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nationalgrid

Contents

1. Greenhouse Gas Assessment

1.1 Overview

1.1.1 This appendix has been produced to support Chapter 4: Project Description (document reference 6.4) of the Environment Statement (ES) (Volume 6 of the Development Consent Order (DCO) application) for Norwich to Tilbury (the 'Project').

1.1.2 The Project comprises 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.

1.1.3 The reinforcement is needed because the existing transmission network, even with current upgrading, will not have sufficient capacity for the new renewable energy (a substantial proportion of which would be generated by offshore wind) that is expected to connect to the network over the next 10 years and beyond. Completion of the Project, together with other new reinforcements across the country, will meet this future energy transmission demand both in East Anglia and across the UK.

1.1.4 The Project is a proposal by National Grid to upgrade the electricity transmission system in East Anglia between Norwich and Tilbury, comprising:

- 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 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[1])
- 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

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

- 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.

1.1.5 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).

1.1.6 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.

1.1.7 Further details of the Project are included within Chapter 4: Project Description (document reference 6.4).

1.1.8 This Greenhouse Gas (GHG) Assessment has been produced to support the application for development consent and the accompanying Environmental Statement (Volume 6 of the DCO application) under the Planning Act 2008.

1.1.9 The EIA Scoping Opinion (document reference 6.20) states in Section 3.3, paragraph 3.3.1 the following: '*The Scoping Report states that details of the likely construction materials and a "simple estimate" of the Green House Gas (GHG) emissions associated with construction of the Proposed Development would be included within the Chapter 4: Project Description (document reference 6.4), but there is no indication of how/ if the significance of effects would be determined. The ES should provide an assessment of GHG emissions during construction (and operation and maintenance, where relevant) where significant effects are likely to occur. This should include embodied carbon emissions from materials required*'.

1.1.10 The GHG assessment should be read in conjunction with the Greenhouse Gas Reduction Strategy (Appendix H of the Outline Code of Construction Practice (CoCP) (document reference 7.2)). The Greenhouse Gas Reduction Strategy provides the process that will be followed to reduce carbon emissions through the Project lifecycle.

1.2 Legislative and Policy Background

1.2.1 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 2037 as presented in Table A.1.1. Each carbon budget restricts the amount of GHG the UK can legally emit in a five-year period.

Table A.1.1 The UK carbon budgets (Department for Energy Security and Net Zero and Department for Business, Energy & Industrial Strategy, 2021)

Budget	Years	Carbon Budget Level	Reduction Below 1990 Levels
First carbon budget	2008-2012	3,018 $MtCO_2e$	25%
Second carbon budget	2013-2017	2,782 $MtCO_2e$	31%
Third carbon budget	2018-2022	2,544 $MtCO_2e$	37% by 2020
Fourth carbon budget	2023-2027	1,950 $MtCO_2e$	51% by 2025
Fifth carbon budget	2028-2032	1,725 $MtCO_2e$	57% by 2030
Sixth carbon budget	2033-2037	965 $MtCO_2e$	78% by 2035
Seventh Carbon Budget	2038-2042	535 $MtCO_2e$	87%

1.2.2 The UK emitted 385.0 million tonnes of carbon dioxide equivalent ($MtCO_2e$) in 2023, a decrease of 5% from the 2022 figure of 405 million tonnes (Department for Energy Security and Net Zero (2025)). Total greenhouse gas emissions were 53% lower than they were in 1990. Carbon dioxide made up 79% of the 2023 total.

1.2.3 The decrease in 2023 from 2022 was primarily due to a reduction in gas use in the electricity supply and buildings and product uses sectors Industry sector emissions fell largely due to lower gas use in residential buildings. High energy and other costs are likely to have been a factor in reduced gas use. Domestic transport emissions fell by 1 $MtCO_2e$ (1%). Compared to 2019, the most recent pre-pandemic year, domestic transport emissions were down 13 $MtCO_2e$ (10%). Domestic transport remains the largest emitting sector, responsible for 29% of all UK emissions in 2023 (Department for Energy Security and Net Zero (DESNZ),2025).

1.2.4 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. The Project contributes to reinforcing the electricity network to allow power to be imported to and exported from East Anglia by providing offshore connection points. The reinforcement would provide additional capability to connect to areas of demand, allowing power flows across boundaries, and linking interconnectors to and from Europe.

1.2.5 Addressing the shortfalls in transmission capacity is vital to facilitate the ambitious green targets set by the Government, and to contribute to the growth in renewable energy and the decarbonisation of the UK.

Policy

1.2.6 National Policy Statement (NPS) for Energy (EN-1) (DESNZ, 2024) and National Policy Statement for Electricity Networks Infrastructure (Department for Energy and Climate Change, 2011) NPSs set out the primary policy tests against which the application for a DCO for the Project would be considered. NPS EN-1 sets out the requirement for a GHG Reduction Strategy to be developed as part of DCO application. NPS EN-1 notes the need to decarbonise the UK electricity grid in order to reduce emissions in line with UK carbon budgets to reach the 2050 net zero target. In particular, NPS EN-1 states the need to establish new electricity network infrastructure to meet UK energy objectives and reduce the need for fossil fuels.

1.2.7 Paragraph 5.3.4 to 5.3.7 of NPS EN-1 present the requirements that should be included in the ES. Table A.1.2 provides the NPS EN-1 requirements and where they have been assessed within the ES.

Table A.1.2 NPS EN-1 requirements relevant to assessment

NPS EN-1 Section	Where this is covered in the ES
5.3.4	The lifecycle GHG assessment included within this chapter assesses the Project's GHG emissions in the context of the legally binding GHG reduction targets and carbon budgets and is presented in this Appendix.
5.3.6	Opportunities to mitigate or offset emissions during construction is presented in the GHG Reduction Strategy (Appendix H of the Outline CoCP (document reference 7.2)).
5.3.7	Steps to minimise GHG emissions through the lifecycle of the Project during both construction and operation (and maintenance) are presented in the Greenhouse Gas Reduction Strategy (Appendix H of the Outline CoCP (document reference 7.2)).

1.2.8 EN-1 requires assessment of whole life GHG, which is provided in this Appendix. In addition, it requires explanation of the steps to drive down the climate change impacts. The process to reduce GHG emissions during construction and operation (and maintenance) is set out in the Greenhouse Gas Reduction Strategy (Appendix H of the Outline CoCP (document reference 7.2)).

2. Methodology

2.1 Introduction

2.1.1 There are seven main GHG that contribute to climate change, as covered by the Kyoto Protocol. These are carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFC), perfluorocarbons (PFC), sulphur hexafluoride (SF_6) and nitrogen trifluoride (NF_3). Different activities emit different gases, and organisations are advised to report on the Kyoto Protocol GHG produced by activities specific to their activities.

2.1.2 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 SF_6 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). It is assumed that no SF_6 equipment will be used in the Project, in accordance with National Grid policy. SF_6 alternatives such as C4 or G3 have a 99% lower global warming potential (GWP) than SF_6.

2.1.3 Due to the relative proportion of CO_2 emissions, it is accepted practice that GHG are equated to CO_2 equivalents on the basis of their global warming potential. The Department for Energy Security and Net Zero GHG reporting: conversion factors 2024 are for use by UK and international organisations to report on 2024 GHG emissions (Department for Energy Security and Net Zero, 2025). The Carbon Factors for reporting GHG emissions, uses units of kilograms of carbon dioxide equivalent (kg CO_2e). CO_2e is the universal unit of measurement to indicate the GWP of GHG, expressed in terms of the GWP of one unit of carbon dioxide. This assessment considers only the GHG related directly to construction and operation/maintenance of the Project. It does not seek to assess the contribution to reducing GHG and reaching net zero, as referred to in Section 1.2.

2.2 Methodology for Assessing Carbon on Projects

2.2.1 National Grid has processes in place for quantifying its CO_2e emissions on its projects. These are proportionate to the stage of the Project and the data available at that time. The three key stages are:

- Cost Book – this is used at the optioneering stage to compare the CO_2e associated with different options. This includes a high-level assessment of the capital (construction) and draws on generic assumptions around embodied CO_2 within raw materials. It also includes some operational CO_2e, including SF_6 alternatives CO_2e calculations and CO_2e of operational line loss data. The CO_2e that is identified within the Cost Book can be factored into decisions about which option to take forward
- E-Hub database – this is used when a preferred option has been identified and allows a more detailed assessment of the baseline CO_2e. This is focused on the capital (construction) carbon but includes more specific information regarding the materials than the Cost Book. This also includes a Red, Amber, Green (RAG) status based on historical construction carbon data

- Carbon Interface Tool (CIT) – this is provided to the Main Works Contractor(s) for the Project as they are required to provide a more detailed breakdown of materials, assets, equipment and energy that they propose to use in construction of the Project. The CIT also considers the origin of materials, the transport distances, opportunities for reuse of materials and low carbon alternatives. The CIT of all bidders are compared at tender to inform the evaluation and scoring of the tender

2.2.2 The Carbon Asset Database underpins the GHG calculations in the Cost Book, E-Hub database and the CIT. Data within the Carbon Asset Database comes from a range of sources including the Inventory of Carbon and Energy database (Circular Ecology, 2019), plus Department for Environment, Food and Rural Affairs (Defra) emission factors (updated annually) and main equipment supplier data.

2.2.3 The Carbon Asset Database also includes a mix of 'before use stage' emissions (A1-5, which covers raw material supply, manufacture, transport to works site and construction) and 'use stage' emissions (including B6 Operational Energy Use and B8 Other Operational Processes).

2.2.4 National Grid has used the outputs of the E-Hub database to estimate the CO_2e associated with the Project.

2.3 E-Hub Database

2.3.1 National Grid has used the E-Hub database to complete a proportionate assessment on the embodied CO_2e associated with construction and operation (and maintenance). The assessment has been based on estimates of materials, using numbers built into the calculations. As the database contains commercial data, it is not appropriate to present the raw information that sits within the system.

2.3.2 Each Project component is assessed as a line item and the CO_2e associated with the component is automatically calculated using in-built values within the database. The E-Hub database considers the embodied carbon of a range of materials necessary for construction of the Project, including the aluminium and steel associated with the pylons, conductors and cables. It also includes aspects of construction including aggregates and hardstanding associated with the temporary construction compounds and temporary access routes, fencing, trackway matting and an allowance for items such as vegetation removal.

2.3.3 The operational CO_2e has also been estimated. This includes the CO_2e resulting from the energy used to enable the Project to deliver its service during operation. It includes the CO_2e associated with the operational transmission losses associated with the overhead line and Non SF_6 leakage over the asset life. The design life of the Project is 40 years and therefore this period has been used for the purposes of the assessment.

2.4 Finch v Surrey County Council Ruling

2.4.1 When interpreting the requirements of the EIA Regulations, we have also had regard to the recent judgment of the Supreme Court in R (on the application of Finch on behalf of the Weald Action Group) v Surrey County Council, with particular attention to potential upstream and downstream direct and indirect effects. The principles set out in Finch have been considered in the preparation of this Greenhouse Gas

Assessment. Finch was unusually a case in which the likely downstream impacts could be assessed, because it was inevitable that the oil produced would be refined and as an end product, would undergo combustion and that that combustion would produce greenhouse gases into the earth's atmosphere which could readily be calculated. On a macro level, the Project would increase capacity in the electricity network, meaning that, in theory, more electricity can be transported and used, increasing the potential for additional activities requiring electricity. It is not considered that the Project, as electricity transmission infrastructure, will be the direct or indirect cause of either upstream electricity generation or downstream electricity consumption. Rather, the Project will facilitate the transport of electricity on the network in response to an increase in electricity generation and in the demand for electricity. Hence, it will not be the direct or indirect cause of GHG emissions from upstream or downstream activities.

2.4.2 It is recognised, however, that following Finch there is some uncertainty as to what are to be regarded as the direct and indirect environmental effects of a project in relation to GHG emissions. Therefore, we have also considered the position where an increase in the capacity of the electricity network and in the potential for additional activities requiring electricity are treated as direct or indirect effects arising from the Project. Having considered various potential scenarios, we consider that in the case of the Project it is not possible to calculate the likely upstream or downstream direct or indirect effects. As stated, the Project would increase capacity in the electricity network, meaning that, in theory, more electricity can be transported and used, increasing the potential for additional activities requiring electricity. However, whilst information is available at a high level regarding the amount of electricity that could flow as a result of an enhanced transmission network, it is impossible to quantify the amount of either the increase, or more likely decrease, in greenhouse gases that could result from the use of that additional electricity capacity. This is because the transmission network, which is operated by National Grid within England and Wales and which is provided as the connection point for electricity and demand, consists of a number of different elements including overhead lines, cables, substations and more recently, High Voltage Direct Current (HVDC) systems. National Grid does not control which generators are generating electricity at any one time nor does it control which demand is connected to the system. As a result, National Grid has no way of assessing where the power is generated (and by what means) or more significantly where the power is going (i.e. who will be the end user of or what the ultimate use of that electricity might be) and consequently, any related emissions arising from, or more likely being reduced, as a result of such use. This means that the end use of the electricity is unknown. It could be used in a way that reduces GHG emissions that would otherwise be emitted, for example when used to charge electric vehicles, or for powering heat pumps that replace gas central heating.

2.4.3 It is clear in these circumstances that, as a result of insufficient information, and the resultant uncertainty, no meaningful assessment of downstream or upstream impacts can be undertaken in relation to these matters. In these circumstances, any conclusion as to possible effects would be merely conjecture or speculation at best. On the basis that there is insufficient evidence available to find a reasoned conclusion that a possible effect is "likely", there is no requirement for that effect to be identified and assessed.

3. Results and Discussion

3.1 Results and Discussion

3.1.1 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 SF_6 loss through leakage.

3.1.2 There is currently no standard guidance for assigning significance in relation to a GHG/ carbon emissions assessment. However, National Grid has been measuring carbon for many years and has developed RAG tables based on project type to identify if the emissions are above or below the average emissions for a project of the same type.

3.1.3 National Grid has also compared the estimated carbon emissions from the construction and operation (and maintenance) of the Project against the UK total emissions in 2023, to assess whether they represented a significant proportion of total UK emissions and therefore could have a material impact on the ability of the Government to meet its carbon reduction targets.

3.1.4 The Project's construction phase is to commence in 2027, and construction works continue through to 2031. Therefore, the Project's construction phase would span the UK's fourth (2023 to 2027) and fifth (2028 to 2032) Carbon Budgets. These budgets provide a legal limit for the total volume of GHG emissions the UK can emit. As set out in Table A4.1.1, the fourth Carbon Budget is 1,950 million tonnes of CO2e (which equates to a 51% reduction from 1990 by 2025) and the fifth Carbon Budget is 1,725 MtCO2e (which equates to a 57% reduction from 1990 levels by 2030).

3.1.5 The UK's 2023 carbon emissions have been used as a guide, as this is the most recent data available at the time of the assessment. The final results for 2023 are available from the Government website (DESNZ, 2025) and state that 385.0 MtCO2e were emitted by the UK in 2023. The total carbon for construction of the Project (376,214 tCO2e) is the equivalent of 0.09% of the 385.0 $MtCO_2e$ emitted by the UK as a whole in 2023 and also the equivalent of 0.1% for the average annual amount in the fifth carbon budget of 345 $MtCO_2e$ (1,725 $MtCO_2e$ divided by a five-year period).

3.1.6 Using the 2023 number, or future forecasts in the context of upcoming carbon budgets, the Project emissions are immaterial to the UK meeting its future carbon budget targets or its overall 2050 net zero target.

3.1.7 The operation stage carbon has been estimated to be 42,597 tCO2e. Using the 2023 carbon emissions, during each year of operation, the transmission losses are estimated to be average CO_2e equivalent emissions of 1,065 CO_2e (42,597 tonnes divided by an estimated 40-year design life), representing 0.0003% of the UK 2023 CO_2e emissions.

3.2 Further Measures

3.2.1 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

3.2.2 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.

3.2.3 Innovation is crucial to achieving the goal of carbon-neutral construction, as well as challenging contractors and suppliers in aspects such as choosing better construction materials (i.e. materials with a higher proportion of recycled content, provided that use of such resources does not impede on the safety and integrity of the Project). National Grid would request the Main Works Contractor(s) to propose low carbon alternative materials as part of their response to the main works package, where suitable (e.g. meets the technical specifications and is not disproportionate in cost). The Main Works Contractor(s) will also complete National Grid's CIT, where they provide a more detailed breakdown of materials, assets, equipment and energy that they propose to use in construction of the Project. The CIT also considers the origin of materials, the transport distances, opportunities for reuse of materials and low carbon alternatives. In addition, National Grid would seek to avoid use of landfill sites as means of waste disposal. The use of locally sourced materials and local waste disposal facilities would also be prioritised to minimise transportation emissions.

3.2.4 The CIT would become the 'carbon baseline' for the Project and the Main Works Contractor(s) is incentivised to demonstrate a reduction in capital carbon over the duration of construction of the Project. The CIT and carbon footprint will be reviewed on a monthly basis and there would be key performance indicators (KPIs) in place to incentivise the Main Works Contractor(s) to reduce the carbon footprint against the initial baseline.

3.2.5 The Greenhouse Gas Reduction Strategy, included in Appendix H of the Outline CoCP (document reference 7.2), provides further detail on how GHG will be reduce across the lifecycle of the Project.

4. Conclusion

4.1.1 This appendix summarises the GHG assessment that has been undertaken on the Project. It has calculated the CO_2 equivalent (CO_2e) comprising both CO_2 and SF_6 alternatives for the Project for the construction and operational (and maintenance) phases and compared them against relevant carbon budgets and emissions. This addresses the EIA Scoping Opinion (document reference 6.20) request (Section 3.3, paragraph 3.3.1) from the Planning Inspectorate to include consideration of the nature and magnitude of GHG emissions within the application for development consent.

4.1.2 National Grid follows the principles of PAS 2080 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.

4.1.3 National Grid will request the Main Works Contractor(s) to propose low carbon alternative materials as part of their response to the main works package. The Main Works Contractor(s) would also complete National Grid's CIT, where they provide a more detailed breakdown.

4.1.4 The construction and operational CO_2e numbers are not considered to have a material impact on the ability of the Government to meet its carbon reduction targets and therefore are not significant. This also has a degree of conservatism in it associated with materials that are likely to be imported from outside of the UK. The UK Carbon Budget would not be affected by embodied carbon from imported materials as the Carbon Budget only applies to domestic emissions, therefore should steel and other material be imported, the contribution would be significantly lower. The numbers in this assessment are therefore considered to represent a worst case.

4.1.5 As noted in Section 2: Methodology, 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. Regional and local policy for reducing GHG emissions will also be considered but are not the basis of assessment. The UK's carbon budgets are legally binding and represent the UK's goals in addressing the impact of GHG emissions on the global climate and are therefore the quantities against which emissions are contextualised. It is concluded that the Project will not have a material effect on the UK Government meeting its carbon budgets / targets.

Abbreviations

Acronym	Full Reference
AIS	Air Insulated Switchgear
AONB	Area of Outstanding Natural Beauty
BNG	Biodiversity Net Gain
CO_2	Carbon Dioxide
CO_2	Carbon Dioxide equivalent
CoCP	Code of Construction Practice
CH_4	Methane
CIT	Carbon Interface Tool
CSE	Cable Sealing End
Defra	Department for Environment, Food and Rural Affairs
DESNZ	Department for Energy Security and Net Zero
EACN	East Anglia Connection Node
GHG	Greenhouse Gases
GIS	Gas Insulated Switchgear
GW	Gigawatts
GWP	Global Warming Potential
HFC	Hydrofluorocarbons
HVDC	High Voltage Direct Current
kg	kilograms
kV	Kilovolt
$MtCO_2e$	Million Tonnes of Carbon Dioxide Equivalent
Mt	Million Tonnes
N_2O	Nitrogen Oxide
NF_3	Nitrogen Trifluoride
PFC	perfluorocarbons
SF_6	Sulphur Hexafluoride

Glossary

Term	Description
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.
Development Consent Order	A statutory instrument which grants consents and other rights to build a Nationally Significant Infrastructure Project, as defined by the Planning Act 2008
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 Statement	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.
Greenhouse Gases	Greenhouse gases refer to a number of chemicals in the Earth's atmosphere such as carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O).
Global Warming Potential	Global warming potential is an emission metric used to quantify the contributions of different greenhouse gases (GHG) to climate change.
Overhead Line	Conductor (wire) carrying electric current, strung from pylon to pylon
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
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.
Sulphur Hexafluoride	A synthetic, colourless, odourless, non-flammable, and non-toxic gas with unique properties that make it useful in various applications, particularly in the electrical industry as an insulator and arc quencher. It is however a potent greenhouse gas with high global warming potential
Underground Cable	An insulated conductor carrying electric current designed for underground installation. Underground cables link together two Cable Sealing End compounds

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