open Space and Local Green Space in Basildon's emerging Local Plan. It is understood that the site is accessible to the public, and therefore, there is a recreational use at the Complex.	The site is located to the east of proposed pylon TB232 and existing pylon PAB50, the latter of which is already existing. It is separated from the Order Limits by Lower Dunton Road, which runs along its western boundary. The site is not directly affected by the works and there will be no impact on its function or use as open space.	No	OS/103
Thurrock					
Langdon Hills Golf and Country Club	Within	The Landon Hills Golf and Country Club offers 197 acres of Essex countryside. Langdon Hills hosts 27 holes of championship quality and has panoramic views over Essex and the London skyline. Bridleway 91 runs along the northern boundary of the site and part of its western boundary. The golf course use means that this site is open space. The wider site is available for events, function and wedding hire.	The site is located to the east of proposed pylons TB238 – TB240, to the west of Lower Dunton Road. There is a minimal overlap between the Order Limits and the northwest of Langdon Hills Golf and Country Club. No development will take place on the site. Therefore, there will be no direct or indirect impact on it and consideration of whether this land is surplus to requirements is not engaged.	No	OS/104

Site	Distance	Purpose and Use of Space	Assessment	Loss	Reference
Maple Park and Buckingham Hill Local Wildlife Site	Within	Maple Park was formerly a golf course which was developed as an area of open space as part of a planning consent for 350 homes (planning application 10/50235/TTGOUT, allowed at Appeal APP/M9565/V/11/2154021). Maple Park is identified in the Inspectors Appeal decision as providing 42.3 ha of Strategic Open Space and 2.14 ha of open space. The appeal decision highlights that the approved landscaping included proposals to plant the Strategic Open Space site with native species of trees and wildflower meadows. The site contains a number of informal PRoWs with a PRoW (41) to the south of the site. Part of Maple Park is identified as forming a part of the Buckingham Hill Local Wildlife Site. As this is a park, it falls within the definition of open space.	Proposed pylons TB257 and TB258 are sited in the south west corner of Maple Park and a permanent access road is identified through the site to allow access to these pylons. The siting of these pylons within Maple Park and Buckingham Hill Local Wildlife Site will also entail an oversail between them. The permanent access route utilises an existing track and will not entail any associated works. Temporary works associated with the construction of the pylons are also required within Maple Park. These would be temporary in nature and would not therefore have a permanent impact. Effort has been made to avoid Maple Park, however, this is considered the only technically feasible route. Land to the west of Maple Park is identified as a former landfill site. Due to concerns over ground conditions here, the Project has been routed through Maple Park. The LoD and Order Limits have been widened between TB255 and TB259 to allow flexibility to allow an alternative alignment if the Southfields housing development does not go ahead, as the alignment could then move to the west, removing two crossings of Buckingham Hill Road, a crossing of a historic landfill site and pylons situated within Maple Park and a quarry site. Where flexibility in the design is being sought, the Environmental Statement has assessed single scenario within Section 7 of each ES Chapter with an assessment of the flexibility presented in Section 9 of each environmental topic chapter. Further detail is presented in Table 4.4 of ES Chapter 4 (document reference 6.4) as to how each element has been assessed within the ES (Volume 6 of the DCO application). The siting of the two pylons within Maple Park would entail the loss of open space around the base of the pylons. Resultantly, the use and function of the open space in this part of the park will be impacted. This impact will be restricted to a small section of Maple Park, which is significant in size (42.3ha), and will take place in a part of the park furthest from any population centre. Notwithstanding this, an assessment of the provision of open space has been completed in line with paragraph 5.11.10 of EN-1 to consider whether there is a surplus of open space within the locality of Maple Park. The assessment is included within Appendix B3. It begins by identifying that the Thurrock Council Community Needs and Open Spaces Study (2005) (the Study) identifies a surplus of 619.03ha of open space in 2001 within the area that Maple Park is located, which is significant. However, it is appreciated that these findings are outdated, and therefore, the assessment reviews these findings to establish whether such a significant surplus exists in 2025. The assessment finds that based on available evidence it can be assumed that a surplus of 609.09ha will have existed in 2021, and that population change since then will have had a negligible impact on these findings in 2025. Therefore, the small area of Maple Park to be lost as a result of the two pylons to be positioned to the east of Buckingham Road is considered surplus to requirements. It will be necessary to remove or manage existing trees beneath the overhead line as it transverses the Park. In locations where replacement standard tree planting is unsuitable due to the new overhead lines and underground cables, low height and shallow rooted scrub species will be included as alternative	Yes	OS/105

Site	Distance	Purpose and Use of Space	Assessment	Loss	Reference
			planting. Species mixes will allow for low growing and shallow rooted tree/scrub species as an alternative in these locations.		
Mucking Heath Complex, Southfields which includes Orsett Golf Club	Within	Orsett Golf Course was founded in 1899. Its sand and gravel base enables the course to be played all year round. Orsett Golf Course has hosted the regional qualifying of The Open Championship 11 times. The Golf Course includes an 18-hole course and adjacent practice area along with a club house. The golf course is identified as being a membership only golf course and is not open to the public. Visitors are permitted to play the course Monday to Friday by prior arrangement with the club professional. A PRoW (PRoW 45) provides a link around the north east of the golf course. The golf course provides recreational uses in on this land.	The Project transverses the north east of the golf course, oversailing the 16th and 17th holes. No pylons are proposed within the golf course itself, however, pylon TB262 is proposed within a practice area to the south of the 16th green. An existing 132kV overhead line oversails the golf course along its north eastern corner. The existing overhead line is located to the north of the 17th hole. The siting of pylon TB262 on the practice area will prohibit the use and function of the area in the immediate vicinity of the pylon. Therefore, there will be an impact on the use and function of a small parcel of the open space, as golfing will be prohibited by the presence of the pylon. Due to route constraints and the need to connect to Tilbury North Substation, the overhead lines must take this route, and therefore pylon TB262 can only be sited within the practice area and no suitable alternatives exist. The overflying of the 16th and 17th holes would not prohibit the use of this part of the golf course and therefore there would be no impact on the function or use of the open space in this location. Discussions are ongoing between National Grid and Orsett Golf Course to mitigate the impact on the practice ground and a Statement of Common Ground is being prepared. There is provision of practice courses elsewhere within the locality, however, the need for and use of a practice area is specific to the individual golf course. Resultantly, an assessment of provision of practice courses elsewhere is not relevant. Whilst there will be an impact on the golf course as a result of the pylon located within the practice area there will be no loss of the golf course facility which will remain available for use and, it is considered that the benefits of the Project (including need) outweigh the impact on the practice area at this facility. As noted above positive engagement between the Golf Course and National Grid is ongoing to agree mitigation for the impact on the practice ground. It will be necessary to remove or manage existing trees beneath the overhead line throughout the Golf Club. In locations where replacement standard tree planting is unsuitable due to the new overhead lines and underground cables, low height and shallow rooted scrub species will be included as alternative planting. Species mixes will allow for low growing and shallow rooted tree/scrub species as an alternative in these locations.	Yes	OS/106
Linford Pit	Within	Linford Pit is designated as a Local Wildlife Site. This varied site is split into two sections, the northern part consisting of a worked-out pit and the southern part set out as plotland at the turn of the 20th Century but never developed. The majority of the gravel pit has now been developed for industrial purposes and parts of the northern section are in operational use. The site is in private ownership with no public access. Therefore, the site has been identified on a precautionary basis as it falls within the definition of green infrastructure.	The site is located to the east of proposed pylon TB264. It adjoins Holford Road to the northwest and Buckingham Hill Road to the east. There is existing UKPN overhead line infrastructure within the Local Wildlife Site. Pylon PAB20, an existing pylon, is located within the site, with the overhead line routed to the north east. Whilst pylon PAB20 will remain in situ, the overhead line to the north east will be diverted before transitioning to an underground cable. To facilitate these works a temporary realignment of the overhead line will be required with a temporary pylon placed on the northern edge of Linford Pit.	No	OS/107

Site	Distance	Purpose and Use of Space	Assessment	Loss	Reference
			These works will be temporary and as no new permanent infrastructure is proposed within the site it is not considered that the Project would have a direct or indirect impact on the function or use of this space.		
Rainbow Wood and Ashen Shaw	Within	These two small woodlands lie within a cluster of Local Wildlife Sites in the old parish of Mucking, which comprise heathland, acid grassland and post-industrial habitats and other small fragments of old woodland. The two woods are too small to have been considered in the preparation of the Ancient Woodland Inventory but were established at their current extent in the mid-19th Century and support species that may indicate Ancient status. The site is in private ownership with no public access. Therefore, the site has been identified on a precautionary basis as it falls within the definition of green infrastructure.	The site comprises two separate areas of land; both are irregular in shape and are located to the east of pylon ZB14, which is an existing pylon. An area of land on the northwest edge of Rainbow Wood is within the Order Limits. The westernmost quarter of Ashen Shaw is also within the Order Limits. However, no physical works are proposed within either land parcel. To the north of Rainbow Wood, National Grid is proposing to plant an area an area of woodland as part of a package of ancient woodland mitigation works. As no new permanent infrastructure is proposed within the site it is not considered that the Project would impact on the function or use of this space.	No	OS/108
Blackshots Nature Area	Within	Blackshots Nature Area is designated as a Local Wildlife Site within the Thurrock Local Plan. The site was formerly a gravel pit which now supports a significant extent of free-draining grassland with scattered scrub, and on its sloping banks, young woodland. Thurrock Council have identified that the site is heavily used by the local community, including by motorbikes. A PRoW is routed south west to north east through the site in proximity to pylon ZB23. In addition to this PRoW there are a series of informal and permissive paths across the site.	The site is located to the south of the A13 and to the west of the A1089, off Gammonfields Way. The existing YYJ and ZB overhead lines cross the site. An area of land on the south east edge of the site is within the Order Limits. Temporary haul roads to each pylon are required. As no new permanent infrastructure is proposed within the site it is not considered that the Project would impact on the function or use of this space.	No	OS/109
King Georges Field and Blackshots Park	Adjacent	Adjacent to Impulse Leisure Centre, King George's Field hosts a wide-open grassland for the public's general recreation, on the site is also Blackshots skatepark, Blackshots Athletics Stadium and Gray Town Bowls Club. Blackshots park also contains the Impulse Leisure (swimming pool) and The Civic Hall. The park is also used by visiting funfairs and circuses.	The site is located to the southwest of existing pylon YYJ117. Stanford Road runs along the eastern boundary of the site. The site is outside the Order Limits, although a small part of the site adjoins them. However, it is not considered that the Project would impact on the function or use of this space and there is no loss in the use or function of this space.	No	OS/110
Thurrock Rugby Club and playing fields	Within	Thurrock Rugby Club hosts Thurrock RFC, a rugby union team. The club runs four senior sides, a colts side and the full range of junior teams. The club also operates women's teams in both union and league. Thurrock RFC was formed in 1928. There are 3 full sized pitches at the site.	The site is located within the Order Limits as a temporary haul road will be sited near the boundary of the eastern most playing field. This haul road is associated with the modifications being made to the existing YYJ116 and ZB22 pylons that are located to the north of the playing fields. No works are proposed within the Rugby Club grounds, and the works associated with the modifications to the YYJ and ZB overhead lines would not impact on its use or function. Hence, EN-1 open space paragraphs are not engaged, and no further assessment is required.	No	OS/111
Area to the east of Thurrock Rugby Club identified as 'Additional Open Space' on the Thurrock Local Development Framework Adopted Interim Proposals Map		This site is identified allocated as 'Additional Open Space' in the Local Development Framework, and therefore, may have a future open space use. However, currently it is used as arable farmland.	Existing Pylons ZB21 and YYJ117 are sited on this land and an oversail also exist as these connect to other pylons. This land is included within the Order Limits as works associated with the existing YYJ and ZB overhead lines are proposed as a part of the Project. However, these works are temporary in nature and only amount to modifications to the existing infrastructure. Therefore, there will be no permanent development on this area.	No	OS/112

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PROJECT: Norwich to Tilbury

Planning Inspectorate App Number: EN020027
Regulation 5(2)(a)

Title:

Figure 1 - Open Space Assessment - Overview

Designed	J. Glynn	Date	21 Aug 25
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Suitability Description:
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Norwich Main Substation Extension (Future Baseline)

Norwich Main Substation

RG1

RG5

RG10

RG15

RG20

1

2

3

3

FOR CONTINUATION SEE PAGE 2

0 1km

1:25,000

Print Date: 08-20-25 08:18:49

N

- Order limits
- Sheet index cutline

Project specific contraints

- Proposed full line tension gantry
- Proposed standard lattice pylon location
- Proposed overhead line alignment
- Norwich Main Substation
- Norwich Main Substation Extension (future baseline)
- Environmental area
- Other temporary and permanent construction and operational works

Discipline specific constraints

- Possible open space

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PROJECT: Norwich to Tilbury

Planning Inspectorate App Number: EN020027
Regulation 5(2)(a)

Title:

Figure 1 - Open Space Assessment - Page 1 of 24

Designed	J. Glynn	Date	21 Aug 25
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Suitability Code:	A2	Project Number:	10059280

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RG10
RG15
RG20
RG25
RG30
RG35
4
5
6
7
FOR CONTINUATION SEE PAGE 1
FOR CONTINUATION SEE PAGE 3
BRACON ASH CP
WRENINGHAM CP
ASHWELLTHORPE AND FUNDENHALL CP
FLORDON CP
NEWTON FLOTMAN CP
THARSTON AND HAPTON CP
TASBURGH CP
TACOLNESTON CP
MULBARTON CP
Bracon Ash
Wreningham
Ashwellthorpe
Fundenhall
Flordon
Hapton
Tasburgh
Tharston
Forncett St Mary
Saxlingham Thorpe
Newton Flotman
Low Tharston
Lower Tasburgh
Tacolneston
Norwich Road
Wymondham Road
Hethel Road
Bracon Ash Road
Long Lane
Low Road
Station Road
Ipswich Road
Tasburgh Road
Roman Road
Brickkiln Lane
Church Lane
Mill Lane
Old Rectory Lane
Dismantled Railway
River Tas
Hethel Bridge
Hapton Viaduct
Low Tharston Viaduct
Loughen Common
Hapton Common
Flordon Common
Tharston Church
Tasburgh Church
Wreningham Church
Fundenhall Church
Bracon Ash Church
Flordon Hall
Tharston Hall
Hapton Hall
Tasburgh Hall
Wreningham Hall
Ashwellthorpe Hall
Newton Hall
Mulbarton Hall
Fundenhall Street
Saxlingham Nethergate
Saxlingham Thorpe
Newton Flotman
Mulbarton
Norwich
Cambridge
Ipswich
Chelmsford
Tilbury
London
0
1:25,000
1 km
Print Date: 08-20-25 08:18:51

Order limits
Sheet index cutline
Project specific contraints
Proposed standard lattice pylon location
Proposed overhead line alignment
Environmental mitigation
Other temporary and permanent construction and operational works
Discipline specific constraints
Possible open space

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PROJECT: Norwich to Tilbury

Planning Inspectorate App Number: EN020027
Regulation 5(2)(a)

Title:

Figure 1 - Open Space Assessment - Page 2 of 24

Designed	J. Glynn	Date	21 Aug 25
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RG35

RG40

RG45

RG50

RG55

8

9

FOR CONTINUATION SEE PAGE 2

FOR CONTINUATION SEE PAGE 4

0 1:25,000 1 km

Print Date: 08-20-25 08:18:54

N

- Order limits
- Sheet index cutline

Project specific contraints

- Proposed standard lattice pylon location
- Proposed overhead line alignment
- Other temporary and permanent construction and operational works

Discipline specific constraints

- Open Rivers
- Possible open space

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PROJECT: Norwich to Tilbury

Planning Inspectorate App Number: EN020027
Regulation 5(2)(a)

Title:

Figure 1 - Open Space Assessment - Page 3 of 24

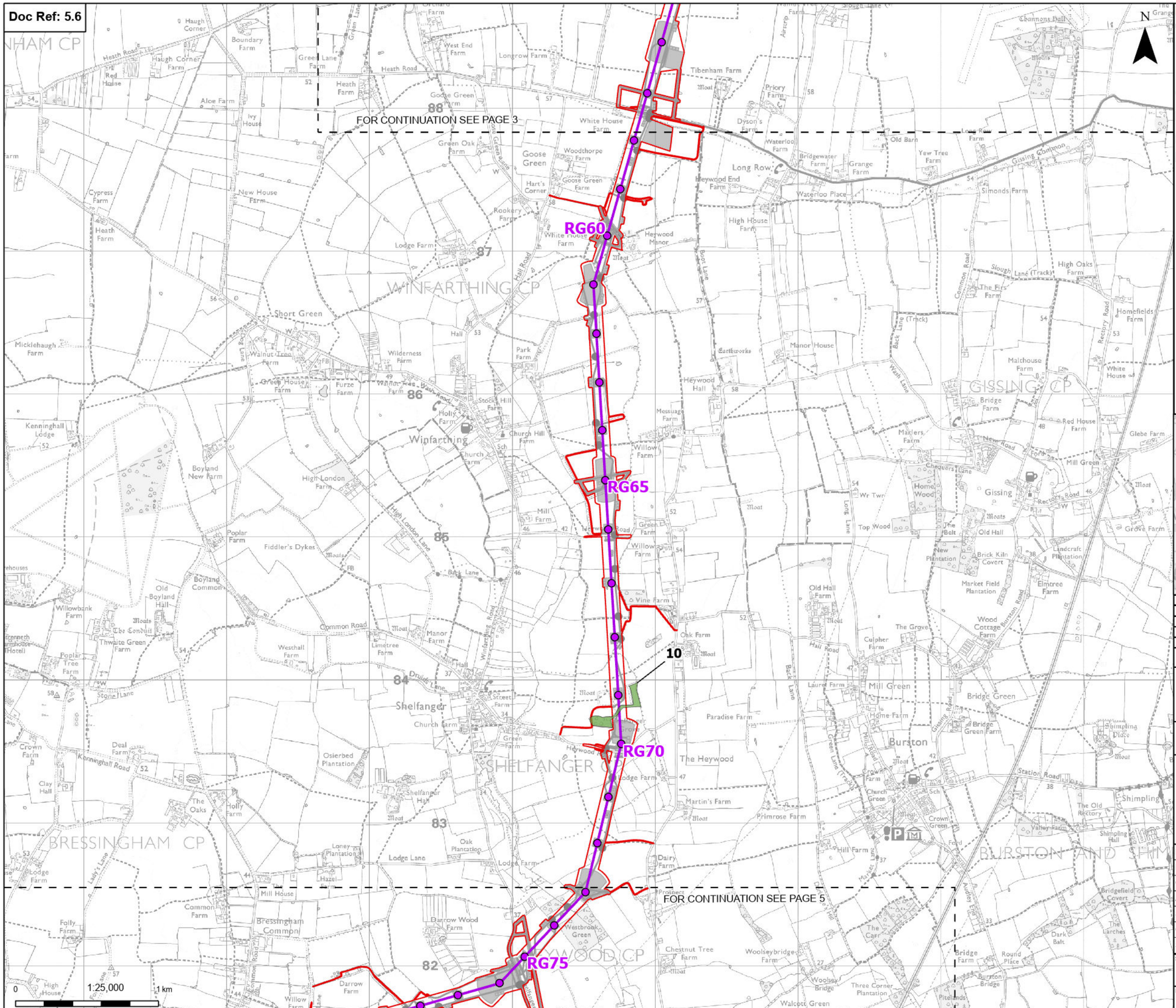
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Checked	A. Fell	Date	21 Aug 25
Approved	K. Burrows	Date	21 Aug 25
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Suitability Code:	A2	Project Number:	10059280

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Order limits

Sheet index cutline

Project specific contraints

Proposed standard lattice pylon location

Proposed overhead line alignment

Other temporary and permanent construction and operational works

Discipline specific constraints

Possible open space

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PROJECT: Norwich to Tilbury

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Figure 1 - Open Space Assessment - Page 4 of 24

Designed	J. Glynn	Date	21 Aug 25
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Original Size:	A3	Grid:	OS
Suitability Code:	A2	Project Number:	10059280

Suitability Description: Accepted as Concept Stage

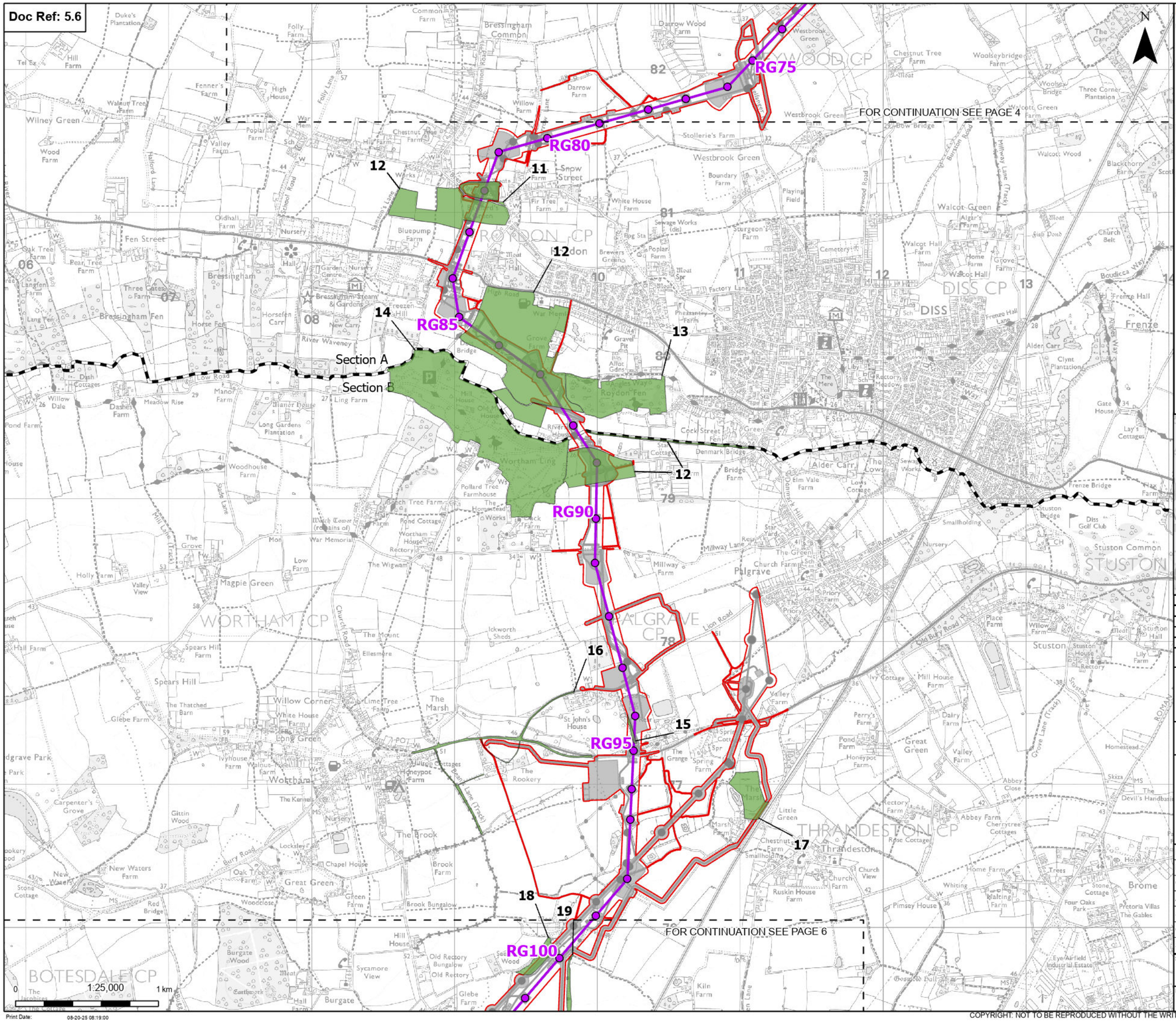
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Order limits
Sheet index cutline
Project section line

Project specific contraints

Proposed standard lattice pylon location
Proposed overhead line alignment
Environmental mitigation
Other temporary and permanent construction and operational works

Discipline specific constraints

Possible open space

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PROJECT: Norwich to Tilbury

Planning Inspectorate App Number: EN020027
Regulation 5(2)(a)

Title:

Figure 1 - Open Space Assessment - Page 5 of 24

Designed	J. Glynn	Date	21 Aug 25
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Suitability Code:	A2	Project Number:	10059280

Suitability Description: Accepted as Concept Stage

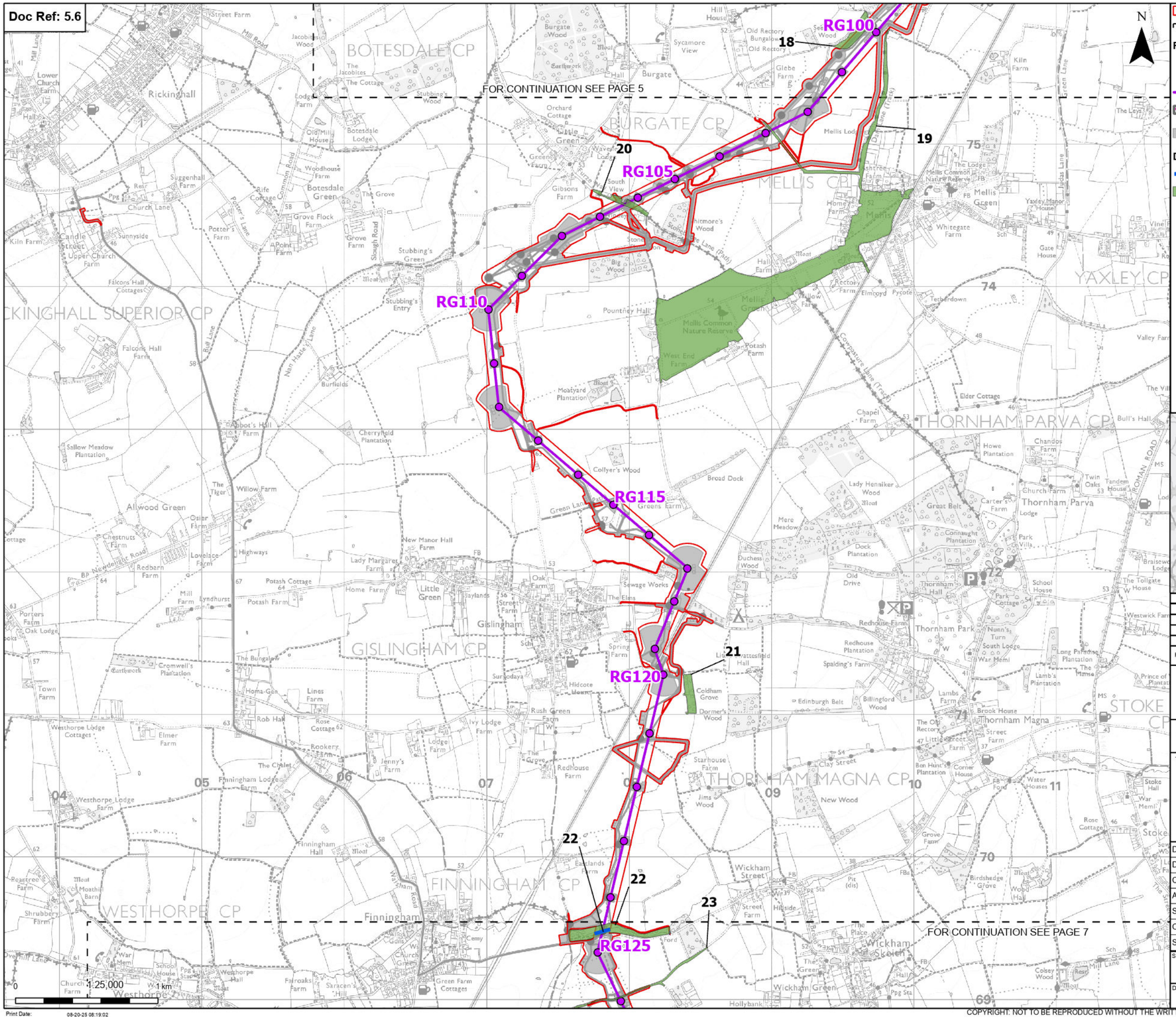
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- Order limits
- Sheet index cutline

Project specific contraints

- Proposed standard lattice pylon location
- Proposed overhead line alignment
- Environmental mitigation
- Other temporary and permanent construction and operational works

Discipline specific constraints

- Open Rivers
- Possible open space

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PROJECT: Norwich to Tilbury

Planning Inspectorate App Number: EN020027
Regulation 5(2)(a)

Title:

Figure 1 - Open Space Assessment - Page 6 of 24

Designed	J. Glynn	Date	21 Aug 25
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Original Size:	A3	Grid:	OS
Suitability Code:	A2	Project Number:	10059280

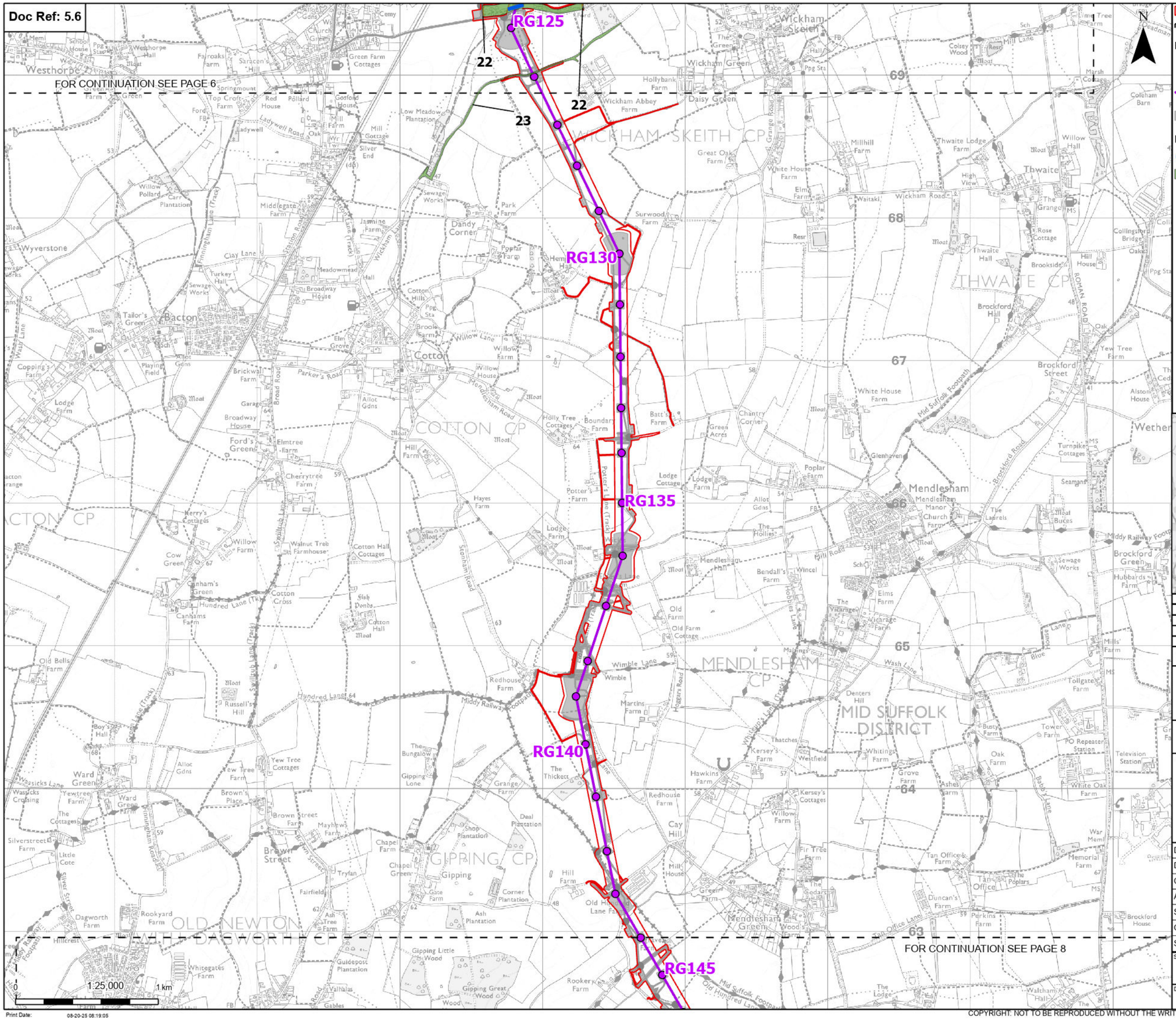
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Order limits

Sheet index cutline

Project specific contraints

Proposed standard lattice pylon location

Proposed overhead line alignment

Other temporary and permanent construction and operational works

Discipline specific constraints

Open Rivers

Possible open space

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PROJECT: Norwich to Tilbury

Planning Inspectorate App Number: EN020027
Regulation 5(2)(a)

Title:

Figure 1 - Open Space Assessment - Page 7 of 24

Designed	J. Glynn	Date	21 Aug 25
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FOR CONTINUATION SEE PAGE 7

RG145

RG150

RG155

RG160

RG165

FOR CONTINUATION SEE PAGE 9

N

0 1:25,000 1 km

Print Date: 08-20-25 08:19:11

- Order limits
- Sheet index cutline

Project specific contraints

- Proposed standard lattice pylon location
- Proposed overhead line alignment
- Environmental mitigation
- Other temporary and permanent construction and operational works

Discipline specific constraints

- Possible open space

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PROJECT: Norwich to Tilbury

Planning Inspectorate App Number: EN020027
Regulation 5(2)(a)

Title:

Figure 1 - Open Space Assessment - Page 8 of 24

Designed	J. Glynn	Date	21 Aug 25
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Original Size:	A3	Grid:	OS
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FOR CONTINUATION SEE PAGE 8

FOR CONTINUATION SEE PAGE 10

RG170
RG175
RG180
RG185
RG190

24
25
26
27
28
29
30

N

0 1:25,000 1 km

Print Date: 08-20-25 08:19:16

- Order limits
- Sheet index cutline
- Project section line

Project specific contraints

- Proposed standard lattice pylon location
- Proposed overhead line alignment
- Environmental mitigation
- Other temporary and permanent construction and operational works

Discipline specific constraints

- Possible open space

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PROJECT: Norwich to Tilbury

Planning Inspectorate App Number: EN020027
Regulation 5(2)(a)

Title:

Figure 1 - Open Space Assessment - Page 9 of 24

Designed	J. Glynn	Date	21 Aug 25
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Approved	K. Burrows	Date	21 Aug 25
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Original Size:	A3	Grid:	OS
Suitability Code:	A2	Project Number:	10059280

Suitability Description:
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RG190
RG195
RG200
RG205
RG210
JC1
JC5
JC10
JC15
30
31
32
33
34
35
36
37
38
Section B
Section C
Proposed substation extension
Bramford Substation
FOR CONTINUATION SEE PAGE 9
FOR CONTINUATION SEE PAGE 11
NETTLESTEAD CP
SOMERSHAM CP
ELMSETT CP
FLOWTON CP
LITTLE BLAKENHAM CP
BRAMFORD CP
BURSTALL CP
HINTLESHAM CP
SPROUGHTON CP
N
0 1:25,000 1 km
Print Date: 08-20-25 08:19:20

- Order limits
- Sheet index cutline
- Project section line

Project specific contraints

- Proposed full line tension gantry
- Proposed low duty gantry
- Proposed standard lattice pylon location
- Proposed overhead line alignment
- Bramford Substation
- Bramford Substation Extension
- Other temporary and permanent construction and operational works

Discipline specific constraints

- Possible open space

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PROJECT: Norwich to Tilbury

Planning Inspectorate App Number: EN020027
Regulation 5(2)(a)

Title:

Figure 1 - Open Space Assessment - Page 10 of 24

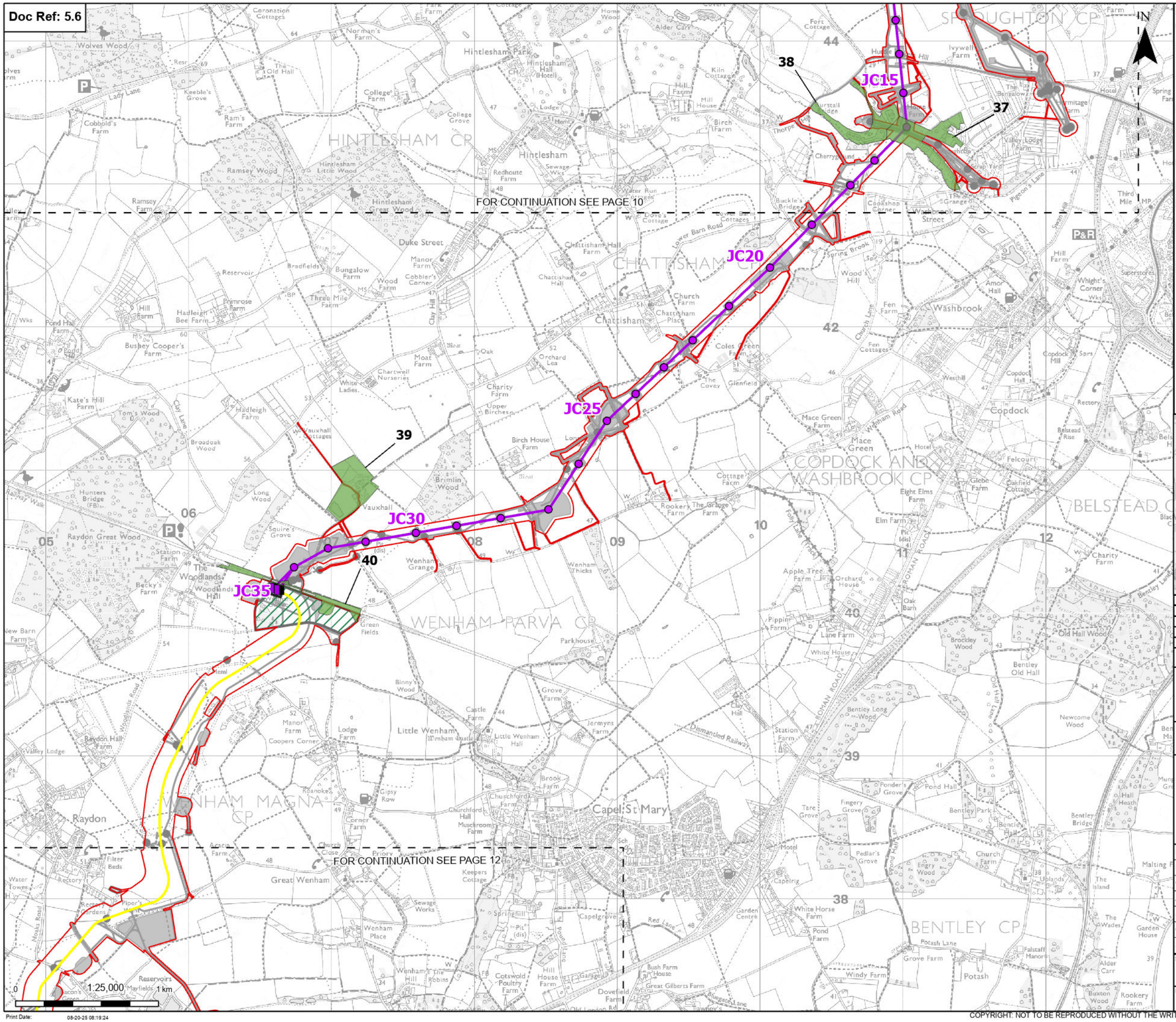
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JC15
JC20
JC25
JC30
JC35
38
37
39
40
FOR CONTINUATION SEE PAGE 10
FOR CONTINUATION SEE PAGE 12
HINTLESHAM CP
CHATTISHAM CP
COPDOCK AND WASHBROOK CP
SPROUGHTON CP
WENHAM PARVA CP
WENHAM MAGNA CP
BENTLEY CP
BELSTEAD CP
Hintlesham
Chattisham
Washbrook
Copdock
Capel St Mary
Great Wenham
Little Wenham
Raydon
Bentley
Hintlesham Park
Duke Street
Lady Lane
Lower Barn Road
Woodlands Road
Roman Road
Old Hall Lane
Pigeon's Lane
Potash Lane
Red Lane
Dismantled Railway
Wolves Wood
Ramsey Wood
Hintlesham Great Wood
Hintlesham Little Wood
Brimlin Wood
Raydon Great Wood
Old Hall Wood
Bentley Old Hall
Bentley Long Wood
Newcome Wood
Brockley Wood
Bentley Park
Bentley Hall
Bentley Bridge
Hall Heath
Pond Hall
Ponder's Grove
Fingery Grove
Tare Grove
Engry Wood
Pedlar's Grove
Capelrig
Capelgrove
Springhill
Church Close
Priory
Keepers Cottage
Gipsy Row
Roanoke
Corner Farm
Churchford Hall
Churchford Farm
Brook Farm
Castle Farm
Grove Farm
Jermyns Farm
Little Wenham Hall
Wenham Castle
Manor Farm
Coopers Corner
Lodge Farm
Raydon Hall Farm
Valley Lodge
Binny's Wood
Parkhouse
Wenham Place
Wenham Hill
Wenham Grange
Wenham Thicks
Cotswold Poultry Farm
Hill House Farm
Bush Farm House
Great Gilberts Farm
Dovefield Farm
Tawney's
Potash
Grove Farm
Windy Farm
Pond Farm
White Horse Farm
Motel
Garden Centre
Church Farm
Uplands
The Island
The Wades
Garden House
Alder Carr
Buxton Wood
Rookery Farm
Falstaff Manor
Oakfield Cottage
Glebe Farm
Eight Elms Farm
Elm Farm
Apple Tree Farm
Orchard House
Oak Barn
Pippins Farm
Lane Farm
White House
Clay Hill
Station Farm
Ivywell Farm
Valley Lodge Farm
Hurstall Ridge
Cherry Land
Buckle's Bridge
Cookshop Corner
Woodbrook Street
The Grange
Third Mile
Hill Farm
Amor Hall
Whight's Corner
Superstores
Fen Farm
Fen Cottages
Church Lane
Spring Brook
Wood Hill
Westhill
Copdock Mill
Copdock Hall
Rectory
Belstead Rise
Mace Green Farm
Mace Green
Felcourt
Glebe Farm
Oakfield Cottage
Eight Elms Farm
Elm Farm
Rookery Farm
The Grange Farm
Charity Farm
Apple Tree Farm
Orchard House
Oak Barn
Pippins Farm
Lane Farm
White House
Brockley Wood
Old Hall Wood
Bentley Old Hall
Bentley Long Wood
Newcome Wood
Station Farm
Clay Hill
Ponder's Grove
Pond Hall
Bentley Park
Bentley Hall
Bentley Bridge
Hall Heath
Church Farm
Uplands
The Island
The Wades
Garden House
Alder Carr
Buxton Wood
Rookery Farm
Falstaff Manor
Potash
Grove Farm
Windy Farm
Pond Farm
White Horse Farm
Motel
Garden Centre
Capelrig
Capelgrove
Springhill
Church Close
Priory
Keepers Cottage
Gipsy Row
Roanoke
Corner Farm
Churchford Hall
Churchford Farm
Brook Farm
Castle Farm
Grove Farm
Jermyns Farm
Little Wenham Hall
Wenham Castle
Manor Farm
Coopers Corner
Lodge Farm
Raydon Hall Farm
Valley Lodge
Binny's Wood
Parkhouse
Wenham Place
Wenham Hill
Wenham Grange
Wenham Thicks
Cotswold Poultry Farm
Hill House Farm
Bush Farm House
Great Gilberts Farm
Dovefield Farm
Tawney's

Doc Ref: 5.6

Trenchless Crossing: Higham Road

Trenchless Crossing: River Stour (north part)

Trenchless Crossing: River Stour (south part)

Trenchless Crossing: A12 highway crossing

FOR CONTINUATION SEE PAGE 11

FOR CONTINUATION SEE PAGE 14

FOR CONTINUATION SEE PAGE 13

Section C
Section D

0 1:25,000 1 km

Print Date: 08-20-25 08:19:28

N

Order limits
Sheet index cutline
Project section line

Project specific contraints

Proposed underground cable alignment
Environmental mitigation
Other temporary and permanent construction and operational works

Discipline specific constraints

Open Rivers
Possible open space

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A	Aug 2025	FOR DCO APPLICATION	NB	AF	KB

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PROJECT: Norwich to Tilbury

Planning Inspectorate App Number: EN020027
Regulation 5(2)(a)

Title:

Figure 1 - Open Space Assessment - Page 12 of 24

Designed	J. Glynn	Date	21 Aug 25
Drawn	N. Banu	Date	21 Aug 25
Checked	A. Fell	Date	21 Aug 25
Approved	K. Burrows	Date	21 Aug 25
Scale:	1:25,000	Datum:	AOD
Original Size:	A3	Grid:	OS
Suitability Code:	A2	Project Number:	10059280

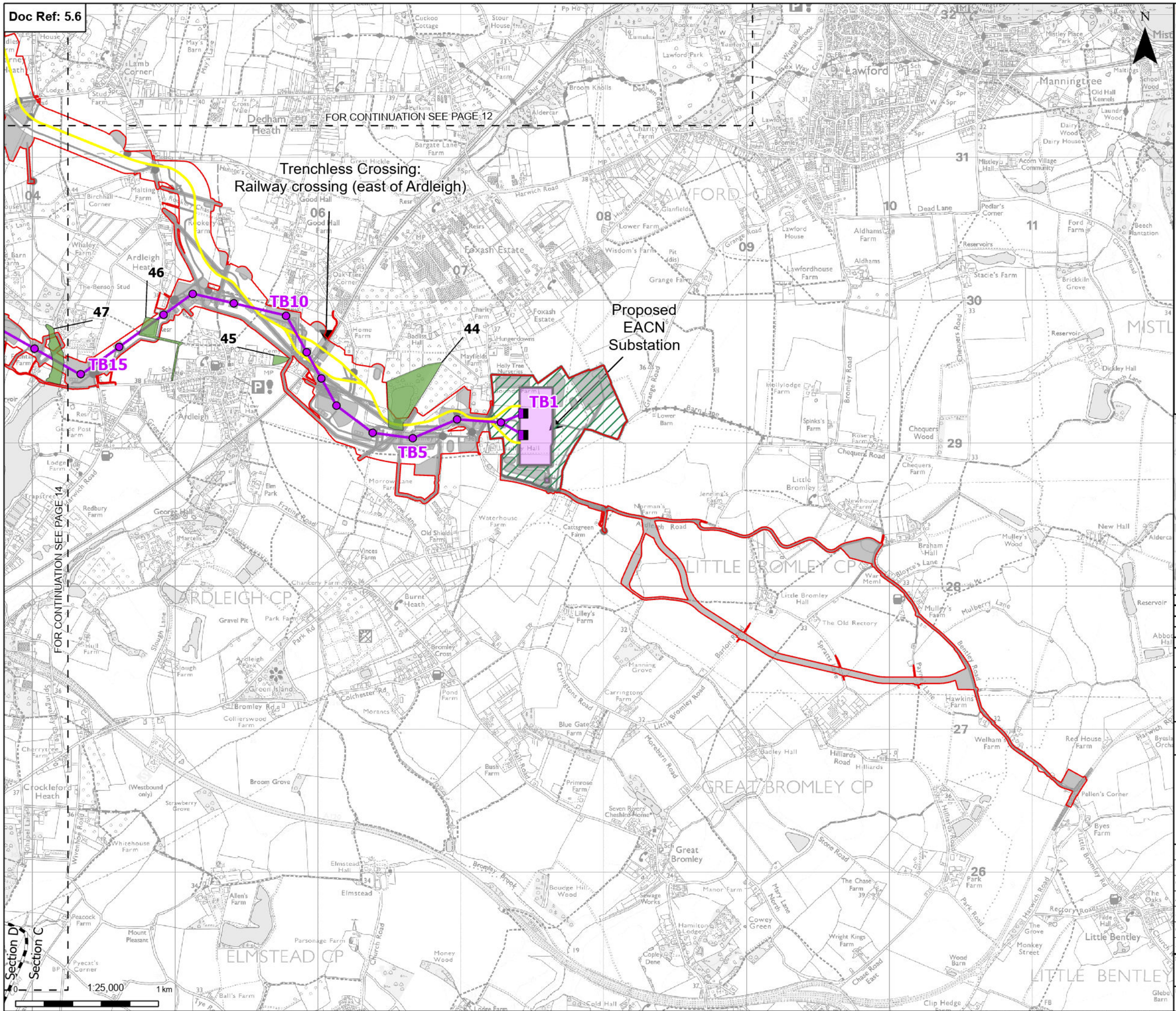
Suitability Description: Accepted as Concept Stage

Drawing Number: 10059280-ARC-EGN-ZZ-DR-ZZ-00474

Revision: A

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Order limits
Sheet index cutline
Project section line

Project specific contraints

Proposed full line tension gantry
Proposed standard lattice pylon location
Proposed overhead line alignment
Proposed underground cable alignment
Proposed DNO Substation
Proposed East Anglia Connection Node Substation
Environmental area
Other temporary and permanent construction and operational works

Discipline specific constraints

Possible open space

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PROJECT: Norwich to Tilbury

Planning Inspectorate App Number: EN020027
Regulation 5(2)(a)

Title:

Figure 1 - Open Space Assessment - Page 13 of 24

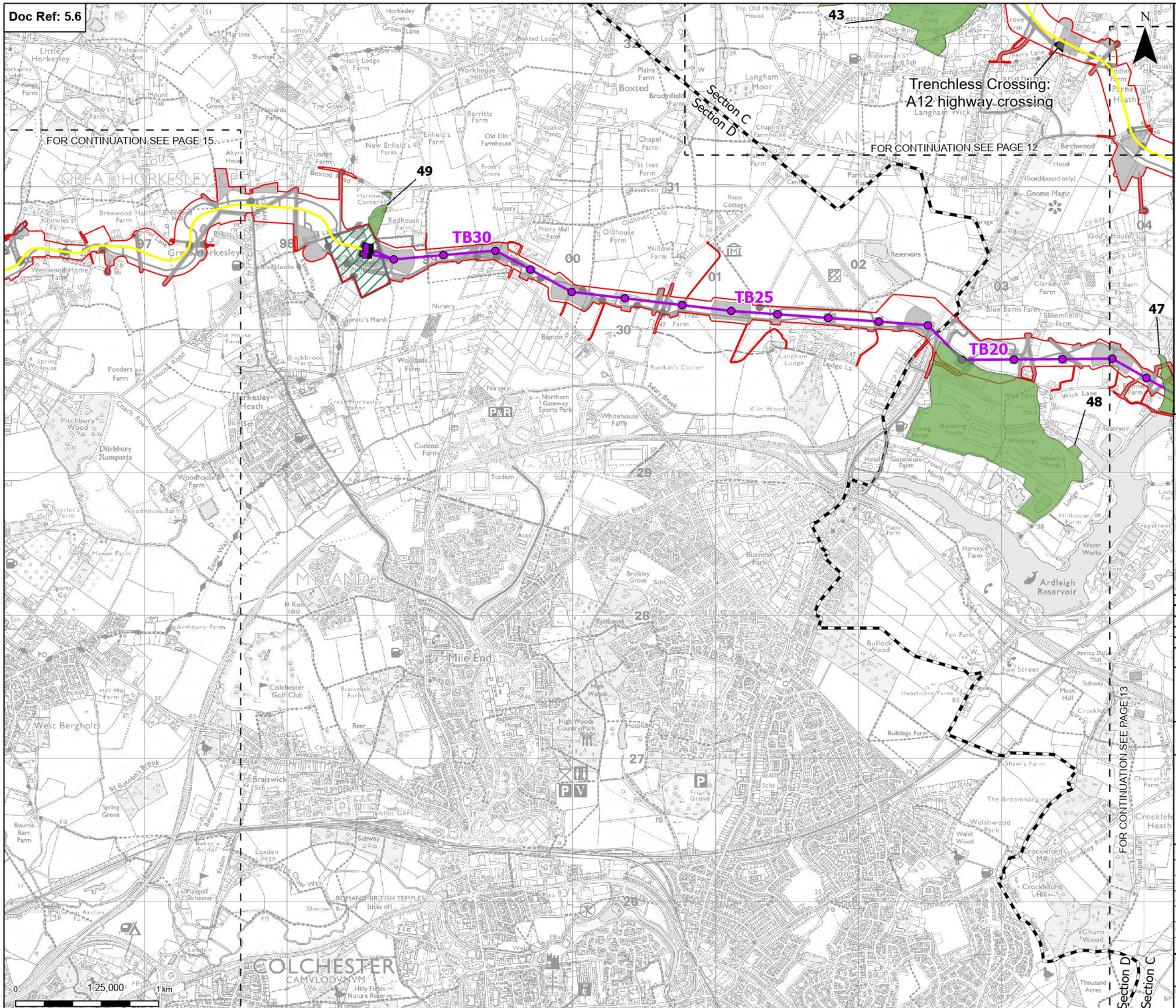
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Drawn	N. Banu	Date	21 Aug 25
Checked	A. Fell	Date	21 Aug 25
Approved	K. Burrows	Date	21 Aug 25
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Suitability Code:	A2	Project Number:	10059280

Suitability Description:
Accepted as Concept Stage

Drawing Number: 10059280-ARC-EGN-ZZ-DR-ZZ-00474
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- Order limits
- Sheet index cutline
- Project section line

Project specific contraints

- Proposed full line tension gantry
- Proposed standard lattice pylon location
- Proposed overhead line alignment
- Proposed underground cable alignment
- Proposed cable sealing end compound
- Environmental area
- Environmental mitigation
- Other temporary and permanent construction and operational works

Discipline specific constraints

- Possible open space

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PROJECT: Norwich to Tilbury

Planning Inspectorate App Number: EN020027
Regulation 5(2)(a)

Title:

Figure 1 - Open Space Assessment - Page 14 of 24

Designed	J. Glynn	Date	21 Aug 25
Drawn	N. Banu	Date	21 Aug 25
Checked	A. Fell	Date	21 Aug 25
Approved	K. Burrows	Date	21 Aug 25
Scale:	1:25,000	Datum:	AOD
Original Size:	A3	Grid:	OS
Suitability Code:	A2	Project Number:	10059280

Suitability Description: Accepted as Concept Stage

Drawing Number: 10059280-ARC-EGN-ZZ-DR-ZZ-00474

Revision: A

Print Date: 08-20-25 08:19:39

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TB35
TB40
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56

FOR CONTINUATION SEE PAGE 14
FOR CONTINUATION SEE PAGE 16

MOUNT BURES CP
FORDHAM CP
WEST BERGHOLT CP
ALDHAM CP
EIGHT ASH GREEN CP
GREAT HORKESLEY CP
Colne Valley

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Print Date: 08-20-25 08:19:44

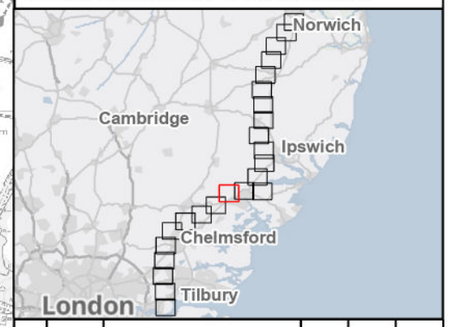
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Order limits
Sheet index cutline

Project specific contraints
- Proposed full line tension gantry
- Proposed standard lattice pylon location
- Proposed overhead line alignment
- Proposed underground cable alignment
- Proposed cable sealing end compound
- Environmental area
- Environmental mitigation
- Other temporary and permanent construction and operational works

Discipline specific constraints
- Open Rivers
- Possible open space

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PROJECT: Norwich to Tilbury

Planning Inspectorate App Number: EN020027
Regulation 5(2)(a)

Title:

Figure 1 - Open Space Assessment - Page 15 of 24

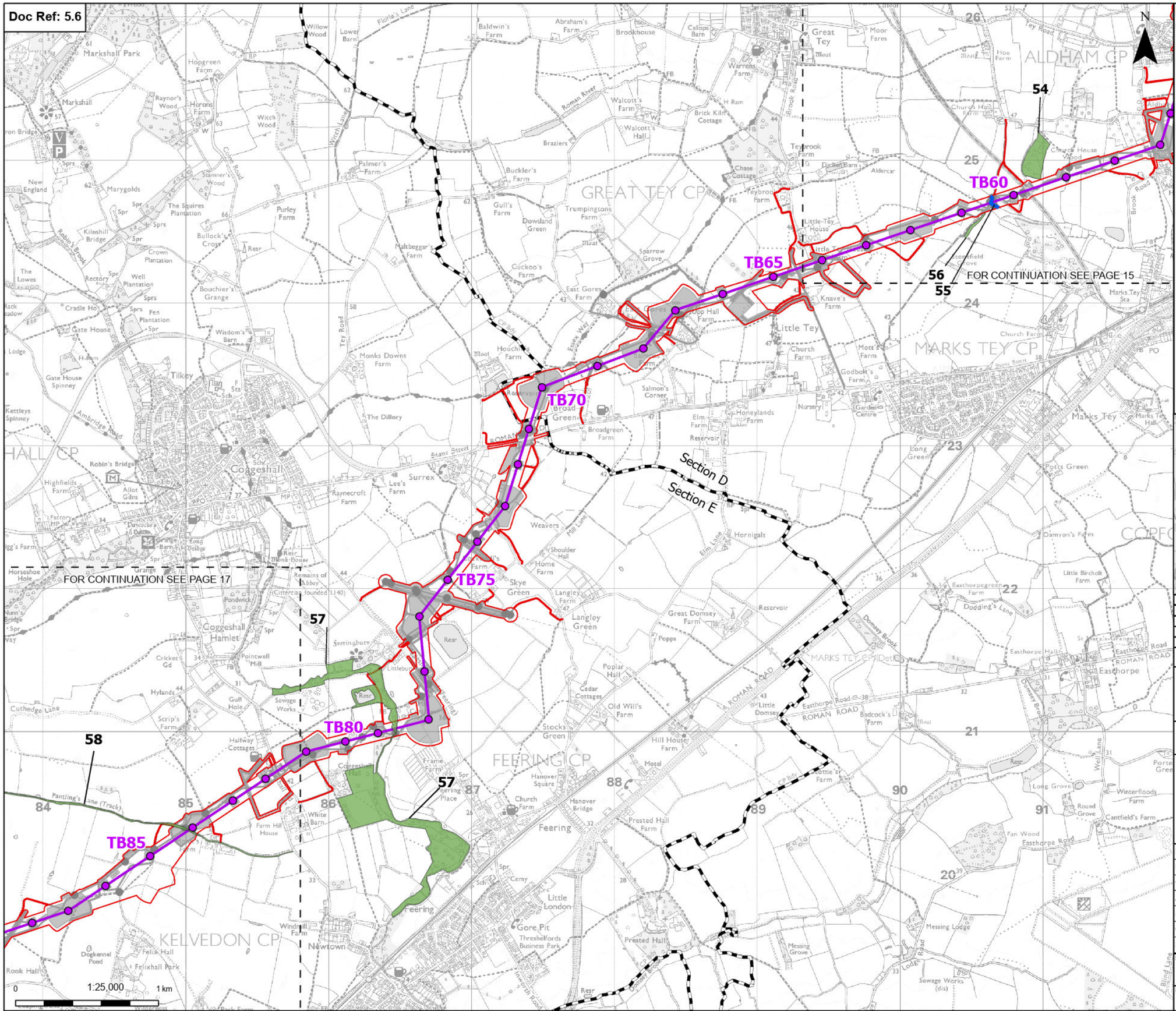
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Original Size:	A3	Grid:	OS
Suitability Code:	A2	Project Number:	10059280

Suitability Description: Accepted as Concept Stage

Drawing Number: 10059280-ARC-EGN-ZZ-DR-ZZ-00474 Revision: A

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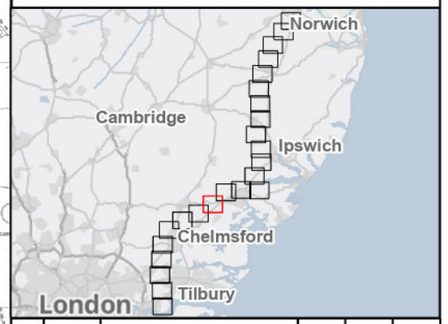
Project specific contraints

Proposed standard lattice pylon location
Proposed overhead line alignment
Environmental mitigation
Other temporary and permanent construction and operational works

Discipline specific constraints

Open Rivers
Possible open space

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PROJECT: Norwich to Tilbury

Planning Inspectorate App Number: EN020027
Regulation 5(2)(a)

Title:

Figure 1 - Open Space Assessment - Page 16 of 24

Designed	J. Glynn	Date	21 Aug 25
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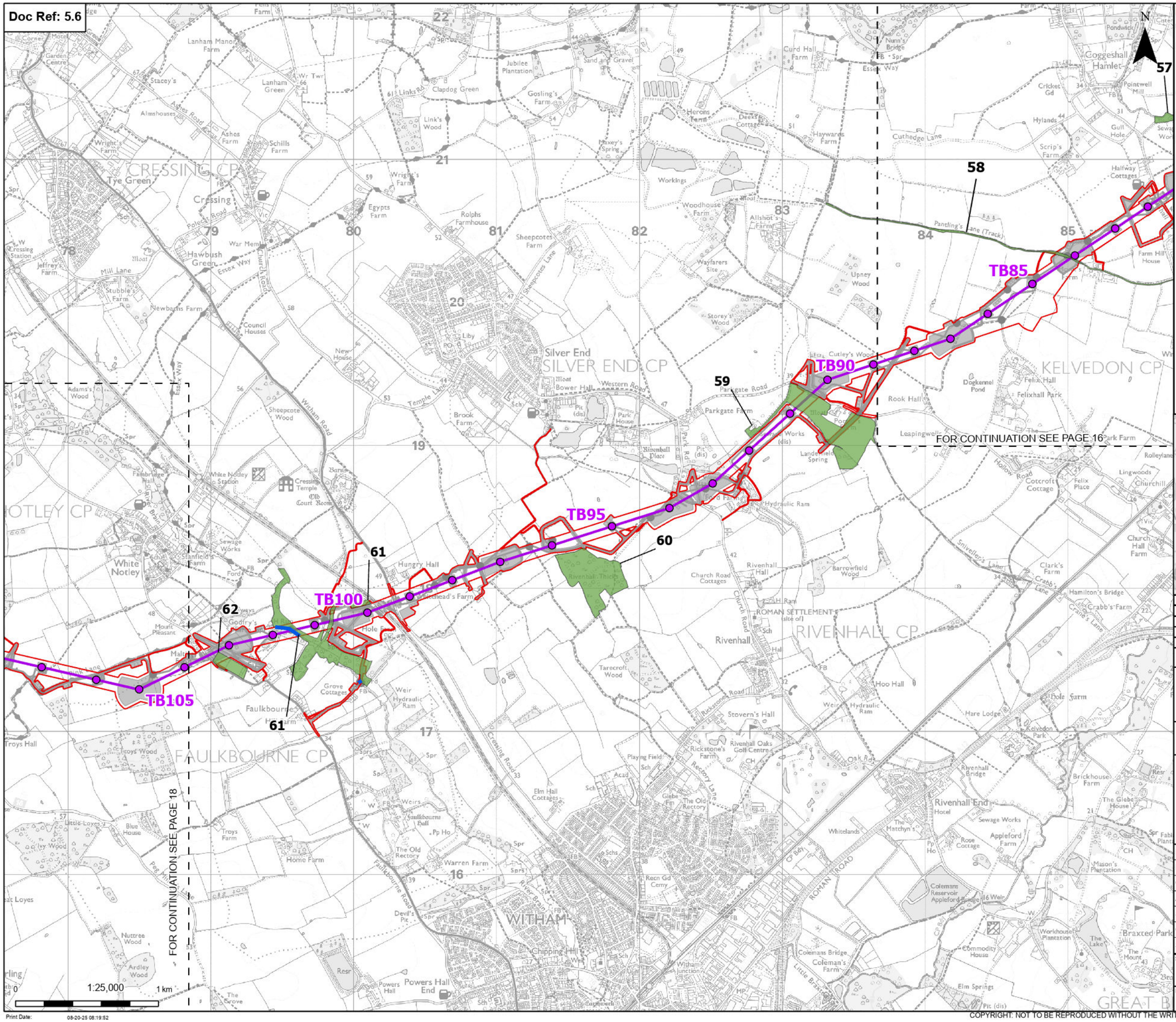
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Revision: A

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Order limits

Sheet index cutline

Project specific contraints

Proposed standard lattice pylon location

Proposed overhead line alignment

Other temporary and permanent construction and operational works

Discipline specific constraints

Open Rivers

Possible open space

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PROJECT: Norwich to Tilbury

Planning Inspectorate App Number: EN020027
Regulation 5(2)(a)

Title:

Figure 1 - Open Space Assessment - Page 17 of 24

Designed	J. Glynn	Date	21 Aug 25
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Suitability Code:	A2	Project Number:	10059280

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Revision: A

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TB130
TB135
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Section E
Section F
WHITE NOTLEY CP
GREAT AND LITTLE LEIGHS CP
FAIRSTEAD CP
TERLING CP
LITTLE WALTHAM CP
FOR CONTINUATION SEE PAGE 17
FOR CONTINUATION SEE PAGE 19
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- Order limits
- Sheet index cutline
- Project section line

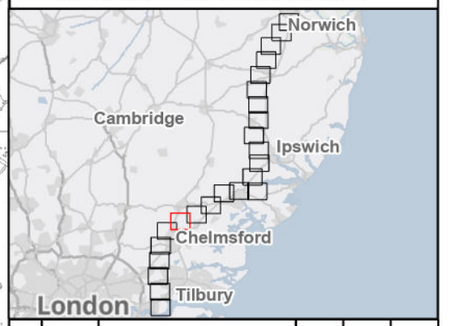
Project specific contraints

- Proposed low duty gantry
- Proposed low height pylon location
- Proposed standard lattice pylon location
- Proposed overhead line alignment
- Proposed underground cable alignment
- Proposed cable sealing end compound
- Environmental area
- Environmental mitigation
- Other temporary and permanent construction and operational works

Discipline specific constraints

- Open Rivers
- Possible open space

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PROJECT: Norwich to Tilbury

Planning Inspectorate App Number: EN020027
Regulation 5(2)(a)

Title:

Figure 1 - Open Space Assessment - Page 18 of 24

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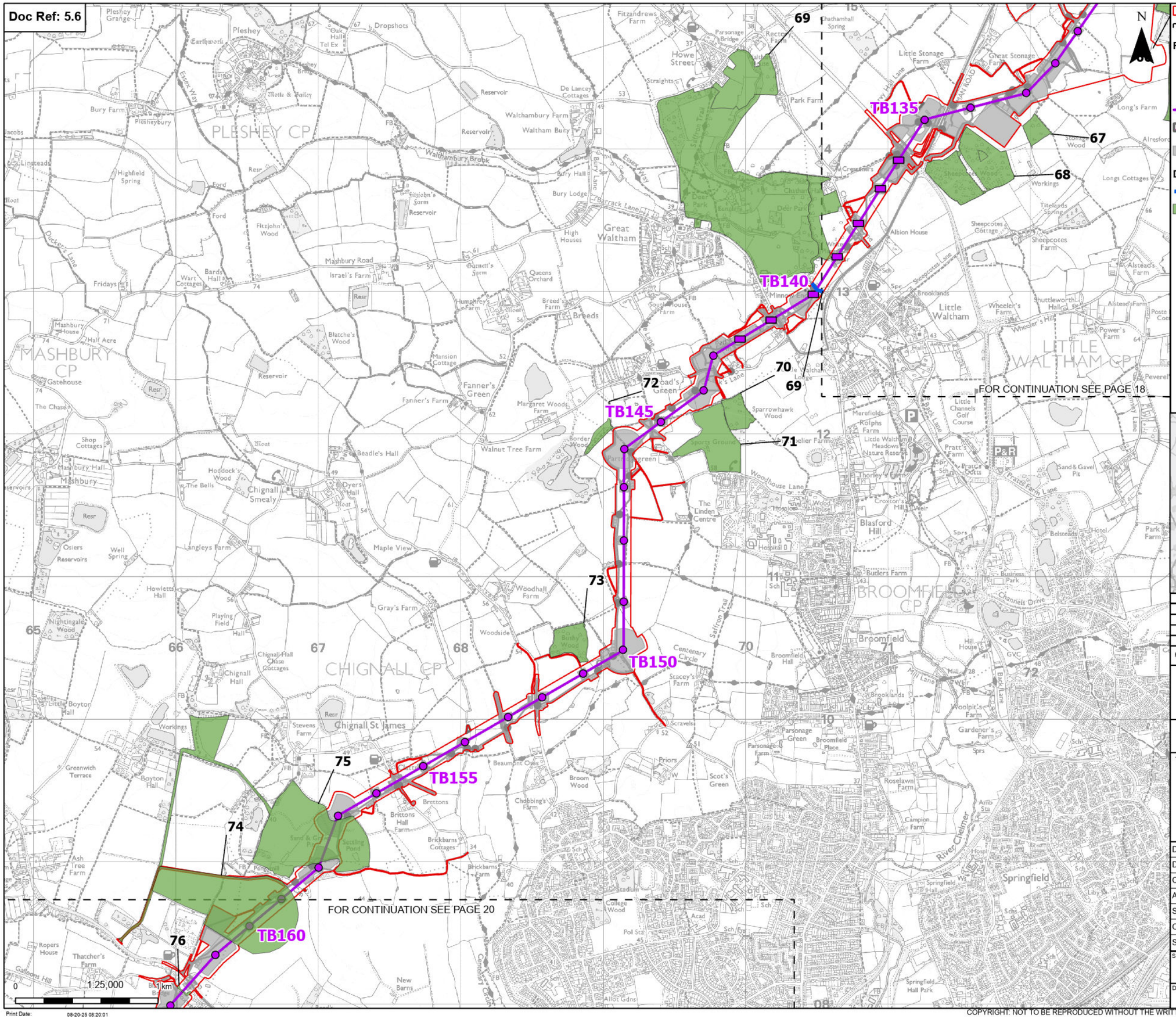
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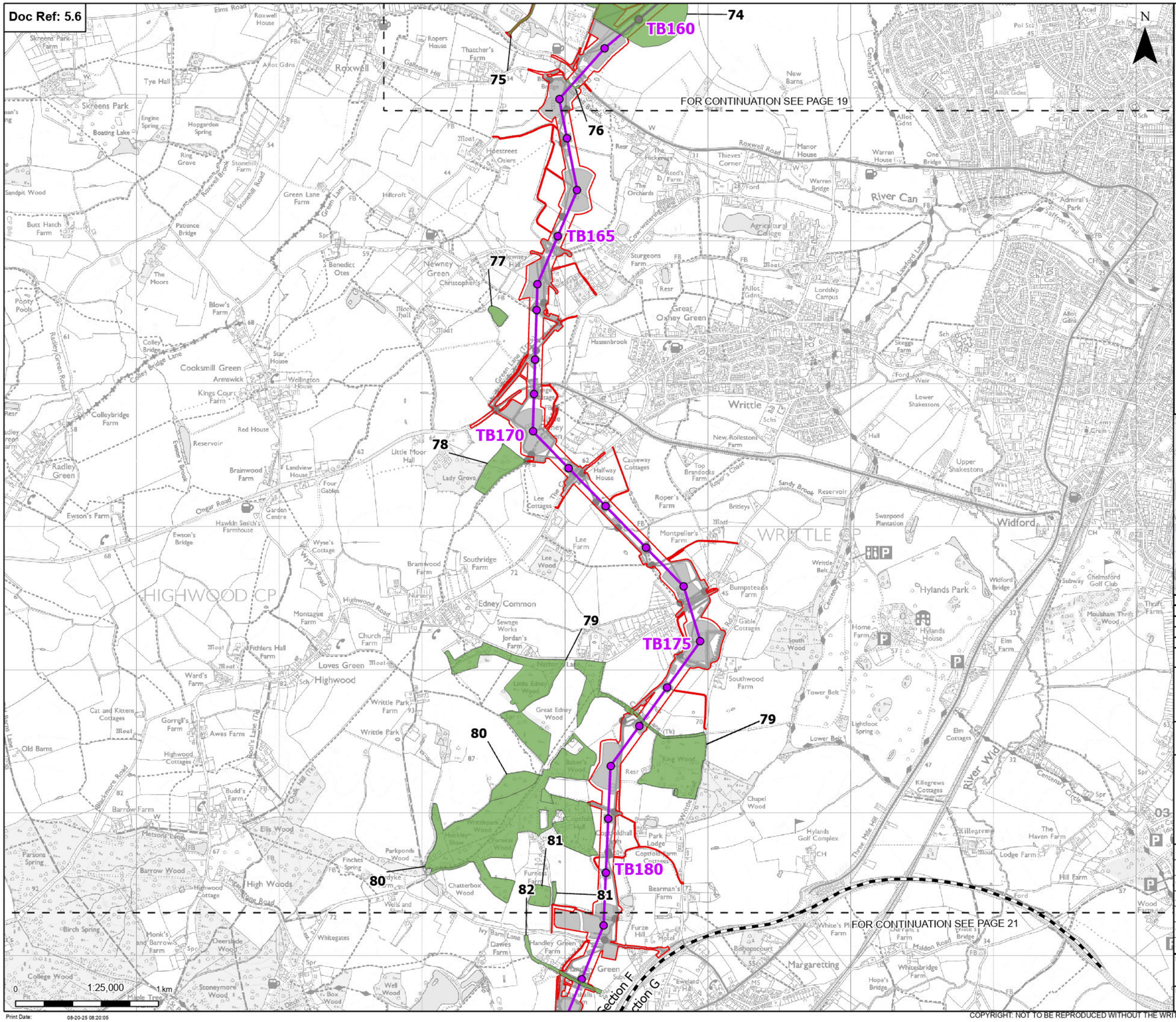
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TB155
TB160
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FOR CONTINUATION SEE PAGE 18
FOR CONTINUATION SEE PAGE 20
PLESHEY CP
MASHBURY CP
CHIGNALL CP
LITTLE WALTHAM CP
BROOMFIELD CP
Great Waltham
Little Waltham
Chignall St James
Chignall Smealy
Broomfield
Springfield
Chelmsford
Pleshey
Mashbury
Howe Street
Fanner's Green
Blasford Hill
Mashbury Road
Barrack Lane
Woodhouse Lane
Centenary Circle
Sandon Trail
Essex Way
Flitch Way
Saffron Trail
Waltham Brook
Reservoir
Sports Ground
Gypsy Hill Lane
Main Road
Back Lane
Sheepcotes Lane
Wheeler's Hill
Pratts Farm Lane
Channels Drive
Woolpits Lane
Gallows Hill
Ducker's Lane
Fridays
Bardfield Hall
Wart Cottages
Highfield Spring
Bury Farm
Pleshey Grange
Oak Hall
Dropshots
Earthworks
Motte & Bailey
Pleshey Bridge
Jacobs
Linsteads
Ford
Fitzjohn's Farm
Fitzjohn's Wood
Bury Hall
Bury Lodge
Bury Lane
Waltham Bury
Walthambury Farm
De Lancey Cottages
Deer Park
Park Farm
Parsonage Bridge
Rectory Farm
Fitzandrews Farm
Straights
Nathamhall Spring
Little Stonage Farm
Great Stonage Farm
Stonage Wood
Workings
Long's Farm
Longs Cottages
Titelands Spring
Albion House
Sheepcotes Cottage
Sheepcotes Farm
Alstead's Farm
Brooklands
Wheeler's Farm
Shuttleworth Hall
Power's Farm
Little Channels Golf Course
Merefields
Kolphs Farm
Little Waltham Meadows Nature Reserve
Pratt's Farm
Pratts Cotts
Sand & Gravel Pit
P&R
Sparrowhawk Wood
Margaret Woods
Queens Orchard
Garnett's Farm
Israel's Farm
Humphrey's Farm
Breed's Farm
Breeds
Southhouse Farm
Minnows
Mansion Cottage
Walnut Tree Farm
Border Wood
Beadle's Hall
Hoddock's Wood
The Bells
Dyer's Hall
Shop Cottages
Mashbury Hall
Half Acre
Mashbury House
Gatehouse
The Chase
Blatche's Wood
Fanner's Farm
Parish Green
Pelier Farm
The Linden Centre
Hospice
Wood House
Croxton's Mill
Butlers Farm
Business Park
Channels Drive
Broomfield Hall
Broomfield Place
Parsonage Farm
Parsonage Green
Stacey's Farm
Scravels
Priors
Scot's Green
Beaumont Oaks
Broom Wood
Chobbing's Farm
Roselawn Farm
Campion Farm
Woolpits Farm
Gardener's Farm
Hill House
Mill
Weir
Brettons
Brettons Hall Farm
Brickbarns Cottages
Brickbarns Farm
Settling Pond
Sand & Gravel Pit
College Wood
Stadium
Pol Sci
Acad
Springfield Hall
Springfield Hall Park
River Chelmer
Amb Sta
Hospital
Ash Tree Farm
Ropers House
Thatcher's Farm
Osiers Reservoirs
Well Spring
Langleys Farm
Maple View
Howletts Hall
Nightingale Wood
Playing Field
Chignall Hall
Chignall Hall Chase Cottages
Little Boyton Hall
Workings
Stevens Farm
Greenwich Terrace
Boyton Hall
Gray's Farm
Woodside
Woodhall Farm
Bushy Wood
New Barns
Allot Gdns
Business Park
Hotel
Park Farm
Belsteads
Hospital
Sch
Spr
Sprs
Ws
Liby
Amb Sta
Resr
Moat
Ford
Bridge
Motte & Bailey
Reservoir
Reservoirs
Pond
Sand & Gravel Pit
Settling Pond
Allot Gdns
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Acad
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Hospital
Stadium
Liby
Amb Sta
Spr
Sprs
Ws

Doc Ref: 5.6



N

Order limits
Sheet index cutline
Project section line

Project specific contraints

Proposed standard lattice pylon location
Proposed overhead line alignment
Environmental mitigation
Other temporary and permanent construction and operational works

Discipline specific constraints

Possible open space

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PROJECT: Norwich to Tilbury

Planning Inspectorate App Number: EN020027
Regulation 5(2)(a)

Title:

Figure 1 - Open Space Assessment - Page 20 of 24

Designed	J. Glynn	Date	21 Aug 25
Drawn	N. Banu	Date	21 Aug 25
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Approved	K. Burrows	Date	21 Aug 25
Scale:	1:25,000	Datum:	AOD
Original Size:	A3	Grid:	OS
Suitability Code:	A2	Project Number:	10059280

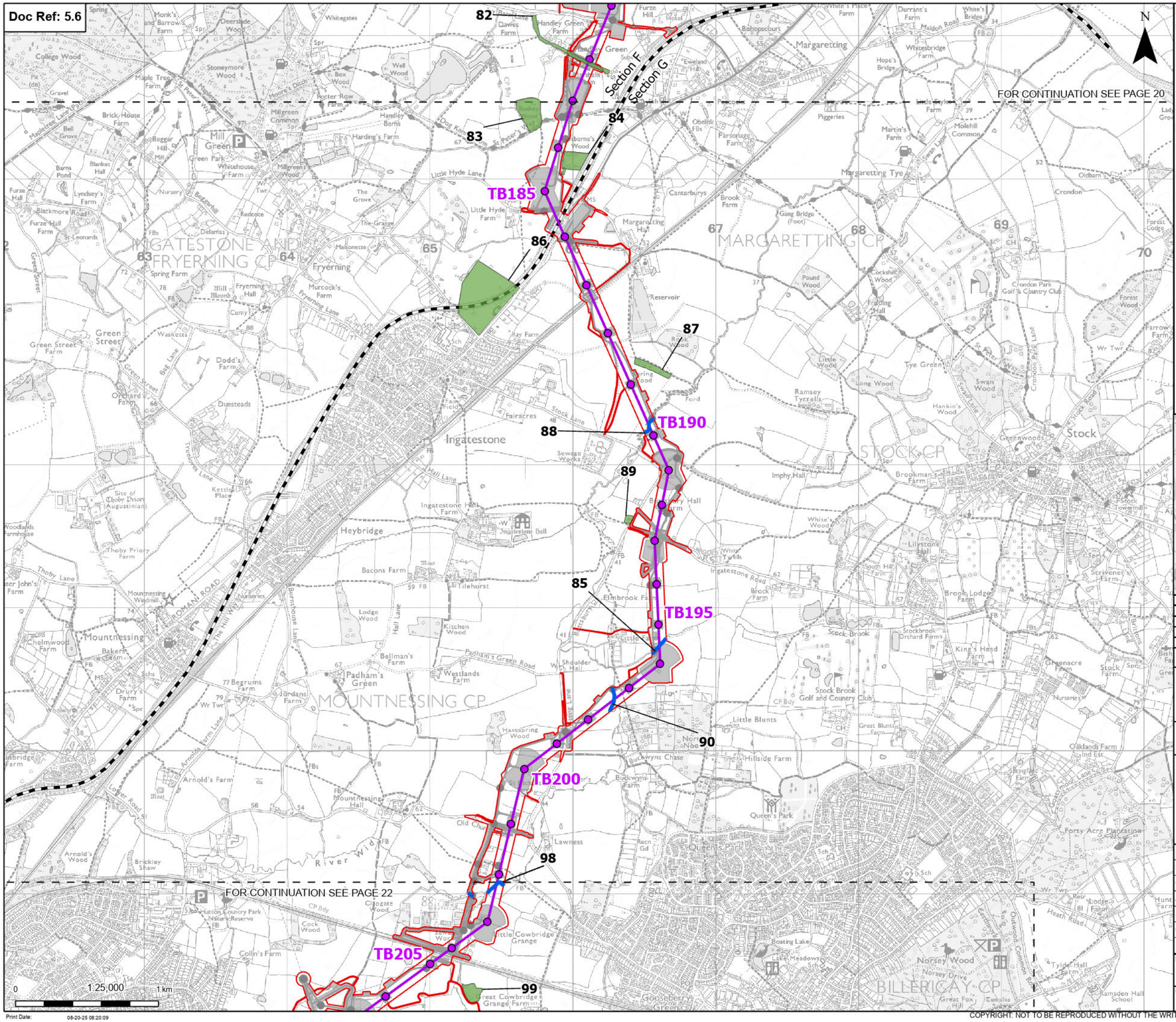
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Drawing Number: 10059280-ARC-EGN-ZZ-DR-ZZ-00474
Revision: A

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N

- Order limits
- Sheet index cutline
- Project section line

Project specific contraints

- Proposed standard lattice pylon location
- Proposed overhead line alignment
- Environmental mitigation
- Other temporary and permanent construction and operational works

Discipline specific constraints

- Open Rivers
- Possible open space

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PROJECT: Norwich to Tilbury

Planning Inspectorate App Number: EN020027
Regulation 5(2)(a)

Title:

Figure 1 - Open Space Assessment - Page 21 of 24

Designed	J. Glynn	Date	21 Aug 25
Drawn	N. Banu	Date	21 Aug 25
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Scale:	1:25,000	Datum:	AOD
Original Size:	A3	Grid:	OS
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Suitability Description:
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FOR CONTINUATION SEE PAGE 21

FOR CONTINUATION SEE PAGE 23

TB205
TB210
TB215
TB220
TB225
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94
95
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100
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102

0 1 km
1:25,000

Print Date: 08-20-25 08:20:13

N

- Order limits
- Sheet index cutline

Project specific contraints

- Proposed standard lattice pylon location
- Proposed overhead line alignment
- Other temporary and permanent construction and operational works

Discipline specific constraints

- Open Rivers
- Possible open space

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PROJECT: Norwich to Tilbury

Planning Inspectorate App Number: EN020027
Regulation 5(2)(a)

Title:

Figure 1 - Open Space Assessment - Page 22 of 24

Designed	J. Glynn	Date	21 Aug 25
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Suitability Code:	A2	Project Number:	10059280

Suitability Description: Accepted as Concept Stage

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FOR CONTINUATION SEE PAGE 22

FOR CONTINUATION SEE PAGE 24

96
97
103
104
TB230
TB235
TB240
TB245
TB250
Section G
Section H
WEST HORNDON CP
THURROCK

0 1:25,000 1 km

Print Date: 08-20-25 08:20:17

N

- Order limits
- Sheet index cutline
- Project section line

Project specific contraints

- Proposed low height pylon location
- Proposed standard lattice pylon location
- Proposed overhead line alignment
- Environmental mitigation
- Other temporary and permanent construction and operational works

Discipline specific constraints

- Possible open space

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PROJECT: Norwich to Tilbury

Planning Inspectorate App Number: EN020027
Regulation 5(2)(a)

Title:

Figure 1 - Open Space Assessment - Page 23 of 24

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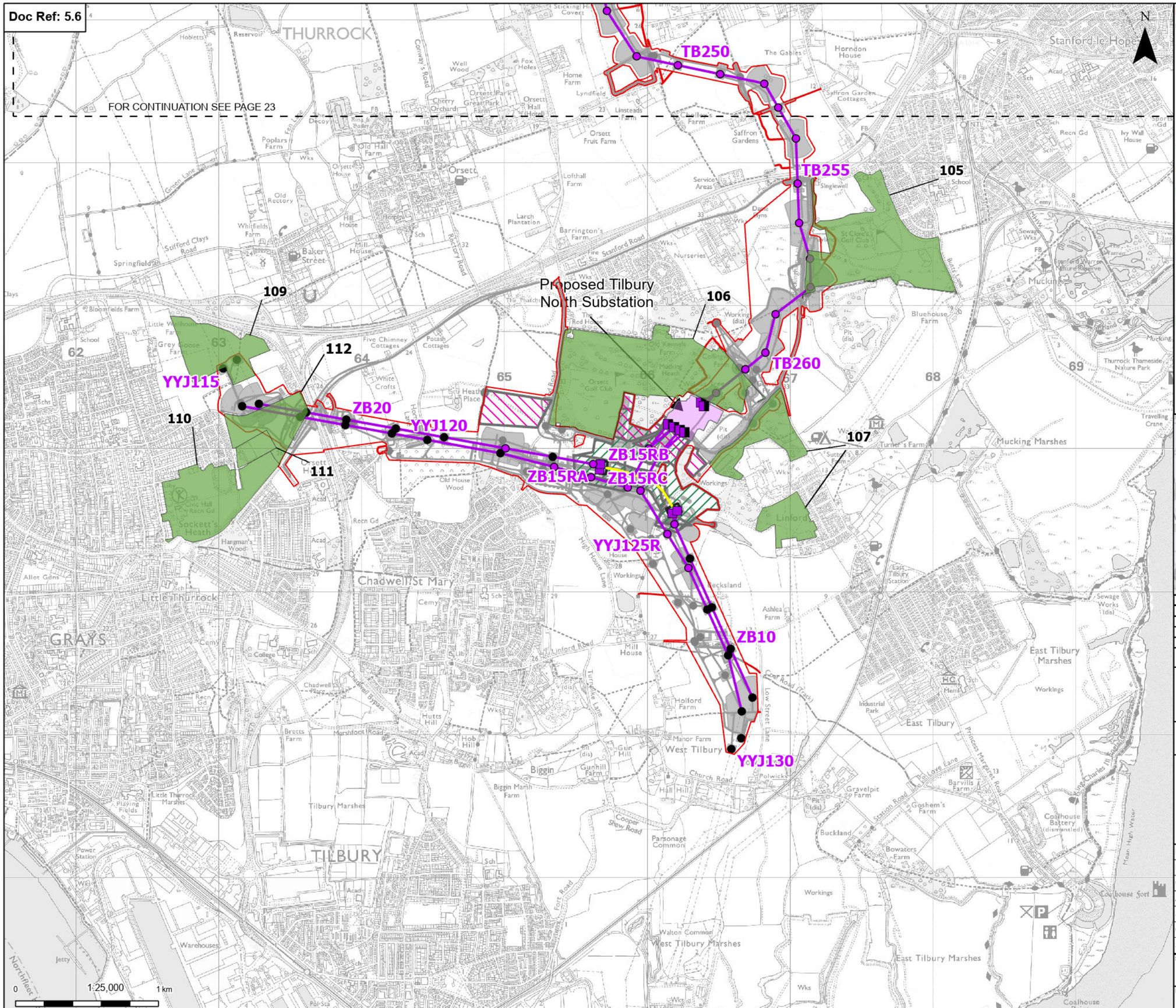
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FOR CONTINUATION SEE PAGE 23



Order limits

Sheet index cutline

Project specific contraints

- Proposed full line tension gantry
- Proposed low duty gantry
- Existing pylon (modify)
- Proposed standard lattice pylon location
- Proposed overhead line alignment
- Proposed underground cable alignment
- Proposed Tilbury North Substation
- Proposed cable sealing end compound
- Environmental area
- Environmental mitigation
- Other temporary and permanent construction and operational works

Discipline specific constraints

- Possible open space

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B.2 Assessment of Open Space Provision: Ardleigh Fishing Pond and Ardleigh Reservoir

Introduction and Context

B.2.1 The purpose of Appendix B2 and B3 includes additional consideration of those areas where a loss of open space has been identified in Appendix B1. In particular, Appendix B2 considers the impact of the Project on fishing provision within Ardleigh (sites OS/46 and OS/47) whilst Appendix B3 considers further the position of pylons within at Maple Park (OS/105).

B.2.2 Fundamentally, angling is not compatible with overhead lines due to the associated safety risks for anglers. Therefore, a standard approach is for 30 metre exclusion zones for angling around overhead lines. Where overhead lines are sited close to or over areas used for angling, this does result in angling being prohibited in these locations.

B.2.3 As identified below, the Project interacts with two bodies of water in Ardleigh, Tendring. Resultantly, angling in these locations will be prohibited within 30 metres of the overhead lines.

B.2.4 The Overarching National Policy Statement for Energy (EN-1) sets the policy context for considering the impacts of Developments of National Significance (DNS) on open space. Open space is defined within this document at footnote 246 as follows:

'open space should be taken to mean all open space of public value, including not just land, but also areas of water such as rivers, canals, lakes and reservoirs which offer important opportunities for sport and recreation and can also act as a visual amenity.'

B.2.5 Where the loss of open space is proposed, paragraph 5.11.32 of EN-1 states the following:

'The Secretary of State should not grant consent for development on existing open space, sports and recreational buildings and land unless an assessment has been undertaken either by the local authority or independently, which has shown the open space or the buildings and land to be surplus to requirements or the Secretary of State determines that the benefits of the project (including need), outweigh the potential loss of such facilities, taking into account any positive proposals made by the applicant to provide new, improved or compensatory land or facilities.'

B.2.6 In view of paragraph 5.11.32, the purpose of this assessment is to consider whether the provision of angling at the two locations which are being oversailed is surplus to requirements. These sites are considered to fall within the definition of open space as set out.

The Sites

B.2.7 At Ardleigh, the Project interacts with two areas of open water that are currently used for angling. These are Ardleigh Fishing Pond and the northernmost section of Ardleigh Reservoir ('the Sites'), as identified in Figure B3.

Ardleigh Fishing Pond (OS/46)

B.2.8 Ardleigh Fishing Pond is an approximately 3.3-acre body of water located to the west of Ardleigh. There is no formal access to the pond, and it is understood to be in private use only, with the site owner communicating to National Grid that one angling club occasionally use the site. Ardleigh Fly Fishing Club identify that they previously used what is understood to be the site, however, they later moved to what is described as a more productive and secluded site elsewhere within the locality[1].

Ardleigh Reservoir (OS/47)

B.2.9 The northernmost section of Ardleigh Reservoir is an approximately 6.6-acre body of water, also located to the west of Ardleigh. Access is permitted through day permits, which can be booked online. Angling is not allowed on the western bank of this section of the Reservoir.

Impact of the Project on the Sites

Ardleigh Fishing Pond

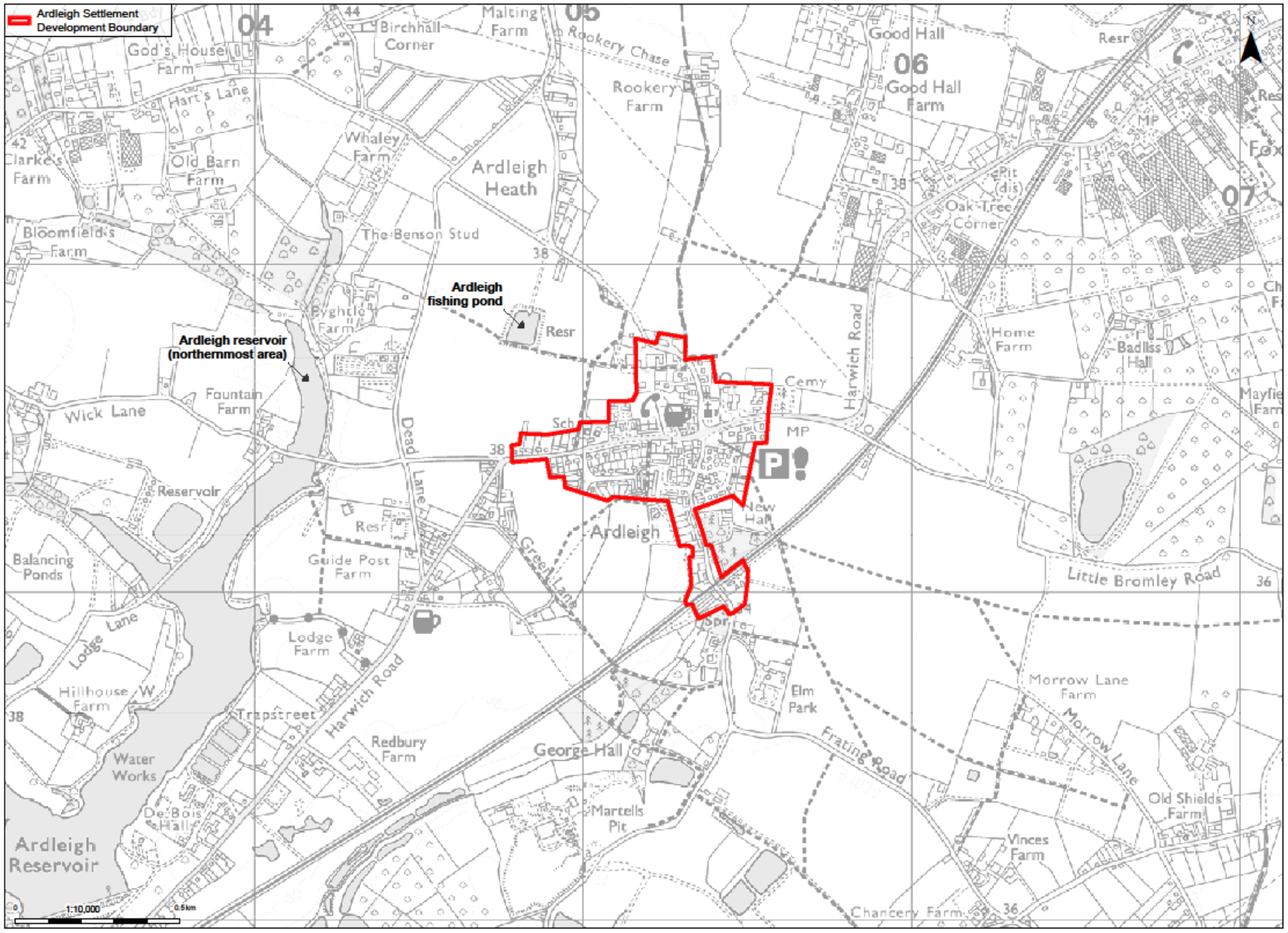
B.2.10 At Ardleigh Fishing Pond the Project will over sail the site and this will result in fishing being prohibited here in totality, given the limited scale of the pond.

Northern Section of Ardleigh Reservoir

B.2.11 The Project will over sail the northernmost section of the Ardleigh Reservoir. This will result in angling in the northernmost section of the Reservoir, north of Wick Lane, to be prohibited along a 30-metre swathe. Angling will remain possible outside of this area on this part of the Reservoir and on the wider Reservoir, where already permitted.

[1] Ardleigh Fly Fishing Club – Colchester based fly fishing club

Figure B2 Ardleigh Settlement



Assessment of Angling Provision within Ardleigh and Colchester Locality

Methodology

B.2.12 A desktop review of fishing provision in the locality of the two angling locations has been conducted. In identifying a search area, a 10-mile radius has been drawn around the mid-point between the two locations, which is considered reasonable given the proximity of the two sites in Ardleigh to each other. 10 miles was considered a reasonable distance to consider provision within, given that some anglers may travel significant distances for better waters whereas others may prefer to remain as local as possible. The mid-point is shown in Figure B3.

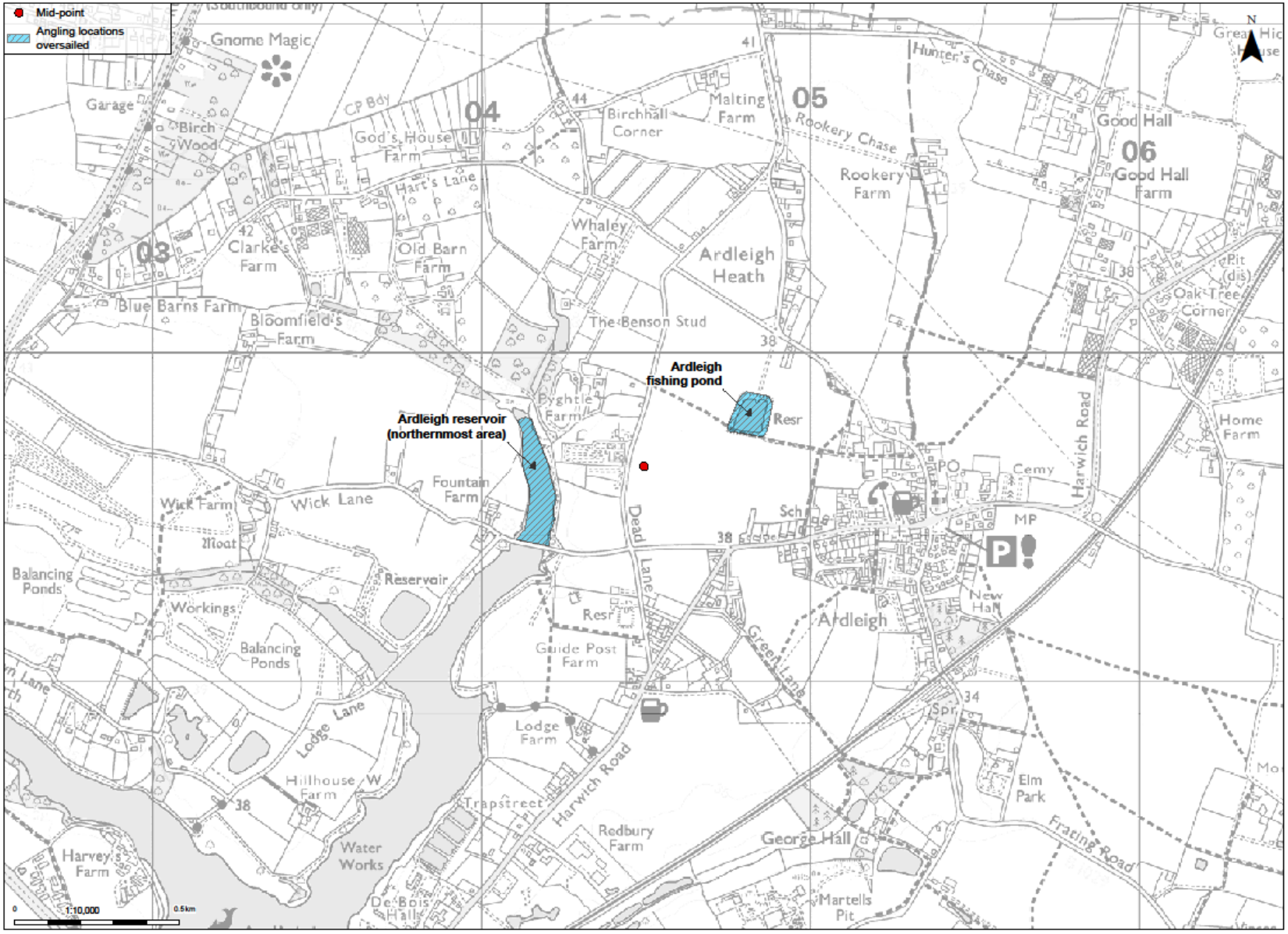
B.2.13 The desktop review involved an internet search which sought to identify locations where angling was possible. This involved reviewing the following webpages:

- The Carpworld 'Lake Finder'[2] using an Ardleigh postcode as a search reference with a 10-mile search area.
- The Anglian Water Webpage[3], searching 'fishing'.
- The PAXMANS Angling Club[4], which is administered by an angling club based in Colchester.
- Swimbooker[5], a webpage for finding fishing lakes.
- Colchester Angling Preservation Society Ltd[6], searching the 'Waters' section.
- Alresford Angling Association[7].

B.2.14 These webpages identified a range of angling facilities within 10 miles of the sites, as detailed below. Only those with official webpages have been identified, however, it is apparent that other less formal facilities exist. For example, Ardleigh Fly Fishing Club now operates from Hull Farm, however, no details on the location of this exist online. Several fisheries have been discounted due to the lack of clarity around their status. It is also apparent that opportunities for river fishing are available within the study area. Details included within this assessment have been taken at face value from webpages associated with the angling sites identified.

[2] Find Carp Fishing Lakes & Fisheries Near Me - Carpworld™
[3] Fishing | Anglian Water Parks
[4] Paxman's Angling Club – Paxman's Angling Club
[5] Book Fishing Lakes & Day Tickets Near You | swimbooker
[6] Colchester Angling Preservation Society Ltd
[7] Fishing | Alresford Angling Association

Figure B3 Location of mid-point, between the two angling locations being oversailed



Findings

B.2.15 The angling locations that have been identified within the search area are identified in Table B2 below:

Table B2 Identification of Angling Sites Within the study Area

Ref. No.	Site Name	Access	Approx. Size (acres)	Approx. Distance from mid-point (Miles)	Notes
1	Ardleigh Reservoir	Day tickets available	113.7	0.7	The remainder of the Reservoir not impacted by the Project. Not all of the reservoir is available for fishing. The 6.3 acres where the angling use is oversailed by the Project have been excluded.
2	Bobby George Lakes	Day tickets available	1.5	0.9	
3	Home Farm	Membership only	8	1.3	Paxmans Angling Club – currently a waiting list.
4	Newland Hall Fishery	Day tickets available	Unknown	4.4	4 lakes
5	Ramsey Brooks	Membership only	7	6.9	2 Lakes, Paxmans Angling Club – currently a waiting list.
6	Jaffa Fisheries	Membership only	Unknown	7.3	Exact Location unknown, online location is given as in the centre of Wix; thus, it is assumed the site is nearby. Annual membership, currently accepting new members.
7	Snake Pit	Membership only	12	4.9	Colchester Angling Preservation Society – Annual membership, accepting new members from 01/04/25.
8	Alton Water	Day tickets available	340	7.5	Described as the best fishing opportunity in Suffolk.[8] Not all of the reservoir is available for fishing.

[8] Fishing at Alton Water | Anglian Water Parks

Ref. No.	Site Name	Access	Approx. Size (acres)	Approx. Distance from mid-point (Miles)	Notes
9	Alresford Pit	Membership with day tickets also available	9	5	
10	Layer Pit	Membership only	17	7.8	Colchester Angling Preservation Society – Annual membership, accepting new members from 01/04/25.
11	Brakes Round Pit	Membership only	8	9	Colchester Angling Preservation Society – Annual membership, accepting new members from 01/04/25.
12	Brakes Long Pit	Membership only	13.5	9.4	Colchester Angling Preservation Society – Annual membership, accepting new members from 01/04/25.
13	Clayfields Fishery	Day tickets available	6 acres	7	
14	Great Oakley Fishery	Membership only	Unknown	9.2	Private membership for Investigating Countryside and Angling Research Projects (iCARP)
15	Hintlesham Fisheries	Day tickets available	10	9.4	4 Lakes. Pylon PCB5, which is an existing pylon, is currently sited in the middle of this site. This is due to be removed, and thus, there is likely to be an improvement in provision at this location. See Appendix B1 site reference OS/39.
16	Top Lake Earls Hall Fisheries	Day tickets available for exclusive use of lake for up to 8 people.	5	9.9	
17	Boley Road Lake	Membership only	2	9.9	Colnes Angling Society – Appears to be accepting membership applications.

B.2.16 The locations of the angling sites are displayed in Figure 3 below.

B.2.17 Table B2 identifies that within 10 miles of the sites there are 17 locations where it is possible to fish. In addition to these locations, as identified in paragraph 4.3., it is apparent that there are further less formal angling locations located within the study area. Notably, three of the angling sites have been identified within the Ardleigh locality, including the parts of Ardleigh Reservoir where angling remains permissible.

B.2.18 The scale of the other sites available varies significantly, from Alton Water at 340 acres to Bobby George Lake at 1.5 acres. In total, 552.7 acres have been identified, which amounts to significant provision. Excluding the much larger Alton Water and Ardleigh Reservoir, this still amounts to 99 acres amongst the smaller sites identified. It is appreciated that angling is not possible throughout all the site at these locations, however, this is also the case at the sites being oversailed. Notably, as identified in paragraph 3.2, angling is not allowed on the western bank of the northern part of Ardleigh Reservoir.

B.2.19 Accessibility to these sites does vary, and notably over a third are available on a day-ticket basis, including Ardleigh Reservoir. It is not apparent that there are waiting lists at any of these locations and bookings can be made at short notice. Where access is not available on a day-ticketing basis it is still possible through membership of the identified angling clubs and societies. It would appear that the majority of the angling clubs and societies are accepting new memberships or will be at upcoming junctures. Therefore, it is not apparent that there is a shortage of capacity within local angling clubs and societies.

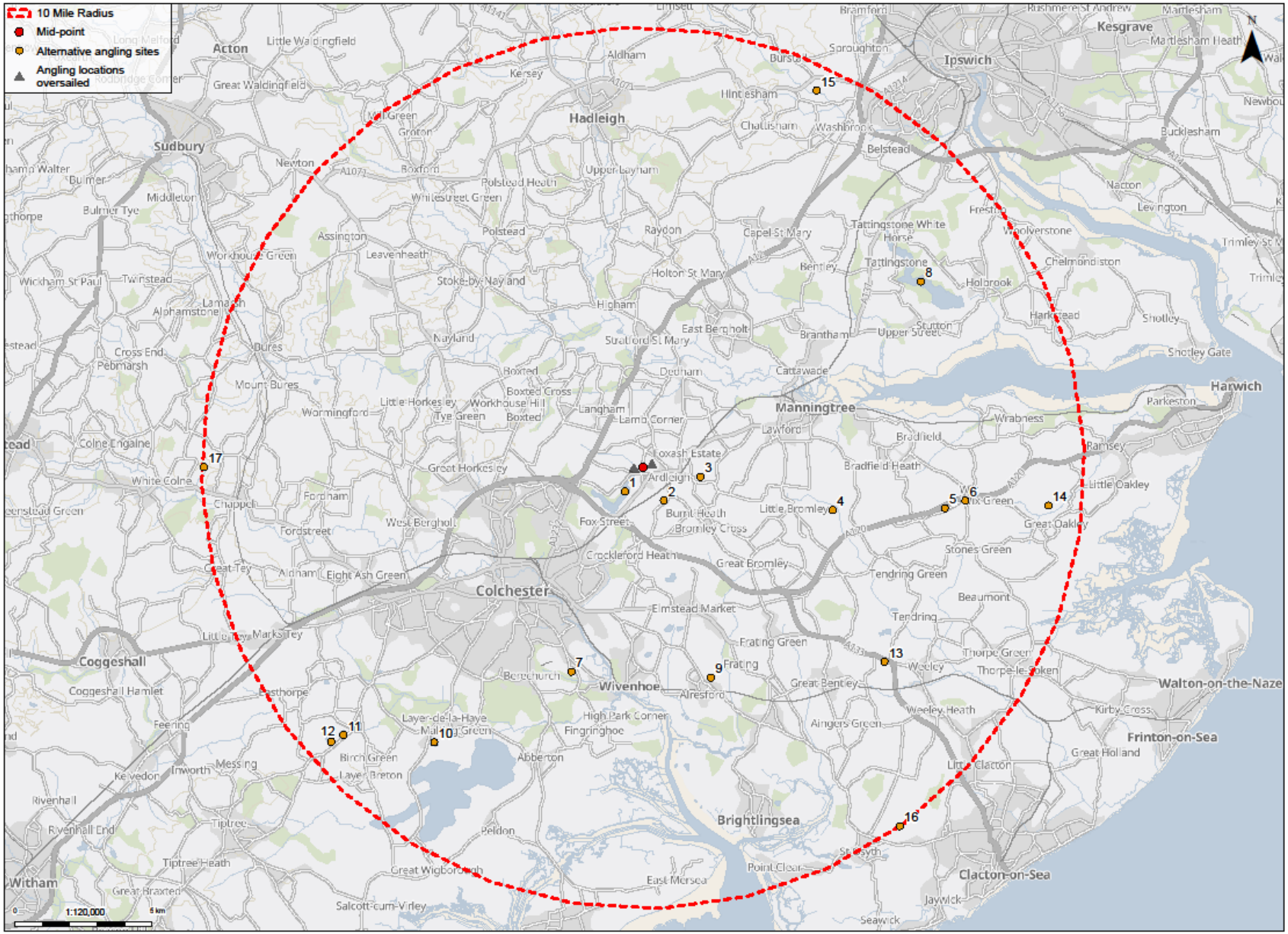
Assessment of Provision

B.2.20 Figure B4 identifies that there is an ample supply of opportunities for angling located within the study area. These sites vary significantly in scale, offering a wide range of alternatives to the two sites. The northernmost section of Ardleigh Reservoir and Ardleigh Fishing Pond (cumulatively 9.6 acres – not considering that only a 30 metre swathe of Ardleigh Reservoir will be sterilised) amount to 2% of the area identified in Table B2 in total and under 10% if Alton Water and the remainder of Ardleigh Reservoir are excluded. Therefore, the provision of angling being lost is not significant when considering provision in the wider locality.

B.2.21 Notably, there is strong provision in the Ardleigh locality itself, with two day-ticketed sites and a private site located within approximately 1.5 miles of the centre point. This includes the remainder of Ardleigh Reservoir, which offers day-ticket and seasonal booking options. There is also a strong availability of sites for those that wish to join an angling club or society, similar to the use of Ardleigh Fishing Pond.

B.2.22 There is no evidence to suggest that the two sites being lost are of particularly high-quality provision when compared with the other sites assessed. In particular, the southern area of Ardleigh Reservoir and the northern areas where angling will remain permissible permit access to facilities with the same quality as the area where angling will be prohibited. The smaller fisheries and lakes offer similar opportunities to the Ardleigh Fishing Pond.

Figure B4 Formal Locations for angling within 10 miles of the sites being oversailed



Assessment of Cost

B.2.23 In terms of cost, the Ardleigh Fishing Pond is private, and there is no evidence available on fees. However, given that the Ardleigh Fly Fishing Club have found provision nearby which they refer to as “more productive and secluded water for the club” it is apparent that cost is not an undermining factor to using a different facility to the Ardleigh Fishing Pond.

B.2.24 For the northern section of the Ardleigh Reservoir, costs are the same as the much larger southern section. With prices ranging from a day permit at £11 to a season permit for 24hr fishing at £289. These costs are the same as Alton Water (Site Ref. 8), as they are both owned by Anglian Water. Elsewhere within the study area, other day-ticketed sites charge comparable rates (where prices are displayed online):

- Hintlesham Fisheries (Site Ref. 15) charge a comparable £15 for a day permit.
- Newland Hall Fishery (Site Ref. 4) charge a comparable £15 for a day permit, and season tickets are cheaper at £250.

Summary

B.2.25 This assessment has considered the provision and cost of angling at the two sites where provision is being lost in comparison to other within 10 miles of these sites.

B.2.26 A significant provision has been identified within this study area, with 15 sites found. The majority of the area for angling has been found at the remainder of Ardleigh Reservoir and Alton Water, but a range of smaller sites also provide ample provision. Access to these sites varies in terms of arrangements, but there are no apparent capacity issues; most clubs or societies are, or will be, accepting new members, and day-ticketed sites are available to book on the day or offer seasonal options. Resultantly, it is considered that ample provision of angling facilities exists within a reasonable proximity of the two sites to account for their loss.

B.2.27 In terms of cost, there is nothing to suggest that the costs of other nearby sites are prohibitively high, which would cause these sites to be particularly important due to their low access costs. The Ardleigh Fishing Pond is privately accessible and there is no evidence available regarding its costs, however, there is no evidence to suggest that prices here are lower than other local angling clubs. In relation to the northern section of Ardleigh Reservoir, angling will remain possible around the 30 metre swathe under the overhead lines and on the adjacent southern section of Ardleigh Reservoir, which charges the same prices as the northern section, as does the nearby Alton Water, and other sites identified charge similar rates.

B.2.28 In view of the above findings, it is concluded that the two sites are surplus to requirements, and there are no standout cost or quality arguments that would justify their retention. Therefore, the sites being oversailed are surplus to apparent requirements, and their loss would not conflict with paragraph 5.11.32 of EN-1.

B.3 Assessment of Provision of Open Space in Locality of Maple Park

Introduction

B.3.1 Table B3 above identifies that Maple Park will be impacted by the Project, as two pylons will be sited within the Park, which will prohibit the use of the area at its base. Accordingly, Appendix 0 seeks to evidence that the loss of these areas is acceptable as there is a significant surplus of open space within the wider locality of Maple Park.

B.3.2 Thurrock Council Community Needs and Open Spaces Study (2005) (the Study) identifies a surplus of 619.03ha of open space in 2001 within the area that Maple Park is located. This surplus refers to open space within the Natural and Semi Natural Open Space typology, which is the typology of open space on which the pylons will be sited.

B.3.3 The area that Maple Park is located within for the purposes of the Study, 'Stanford / Corringham', was created by Thurrock Council. Stanford / Corringham comprises of four Wards: Stanford East and Corringham Town, Stanford-le-Hope West, The Homesteads, and Corringham and Fobbing.

B.3.4 The Study identifies a standard of 2ha required per 1000 population of Natural and Semi Natural Greenspace; on review of recent open space assessments this standard is still considered relevant. 2001 was used as the base date as a Census was conducted in that year, and therefore population data was most reliable. The Study also projected for provision at increments up to 2021, however, the reliability of these projections is limited the greater the time lapse from the 2001 Census. The purpose of this appendix, therefore, is to consider whether a significant surplus of open space remains.

Methodology

B.3.5 As a Census took place in 2021, it is now possible to recalculate the provision within Stanford / Corringham by combining the aggregated population data for the Wards that comprise the area and calculating this sum against current open space provision. This allows for an update to be made to the 2005 findings to ensure that there have been no significant changes to provision in the time since the Study.

B.3.6 In identifying current provision, Table B3 has considered whether the sites that were identified in the Study are still in situ and whether there are indications that the site areas have been reduced. No further sites have been sought, and it is relevant that large portions of Maple Park itself likely contribute further to provision. The 2022-2023 Thurrock Council Local Wildlife Sites Register provides a basis for this assessment, as it considers all of the sites and provides a commentary on their status, including development pressures.

Table B3 Assessment of Natural and Semi Natural Open Space Sites identified within Stanford / Corringham area in the Study.

Site Name	Site Status	Area in 2005 (ha)	Area Assumptions 2025 (ha)	Notes
Corringham Marshes	Remains in situ	206.88	None – retain at 206.88 for purposes of this exercise	The 2022-2023 Thurrock Council Local Wildlife Sites Register has combined this with Fobbing Marsh and identifies a total area of 431ha. The Study identifies that grazing land was included as part of the 2022 review. It is not known for certain if this meets the definition and therefore the additional approx. 27ha is not included now.
Fobbing Marsh	Remains in situ	197.41	None – retain at 197.41 for purposes of this exercise	The 2022-2023 Thurrock Council Local Wildlife Sites Register has combined this with Corringham Marsh and identifies a total area of 431ha
Grove House Wood	Remains in situ	2.48	None – retain at 2.48 for purposes of this exercise	The site is identified with the same boundary in both the 2022-2023 Thurrock Council Local Wildlife Sites Register and the Study
Stanford Marshes	Remains in situ	65.42	Appears to have been reduced as part of the London Gateway Port. Take forward 65.7 for Stanford Marshes and Stanford Warren.	Identified in the 2022-2023 Thurrock Council Local Wildlife Sites Register as Mucking Creek Complex, Stanford-le-Hope and has been amalgamated with Stanford Warren for a total site area of 65.7ha, suggesting a loss of 11.38ha at the site.
Stanford Warren	Remains in situ	11.66	Take forward 65.7 for Stanford Marshes and Stanford Warren.	Identified in the 2022-2023 Thurrock Council Local Wildlife Sites Register as Mucking Creek Complex, Stanford-le-Hope and has been amalgamated with Stanford Marshes for a total site area of 65.7ha.

Site Name	Site Status	Area in 2005 (ha)	Area Assumptions 2025 (ha)	Notes
Outer Thames Marshes	Remains in situ	195.86	Carry forward 195.86	This site is located both within Stanford / Corringham and another area, Tilbury / Chadwell and a total area of 293.79ha is identified for the site. No area (ha) is apportioned within the study to each of these areas individually. Therefore, it is assumed that the portion of the Outer Thames Marshes located within Stanford / Corringham forms the difference (195.86ha) between the total for the five sites located within Stanford / Corringham (483.85ha) and 679.71ha, which is the total provision identified in the Study.
Total Area (ha)		**679.71**	**668.33**	

Findings

B.3.7 Table B3 identifies a provision of 668.33ha that can be assumed as natural and semi natural open space in Thurrock in 2025, which is a decrease of 11.38ha since 2001, due to the inferred loss of land at Stanford Marshes for the development of the London Gateway Port. The aggregated population in the 2001 Census for Stanford / Corringham was 30339. The 2021 Census identified that the aggregated population in Stanford / Corringham was 30,622. Using the standard of 2ha per 1000 population, this provides a requirement of 61.24ha in 2021. This results in an assumed surplus of 607.09ha for Natural and Semi Natural Open Space in 2021, and this remains a significant surplus. A small increase to population can be assumed in 2025 since 2021, however, this would have a negligible impact given the scale of the surplus.

Summary

B.3.8 An assessment of the open space produced by the Local Authority identifies that there was a significant surplus of open space in 2001. On review of available evidence, it is evident that this surplus remains in 2025. Therefore, the small area of Maple Park to be lost as a result of the two pylons to be positioned to the east of Buckingham Road is considered surplus to requirements. Habitats will be reinstated in line with the habitat reinstatement principals within Section 9 of the Outline LEMP (document reference 7.4).

Abbreviations

Abbreviation	Full Reference
AONB	Area of Outstanding Natural Beauty
BNG	Biodiversity Net Gain
CEZ	Construction Exclusion Zones
CIEEM	Chartered Institute of Ecology and Environmental Management
CoCP	Code of Construction Practice
CSE	Cable Sealing End (compound)
CWS	County Wildlife Site
Defra	Department for Environment, Food and Rural Affairs
DESNZ	Department of Energy Security and Net Zero
EACN	East Anglia Connection Node
EcIA	Ecological Impact Assessment
ECoW	Ecological Clerk of Works
ES	Environmental Statement
FLL	Functionally Linked Land
GWDTE	Groundwater Dependent Terrestrial Ecosystems
Ha	Hectares
HPI	Habitat of Principal Importance
HRA	Habitat Regulations Assessment
IEF	Important Ecological Feature
KRS	Key Reptile Sites
kV	Kilovolt
LEMP	Landscape and Ecological Management Plan
LoD	Limit of Deviation
LNR	Local Nature Reserve
LWS	Local Wildlife Site
NERC	Natural Environment and Rural Communities Act 2006
NNIS	Non-Native Invasive Species
NNR	National Nature Reserve

Abbreviation	Full Reference
NSN	National Site Network
NPS	National Policy Statements
NSIP	Nationally Significant Infrastructure Projects
pLWS	Potential Local Wildlife Site
PPE	Personal Protective Equipment
PRF	Potential Roost Features
PWMS	Precautionary Working Methods
RAMs	Reasonable Avoidance Measures
RNR	Roadside Nature Reserve
SAC	Special Areas of Conservation
SPA	Special Protection Area
SPI	Species of Principal Importance
SSSI	Site of Special Scientific Interest
VP	Vantage Point
WaLOR	Waveney and Little Ouse Recovery
WCA	The Wildlife and Countryside Act 1981
WFD	Water Framework Directive

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