

**The Great Grid Upgrade**

Brinsworth to Chesterfield

# Brinsworth to Chesterfield

Planning Design & Access Statement

07 November 2025



nationalgrid

# Contents

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|                                                            |           |
|------------------------------------------------------------|-----------|
| <b>Executive summary</b>                                   | <b>1</b>  |
| <b>1. Introduction</b>                                     | <b>5</b>  |
| 1.1 Overview                                               | 5         |
| 1.2 Purpose of the PDAS and Statutory Requirements         | 5         |
| 1.3 Consenting Regimes                                     | 6         |
| Environmental Impact Assessment Regulations                | 6         |
| 1.4 Local Planning Authority Consultation                  | 8         |
| 1.5 Planning Application Submission                        | 8         |
| Supporting Documentation                                   | 9         |
| 1.6 Report Structure                                       | 11        |
| <b>2. Context for the Scheme</b>                           | <b>12</b> |
| 2.1 Overview                                               | 12        |
| 2.2 Background to the Scheme                               | 12        |
| 2.3 The Role of National Grid                              | 13        |
| National Grid Electricity Transmission plc (National Grid) | 13        |
| National Energy System Operator (NESO)                     | 13        |
| 2.4 Scheme Operation                                       | 13        |
| 2.5 Statutory Duties                                       | 14        |
| 2.6 The Horlock Rules                                      | 14        |
| <b>3. Description of the Site</b>                          | <b>16</b> |
| 3.1 Introduction                                           | 16        |
| 3.2 Site Location and Setting                              | 16        |
| 3.3 Planning History                                       | 18        |
| <b>4. The Scheme</b>                                       | <b>20</b> |
| 4.1 Introduction                                           | 20        |
| 4.2 Scheme Description                                     | 20        |
| Proposed GIS Substation                                    | 20        |
| Internal Access, Circulation and Parking                   | 21        |
| 4.3 Overhead Line Works and Consenting Requirements        | 21        |
| 4.4 Public Rights of Way Diversion                         | 22        |
| 4.5 Construction and Commissioning                         | 23        |
| Outline Construction Environmental Management Plan         | 23        |
| Outline Construction Traffic Management Plan               | 24        |
| Outline Site Waste Management Plan                         | 25        |

|           |                                                          |           |
|-----------|----------------------------------------------------------|-----------|
|           | Temporary Works                                          | 25        |
|           | Construction Compound                                    | 25        |
|           | Working Hours                                            | 26        |
|           | Site Access and Routes                                   | 26        |
| 4.6       | Operational Phase                                        | 26        |
|           | Access                                                   | 26        |
|           | Operations                                               | 26        |
| 4.7       | Operational Phase                                        | 27        |
|           | Access                                                   | 27        |
|           | Operations                                               | 27        |
| 4.8       | Environmental mitigation and Biodiversity Net Gain (BNG) | 27        |
| 4.9       | Design and Access Statement                              | 28        |
|           | Design Objectives                                        | 28        |
|           | Technology Options                                       | 29        |
|           | Use                                                      | 30        |
|           | Layout                                                   | 30        |
|           | Scale and Amount                                         | 32        |
|           | Appearance                                               | 33        |
|           | Landscaping and Enhancement                              | 34        |
|           | Access                                                   | 35        |
| 4.10      | Compliance with the Horlock Rules                        | 35        |
| <b>5.</b> | <b>Planning Policy and Guidance</b>                      | <b>41</b> |
| 5.1       | Introduction                                             | 41        |
| 5.2       | Overview                                                 | 41        |
|           | Development Plan                                         | 41        |
|           | Material Considerations                                  | 43        |
| 5.3       | Material Considerations                                  | 43        |
|           | National Planning Policy Framework (NPPF)                | 44        |
|           | Planning Practice Guidance (PPG)                         | 50        |
|           | National Policy Statements                               | 51        |
| 5.4       | Other Material Considerations                            | 55        |
|           | International Climate Policy Context                     | 55        |
| 5.5       | Summary                                                  | 60        |
| <b>6.</b> | <b>Planning Assessment</b>                               | <b>62</b> |
| 6.1       | Introduction                                             | 62        |
| 6.2       | Principle of the Scheme                                  | 63        |
| 6.3       | Design Overview (Layout, Design and External Appearance) | 65        |
| 6.4       | Ecology (Including Arboriculture)                        | 68        |
|           | Arboriculture                                            | 76        |
|           | Ecology (including Arboriculture) Conclusion             | 77        |
| 6.5       | Green Belt and Grey Belt                                 | 77        |
| 6.6       | Landscape and Visual Character                           | 79        |
|           | Landscape and Visual Conclusion                          | 83        |
| 6.7       | Historic Environment                                     | 84        |

|           |                                                            |            |
|-----------|------------------------------------------------------------|------------|
|           | Historic Environment Conclusion                            | 87         |
| 6.8       | Traffic and Transport                                      | 89         |
|           | Traffic and Transport Conclusion                           | 91         |
| 6.9       | Air Quality                                                | 91         |
|           | Air Quality Conclusion                                     | 93         |
| 6.10      | Noise and Vibration                                        | 93         |
|           | Noise and Vibration Conclusion                             | 95         |
| 6.11      | Land and Ground Conditions                                 | 95         |
|           | Land and Ground Condition Conclusion                       | 99         |
| 6.12      | Mineral Safeguarding                                       | 100        |
|           | Mineral Safeguarding Conclusion                            | 101        |
| 6.13      | Water Resources and Flood Risk                             | 101        |
|           | Water Resources and Flood Risk Conclusion                  | 104        |
| 6.14      | Socioeconomics and Human Health                            | 105        |
|           | Socio Economics and Human Health Conclusion                | 108        |
| 6.15      | Electromagnetic Fields                                     | 108        |
|           | Electromagnetic Fields Conclusion                          | 109        |
| <b>7.</b> | <b>Planning Balance and Conclusion</b>                     | <b>110</b> |
| 7.1       | Introduction                                               | 110        |
| 7.2       | Need for the Scheme                                        | 110        |
| 7.3       | Benefits of the Scheme                                     | 111        |
| 7.4       | Adverse Impacts of the Scheme                              | 111        |
| 7.5       | Cumulative Impacts                                         | 113        |
| 7.6       | The Overall Planning Balance                               | 113        |
|           | Table 1.1 Planning application drawings                    | 9          |
|           | Table 3.1 Planning History                                 | 18         |
|           | Table 4.1 Accordance with the Horlock Rules                | 36         |
|           | Table 6.1 Baseline Area Habitats                           | 71         |
|           | Table 6.2 Baseline Hedgerow                                | 72         |
|           | Table 6.3 Post development on-site created areas habitats  | 72         |
|           | Table 6.4 Post development hedgerow creation and retention | 73         |
|           | Table 6.5 Tree categories recorded                         | 76         |
|           | Figure ES1 Long Lane Site Location                         | 3          |
|           | Figure 3.1 Long Lane Site Location                         | 16         |
|           | Figure H.1 PRow Diversion Route                            | 1          |
|           | Appendix A Proposed Draft Planning Conditions              |            |
|           | Appendix B RMBC: Core Strategy (2014)                      |            |
|           | Appendix C Sites and Policies (2018)                       |            |
|           | Appendix D Joint Waste Plan (2012)                         |            |
|           | Appendix E Supplementary Planning Documents                |            |
|           | Appendix F Abbreviations                                   |            |
|           | Appendix G Glossary                                        |            |

# Executive summary

## Overview of the Scheme and need

National Grid Electricity Transmission plc referred to as 'National Grid' within this Planning, Design and Access Statement is applying for planning permission for the Long Lane 400kV Substation Scheme.

In 2019 the Committee on Climate Change 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 per cent 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, 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. The UK government policy clearly sets out the critical requirement for significant reinforcement of the electricity 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 50GW 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 works proposed at Long Lane form part of the Great Grid Upgrade which would enable the country to connect 50GW of green energy by 2030. National Grid is seeking permission for:

*'Erection of a new 400kV Gas Insulated Switchgear (GIS) substation including gantries, internal access roads, a GIS building, parking, drainage, diesel generator, lighting and CCTV, permanent access road from Long Lane, earthworks, landscaping and biodiversity enhancement, and fencing and the permanent realignment of Whiston Footpath 10'.*

The proposed works in its entirety comprises:

- New GIS 400kV substation located within a compound measuring approximately 252m x 196m. This will include:
  - Six overhead line gantries;
  - protection isolation equipment;
  - substation plant;
  - new 400kV substation control infrastructure.
- The substation electrical plant required for the safe and efficient operation of the electrical transmission network, providing protection, control and resilience. This plant includes:
  - GIS;
  - Gas Insulated Busbar (GIB) connecting the GIS to other plant;
  - Capacitor Voltage Transformers;
  - CSEs;
  - earth switches;

- surge arresters;
- diesel generator for emergency backup power; and
- protection and control equipment.
- Three Permanent Buildings:
  - 400kV GIS building measuring approximately 77m long by 24m wide and 14.5m high;
  - Storage building measuring 6.5m long by 2.5m wide and 4.5m high; and
  - Workshop building measuring 6.5m long by 2.5m wide and 4.5m high.
- Creation of a new access road from Long Lane and the provision for the parking of six vehicles, including two electric vehicle parking spaces within the site compound.
- 2.4m high Palisade Security Fence with a 4m high Electric Pulse Fence installed behind the palisade fence.
- Closed-circuit television (CCTV) surveillance.
- Water tower measuring approximately 4.6m tall with a diameter of 6.1m (dimensions are subject to detailed design).
- Surface water drainage works including the creation of two sustainable drainage attenuation ponds.
- Cut and fill earthworks to create a development platform for the substation.
- A separate Distribution Network Operator (DNO) (Northern Powergrid) auxiliary supply (800-1,000kVA) substation.

The development of a new substation would enable National Grid to uprate the existing 275kV overhead lines to operate at 400kV between Brinsworth and Chesterfield (in North East Derbyshire). This would allow additional power to flow through the grid, transferring green energy from where it is generated to where it is needed.

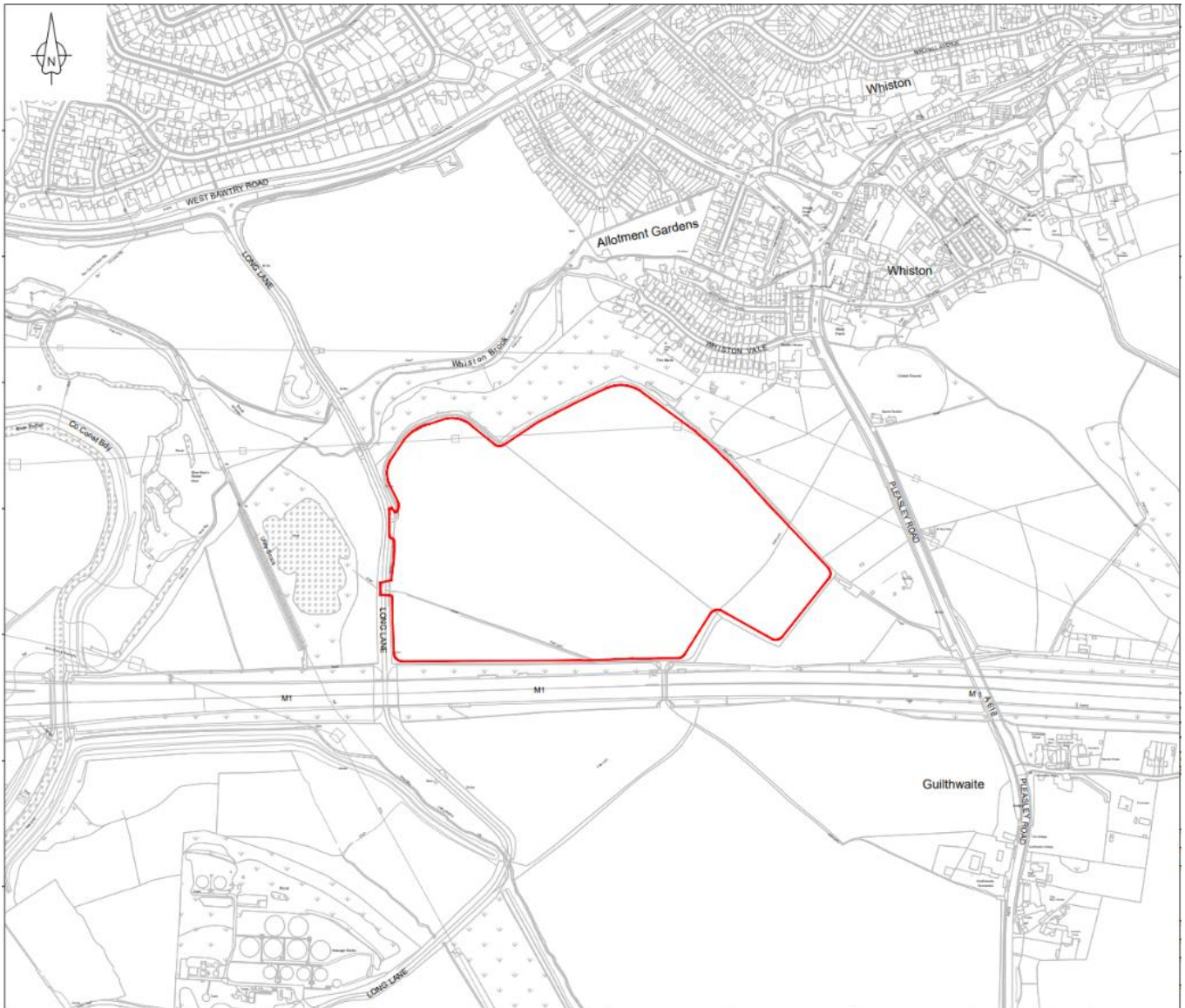
## **Application site and surrounding area**

The Long Lane Site is approximately 18 hectares (ha) in size and is located approximately 1.5km to the east of Brinsworth and approximately 260m south west of Whiston. The location of the Scheme is shown in Figure ES1.

The Site is within the administrative area of Rotherham Metropolitan Borough Council (RMBC) South Yorkshire, centred on Ordnance Survey (OS) Grid Reference SK 44457 89554.

The Site is bound to the north by woodland and Whiston Brook, with agricultural fields and residential development beyond, by Long Lane to the west, and the M1 to the south. Agricultural parcels and residential dwellings are directly to the east of the Site, with the A618 Pleasley Road beyond. The surrounding area to the north and west of the Site is developed and urban in nature, whilst to the south and east the area is more agricultural. The M1 runs east to west to the south of the Site and is a predominant feature in the area.

Figure ES1 Long Lane Site Location



The Site topography is undulating, ranging from approximately 30m Above Ordnance Datum (AOD) in the south west to 60m in the north east with Site sloping from south west to north east. The Site itself is predominantly characterised by agricultural land with vegetated borders and hedgerows. The Site is partially screened by vegetation and intervening topography in the surrounding area.

An existing transmission substation exists approximately 770m to the west. Pylons associated with this substation are visible in the area.

## Planning policy

Section 70(2) of the Town and Country Planning Act 1990 requires the local planning authorities in determining planning applications to have regard to the development plan, so far as is material to an application and to any other material considerations.

The Development Plan for the Scheme comprises the adopted Rotherham Local Plan Core Strategy 2013-2028 (RMBC, 2014) and associated Sites and Policies document (RMBC, 2018) and the Barnsley, Doncaster and Rotherham Joint Waste Plan (Barnsley Metropolitan Borough Council *et al.*, 2012).

National planning policy and guidance relevant to the Scheme includes the National Planning Policy Framework (NPPF) (Ministry of Housing, Communities and Local Government (MHCLG), 2025), Environment Act 2021, and various government publications stemming from the Climate Change Act 2008 and the government's subsequent net zero targets including the 25 Year Plan for the Environment.

Whilst the substation proposals at Long Lane will be determined in accordance with TCPA 1990, it is considered that NPSs for Energy are a material consideration for this proposal in emphasising the need for critical electricity infrastructure.

In January 2024, the DESNZ designated revised NPSs for Energy. The relevant NPSs are:

- NPS EN-1 Overarching National Policy Statement for Energy
- NPS EN-5 National Policy Statement for Electricity Infrastructure Projects.

National Policy Statement EN-1 is clear at Paragraph 1.2.1 that the Energy National Policy Statements may be a material consideration in decision making on applications that fall under the Town and Country Planning Act 1990 (as amended).

EN-1 and EN-5 identify the need for new and reinforced electricity transmission infrastructure as a critical national priority to maintain security of supply and deliver the transition to net zero. The Long Lane substation forms part of National Grid's wider transmission reinforcement strategy identified through the Electricity System Operator's Holistic Network Design (HND) and subsequent Centralised Strategic Network Plan (CSNP), which together set out nationally critical reinforcements required to connect new offshore generation and strengthen the onshore 400kV network. The proposed substation provides a vital node in this system, supporting the transfer of renewable generation and system resilience across northern England. The scheme is specifically referenced in the Clean Power 2030 Report by the National Energy System Operator as one of four projects which, if not delivered by 2030, would have a significant impact on the ability of the country to deliver clean power. Consequently, substantial weight should be afforded to the national need and strategic importance of the development, consistent with the approach in EN-1 and EN-5, irrespective of the consenting route.

## Planning assessment

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 Scheme would provide a crucial contribution to the delivery of these policy aims, by improving the existing electricity transmission network.

The various specialist reports submitted within this application as part of an Environmental Appraisal Report (EAR) demonstrate that with the implementation of proposed mitigation measures, the residual impacts of development would not be significant, with aspects of a temporary nature being confined to the construction phase. Any long-term visual and environmental impacts are to be minimised through incorporating measures to reduce visual impact, which include a landscape mitigation scheme.

The proposed substation is consistent with relevant development plan policy (insofar as it is up to date having regard to national policy and other material considerations).

Overall, the need for, and benefits of the Scheme clearly outweigh its adverse impacts. The planning balance is firmly in favour of the Scheme and in accordance with the presumption in favour of sustainable development advanced in the NPPF, it is respectfully submitted that planning permission be granted.

# 1. Introduction

## 1.1 Overview

- 1.1.1 National Grid Electricity Transmission Plc (National Grid) is applying to Rotherham Metropolitan Borough Council (RMBC) for full planning permission for the:
- ‘Erection of a new 400kV Gas Insulated Switchgear (GIS) substation including gantries, internal access roads, a GIS building, parking, drainage, diesel generator, lighting and CCTV, permanent access road from Long Lane, earthworks, landscaping and biodiversity enhancement, and fencing and the permanent realignment of Whiston Footpath 10’ (the Scheme).*
- 1.1.2 National Grid owns and operates the high voltage transmission system in England and Wales. The system operates mainly at 400 kilovolts (kV) (400,000 volts) and 275 kilovolts (275,000 volts), connecting electricity generators to substations where the high voltages are transformed to lower voltages for onward distribution to homes and businesses via regional Distribution Network Operators (DNOs) which operate at a maximum of 132kV.
- 1.1.3 National Grid is the company licensed to transmit electricity in England and Wales, as granted under the Electricity Act 1989. Through this duty, National Grid is responsible for operating around 7,200km of overhead lines, 700km of underground lines and 340 primary substations.
- 1.1.4 National Grid is a statutory undertaker as defined under the Electricity Act 1989, the Town and Country Planning Act 1990 and The Town and Country Planning (General Permitted Development) (England) Order 2015.
- 1.1.5 This Planning, Design and Access Statement (PDAS) is provided as part of the planning application for the Scheme in order to assist RMBC, statutory consultees, and other interested parties in their consideration of National Grid’s proposals.
- 1.1.6 The PDAS sets out the context for the Scheme before summarising the relevant Development Plan policies and other material considerations against which the planning application will be determined.
- 1.1.7 The PDAS then assesses the extent to which the Scheme is consistent with the relevant policies of the Development Plan and other material considerations before presenting the overall planning balance.
- 1.1.8 In conclusion, the PDAS confirms that the benefits of the Scheme would considerably outweigh the adverse impacts of constructing and operating the new substations.
- 1.1.9 The PDAS has been prepared by Arcadis on behalf of National Grid.

## 1.2 Purpose of the PDAS and Statutory Requirements

- 1.2.1 Part 3, Article 9 of the Town and Country Planning (Development Management Procedure) (England) Order 2015 requires that a Design and Access Statement (DAS) is also submitted with most major planning applications, subject to specified exemptions, including engineering operations.

- 1.2.2 In accordance with Part 3, Article 9, this PDAS describes the evolution of the design of the Scheme, which has been informed by an iterative process of environmental, economic, and engineering analysis and assessment.
- 1.2.3 This PDAS is intended to provide the following main functions:
- provide a description of the Scheme;
  - summarise the proposed consents strategy and identify the means by which each Scheme component can be approved;
  - demonstrate the planning need case;
  - assess the proposals in the context of national and local planning policy; and
  - provide a summary of the outcomes of the environmental and technical assessments completed in support of the application.

### 1.3 Consenting Regimes

- 1.3.1 The planning application for the Scheme will be determined under section 70(2) of the Town and Country Planning Act 1990 (TCPA 1990) and section 38(6) of the Planning and Compulsory Purchase Act 2004. Together, these provisions establish the statutory basis for decision making in the planning system. Section 70(2) requires the decision-maker to have regard to the provisions of the development plan and any other material considerations. Section 38(6) provides that decisions must be made in accordance with the development plan unless material considerations indicate otherwise.
- 1.3.2 The determining authority in this case is RMBC, as the local planning authority (LPA).
- 1.3.3 In addition to the Scheme, ancillary works are needed to tie the proposed substation into the existing transmission network. These works comprise the construction of short sections of new 400kV overhead lines. For the avoidance of doubt, these overhead line works do not form part of the planning application for the Scheme. Instead these overhead line works will be consented separately under the consenting regime provided by Section 37 of the Electricity Act 1989 for the installation of overhead lines.

### Environmental Impact Assessment Regulations

- 1.3.4 The Town and Country Planning (Environmental Impact Assessment) Regulations 2017 (the EIA Regulations) define EIA development as either:
- Schedule 1 development, where an EIA is required; or
  - Schedule 2 development likely to have significant effects on the environment by virtue of factors such as its nature, size or location, taking into account the selection criteria set out in Schedule 3, identified through the process of screening.
- 1.3.5 The Scheme does not fall under the activities listed in Schedule 1 of the EIA Regulations, and neither are substations specifically listed under the developments within Schedule 2.
- 1.3.6 The Scheme also does not fall within a sensitive area as defined by the EIA Regulations:

- a) land notified under section 28(1) (sites of special scientific interest) of the Wildlife and Countryside Act 1981);
- b) a National Park within the meaning of the National Parks and Access to the Countryside Act 1949;
- c) the Broads;
- d) a property appearing on the World Heritage List kept under article 11(2) of the 1972 UNESCO Convention Concerning the Protection of the World Cultural and Natural Heritage;
- e) a scheduled monument within the meaning of the Ancient Monuments and Archaeological Areas Act 1979;
- f) an area of outstanding natural beauty designated as such by an order made by Natural England under section 82(1) (areas of outstanding natural beauty) of the Countryside and Rights of Way Act 2000 as confirmed by the Secretary of State; and
- g) a European site.

- 1.3.7 An EIA Screening Assessment was undertaken to consider the Scheme in relation to the criteria set out in Schedule 3 of the EIA Regulations. This assessment determined that significant effects on the environment are not likely to occur, subject to the implementation of mitigation. A request for an EIA Screening Opinion was submitted to RMBC on 19 December 2023, which confirmed in response on 17 January 2024 that the Scheme will not be subject to an Environmental Impact Assessment.
- 1.3.8 Since that Screening Opinion was issued, design development has progressed, and further detailed network analysis undertaken by National Grid has identified the need for two separate grid reinforcement projects. The Scheme now falls within the scope of the Brinsworth to Chesterfield project (the Project), the purpose of which is to reinforce the electricity network by uprating the existing 275kV transmission lines to operate at 400kV. The Project would also require the construction of the Scheme, and works to connect the Scheme to a new Chesterfield 400kV substation, off Calow Lane in Derbyshire.
- 1.3.9 The related but independent project, the Chesterfield to High Marnham project, will reinforce the grid between High Marnham and Chesterfield and will include the construction of new substations at both High Marnham in Nottinghamshire, and Chesterfield.
- 1.3.10 The potential for cumulative effects with the works, required for the Chesterfield to High Marnham project and other committed developments is considered in Section 3 of the EIA Screening Report.
- 1.3.11 In accordance with Regulation 6(1) the EIA Regulations, National Grid has issued an updated EIA Screening Opinion to establish whether the Scheme would be likely to have significant effects on the environment by virtue of factors such as its nature, size or location, thereby determining whether or not the Scheme is an EIA development. Pre-Application Consultation
- 1.3.12 The Applicant carried out pre-application public consultation to introduce the Scheme, and to provide local communities and key stakeholders with an opportunity to learn more about the Scheme and put questions to the project team.

- 1.3.13 Public consultation ran for four weeks between 20 May to 17 June 2024. An online webinar was held on 12 June 2024 and in-person public consultation events were held at The Centre, Brinsworth on 7 and 8 June 2024. Feedback could also be provided via a consultation website, freephone Community Relations helpline and a feedback email address.
- 1.3.14 Whilst discussed in the PDAS, further information on the public consultation process can be found in the Statement of Community Involvement.

## **1.4 Local Planning Authority Consultation**

- 1.4.1 Pre-application consultation has been undertaken within RMBC officers to discuss National Grid's proposals, the scope of assessments to be undertaken in support of the planning application and the key planning issues. Meetings with officers took place on the following dates:
- 8 December 2023: introduction to the Scheme, overview of the proposed works, introduction to the consenting approach.
  - 30 August 2024: update on the Scheme and feedback from the consultation events, along with a discussion around the Section 37 submission, Biodiversity Net Gain and Public Rights of Way (PRoWs).
  - 11 August 2025: discussion around the updated substation design and landscaping proposals, details of the proposed PRoW diversions and content of the planning application submission.
  - 14 October 2025: submission of an updated EIA Screening Request for the Scheme following design development on the project.

## **1.5 Planning Application Submission**

- 1.5.1 This PDAS and other supporting documentation have been prepared to ensure that sufficient information is available to RMBC to determine the application for the Scheme.
- 1.5.2 The application has been prepared in accordance with TCPA 1990 and The Town and Country Planning (Development Management Procedure) (England) Order 2015, local validation requirements and the pre-application advice from the relevant LPA.
- 1.5.3 The application site is located entirely within the boundaries of RMBC, which is therefore the determining LPA for this application.
- 1.5.4 The planning application for the Scheme comprises the following drawings in Table 1.1. These should be read in conjunction with this PDAS.

Table 1.1 Planning application drawings

| Plan/Document                                                                | Reference                  |
|------------------------------------------------------------------------------|----------------------------|
| Location Plan                                                                | PDD-203717-LAY-401         |
| Existing Site Plan                                                           | PDD-203717-LAY-441         |
| Proposed Site Layout (Block Plan)                                            | PDD-203717-LAY-440         |
| Proposed Site Layout Plan                                                    | PDD-203717-LAY-442         |
| Overall Elevations Sheet 1                                                   | PDD-203717-ELE-415         |
| Overall Elevations Sheet 2                                                   | PDD-203717-ELE-416         |
| Building Elevations Sheet (North and South Elevations)                       | PDD-203717-ELE-417         |
| Building Elevations Sheet (East and West Elevations)                         | PDD-203717-ELE-418         |
| GIS Hall Building Layout (Roof Plan)                                         | PDD-203717-LAY-443         |
| Block Plan (Substation Works)                                                | PDD-203717-LAY-432         |
| Proposed Site Layout – Substation Works                                      | PDD-203717-LAY-433         |
| Typical Details (Fencing and Access Gate)                                    | PDD-203717-LAY-446         |
| Junction Layout & Typical Details                                            | PDD-203717-LAY-447         |
| Access Road Layout and Long Section                                          | PDD-203717-LAY-448         |
| Drainage Layout                                                              | PDD-203717-LAY-409         |
| External Lighting Plan                                                       | PDD-203717-LAY-431         |
| Cut and Fill General Arrangement                                             | PDD-203717-LAY-421 Sheet 1 |
| Cut and Fill Long Sections                                                   | PDD-203717-LAY-421 Sheet 2 |
| Cut and Fill Long Sections                                                   | PDD-203717-LAY-421 Sheet 3 |
| Overall Plant Layout Plan (Overhead Line Modification Works for information) | PDD-203717-LAY-408         |

## Supporting Documentation

- 1.5.5 As well as the comprehensive set of plans listed in Table 1.1, the application is also supported by a range of technical documents to ensure that the relevant policies and material issues are considered. These are as follows:
- Planning, Design and Access Statement (this document);

- Green Belt Assessment;
- Environmental Appraisal Report (EAR) comprising:
  - Ecological Assessment (accompanied by a Biodiversity Report);
  - Landscape and Visual Assessment;
  - Cultural Heritage and Archaeology (accompanied by a Heritage Desk-Based Assessment);
  - Air Quality (accompanied by an Air Quality Assessment);
  - Water Resources and Flood Risk;
  - Land and Ground Conditions;
  - Noise and Vibration (accompanied by an Operational Noise Impact Assessment);
  - Traffic and Transport;
  - Agriculture and Soils (accompanied by an Agricultural Impact Assessment);
  - Socioeconomics and Human Health; and
  - Cumulative Impact Assessment.

#### 1.5.6 The EAR comprises the following appendices:

- Outline Construction Environmental Management Plan (OCEMP) (Appendix D);
- Drawings (Appendix E)
- Ecology Report (Appendix F);
- Biodiversity Net Gain Report (Appendix G);
- Landscape Proposals and Visualisations (Appendix H);
- Gazetteer of Cultural Heritage Receptors (Appendix I);
- Cultural Heritage Desk Based Assessment (Appendix J);
- Construction Dust Assessment and Methodology (Appendix K);
- Air Quality Model Verification (Appendix L);
- Flood Risk Assessment (Appendix M);
- Surface Water Drainage Strategy (Appendix N);
- Ground Conditions and Contaminated Land Desk Study Report (Appendix O);
- Noise Impact Assessment (Appendix P);
- Outline Construction Traffic Management Plan (OCTMP) (Appendix Q);
- Outline Agricultural Land Classification Report (Appendix R);
- Outline Soil Management Plan (Appendix S);
- Arboricultural Impact Assessment (Appendix T); and
- Outline Site Waste Management Plan (OSWMP) (Appendix U).

1.5.7 The following additional reports have been provided in addition to the EAR:

- Coal Mining Risk Assessment; and
- Electric and Magnetic Fields (EMF) Report.
- Biodiversity Net Gain Statutory Metric
- Statement of Community Involvement

## 1.6 Report Structure

1.6.1 The PDAS should be read in conjunction with the plans, drawings and the accompanying supporting information provided with the planning application. Following this introduction (Section 1) the structure is as follows:

- Section 2 provides background information relating to the context for the Scheme, including in respect of National Grid and its statutory duties and introduces the Horlock Rules (National Grid Company plc, 2009).
- Section 3 provides details of the Site context and surrounding area.
- Section 4 gives a description of the Scheme and the need for the development.
- Section 5 reviews the current planning policy context for the Scheme including relevant Development Plan policies, national planning policy and guidance; and other material considerations including the environmental and technical reports which support the application.
- Section 6 assesses the proposal in terms of its compliance with the Development Plan, national planning policy and guidance and other material considerations.
- Section 7 presents the planning balance and overall conclusions, confirming that permission should be granted.
- Appendix A outlines suggested planning conditions for consideration should the planning application be approved.
- Appendix B includes a summary of relevant planning policies from the RMBC Core Strategy
- Appendix C includes extracts of relevant policies from RMBC Local Plan Sites and Policies document
- Appendix D includes a summary of relevant policies from the Joint Waste Local Plan produced by Barnsley, Doncaster and Rotherham.
- Appendix E Abbreviations
- Appendix F Glossary

## 2. Context for the Scheme

### 2.1 Overview

2.1.1 This section of the PDAS:

- introduces the background and need for the Scheme;
- describes the role of National Grid and its statutory duties; and
- introduces the Horlock Rules.

### 2.2 Background to the Scheme

2.2.1 Rising electricity demand is expected as power generation for residences, business operations and transport undergoes transformation. The UK government has committed to reach net zero emissions by 2050. This means achieving a balance between the greenhouse gases put into the atmosphere and those taken out. Decarbonising the energy system is vital to achieve net zero; the fossil fuels that once powered the economy are to be replaced with sources of low-carbon electricity.

2.2.2 There is an increased growth forecast in offshore wind capacity in Scotland and the North East of England, as well as increasing power flows to and from European power grids. This would put pressure on the existing network, such that reinforcement of the transmission network has been identified as necessary to secure the operation of the transmission system and ensure reliable, economic and long-term supply.

2.2.3 To achieve this, National Grid needs to upgrade the high voltage power network in England to connect these new sources of offshore energy to the energy network. These plans are part of the biggest overhaul of the energy network in a generation, the Great Grid Upgrade, which would see significant investment and improvement in the nation's energy infrastructure as the UK continues its transition towards net zero and more sources of low carbon power are developed.

2.2.4 The Great Grid Upgrade comprises 17 major infrastructure projects that would both scale up the grid and update existing networks. It would enable National Grid to carry more clean, secure energy from where it is generated to where it is needed.

2.2.5 The proposed 400kV substation at Long Lane, Brinsworth is a key component of the Brinsworth to Chesterfield reinforcement project. National Grid is proposing to uprate the existing 275kV transmission network between Brinsworth and Chesterfield (in North East Derbyshire) to operate at 400kV. Operating at a higher voltage would allow more power to be moved from the North through to the Midlands. These uprated overhead lines will connect into the new 400kV substation at Long Lane. The Brinsworth to Chesterfield project is specifically referenced in the Clean Power 2030 Report by the National Energy System Operator (NESO) (2024) as one of four projects which, if not delivered by 2030, would have a significant impact on the ability of the country to deliver clean power. Consequently, substantial weight should be afforded to the national need and strategic importance of the development, consistent with the approach in EN-1 and EN-5, irrespective of the consenting route.

- 2.2.6 Further information on the Need for the Scheme is provided in Section 7.2 of this statement.

## **2.3 The Role of National Grid**

- 2.3.1 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 the Scheme is National Grid Electricity Transmission plc.

### **National Grid Electricity Transmission plc (National Grid)**

- 2.3.2 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.
- 2.3.3 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).

### **National Energy System Operator (NESO)**

- 2.3.4 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.
- 2.3.5 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).
- 2.3.6 NESO has been established to act as the independent organisation responsible for planning Great Britain's energy system, looking after and operating the electricity and gas networks while also offering expert advice to the sector's decision makers.

## **2.4 Scheme Operation**

- 2.4.1 Electricity is transmitted by National Grid at 400kV and 275kV, linking generators with major centres of demand. At these centres of demand, the high voltage of the transmission network is transformed to 132kV and below for delivery into the local distribution networks. The key role of this transmission system is to connect the electricity generators' power stations with regional DNOs which then supply businesses and homes. In return for the connection, users of the transmission network pay a tariff to National Grid. This revenue is then used to maintain, improve and invest in the transmission network.

## 2.5 Statutory Duties

- 2.5.1 National Grid holds the Transmission Licence for England and Wales and is thus obligated to develop and maintain an efficient, co-ordinated 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, licensed under section 6(1)(b). As such, National Grid is bound by legal obligations set out in the Electricity Act 1989 and its associated licence.
- 2.5.2 Under section 9(2) of the Act, National Grid has a duty to:
- develop and maintain an efficient, co-ordinated and economical system of electricity transmission; and
  - facilitate competition in the supply and generation of electricity.
- 2.5.3 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.
- 2.5.4 National Grid is also required, under Section 38 of the Electricity Act 1989, to comply with the provisions of Schedule 9 of the Act. Schedule 9(1) requires that the licence holder, in the formulation of proposals to transmit electricity:
- ‘(a) shall 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*
- (b) 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’.*
- 2.5.5 Section 40 of the Natural Environment and Rural Communities Act 2006, meanwhile, sets out that *‘A public authority which has any functions exercisable in relation to England must from time to time consider what action the authority can properly take, consistently with the proper exercise of its functions, to further the general biodiversity objective’*. National Grid serves a public function and Section 40 of this Act therefore also applies in the context of the Scheme.

## 2.6 The Horlock Rules

- 2.6.1 The Horlock Rules (National Grid Company plc, 2009) outline the methodology and recommendations for designing and positioning substations, alongside CSE compounds and line entries. When evaluating potential new electricity infrastructure projects, National Grid assesses the extent to which various options adhere to or diverge from these regulations. These guidelines complement National Grid’s Holford Rules guidelines on the routing of high voltage transmission lines and where appropriate should be used in conjunction with them. Although the Horlock Rules are not planning policy, National Policy Statement for Electricity Networks Infrastructure (EN-5) (‘NPS EN-5’) (Department for Energy Security and Net Zero (DESNZ), 2024a) states at paragraph 2.9.18 that the Horlock Rules *‘guidelines for the design and siting of substations [...] should be embodied in the applicants’ proposals for the infrastructure associated with new overhead lines’*. The Horlock Rules were established in 2009 by National Grid in pursuance of its duties under Schedule 9 of the Electricity Act 1989.

- 2.6.2 National Grid devised the Horlock Rules (National Grid, 2009) in 2003 and updated them in 2009 in pursuance of the duties under Schedule 9 of the Electricity Act 1989. The Horlock Rules provide guidelines for the siting and design of new substations, or substation extensions, to avoid or reduce the environmental effects of such developments.
- 2.6.3 The Horlock Rules state that:
- In the development of system options including new substations, consideration must be given to environmental issues from the earliest stage to balance the technical benefits and capital cost requirements, against the consequential environmental effects, in order to avoid (as far as possible) adverse effects (Rule 1).
  - The siting of substations, Sealing End Compounds and line entries should seek to avoid areas of the highest amenity, cultural or scientific value through the overall planning of the system connections (Rule 2).
  - Areas of local amenity value, important existing habitats and landscape features should be protected as far as reasonably practicable (Rule 3).
  - Siting of substations, extensions and associated proposals should take advantage of the screening provided by land form and existing features and the potential use of site layout and levels to keep intrusion into surrounding areas to a reasonably practicable minimum (Rule 4).
  - Proposals should keep visual, noise and other environmental effects to a minimum (Rule 5).
  - The land use effects of proposals should be considered when planning the siting of substations or extensions (Rule 6).
  - In the design of new substations or line entries, early consideration should be given to the options available for terminal towers, equipment, buildings and ancillary development appropriate to individual locations (Rule 7).
  - Space should be used effectively to limit the area required for development, consistent with appropriate mitigation measures and to minimise the adverse effects on existing land use and rights of way, whilst also having regard to future extension of the substation (Rule 8).
  - Design of access roads, perimeter fencing, earth shaping, planting and ancillary development should form an integral part of the site layout and design to fit in with the surroundings (Rule 9).
  - In open landscapes especially, high voltage line entries should be kept, as far as possible, visually separate from low voltage lines and other overhead lines so as to avoid a confusing appearance (Rule 10).
  - The inter-relationship between towers and substation structures and background and foreground features should be studied to reduce the prominence of structures from main viewpoints. Where practicable, the exposure of terminal towers on prominent ridges should be minimised by siting towers against a background of trees rather than open skylines (Rule 11).

## 3. Description of the Site

### 3.1 Introduction

3.1.1 This section of the PDAS provides an overview of the Site and its setting.

### 3.2 Site Location and Setting

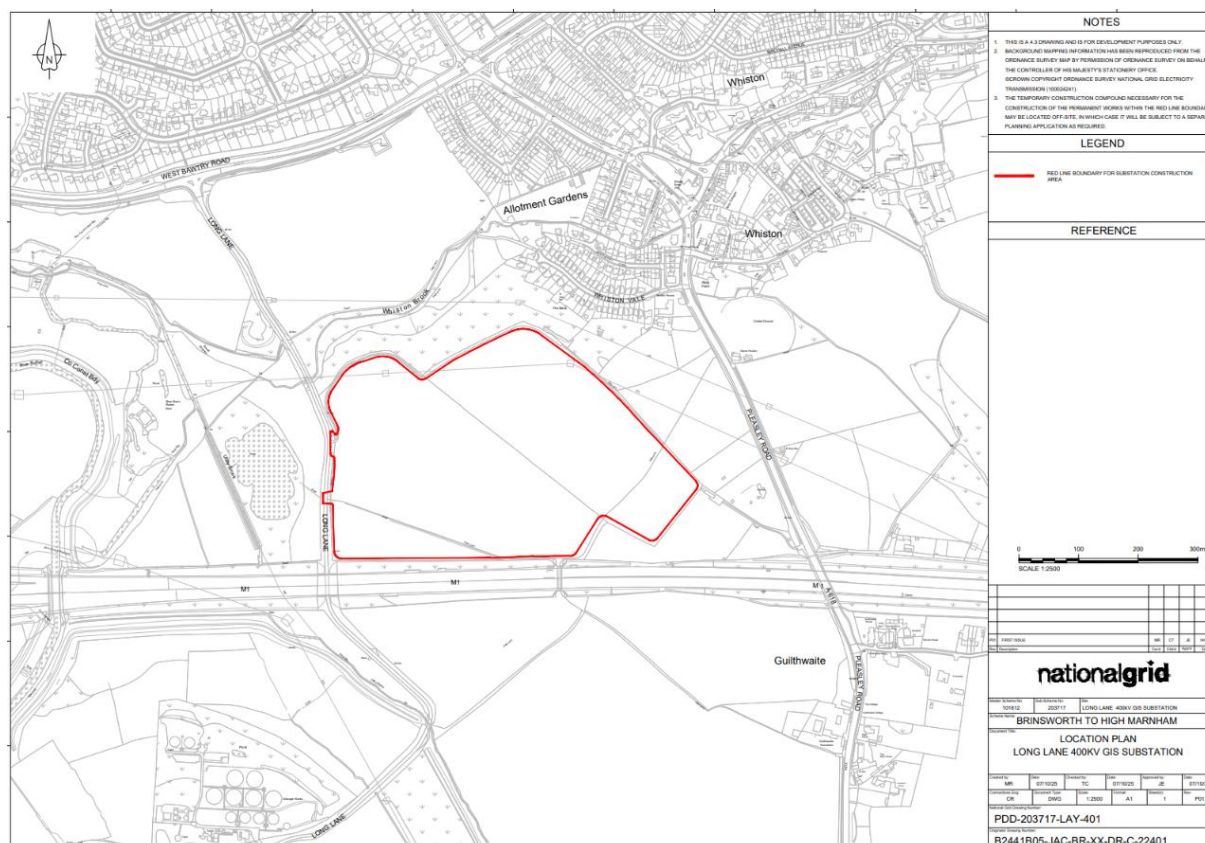
3.2.1 The existing layout and the boundary of the Site is shown on the Site Location Plan (Ref. PDD-203717-LAY-441). The extent of the Site is approximately 18ha. The Site is located to the east of Brinsworth and south west of Whiston.

3.2.2 Currently, the Site comprises predominantly agricultural fields. A number of existing pylons are also present within the Scheme boundary.

3.2.3 The Site is bound to the north by woodland and Whiston Brook, with agricultural fields and residential development beyond. The Site is bound by Long Lane to the west, and the M1 to the south, as well as agricultural land. Agricultural parcels and residential dwellings are directly to the east of the Site, with the A618 Pleasley Road beyond. The surrounding area to the north and west of the Site is developed and urban in nature, whilst to the south and east the area is more agricultural. The M1 runs east to west to the south of the Site and is a predominant feature in the area.

3.2.4 The Site location is illustrated in Figure 3.1 below.

Figure 3.1 Long Lane Site Location



- 3.2.5 The Site topography is undulating, ranging from approximately 30m Above Ordnance Datum (AOD) in the south west to 60m in the north east. The Site therefore slopes from south west to north east. The Site itself is predominantly characterised by agricultural land use with vegetated borders and hedgerows. An existing transmission substation exists approximately 770m to the west. Pylons associated with this substation are visible in the area. The Site is partially screened by vegetation and intervening topography in the surrounding area.
- 3.2.6 Catcliffe Local Nature Reserve (LNR) is approximately 1.8km south west of the Site. Land designated as Whiston Meadows Local Wildlife Site (LWS) and deciduous woodland habitat of principal importance in England<sup>1</sup> is also located directly adjacent to the north and west of the Scheme boundary. Eight LWS and two candidate LWS (cLWSs) are located within 2km. No other internationally designated sites are within 5km.
- 3.2.7 The Site is not located within areas designated nationally or locally for their landscape. There are no National Landscapes or National Parks within 2km of the Site.
- 3.2.8 There are no designated sites or receptors within the Site, however, the scheduled monument 'Blue Man's Bower moated site, Whiston' is approximately 270m west and there are a number of Grade I and II listed buildings within Whiston to the north east.
- 3.2.9 Residential receptors are located within 500m of the north and eastern boundaries of the Site, including Garnes on the A618 Pleasley Road and cul-de-sac of Whiston Vale. Larger residential areas in the surrounding area include (distances approximate):
- Whiston 65m to the north west;
  - Brinsworth 1.35km to the west; and
  - Treeton 1.37km to the south west.
- 3.2.10 Whiston Brook, also a Main River, is located north of the Site within Whiston Meadows LWS.
- 3.2.11 As shown on the GOV.UK Flood Mapping Tool<sup>2</sup>, the majority of the Site is predominately in Flood Zone 1. Sections of the Site to the north and west fall into Flood Zone 2 and 3 areas.
- 3.2.12 The majority of the Site is within the Rotherham Air Quality Management Area (AQMA) Part 1. This AQMA has been declared for Nitrogen Dioxide (NO<sub>2</sub>), with the source transport and industrial.
- 3.2.13 There are no Noise Important Areas within the Site; the closest are 290m to the south east of the Site, associated with the A618 and M1 close to Guilthwaite.
- 3.2.14 There are a number of PRoWs within the vicinity of the Site. There are also PRoWs within the Site (Whiston Footpath 10 and Whiston Footpath 12) which run east to west through the Site, connecting with an underpass under the M1 and a short network of pathways to the south.

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<sup>1</sup> As identified by the Natural Environment and Rural Communities (NERC) Act 2006

<sup>2</sup> Available to view online at: <https://flood-map-for-planning.service.gov.uk/>

- 3.2.15 Assessment for Agricultural Land Classification found two main soil types: shallow loam over sandstone and deep loam. Most of the site is moderate to poor quality agricultural land, with 70 per cent classified as Grade 4 and 24 per cent as Grade 3b (neither being best and most versatile (BMV)). Only 6 per cent (1.0 ha) is Grade 2, representing very good quality BMV land. Overall, the Site contains mostly non-BMV land with limited areas of higher quality soil.

### 3.3 Planning History

- 3.3.1 Table 3.1 below provides a review from RMBC's online planning register of planning application submissions which have been made on or in immediate proximity to the Site.
- 3.3.2 For ease of reference those application references identified in bold relate to development proposals which overlap with the red line boundary for the Scheme. Those planning application references in italics are immediately adjacent to the application site.

Table 3.1 Planning History

| Reference          | Proposal                                                                                                         | Decision              | Decision Date |
|--------------------|------------------------------------------------------------------------------------------------------------------|-----------------------|---------------|
| <i>RH1967/5340</i> | Outline for bungalow & use of land as nursery & market garden                                                    | Granted Conditionally | 04/11/1967    |
| <b>RH1964/4442</b> | Diversion of 11kV overhead line                                                                                  | Granted               | 24/09/1964    |
| <b>RB1990/1779</b> | Outline for erection of a centre for industrial/employment regeneration                                          | Withdrawn             | 09/01/1992    |
| <i>RH1968/5694</i> | Outline for broiler house                                                                                        | Refused               | 09/01/1968    |
| <i>RB1987/0184</i> | Erection of stables                                                                                              | Granted Conditionally | 01/06/1987    |
| <i>RB1976/0102</i> | Reclamation of Whiston sewage works site for amenity & recreation purposes                                       | Granted               | 16/01/1976    |
| <i>RB1988/0399</i> | Outline for 100 bedroom hotel with conference facilities & parking provision                                     | Refused               | 14/03/1988    |
| <i>RB2007/2126</i> | Demolition of existing outbuildings and erection of two-storey side extension                                    | Granted Conditionally | 18/06/2008    |
| <i>RB1975/2591</i> | Erection of stables                                                                                              | Granted               | 15/10/1975    |
| <i>RH1970/6425</i> | Mv & 11 kV overhead line                                                                                         | Granted               | 26/06/1970    |
| <i>RB1988/0418</i> | Outline for 200 bedroom hotel with conference facilities & parking provision                                     | Refused               | 04/07/1988    |
| <i>RB1993/1147</i> | Erection of block of four stables, tackroom and store and construction of access road                            | Granted Conditionally | 29/11/1993    |
| <i>RB2008/1677</i> | Retrospective application for use of land for siting of two caravans for use in connection with existing stables | Refused               | 11/12/2008    |

- 3.3.3 The above list of applications is correct as of 1 October 2025.
- 3.3.4 As outlined in Table 3.1, the Site and its immediately adjoining land exhibit a history of mixed-use applications, with major proposals frequently met with refusal. Specifically pertaining to the Site, application RB1990/1779 was an outline planning application for the erection of a centre for industrial/employment regeneration, which was subsequently withdrawn. Additionally, application RH1964/4442 was for the diversion of an 11kV overhead line, which was granted approval. However, as both applications date back over 30 years, the RMBC Online Planning Application portal does not provide any further detailed information regarding either case.
- 3.3.5 The absence of recent planning applications directly related to the Site extends to its immediate surroundings, where the majority of applications were decided prior to the year 2000. Consequently, access to detailed information beyond basic records and key dates regarding these applications has been limited.
- 3.3.6 As a result, it has not been possible to utilise case studies for the analysis of how to ensure that the Scheme, to which this PDAS pertains, avoids encountering similar challenges.

## 4. The Scheme

### 4.1 Introduction

4.1.1 This section of the PDAS provides a description of the Scheme.

4.1.2 This section also sets out the design components that have been incorporated within the Scheme in the context of the physical, social and economic environment of the proposed substation. Specific details around the amount of development proposed, the layout, scale and appearance of the proposal are also discussed within this section.

### 4.2 Scheme Description

4.2.1 This planning application seeks full planning permission for:

*‘Erection of a new 400kV Gas Insulated Switchgear (GIS) substation including gantries, internal access roads, a GIS building, parking, drainage, diesel generator, lighting and CCTV, permanent access road from Long Lane, earthworks, landscaping and biodiversity enhancement, and fencing and the permanent realignment of Whiston Footpath 10’.*

4.2.2 The Scheme comprises the following principal elements:

- construction of a new 400kV GIS substation; and
- creation of a new access road from Long Lane.

4.2.3 These components are described below.

#### Proposed GIS Substation

4.2.4 Within the national electricity system, substations operate within the transmission network to enable electricity to be transmitted as different voltages, safely and effectively. Substations can transform the voltage of electricity either up or down as required. This is needed so that electricity can be safely transmitted throughout the country and into homes, businesses and buildings.

4.2.5 The proposed 400kV GIS substation will be located within a secure fenced compound approximately 49,390m<sup>2</sup> in area. The compound will be enclosed by a 2.4m high palisade fence with a 4m high electric pulse fence installed to the rear of the palisade to secure the Site.

4.2.6 The 400kV substation will be housed within a building, comprising a main hall (containing electrical equipment including GIS) and an annex housing ancillary equipment necessary for the operation of the substation. The ancillary facilities will include the following:

- control room;
- relay room;
- storage room;
- staff meeting room; and
- welfare facilities (including toilets and showers).

- 4.2.7 The 400kV GIS building will be located centrally within the substation compound and will measure 77m in length and 24m in width. The apex of the building will be 14.5m high from ground level. The GIS buildings will be of steel portal frame construction on a concrete base with a profile of steel cladding.
- 4.2.8 The following substation components will be separate from or connected to the main GIS building:
- Gantries: there will be six steel gantries. Four will be located on the northern part of the substation to receive down leads from the new Brinsworth to Long Lane and Long Lane to Thorpe Marsh 400kV overhead line Circuits. Two gantries will be located to the south of the substation to receive down leads from the Long Lane to Chesterfield 400kV overhead line circuit. The gantries will be of steel construction based on concrete foundations. The gantries will be approximately 12.5m high.
  - Storage building and workshop building, each measuring 6.5m long by 2.5m wide and 4.5m high. This building will be of pre-fabricated modular construction comprising a steel frame and metal cladding.
  - A separate DNO (Northern Powergrid) auxiliary supply (800-1,000kVA) substation will be provided as part of the Scheme, which will comprise a small building housing a transformer, located immediately west of the National Grid substation perimeter, enclosed within a separate security fence under the responsibility and control of the DNO. This building measures approximately 4m by 3m and 3m high. The building will either be prefabricated in glass-reinforced plastic (GRP) or of red brick construction depending on DNO specifications.
  - Diesel generator: this is a small, packaged diesel generator used as back up if the low voltage power supply fails. The diesel generator, fitted with a silenced exhaust system, will be located at the eastern side of the Site. Hardstanding for the placement of a backup emergency diesel generator will also be located alongside this.

## Internal Access, Circulation and Parking

- 4.2.9 The proposed internal road and pedestrian area layout for the substation compound has been designed to allow the safe movement of vehicles and pedestrians and has had regard to relevant health and safety legislation and good industry practice. The Site access roads are designed to allow for maintenance access around the substation. The internal access roads will be 6m wide and surfaced with tarmac.
- 4.2.10 Car parking is to be provided to the west of the GIS building, with provision of six parking spaces, including the provision of two electric vehicle parking spaces for visitors and National Grid staff.

## 4.3 Overhead Line Works and Consenting Requirements

- 4.3.1 As set out in Section 1.3, ancillary works are required to tie the proposed substations into the existing transmission network. These works are to comprise the construction of new 400kV overhead lines and associated equipment including temporary and permanent pylons.

- 4.3.2 Whilst planning permission will not be sought from RMBC for these works (because different consenting regimes apply), they are related to the Scheme and material to RMBC determination of the planning application.
- 4.3.3 Section 37 consent is required to be obtained for new above-ground overhead lines that are:
- new overhead lines less than 2km in length; and
  - replacing an existing overhead line (which meets certain tests, unless it is exempted).
- 4.3.4 Section 37 of the Electricity Act 1989, as amended, sets out, with certain exceptions, that consent must be obtained to 'install or keep installed' electric lines above ground. 'Electric lines' are defined in S.64 of the Act.
- 4.3.5 Section 37 of the Electricity Act 1989 does provide an exemption from the requirement to obtain consent for any overhead line that is on land that 'is, or will be', in National Grid's 'occupation or control'. This means that above ground electric lines (busbars, conductors or gantries that are part of the 'electric line') can be installed and kept installed on National Grid land, i.e. within substations, without requiring Section 37 consent, or relying on any electricity exemptions. In addition, the Overhead Lines (Exemption) (England and Wales) Regulations 2009 provide further exemptions for minor works to existing overhead lines requiring Section 37 consent.
- 4.3.6 Whilst outside the scope of this planning application, the following provides a high level overview of the nature of the temporary and permanent works proposed to modify the existing overhead line configuration to connect the Long Lane Substation to the transmission network:
- Modifications to the existing Brinsworth to Thorpe Marsh Circuit (4ZH) are required to turn this existing circuit into the new Long Lane Substation. Two existing pylons will be removed and replaced with four new pylons. The proposed replacement line will be approximately 160m long. The replacement lines will become known as the Brinsworth to Long Lane Circuit and Long Lane to Thorpe Marsh Circuit.
- During construction it will be necessary to erect a temporary overhead line (and pylon) to facilitate the transition from the existing 4ZH overhead line to the Long Lane Substation. The temporary overhead line will be approximately 830m long.
  - A section of the existing Brinsworth to Chesterfield 4ZV overhead line will be removed. A total of seven existing pylons will be removed. This section of overhead line will be replaced by a new section of overhead line from the new Long Lane Substation, connecting into the existing Brinsworth to Chesterfield overhead line. This section of overhead line will require four new pylons.
  - During construction it will be necessary to erect a temporary overhead line to facilitate the transition from the existing 4ZV overhead line to the new alignment. The temporary overhead line will be approximately 750m long.

## 4.4 Public Rights of Way Diversion

- 4.4.1 Prior to submitting the planning application, National Grid presented to RMBC its initial proposals for managing the PROWs during both the construction and operation phases of the substation. A PROW, Whiston Footpath 10, will need to be realigned along the south western side of the proposed substation due to the proposed

earthworks but it will broadly maintain its existing west to east alignment. The PRoW will be appropriately screened and will be located outside of the security fencing of the substation. The proposed permanent diversion of Whiston Footpath 10 is shown on Figure 4.1 and drawing PDD-203717-LAY-442 (Proposed Site Layout).

- 4.4.2 It will be necessary to close Whiston Footpath 10 for the duration of the construction period for health and safety reasons. During this period users will be diverted along Whiston Footpaths 12, 26, 7 and 10.
- 4.4.3 Subject to the receipt of planning permission, an application under Section 257 of TCPA 1990, will be made to RMBC seeking the temporary closure to ensure that the works can be undertaken safely.
- 4.4.4 Whiston Footpath 12 and Doorstep Walk Number 15 will remain open during construction with the proposed separation between public and construction users considered to be sufficient to enable the construction works to be undertaken safely.
- 4.4.5 The Proposed footpath alignment and temporary diversions are illustrated on Figure H.1: PRoW Diversion Route.

## **4.5 Construction and Commissioning**

- 4.5.1 This section of the PDAS sets out the construction programme and outlines the key assumptions that have been made from the Long Lane EAR with regard to construction approach and working methods.
- 4.5.2 The Scheme will be designed, constructed and operated in accordance with all relevant health and safety legislation. It will also comply with design safety standards including the National Electricity Transmission System Security and Quality Supply Standard (NETS SQSS), which defines the criteria and methodology for coordinating and operating the National Electricity Transmission System. The NETS SQSS informs a suite of National Grid policies and processes which set out the design standards and thresholds that must be met when designing, constructing and operating assets such as the proposed substations.
- 4.5.3 The construction and commissioning of the Scheme is expected to take circa 45 months in total. The indicative construction and commissioning stage will consist of the following phases:
  - pre-commencement works: June – July 2026;
  - site establishment and enabling works: July – September 2026;
  - substation works: August 2026 – December 2029; and
  - demobilisation: January – March 2030.

### **Outline Construction Environmental Management Plan**

- 4.5.4 An Outline Construction Environmental Management Plan (OCEMP) has been submitted as part of this planning application. Following the receipt of planning approval, the OCEMP will then be updated by the Mains Works Contractor to a full Construction Environmental Management Plan (CEMP) which will be in accordance with the OCEMP.
- 4.5.5 The OCEMP will also be applicable for the Section 37 application.

- 4.5.6 The purpose of the OCEMP is to identify potential adverse environmental issues arising from the construction of the works, to specify measurable limits and targets, and to detail the mitigation measures to be undertaken during construction and the management tools and procedures required. The OCEMP therefore provides an operational manual detailing the management, monitoring, auditing and training procedures to be followed during the construction of the works to ensure compliance with relevant legislation. It would also set out the specific roles and responsibilities of the Main works contractors and wider project team personnel. The OCEMP would typically include the following:
- available details regarding the phasing of works;
  - details of the works to be undertaken highlighting any operations likely to result in adverse environmental impacts, with an indication of the specific detailed mitigation measures to be employed;
  - prohibited or restricted operations;
  - a framework for compliance with relevant legislation and guidance;
  - details of plant to be used;
  - construction working hours including any weekend or public holiday works proposed and, if so, their working hours;
  - roles and responsibilities of key staff including training of staff, liaison with stakeholders and management of enquiries and complaints;
  - details of emergency procedures to be implemented on the Site;
  - details of general Site management practices, including working hours, hoarding, access, lighting, Site facilities, energy and water use, waste, materials procurement and storage;
  - details of environmental management and control procedures covering ecology, traffic and access, noise and vibration, dust, contamination, hazardous materials, drainage and pollution control;
  - requirements for auditing, monitoring and record-keeping;
  - mechanisms for third parties to register complaints and the procedures for responding to complaints; and
  - provisions for reporting, public liaison and prior notification, especially where dispensations are required.
- 4.5.7 All proposed mitigation measures relating to the construction phase as identified in Chapters 4-15 of the EAR are also to be included within the OCEMP.

## Outline Construction Traffic Management Plan

- 4.5.8 An Outline Construction Traffic Management Plan (OCTMP) has been submitted as part of this planning application. The construction of the Scheme will be carried out in full compliance with the approved CTMP.
- 4.5.9 The OCTMP will also be applicable for the Section 37 application.

- 4.5.10 The purpose of the OCTMP is to outline the measures to be followed to manage construction traffic. The OCTMP would typically include the following:
- the construction programme and anticipated peak two-way traffic movement flows broken down into vehicle types (Heavy Goods Vehicles (HGVs) and Cars/Light Goods Vehicles);
  - details of proposed routes for HGVs travelling to and from the Site;
  - peak numbers of anticipated construction workers;
  - Abnormal Indivisible Loads – numbers and the vehicle types/sizes;
  - details of any PRoW realignment/diversions/closures and any alternative routes being proposed and the duration of closure/diversion;
  - confirmation of the substation site access and the site access locations for the overhead line; and
  - site access drawings, including visibility splays and swept path analysis.

## Outline Site Waste Management Plan

- 4.5.11 An Outline Site Waste Management Plan (OSWMP) has been submitted as part of this planning application prior to the commencement of the Scheme. Following the receipt of planning approval, the OSWMP will then be updated by the Construction Main works contractor to a full Site Waste Management Plan (SWMP) which will be in accordance with the OSWMP.
- 4.5.12 The OSWMP outlines measures to be undertaken during construction to appropriately manage construction waste.

## Temporary Works

- 4.5.13 The tie-in works to connect the substation to the grid, subject to Section 37 consent, will require the temporary diversions of overhead lines to the north and south of the proposed substation (see Drawing PDD-203717-LAY-408).

## Construction Compound

- 4.5.14 Class A, Part 4 of The Town and Country Planning (General Permitted Development) (England) Order 2015 states that permitted development may be granted for temporary compounds when associated with an approved application so long as the proposed permitted development is consistent with *'the provision on land of buildings, moveable structures, works, plant or machinery required temporarily in connection with and for the duration of operations being or to be carried out on, in, under or over that land or on adjoining land.'*
- 4.5.15 Pending confirmation of the final location of a temporary compound, National Grid will implement the works under deemed planning permission or, if required, seek a separate planning consent from RMBC as the LPA.
- 4.5.16 Standard construction compound lighting and palisade security fences for construction compounds will be used.

## Working Hours

- 4.5.17 Typical working hours would likely be 7am to 6pm on Monday to Friday, except during system outages, and 8am to 1pm on Saturday. Overhead line system outages are assumed to be permitted only from the end of March to end of October (standard summer working). During outages, some weekend working may be required.
- 4.5.18 Any works proposed outside the hours specified above are to be agreed with RMBC prior to being carried out.

## Site Access and Routes

- 4.5.19 The Site will be accessed via a new access from Long Lane on the western side of the Site. Vehicles will travel along the A631, then Long Lane before entering the Site.
- 4.5.20 From the site entrance off Long Lane, an access road will be constructed running south east into the proposed substation where it will split off in two directions throughout the proposed substation.
- 4.5.21 The site access and routes are shown in Appendix E of the EAR (Figure 11.1).

## 4.6 Operational Phase

### Access

- 4.6.1 During operation, access to the Site will be via Long Lane, to the west of the Site. This access will be used when maintenance is required. It is anticipated that maintenance will be carried out by approximately 10 staff, 10 times per year.
- 4.6.2 Whiston Footpath 10 will need to be slightly realigned along the south western side of the proposed substation due to the proposed earthworks but will broadly maintain its existing west to east alignment. The PRoW will be appropriately screened and will be located outside the security fencing of the substation.

### Operations

- 4.6.3 Throughout the operational phase, the substation will not be regularly manned. Welfare and amenity facilities will be located within the GIS building for use by maintenance staff. When maintenance of the substation is undertaken, the number of staff on site will increase to approximately 10 for the duration of the works.
- 4.6.4 Day-to-day operational noise associated with staff on site will be minimal and contained within normal daytime working hours.
- 4.6.5 Substations are not generally lit or permanently illuminated. Floodlights, 4-6m in height, would be installed but only used if access is required in an emergency during the hours of darkness. Security lighting will also be used when an intruder alarm is activated at night; in this scenario, a light will be activated for approximately three minutes whilst the alarm is remotely assessed by National Grid.

## 4.7 Operational Phase

### Access

- 4.7.1 During operation, access to the Site will be via Long Lane, to the west of the Site. This access will be used when maintenance is required. It is anticipated that maintenance will be carried out by approximately 10 staff, 10 times per year.
- 4.7.2 Whiston Footpath 10 will need to be slightly realigned along the south western side of the proposed substation due to the proposed earthworks but will broadly maintain its existing west to east alignment. The PRow will be appropriately screened and will be located outside the security fencing of the substation.

### Operations

- 4.7.3 Throughout the operational phase, the substation will not be regularly manned. Welfare and amenity facilities will be located within the GIS building for use by maintenance staff. When maintenance of the substation is undertaken, the number of staff on site will increase to approximately 10 for the duration of the works.
- 4.7.4 Day-to-day operational noise associated with staff on site will be minimal and contained within normal daytime working hours.
- 4.7.5 Substations are not generally lit or permanently illuminated. Floodlights, 4-6m in height, would be installed but only used if access is required in an emergency during the hours of darkness. Security lighting will also be used when an intruder alarm is activated at night; in this scenario, a light will be activated for approximately three minutes whilst the alarm is remotely assessed by National Grid.

## 4.8 Environmental mitigation and Biodiversity Net Gain (BNG)

- 4.8.1 The landscaping on the Scheme has been designed to provide environmental mitigation and Biodiversity Net Gain (BNG). A plan of the landscaping design is shown in Appendix E of the EAR.
- 4.8.2 The planning application is accompanied by an illustrative landscape mitigation and enhancement plan detailing the planting which is proposed to reduce the landscape and visual impacts of the Scheme.
- 4.8.3 The proposed landscaping design includes:
- re-instating the existing vegetation to the west of the substation after the completion of works;
  - species rich hedgerow to be planted along the ditch in the south west of the site, along the eastern side of the new 400kV substation earthworks and also along Footpath 12;
  - shallow rooted hedgerow to be installed after drainage work in the south west of the site;
  - a woodland block in the south of the site is proposed to provide screening along the southern Scheme boundary and residences in Guilthwaite;

- species-rich grassland is to be planted within the western, eastern and northern areas of the Site;
- amenity grassland is to be planted along the access road into the substation and along the western and southern boundaries of the substation; and
- a species-rich hedgerow is to be planted in association with the two attenuation ponds in the north of the Site.

- 4.8.4 The BNG Report notes that the baseline habitats on site have been calculated as having a value of 35.07 Biodiversity Units (BU). Three distinct hedgerows were recorded within the Site. All consist predominantly (i.e. 80% or more cover) of at least one woody UK native species and, as such, meet the definition of hedgerow Habitat of Principal Importance (HPI). The baseline hedgerows on-Site have been calculated as having a value of 9.17 BU.
- 4.8.5 The proposed development will create 5.18ha of developed land; sealed surface. The remaining land will comprise of the retained hedgerow and habitat creation. The habitat creation will generate 55.65 BU.
- 4.8.6 There will be a total of 0.22km of hedgerow retained. Post development there will be 1.29km of hedgerow created generating 12.72 BU or an increase of 3.55 BU.
- 4.8.7 If the habitat creation/enhancement recommendations are followed, this would deliver an on-Site net gain of 55.65 habitat units (+158.67%) and 3.55 hedgerow units (+38.68%), meaning the overall proposed development will result in a net gain in biodiversity on Site.

## 4.9 Design and Access Statement

- 4.9.1 This section of the PDAS provides an overview of how, taking into account National Grid's statutory duties, the policy framework, engagement with stakeholders and environmental assessment, the design of the Scheme has evolved. It focuses on the following principal elements of the proposal's evolution:
- design objectives
  - technology options
  - use
  - scale and amount
  - appearance
  - environmental mitigation and enhancement measures
  - Access; and
  - compliance with the Horlock Rules.

### Design Objectives

- 4.9.2 Due to the nature of the Scheme and the need to ensure operational stability, security and safety, there is limited flexibility in terms of design, architecture and the selection of materials relative to other types of development. This is expressly recognised in NPS EN-5 (DESNZ, 2024a) which states at paragraphs 2.4.3 to 2.4.4 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.*

*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 (particularly those detailed in Section 2.9 below) – the functional performance of the infrastructure in respect of security of supply and public and occupational safety must not thereby be threatened’.*

4.9.3 In this regard, the GIS substation and other buildings associated with the Scheme have been designed in accordance with National Grid Technical Specification.

4.9.4 Notwithstanding the limited flexibility associated with the design of substations, the Scheme has had regard to the design principles established in the Development Plan, national planning policy and the Horlock Rules, and opportunities to positively shape the proposal, informed by the site’s context and constraints as well as the views of stakeholders, have informed the design process. In this context, the following key design objectives have underpinned and guided the evolution of the design of the Scheme:

- To avoid internationally and nationally designated areas of the highest amenity, cultural, heritage or scientific value.
- To deliver, where possible, environmental enhancement including a net gain in biodiversity.
- To conserve, and where possible enhance, local features of historic and landscape importance.
- To minimise the land required for the Scheme.
- To minimise harm to the Green Belt where possible.
- To ensure that there is no unacceptable impact on neighbouring amenity.
- To propose lighting appropriate to the Site’s context.
- To ensure that the Scheme minimises as far as is practicable greenhouse gas emissions and is climate change resilient.
- To locate the new substation in close proximity to the existing 400kV overhead line network to minimise the need for additional, ancillary infrastructure.
- To maintain suitable separation distances between built development and sensitive ecological features (trees/woodlands, ancient woodlands, ditches, hedgerows) where possible.
- To provide a safe and suitable access to the proposed substation.

## Technology Options

4.9.5 There are two technology options available when designing a substation. These are:

- Air Insulated Switchgear (AIS); and
- Gas Insulated Switchgear (GIS).

- 4.9.6 Both AIS and GIS substations contain the same compartments and components as each other; the main difference lies with the means of insulation. An AIS system largely utilises air as an insulator between electrical conductors and earth whilst GIS substations are self-contained systems that largely use a gas with much better insulating properties than air as an insulator. AIS substations are the most common type, accounting for more than 70 per cent (including the existing Brinsworth Substation) all over the world. GIS solutions allow the high voltage equipment to be much closer to each other, enabling the substation to have a much smaller footprint than an AIS solution, reducing its potential environmental impacts.
- 4.9.7 At the time of the public consultation on the Scheme it was envisaged that an AIS 400kV substation would be developed at Long Lane occupying an area of approximately 380m x 200m.
- 4.9.8 Following review of environmental constraints associated with the Site and its environs a GIS (as opposed to AIS) substation, technological solution was adopted for the new substation. The initial design proposed was in line with the policy position, selected as AIS.
- 4.9.9 Land/ground risk and technical complexity due to topography was also a key consideration and decision factor in reviewing the switchgear technology. Therefore, an AIS vs GIS review was carried out, as moving to a GIS substation greatly reduces the land/ground risks identified.
- 4.9.10 The following section of the PDAS describes the design of the Scheme in terms of use, layout, scale and amount, appearance, landscaping and ecological enhancement and access.

## Use

- 4.9.11 The proposed use of the Site is for the construction and operation of the new 400kV substation. The substation is to upgrade the existing transmission network to maintain system compliance and prevent overloading circuits as they transport the generated energy.
- 4.9.12 The Scheme will support the UK's net zero target by adding capacity to accommodate increasing power flows of energy generated mostly from offshore wind, in Scotland and North East England, which is expected to double within the next ten years, to areas of demand south to the Midlands and beyond. By reinforcing the network in the centre of the country, the Scheme would facilitate the connection of more renewable and low-carbon electricity, to allow clean green energy to be carried around the network.

## Layout

- 4.9.13 The proposed works in its entirety comprises:
- New GIS 400kV substation located within a compound measuring approximately 252m x 196m. This will include:
    - Six overhead line gantries;
    - protection isolation equipment;
    - substation plant;

- new 400kV substation control infrastructure.
- The substation electrical plant required for the safe and efficient operation of the electrical transmission network, providing protection, control and resilience. This plant includes:
  - GIS;
  - Gas Insulated Busbar (GIB) connecting the GIS to other plant;
  - Capacitor Voltage Transformers;
  - CSEs;
  - earth switches;
  - surge arresters;
  - diesel generator for emergency backup power; and
  - protection isolation equipment.
- Three permanent buildings:
  - new 400kV GIS building measuring 6.5m to 77m long, 2.5m to 24m wide and 4.5m to 14.5m in height; and
  - small storage unit and a workshop building, each measuring 6.5m long by 2.5m wide with a height of 4.5m.

These buildings will use pre-fabricated modular construction comprising a steel frame and metal cladding.

- Creation of a new access road from Long Lane and the provision for the parking of six vehicles, including two electric vehicle parking spaces within the site compound.
- Welfare facilities, including toilets and showers, will be located within the GIS building.
- Compound will be surrounded by a 2.4m high palisade security fence with a 4m high electric pulse fence installed to the rear of the palisade fence to secure the Site and prevent trespassers, including CCTV surveillance.
- Water tower measuring approximately 4.6m tall with a diameter of 6.1m (dimensions are subject to detailed design).
- Surface water drainage works including the creation of two sustainable drainage attenuation ponds.
- Cut and fill earthworks to create a development platform for the substation.
- A separate DNO (Northern Powergrid) auxiliary supply (800-1,000kVA) substation.

4.9.14 The separate DNO (Northern Powergrid) auxiliary supply (800-1,000kVA) substation will be provided as part of the Scheme. This will comprise a small building housing a transformer, located within the Scheme boundary and immediately adjacent west of the National Grid substation perimeter. It would be enclosed within a separate security fence under the responsibility and control of the DNO.

- 4.9.15 While AIS technology is a mature and proven approach, its deployment in this location is significantly prevented by land availability, environmental considerations, and limited scalability. In contrast, the preferred GIS solution presents a more robust and future-proof option. It avoids conflicts with statutory land-use stakeholders, and simplifies construction by reducing site footprint and complexity.
- 4.9.16 The GIS technology proposed at Long Lane Substation allows electrical equipment to be placed closer together compared with conventional AIS, due to its use of insulating gas. As a result, the overall footprint of the substation is reduced, albeit the need for the required separation distances still limits the flexibility in terms of reducing the footprint further.
- 4.9.17 The Site will be subject to cut and fill earthworks to create a suitable level development platform with a 1 in 30 slope on the western 'fill side' and level platform on the 'cut' side. The cut and fill 'batter' would typically be a minimum of 1:3. The assumption is that excavated materials can be retained on site and reused for landscaping purposes. The proposed earthworks would take place outside of the floodplain.
- 4.9.18 Permanent surface water drainage systems will be installed across the substation compound. Two sustainable drainage attenuation ponds will be provided in the north western corner of the Scheme, as per the following:
- The northern attenuation pond will have a storage volume of 1,507m<sup>3</sup>, a total pond depth of 1.5m, and pond earthwork side slopes of 1:3.
  - The southern attenuation pond will have a storage volume water of 160m<sup>3</sup>, a total pond depth of 1.2m, and pond earthwork side slopes of 1:3.
- 4.9.19 Surface water runoff from hardstanding areas (control building, internal substation compound access roads and car park areas) will be collected by filter drains and attenuated in the northern pond. The southern pond will attenuate surface water runoff from the main access road. The two ponds will outfall into a proposed open water ditch, culverted for a short section under the access road from Long Lane, which in turn will discharge into an existing watercourse at Long Lane.
- 4.9.20 Surface water runoff from the substation compound gravel areas and the earthworks will be drained via a separate filter drain system, outfalling to an open ditch on the western side of the substation. In turn this drain discharges into the existing watercourse at Long Lane.
- 4.9.21 In addition to the two ponds, filter drainage systems, open ditch and culverts, an existing watercourse running across the south western corner of the Site will be diverted further to the south. The proposed alignment of this diversion is subject to a flood risk assessment and detailed design of the earthworks for the substation.

## Scale and Amount

- 4.9.22 The total Site area is 18ha. The proposed substation will be located within a fenced compound of approximately 49,390m<sup>2</sup>.
- 4.9.23 The 400kV GIS building will be located towards the centre of the proposed substation compound. The building is approximately 77m long by 24m wide and 14.5m high from ground level.

- 4.9.24 A small workshop building and separate storage unit will also be located on the Site. Both buildings will be 6.5m long by 2.5m wide with a height of 4.5m.
- 4.9.25 A DNO substation building, measuring approximately 4m by 3m and 3m high.
- 4.9.26 The site entrance will have airlocked security entrance gates and the proposed substation compound will be enclosed by a 2.4m high palisade fence with a pulse electric fence backing 4.0m from the ground.
- 4.9.27 Six overhead line gantries will be constructed, four at the north side and two at the south side of the proposed substation. The gantries will be approximately 12.5m high. The four northern gantries will tie into the two new overhead line pylons to the north of the proposed substation and the two southern gantries will tie into an overhead line pylon to the south.
- 4.9.28 A water tower measuring approximately 4.6m tall with a diameter of 6.1m will be located within the compound. The finish, colour and dimensions are subject to detailed design.

## Appearance

- 4.9.29 Due to engineering and safety requirements associated with electricity infrastructure, there is little flexibility in terms of the appearance of the proposed substation.
- 4.9.30 The GIS, workshop and store buildings will be of steel portal frame construction on a concrete base with a profile of steel cladding to reduce contrast, minimise visual impact and aid assimilation with the colours of the wider landscape. The GIS building will be designed to comply with the suite of National Grid Technical Specification, European Standards and National Annexes, British Standards and Codes of Practice, as appropriate. Additionally, National Grid (2014a) Technical Specification TS 2.10.10 - GIS and Other Substation Buildings Design which includes compliance with Eurocodes such as BS EN 1990 to BS EN 1999 have also been incorporated.
- 4.9.31 The DNO building will be of either prefabricated Glass Reinforced Plastic (GRP) or red brick construction, depending on DNO specifications.
- 4.9.32 The 400kV GIS substation will adopt an SF6-free solution to significantly reduce carbon emissions. Where possible, low-carbon materials (e.g. low carbon concrete) will be used to further minimise emissions associated with the Scheme and materials/equipment will be sourced from existing National Grid assets and from local suppliers where possible.
- 4.9.33 There is no scope to vary the colour and finish of the electrical equipment inside the GIS hall. Modular steel fabricated building and cladding for the buildings are typically specified in standard industrial finishes (such as metal sheeting), which are selected to minimise maintenance and withstand environmental exposure. External steel support structures and enclosures would be finished in galvanised steel or appropriate protective coatings.
- 4.9.34 For the GIS control building, there is scope for variation in the external finishes. Buildings must be located with due consideration for access, maintenance, and operational clearance. These buildings are expected to be modular steel-fabricated with metal sheet cladding for the GIS hall but may allow variations in colour to suit the surrounding landscape.

- 4.9.35 There is no scope to vary the colour and finish of the electrical equipment needed. Typically, busbars and clamps are manufactured from aluminium (dull silver grey). Insulators are either porcelain (usually reddish brown/grey) or silicone (usually grey) and the manufacturers of equipment vary in their preference. Steel support structures within the compound would be left in a galvanised finish (dull silver grey) to avoid maintenance requirements in close proximity to 'live' equipment.

## Lighting

- 4.9.36 Exterior and interior lighting would be provided at the site to allow for safe movement and the operation (and maintenance) of equipment. Lighting columns would typically be 12.5 m tall. All lighting would be designed in accordance with the appropriate design standards. The position of lighting columns would be subject to detailed design and would be determined by safety and operational requirements. Lighting would be directional and is intended to support safe movement of pedestrians and vehicles around the site (and minimise light spill to the local environment). The lighting would therefore not be on by default, and only whilst there are activities happening at the site as dictated by operational requirements. Additional task lighting may be required when undertaking specific maintenance activities. Details of the lighting lux levels are provided on Drawing PDD-203717-LAY-431 (External Lighting Plan).

## Landscaping and Enhancement

- 4.9.37 The planning application is accompanied by an illustrative landscape mitigation and enhancement plan detailing the planting which is proposed to reduce the landscape and visual impacts of the Scheme. The measures proposed include the following:
- re-instating the existing vegetation to the west of the substation after the completion of works;
  - species rich hedgerow to be planted along the ditch in the south west of the Site, along the eastern side of the new 400kV substation earthworks and also along Footpath 12;
  - shallow rooted hedgerow to be installed after drainage work in the south west of the Site;
  - a woodland block in the south of the Site is proposed to provide screening along the southern Scheme boundary and residences in Guilthwaite;
  - species-rich grassland is to be planted within the western, eastern and northern areas of the Site;
  - amenity grassland is to be planted along the access road into the substation and along the western and southern boundaries of the substation; and
  - a species-rich hedgerow is to be planted in association with the two attenuation ponds in the north of the Site.
- 4.9.38 The landscape mitigation proposals are presented on drawing 30184504-ARC-XX-LAN-DWG-00002.
- 4.9.39 The proposed landscaping mitigation measures will contribute towards the proposed scheme exceeding a +10 per cent Biodiversity Net Gain. The Biodiversity Net Gain Report submitted with the planning application has calculated the biodiversity value

of the habitat that will be lost as a result of the Scheme and measures are proposed to offset these impacts.

## Access

### Internal access, circulation and parking

- 4.9.40 The proposed internal road and pedestrian area layout for the substation compound has been designed to allow the safe movement of vehicles and pedestrians and had regard for relevant health and safety legislation and good industry practice. The site access roads are designed to allow for maintenance access around the substation. The internal access roads will be 6m wide and surfaced with tarmac.
- 4.9.41 Car parking is to be provided to the west of the GIS building, with provision of six parking spaces including two electric vehicle parking spaces for visitors and National Grid staff.

### Access from Long Lane

- 4.9.42 The Site will be accessed via a new access from Long Lane on the western side of the Site. Vehicles will travel along the A631, then Long Lane before entering the Site.
- 4.9.43 Within the Site entrance off Long Lane, an access road will be constructed running south east where it will split off in two directions through the proposed substation.
- 4.9.44 The substation design will include a dedicated car parking area to accommodate staff, visitors, and maintenance personnel. The parking design ensures safe and convenient access to the control building and other key facilities. In line with modern sustainability practices, the parking area will also be equipped with Electric Vehicle (EV) charging points to support the use of low-emission transport by employees and visitors. The substation would be unmanned on a permanent basis with regular maintenance visits to the substation.

### Public Rights of Way

- 4.9.45 Whiston Footpath 10 will need to be slightly realigned along the south western side of the proposed substation due to the proposed earthworks but will broadly maintain its existing west to east alignment. The PRoW will be appropriately screened and will be located outside the security fencing of the substation.

## 4.10 Compliance with the Horlock Rules

- 4.10.1 As set out in Section 2.6, the Horlock Rules provide guidelines for the siting and design of new substation. 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 overhead lines.*' Accordingly, the Horlock Rules have been an important consideration in the design and siting of the proposed substation. A summary of how the design and siting of the proposed substation has met the Horlock Rules is presented in Table 4.1.

Table 4.1 Accordance with the Horlock Rules

| Horlock Rules                                                                                                                                                                                                                                                                                                                            | How the Scheme is in accordance with the Horlock Rules                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>Rule 1:</p> <p>In the development of system options including new substations, consideration must be given to environmental issues from the earliest stage to balance the technical benefits and capital cost requirements against the consequential environmental effects, in order to avoid as far as possible adverse effects.</p> | <p>Environmental issues were a key factor in the site selection process. In this regard, the site selection process considered environmental constraints associated with the identified areas of search and potential preferred siting options in respect of (inter alia) biodiversity, Green Belt, landscape and visual, cultural heritage, flood risk and air quality.</p> <p>Environmental considerations have also influenced the selection of the preferred access option, technological solution and mitigation and enhancement measures, as detailed in the sections above.</p> <p><b>Overall, the Scheme is in accordance with Rule 1.</b></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <p>Rule 2</p> <p>The siting of substations, sealing end compounds and line entries should seek to avoid areas of the highest amenity, cultural or scientific value by the overall planning of the system connections.</p>                                                                                                                | <p>The Site is not within, nor does it contain, any international or national environmental designations. The environmental assessments submitted with the planning application also confirm that the Scheme will not have any significant adverse effects on internationally or nationally designated sites or assets, including in respect of ecology, landscape and the historic environment.</p> <p><b>Overall, the Scheme is in accordance with Rule 2.</b></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <p>Rule 3</p> <p>Areas of local amenity value, important existing habitats and landscape features should be protected as far as reasonably practicable.</p>                                                                                                                                                                              | <p>Catcliffe LNR is approximately 1.8km south west of the Site. Land designated as Whiston Meadows Local Wildlife Site (LWS) and deciduous woodland Habitat of Principal Importance in England is also located directly adjacent to the north and west of the Scheme boundary. Eight LWS and two (cLWSs) are located within 2km. No other internationally designated sites are within 5km.</p> <p>The ecological assessment submitted with the planning application highlights that the application site predominantly comprise improved grassland and arable land. There are three hedgerows recorded on site which demarcate the field boundaries. A dry ditch was also identified which runs along the base of one of the hedgerows located to the south of the Site.</p> <p>The loss of this habitat will be offset and the BNG Report has calculated that the Scheme will deliver in excess of 10 per cent net gain in biodiversity.</p> <p>Harm to the Green Belt has also been minimised through the adoption of a GIS-based solution to minimise land take and incorporation of additional planting into the design of the Scheme. Further information relating to the Green Belt impacts of the Scheme and the ‘very special circumstances’ which justify the harm to the Green Belt is set out in the accompanying Planning Statement.</p> |

| Horlock Rules                                                                                                                                                                                                      | How the Scheme is in accordance with the Horlock Rules                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Overall, the Scheme is in accordance with Rule 3.</b>                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <p>Rule 4</p> <p>Siting of substations, extensions and associated proposals should take advantage of the screening provided by landform and existing features and the potential use of site layout and levels.</p> | <p>A key factor in the selection of the Site for locating the new substation was the contained nature of the Site, owing to landform, the presence of existing screening across the Site from residential receptors and strong boundaries afforded by the M1 Motorway and Long Lane.</p> <p>Views towards the Site from many of the residential receptors are at least partially screened by existing blocks of woodland to the north of the Site and along the embankments of the M1 corridor to the south and further obscured by proposed mitigation planting.</p> <p>Additional planting is proposed as part of the Scheme to provide boundary reinforcement and minimise further the landscape and visual effects of the Scheme.</p> <p>The Landscape and Visual Impact Assessment (LVIA) has concluded that the visual impact for residential and recreational receptors will not be significant.</p> <p><b>Overall, the Scheme is in accordance with Rule 4.</b></p>                                                  |
| <p>Rule 5</p> <p>Proposals should keep visual, noise and other environmental effects to a minimum.</p>                                                                                                             | <p>Careful consideration was afforded to the proximity of sensitive receptors, including residential dwellings in order to minimise impacts on amenity.</p> <p>As noted above in respect of Rules 3 and 4, the Scheme will not result in significant adverse effects on visual amenity.</p> <p>Air quality and noise impacts arising from construction activities associated with the Scheme will be managed through the implementation of a CEMP.</p> <p>The substation will be within a building, minimising potential noise emissions during operation. Additionally, the design includes noise enclosures which would be used around the six supergrid transformers (SGTs) to reduce operational noise outside of the site. On this basis, the Noise Impact Assessment submitted with the planning application confirms that noise impacts will not be significant. The operation of the substation will not result in significant emissions to air.</p> <p><b>Overall, the Scheme is in accordance with Rule 5.</b></p> |
| <p>Rule 6</p> <p>The land use effects of proposals should be considered when planning the siting of substations or extensions.</p>                                                                                 | <p>A GIS technological solution has been adopted to minimise land take and, therefore, impacts on land use.</p> <p>The Scheme will result in the loss of agricultural land. The majority of land across the Site is Grade 3b and Grade 4 non-BMV land (moderate quality agricultural land). There is 1.0ha of Grade 2 (very good quality agricultural land) on the Site. An Outline Soil</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |

| Horlock Rules                                                                                                                                                                                                                                                                                         | How the Scheme is in accordance with the Horlock Rules                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                                                                                                                                                                                                       | <p>Management Plan (OSMP) has been prepared and is submitted alongside the EAR submitted as part of the planning application (see Appendix S, Long Lane New 400kV Substation Outline Soil Management Plan).</p> <p>A detailed Soil Management Plan (SMP) will be prepared post planning consent and implemented during construction and operation to protect agricultural land quality and soil resources, ensuring that good practice measures are implemented for soil stripping, stockpiling and reinstatement.</p> <p>The Site is located in a mineral safeguarding zone, likely in relation to the coal in the Middle Pennine Coal Measures (bedrock), however there is evidence that the shallow coal deposits have already been extracted south west and east of the Site. No coal seams are mapped to outcrop where the footprint of the substation is located. Given the footprint of the Scheme, it is considered there will be limited mineral resource loss. Therefore, the impact is considered to be minor adverse with the level of effect considered to be slight adverse.</p> <p><b>Overall, the Scheme is in accordance with Rule 6.</b></p> |
| <p><b>Rule 7</b></p> <p>In the design of new substations or line entries, early consideration should be given to the options available for terminal towers, equipment, buildings and ancillary development appropriate to individual locations.</p>                                                   | <p>The requirement for overhead line works has been kept to a minimum. Indeed, this was a key consideration in determining the preferred site for the proposed substation. Whilst the overhead line works do not form part of the planning application for the Scheme, they have been designed alongside the proposals for the new substation and their associated environmental effects have been considered in the environmental assessments submitted with the planning application.</p> <p><b>Overall, the Scheme is in accordance with Rule 7.</b></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <p><b>Rule 8</b></p> <p>Space should be used effectively to limit the area required for development, consistent with appropriate mitigation measures and to minimise the adverse effects on existing land use and rights of way, whilst also having regard to future extension of the substation.</p> | <p>A GIS technological solution has been adopted to minimise land take and the layout of the Scheme has been carefully considered taking into account the presence of existing boundaries including the M1 motorway.</p> <p>National Grid considers the Scheme represents the minimum amount of land required to accommodate the proposed substation.</p> <p>The substation are being constructed at the maximum allowable gradient, helping to balance cut and fill and supporting natural drainage flow.</p> <p>As set out in respect of Rule 6, the Scheme will not result in significant effects on other land uses.</p> <p>A PRow, Whiston footpath 10, will need to be closed due to safety reasons during construction. Once the</p>                                                                                                                                                                                                                                                                                                                                                                                                                    |

| Horlock Rules                                                                                                                                                                                                              | How the Scheme is in accordance with the Horlock Rules                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                                                                                                                            | <p>construction works are complete, this PRoW will be reopened on a slightly modified alignment.</p> <p>Whiston Footpath 12 will remain open during construction with the proposed separation between public and construction users.</p> <p>Doorstep Walk Number 15 will remain open during construction with the proposed separation between public and construction users.</p> <p><b>Overall, the Scheme is in accordance with Rule 8.</b></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <p>Rule 9</p> <p>Design of access roads, perimeter fencing, earth shaping, planting and ancillary development should form an integral part of the site layout and design to fit in with the surroundings.</p>              | <p>The Scheme includes perimeter fence, the creation of a new access road from Long Lane, as well as planting and ancillary development as appropriate.</p> <p>The design of these Scheme components was carefully considered to minimise adverse environmental impacts.</p> <p><b>Overall, the Scheme is in accordance with Rule 9.</b></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <p>Rule 10</p> <p>In open landscape especially, high voltage line entries should be kept, as far as possible, visually separate from low voltage lines and other overhead lines so as to avoid a confusing appearance.</p> | <p>The LVIA submitted as part of this planning application describes the Site as being located on a plateau, with existing vegetation being predominantly agricultural fields, bounded by incomplete gappy hedgerows.</p> <p>The Site is bound to the north by established broadleaf woodland, which obscures southerly views into the Site from residential development at Whiston beyond. The M1 runs east–west along the southern Scheme boundary, with the highway embankment and roadside vegetation largely obscuring northerly views into the Site. Long Lane runs along the western Scheme boundary, with established roadside vegetation largely obscuring views into the Site from the west. To the east of the Site, there is a mixture of agricultural fields, hedgerows and residential dwellings, with the A618 Pleasley Road beyond.</p> <p>The wider setting to the north and west of the Site is quite developed and urban in nature, characterised by residential and industrial development at Brinsworth and Rotherham, whilst the area to the east and beyond the M1 to the south, is distinctly more rural in nature.</p> <p>The Site is not considered to be within the open landscape due to the existing tree screening and presence of strong boundaries (as described above).</p> <p><b>Overall, the Scheme is in accordance with Rule 10.</b></p> |
| <p>Rule 11</p> <p>The inter-relationship between towers and substation structures and background and foreground</p>                                                                                                        | <p>The Site is not located on a prominent ridge. The ancillary overhead line works associated with the wider Scheme have been kept to a minimum and there will be</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |

| Horlock Rules                                                                                                                                                                                                                                                       | How the Scheme is in accordance with the Horlock Rules                                                                                                                          |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>features should be studied to reduce the prominence of structures from main viewpoints. Where practicable, the exposure of terminal towers on prominent ridges should be minimised by siting towers against a background of trees rather than open skylines.</p> | <p>no net increase in the number of permanent pylons associated with the overhead line modification works.</p> <p><b>Overall, the Scheme is in accordance with Rule 11.</b></p> |

## 5. Planning Policy and Guidance

### 5.1 Introduction

- 5.1.1 This section of the statement reviews the relevant national and local planning policies and guidance that are material to the determination of this application.

### 5.2 Overview

- 5.2.1 Section 70(2) of TCPA 1990 and Section 38 (6) of the Planning and Compulsory Purchase Act 2004 confirm that planning applications must be determined in accordance with the Development Plan unless material circumstances indicate otherwise.

#### Development Plan

- 5.2.2 For the purposes of Section 70(2) of TCPA 1990 and Section 38(6) of the Planning and Compulsory Purchase Act 2004, the statutory Development Plan for the area consists of:
- Rotherham Local Plan Core Strategy 2013-2028 (adopted 2014) (RMBC, 2014);
  - Sites and Policies document (adopted 2018) (RMBC, 2018); and
  - The Barnsley, Doncaster and Rotherham Joint Waste Plan (adopted 2012) (Barnsley Metropolitan Borough Council *et al.*, 2012).
- 5.2.3 In order to be approved for planning permission, the primary test is that the Scheme complies with the Core Strategy (adopted 2014) (RMBC, 2014), Sites and Policies Document (adopted 2018) (RMBC, 2018) and Barnsley, Doncaster and Rotherham joint waste plan (adopted 2012) (Barnsley Metropolitan Borough Council *et al.*, 2012). Where there are no up-to-date policies, reference should be made to the NPPF (MHCLG, 2025).
- 5.2.4 As stated by Paragraph 11 of the NPPF, decision taking *means ‘approving development proposals that accord with an up-to-date development plan’*. Continuing, the NPPF gives context in that, *‘where there are no relevant development plan policies, or the policies which are most important for determining the application are out-of-date’*, permission will be granted unless the NPPF *‘provides a strong reason for refusing the development proposed’* or the *‘adverse impacts of doing so would significantly and demonstrably outweigh the benefits, when assessed against the policies in this Framework taken as a whole’*. In this context, it is important to specifically reference the CS and the Sites and Policies document, both of which contain Green Belt policy that predates the formal recognition of a new land classification, the grey belt (see Section 6.5 for further details).
- 5.2.5 The Development Plan does not contain specific policies relating to the development of new substations; however, a range of policies are relevant to the Scheme.

## **Core Strategy**

- 5.2.6 The Rotherham Local Plan Core Strategy 2013-2028 (CS) (RMBC, 2014) was adopted in September 2014. The CS sets out the high-level strategy and policies to guide how Rotherham will change over the next 15 years.
- 5.2.7 The CS policies of most relevance to the Scheme are summarised in Appendix B.

## **Sites and Policies**

- 5.2.8 The Sites and Policies document was adopted by RMBC on 27 June 2018. The document identifies development sites across the borough to meet the targets set out in the Core Strategy. It also includes detailed policies to guide decisions on planning applications.
- 5.2.9 Those policies that are of relevance are set out in Appendix C.
- 5.2.10 The Sites and Policies Document includes a Policies Map which identifies all Scheme sites, land uses and policy designations in the borough.
- 5.2.11 Within the Sites and Policies Document, the proposed Long Lane Substation Site is indicated as being on the following policy designations which will be considered during planning assessment (those shown as 'd' are directly within the Site, those with 'a' are adjacent):
- The Rotherham Metropolitan Green Belt (d);
  - Coal and Clay Mineral Safeguarding Area - Shallow Coal Fire and Brick Clay Mineral Safeguarding Area (d);
  - Sand and Gravel Mineral Safeguarding Area - Sand and Gravel Mineral Safeguarding Areas (d);
  - Potentially Suitable for Small or Medium Sized Wind Turbine (d);
  - Strategic and Local Green Infrastructure Corridors: GI Strategic Corridor Rother (R011) (d);
  - Extract from South Yorkshire Green Infrastructure Strategy: AI02 (id5) (d);
  - Coal Measure Ecoscape: Coal Measures Ecoscape (CME1) (d);
  - Landscape Character Area Sensitivity: Moderate Landscape Character Area Sensitivity (LCA 5b) (d);
  - Riparian Ecoscape (RE1) (a);
  - Coal Measure Ecoscape (CME1) (d);
  - Living Don Rotherham Rivers - Living Don Masterplan - Sheffield, Rotherham River Don Corridors (SRRD) (a);
  - Statutorily Protected Sites: Blue Man's Bower Moated Site (Scheduled Monument) (a);
  - Conservation Area: Whiston (a);
  - Non-Statutorily Protected Sites: Whiston Meadows (a);
  - LWS: Revel Wood (a); and

- Safeguarded land (Off West Bawtry Road – SL2) (a).

### **Barnsley, Doncaster and Rotherham Joint Waste Plan**

- 5.2.12 The Barnsley, Doncaster and Rotherham Joint Waste Plan was adopted in March 2012 (Barnsley Metropolitan Borough Council *et al.*, 2012).
- 5.2.13 The Joint Waste Plan set out the overall approach to managing waste across Barnsley, Doncaster and Rotherham for the 15 years after its adoption.
- 5.2.14 Those policies of relevance are shown in Appendix D.

## **Material Considerations**

- 5.2.15 The following documents are material considerations in the determination of the application for the Scheme:
- Air Quality and Emissions Supplementary Planning Document (SPD) (RMBC, 2020a);
  - Development in the Green Belt SPD (RMBC, 2023a);
  - Equal and Healthy Communities SPD (RMBC, 2020b);
  - Development Viability SPD (RMBC, 2021a);
  - Natural Environment SPD (RMBC, 2021b);
  - Transport Assessments, Travel Plans and Parking Standards SPD (RMBC, 2021c);
  - Developer Contributions SPD (RMBC, 2023b);
  - Trees SPD (RMBC, 2023c);
  - Preparing a Soil Strategy SPD (RMBC, 2023d);
  - National Planning Policy Framework (NPPF) (Ministry of Housing, Communities and Local Government (MHCLG), 2024a);
  - Planning Practice Guidance (PPG) (MHCLG, various);
  - Overarching National Policy Statement for Energy (EN-1) ('NPS EN-1') (DESNZ, 2024b); and
  - NPS EN-5 (DESNZ, 2024a).
- 5.2.16 National Grid has had due regard to the above SPD's and a summary of each is provided in Appendix E of this PDAS. The NPPF, PPG and relevant NPSs are considered in turn below.

## **5.3 Material Considerations**

- 5.3.1 As a part of the Development Plan, Supplementary Planning Documents (SPD) are to be considered by developers during planning applications. These documents constitute material considerations in the determination process; accordingly, due regard has been given to the relevant SPDs.
- 5.3.2 A summary of these documents, listed below, are provided in Appendix E.

- Air Quality and Emissions SPD
- Development in the Green Belt SPD
- Equal and Healthy Communities SPD
- Natural Environment SPD
- Transport Assessments, Travel Plans and Parking Standards SPD
- Developer Contributions SPD
- Trees SPD
- Preparing a Soil Strategy SPD

5.3.3 The following national policy documents are also considered material considerations in the determination of the Scheme:

- National Planning Policy Framework (NPPF)
- Planning Practice Guidance (PPG)
- Overarching National Policy Statement for Energy (EN1)
- Critical National Priority (CNP) Infrastructure
- National Policy Statement for Electricity Networks Infrastructure (EN5)
- 2025 Consultation on Revisions to Energy National Policy Statements

5.3.4 Other material considerations relevant to the Scheme are outlined below. These considerations establish the international and national imperatives for renewable energy development in response to climate conscious initiatives:

- International Climate Policy Context
- National climate and energy legislation and policy context
- Clean Power 2030 Action Plan: A New Era of Clean Electricity

## National Planning Policy Framework (NPPF)

5.3.5 The National Planning Policy Framework (NPPF), first published in 2012 and most recently revised in December 2024 (a further technical amendment was made in February 2025), sets out the government's planning policies for England and how these are expected to be applied. The NPPF is a material consideration in determining planning applications.

5.3.6 At the heart of the NPPF is a presumption in favour of sustainable development through plan-making and decision-taking. Paragraph 11 sets out that for decision-taking this means:

*'c) approving development proposals that accord with an up-to-date development plan without delay; or*

*d) where there are no relevant development plan policies, or the policies which are most important for determining the application are out-of-date, granting permission unless:*

*i) the application of policies in this Framework that protect areas or assets of particular importance provides a clear reason for refusing the development proposed; or*

*ii) any adverse impacts of doing so would significantly and demonstrably outweigh the benefits, when assessed against the policies in this Framework taken as a whole’.*

- 5.3.7 Paragraph 116 states that ‘*Development should only be prevented or refused on highways grounds if there would be an unacceptable impact on highway safety, or the residual cumulative impacts on the road network, following mitigation, would be severe, taking into account all reasonable future scenarios’.*
- 5.3.8 Paragraph 135, as summarised, states that planning policies and decisions should ensure that developments are designed to function well and enhance the overall quality of their area throughout their lifespan. Developments should be visually attractive through high-quality architecture, thoughtful layouts, and effective landscaping. They must respect local character and history, including the surrounding built environment and landscape, while allowing for appropriate innovation and change. A strong sense of place should be established or maintained by carefully arranging streets, spaces, building types, and materials to create distinctive, welcoming environments for living, working and visiting. Sites should be optimised to support an appropriate mix and amount of development, including green and public spaces, and to enhance local facilities and transport links. Finally, developments should create safe, inclusive, and accessible places that promote health, well-being, and a high standard of amenity for all users, ensuring crime and the fear of crime do not undermine quality of life or community resilience.
- 5.3.9 Paragraph 139 states that development that is poorly designed should be refused, particularly if, after considering relevant local design guidance and supplementary documents such as design codes, it does not align with local design policies or government guidance. In contrast, significant weight should be given to developments that reflect these policies and guidance, as well as to outstanding or innovative designs that promote high sustainability or help elevate design standards in the area, provided they are compatible with the surrounding form and layout.
- 5.3.10 Paragraph 143 of the NPPF sets out that the fundamental aim of Green Belt policy is to prevent urban sprawl by keeping land permanently open; the essential characteristics of Green Belts are their openness and permanence. The NPPF identifies five purposes of including land in Green Belts:
- 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; and
  - to assist in urban regeneration, by encouraging the recycling of derelict and other urban land.
- 5.3.11 Paragraph 148 introduces the concept of the ‘grey belt’ stating that ‘*Where it is necessary to release Green Belt land for development, plans should give priority to previously developed land, then consider grey belt which is not previously developed, and then other Green Belt locations. However, when drawing up or reviewing Green Belt boundaries, the need to promote sustainable patterns of development should*

*determine whether a site's location is appropriate with particular reference to paragraphs 110 and 115 of this Framework. Strategic policy-making authorities should consider the consequences for sustainable development of channelling development towards urban areas inside the Green Belt boundary, towards towns and villages inset within the Green Belt or towards locations beyond the outer Green Belt boundary.'*

- 5.3.12 Paragraph 153 states that *'When considering any planning application, local planning authorities should ensure that substantial weight is given to any harm to the Green Belt, including harm to its openness. 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'*.
- 5.3.13 Footnote 55, linked to Paragraph 153, clarifies that development on Green Belt land that is considered previously developed land or grey belt land is not inappropriate on the basis of its Green Belt designation.
- 5.3.14 The NPPF defines grey belt land as:  
*'For the purposes of plan-making and decision-making, 'grey belt' is defined as land in the Green Belt comprising previously developed land and/or any other land that, in either case, does not strongly contribute to any of purposes (a), (b), or (d) in Paragraph 143. 'Grey belt' excludes land where the application of the policies relating to the areas or assets in footnote 73 (other than Green Belt) would provide a strong reason for refusing or restricting development.'*
- 5.3.15 Paragraph 154 establishes that *'Development in the Green Belt is inappropriate unless one of the following exceptions applies:*  
*a) buildings for agriculture and forestry;*  
*b) the provision of appropriate facilities (in connection with the existing use of land or a change of use), including buildings, for outdoor sport, outdoor recreation, cemeteries and burial grounds and allotments; as long as the facilities preserve the openness of the Green Belt and do not conflict with the purposes of including land within it;*  
*c) the extension or alteration of a building provided that it does not result in disproportionate additions over and above the size of the original building;*  
*d) the replacement of a building, provided the new building is in the same use and not materially larger than the one it replaces;*  
*e) limited infilling in villages;*  
*f) limited affordable housing for local community needs under policies set out in the development plan (including policies for rural exception sites); and*  
*g) limited infilling or the partial or complete redevelopment of previously developed land (including a material change of use to residential or mixed use including*

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<sup>3</sup> Footnote 7 refers to habitats sites and/or designated as Sites of Special Scientific Interest; land designated as Green Belt, Local Green Space, a National Landscape, a National Park (or within the Broads Authority) or defined as Heritage Coast; irreplaceable habitats; designated heritage assets (and other heritage assets of archaeological interest); and areas at risk of flooding or coastal change

*residential), whether redundant or in continuing use (excluding temporary buildings), which would not cause substantial harm to the openness of the Green Belt.*

*h) other forms of development provided they preserve its openness and do not conflict with the purposes of including land within it. These are:*

- i. mineral extraction;*
- ii. engineering operations;*
- iii. local transport infrastructure which can demonstrate a requirement for a Green Belt location;*
- iv. the re-use of buildings provided that the buildings are of permanent and substantial construction;*
- v. material changes in the use of land (such as changes of use for outdoor sport or recreation, or for cemeteries and burial grounds); and*
- vi. development, including buildings, brought forward under a Community Right to Build Order or Neighbourhood Development Order.'*

5.3.16 Paragraph 155 states that *'The development of homes, commercial and other development in the Green Belt should also not be regarded as inappropriate where all the following apply:*

- a. The development would utilise grey belt land and would not fundamentally undermine the purposes (taken together) of the remaining Green Belt across the area of the plan;*
- b. There is a demonstrable unmet need for the type of development proposed;*
- c. The development would be in a sustainable location', with particular reference to paragraphs 110 and 115 of this Framework; and*
- d. Where applicable the development proposed meets the 'Golden Rules' requirements set out in paragraphs 156-157 below.*

5.3.17 Paragraphs 110 and 115 of the NPPF encourage sustainable patterns of development, particularly by promoting sustainable transport, reducing the need to travel, and minimising traffic impacts.

5.3.18 The Scheme would be strategically located near the existing Brinsworth Substation infrastructure, facilitating an efficient connection to the existing transmission network, reducing the requirement for additional overhead lines. Additionally, its close proximity to major road infrastructure would ensure that the transport of components during construction is efficient and minimises disruption to the highway network. The Scheme would generate only limited traffic during the construction phase, with very low levels of traffic during operation, as outlined in the Transport Section of the EAR and accompanying Construction Traffic Management Plan. The Scheme would not generate significant ongoing traffic demand, meaning it fully complies with the aims of Paragraph 155(c).

5.3.19 Paragraph 155 of the NPPF sets out the circumstances in which development in the Green Belt should not be regarded as inappropriate, The Scheme is now assessed under Paragraph 155 of the NPPF, which states that development ("homes, commercial and other development") in the Green Belt should not be regarded as inappropriate if it meets the criteria set out in sub-paragraphs (a) to (d), namely:

*‘a. The development would utilise grey belt land and would not fundamentally undermine the purposes (taken together) of the remaining Green Belt across the area of the plan;*

*b. There is a demonstrable unmet need for the type of development proposed;*

*c. The development would be in a sustainable location, with particular reference to paragraphs 110 and 115 of this Framework; and*

*d. Where applicable the development proposed meets the ‘Golden Rules’ requirements set out in paragraphs 156-157 below.’*

- 5.3.20 Paragraphs 156 and 157 of the NPPF (‘Golden Rules’) relate specifically to major housing development and are not applicable to renewable energy schemes such as this.
- 5.3.21 Paragraph 160 states that *‘When located in the Green Belt, elements of many renewable energy projects will comprise inappropriate development. In such cases developers will need to demonstrate very special circumstances if projects are to proceed. Such very special circumstances may include the wider environmental benefits associated with increased production of energy from renewable sources’.*
- 5.3.22 This planning application is accompanied by a Green Belt Assessment which assesses how the Site meet the NPPF’s definition of grey belt, including how it contributes to the nationally defined purposes of the Green Belt.
- 5.3.23 Paragraph 161 gives support to transitioning to net zero by 2050. To achieve this the planning system should help *‘shape places in ways that contribute to radical reductions in greenhouse gas emissions, minimise vulnerability and improve resilience; encourage the reuse of existing resources, including the conversion of existing buildings; and support renewable and low carbon energy and associated infrastructure’.*
- 5.3.24 Paragraph 165 states that in order to help increase the use and supply of renewable and low carbon energy and heat, plans should in part consider areas for renewable and low carbon sources and supporting infrastructure. Further, opportunities should be identified for development to draw energy supply from renewable or low carbon sources.
- 5.3.25 Paragraph 168 states (in part) that local planning authorities when determining planning applications for renewable or low carbon energy developments and their associated infrastructure should:
- ‘a) not require applicants to demonstrate the overall need for renewable or low carbon energy, and give significant weight to the benefits associated with renewable and low carbon energy generation and the proposal’s contribution to a net zero future’ and*
- ‘c) in the case of applications for the repowering and life-extension of existing renewable sites, give significant weight to the benefits of utilising an established site’.*
- 5.3.26 Paragraph 170 states that development should be avoided when in areas at risk of flooding *‘by directing development away from areas at highest risk (whether existing or future). Where development is necessary in such areas, the development should be made safe for its lifetime without increasing flood risk elsewhere.’*
- 5.3.27 Paragraph 172 states plans should take into account all sources of flood risk and the current and future impacts of climate change by applying a sequential, risk-based

approach to the location of development, so as to avoid, where possible, flood risk to people and property.

5.3.28 Paragraph 173 states that *‘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’*.

5.3.29 Paragraph 175 gives further context, stating 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)’*.

5.3.30 Paragraph 177 provides further detail, stating that *‘Having applied the sequential test, if it is not possible for development to be located in areas with a lower risk of flooding (taking into account wider sustainable development objectives), the exception test may have to be applied. The need for the exception test will depend on the potential vulnerability of the site and of the development proposed, in line with the Flood Risk Vulnerability Classification’*.

5.3.31 Paragraph 181 states that *‘When determining any planning applications, local planning authorities should ensure that flood risk is not increased elsewhere. Where appropriate, applications should be supported by a site-specific flood-risk assessment. Development should only be allowed in areas at risk of flooding where, in the light of this assessment (and the sequential and exception tests, as applicable) it can be demonstrated that:*

*a) within the site, the most vulnerable development is located in areas of lowest flood risk, unless there are overriding reasons to prefer a different location;*

*b) the development is appropriately flood resistant and resilient such that, in the event of a flood, it could be quickly brought back into use without significant refurbishment;*

*c) it incorporates sustainable drainage systems, unless there is clear evidence that this would be inappropriate;*

*d) any residual risk can be safely managed; and*

*e) safe access and escape routes are included where appropriate, as part of an agreed emergency plan.’*

5.3.32 Paragraph 187, as summarised, states that planning policies and decisions should enhance the natural and local environment by protecting and improving valued landscapes, sites of biodiversity or geological importance, and soils, in line with their statutory or identified status. They should recognise the intrinsic character and beauty of the countryside, the benefits of natural capital and ecosystem services, and the value of high-quality agricultural land, trees and woodland. The character of undeveloped coastlines should be maintained, with improved public access where suitable. Development should minimise impacts on biodiversity and deliver net gains, including through resilient ecological networks and features supporting priority species. It should also prevent and mitigate risks from pollution, land instability, and other hazards, aiming to improve local environmental conditions wherever possible.

Additionally, the remediation and mitigation of degraded, contaminated, or unstable land should be undertaken when appropriate.

- 5.3.33 Paragraph 197 states that *'Where a site is affected by contamination or land stability issues, responsibility for securing a safe development rests with the developer and/or landowner'*.
- 5.3.34 Paragraph 198, as summarised, states that planning policies and decisions should ensure that new development is suitable for its location by considering the likely effects, including cumulative impacts, of pollution on health, living conditions, and the natural environment, as well as the sensitivity of the site and surrounding area. This includes minimising and mitigating adverse noise impacts, protecting tranquil areas valued for their peace and recreation, and limiting light pollution to safeguard local amenity, dark landscapes, and nature conservation.
- 5.3.35 Paragraph 215 details that *'Where a development proposal will lead to less than substantial harm to the significance of a designated heritage asset, this harm should be weighed against the public benefits of the proposal including, where appropriate, securing its optimum viable use'*.
- 5.3.36 Paragraph 221 states that *'Local planning authorities should assess whether the benefits of a proposal for enabling development, which would otherwise conflict with planning policies but which would secure the future conservation of a heritage asset, outweigh the disbenefits of departing from those policies'*.
- 5.3.37 Paragraph 225 states that the *'Local planning authorities should not normally permit other development proposals in Mineral Safeguarding Areas if it might constrain potential future use for mineral working'*.

## Planning Practice Guidance (PPG)

- 5.3.38 Planning Practice Guidance (PPG), first published in 2014, provides guidance on planning policy identified in the NPPF.

### Air Quality

- 5.3.39 The PPG for Air Quality was first published on 6 March 2019 and was last updated on 1 November 2019 (MHCLG, 2019a).
- 5.3.40 PPG notes that all development plans can influence air quality in a number of ways, including what development is proposed and where, and the provision made for sustainable transport. The guidance places value in considering air quality issues at the plan-making stage as this can ensure a strategic approach to air quality and help secure net improvements in overall air quality where possible.
- 5.3.41 PPG notes that assessments need to be proportionate to the nature and scale of development proposed and the potential impacts (taking into account existing air quality conditions). The scope and content of supporting information is best discussed and agreed between the LPA and applicant before it is commissioned.
- 5.3.42 PPG states that mitigation options will need to be locationally specific, will depend on the Scheme and need to be proportionate to the likely impact. Further, it is important that LPAs work with applicants to consider appropriate mitigation so as to ensure new development is appropriate for its location, and that unacceptable risks are prevented.

## **Biodiversity Net Gain**

- 5.3.43 The PPG for Biodiversity Net Gain was first published on 14 February 2024 and was last updated on 1 May 2024 (MHCLG, 2024).
- 5.3.44 Under the statutory framework introduced by Schedule 7a of TCPA 1990 (inserted by Schedule 14 of the Environment Act 2021), this objective is for development to deliver at least a 10 per cent increase in biodiversity value relative to the pre-development biodiversity value of the on-site habitat. This increase can be achieved through on-site biodiversity gains, registered off-site biodiversity gains or statutory biodiversity credits.

## **Climate Change**

- 5.3.45 The PPG for Climate Change was first published on 12 June 2014 and was last updated on 15 March 2019 (MHCLG, 2019b).
- 5.3.46 The guidelines reinforce the Climate Change Act 2008 legally binding target to reduce the UK's greenhouse gas emissions by at least 80 per cent by 2050 from 1990 levels.
- 5.3.47 The guidelines states that LPAs can assist in mitigating climate change by reducing emissions. To help achieve this they can provide opportunities for renewable and low carbon energy technologies.

## **Renewable and Low Carbon Energy**

- 5.3.48 The PPG for Renewable and Low Carbon Energy was first published on 18 June 2015 and was last updated on 14 August 2023 (MHCLG, 2023).
- 5.3.49 The guidelines reinforce that planning has an important role in the delivery of new renewable and low carbon energy infrastructure in locations where the local environmental impact is acceptable.

## **National Policy Statements**

- 5.3.50 Whilst the substation proposals at Long Lane will be determined in accordance with TCPA 1990, the NPSs for Energy are a material consideration for this application, which will enable the delivery of specific Nationally Significant Infrastructure Projects (NSIPs) and the overall ambition of the Great Grid Upgrade. Although this project does not meet the qualification criteria for NSIPs it is of national importance.
- 5.3.51 In addition to highlighting the need for electricity infrastructure the NPSs for Energy also contain relevant policy relating to specific considerations in relation to design and functionality of an electricity network that are not reflected in local development plan policy.
- 5.3.52 In January 2024, the DESNZ designated revised NPSs for Energy. The relevant NPSs are:
- NPS EN-1 (DESNZ, 2024b); and
  - NPS EN-5 (DESNZ, 2024a).

## Overarching National Policy Statement for Energy (EN1)

- 5.3.53 Paragraph 3.3.65 of NPS EN-1 states that ‘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.’
- 5.3.54 Paragraph 1.2.1 NPS EN-1 states that ‘*In England, this NPS, in combination with any technology specific NPSs may be a material consideration in decision making on applications that fall under the Town and Country Planning Act 1990 (as amended).*’ The delivery of this project is integral to the delivery of new electricity networks and the urgent need as identified in NPS EN-1 is an important material consideration for this application.
- 5.3.55 NPS EN-1 outlines that aside from connecting new sources of electricity generation with new sources of demand there are other drivers for new electricity network infrastructure. Paragraph 3.3.67 states that ‘*As the electricity system grows in scale, dispersion, variety and complexity, work will be needed to protect against the risk of large-scale supply interruptions in the absence of sufficiently robust electricity networks [...] development of new lines of 132kV (and over 2km) and above will also be necessary to preserve and guarantee the robust and reliable operation of the whole electricity system*’.
- 5.3.56 NPS EN-1 acknowledges that the consenting of onshore reinforcements can take significant time noting at paragraph 3.3.73 that ‘*completion of these onshore reinforcements has often taken longer than the completion of the offshore wind farms for which they are being built*’. As a consequence, delays could present a material barrier to the delivery of the government ambition to deliver up to 50GW of offshore wind by 2030. Furthermore, paragraph 3.3.79 outlines that ‘*delays in the approval of associated new network developments could cause significant economic waste and set back the strategically vital goals of decarbonisation and energy security*’.
- 5.3.57 In applying EN-1 and EN-5 to the planning balance, substantial weight should be afforded to the urgent national need for new and reinforced electricity transmission infrastructure identified within those policy statements. EN-1 confirms that the need for additional electricity network capacity is immediate and significant to maintain security of supply and enable the transition to net zero, while EN-5 reiterates that reinforcement and expansion of the transmission system are critical national priorities. The Scheme directly supports these objectives by facilitating the transfer of low-carbon generation and strengthening the resilience of the national grid in northern England. Accordingly, when balancing local planning considerations against potential environmental or amenity effects, the Scheme’s contribution to nationally critical energy objectives should attract substantial positive weight, consistent with the national policy framework and the government’s overarching energy strategy.
- 5.3.58 NPS EN-1 emphasises the significance of delivering high quality energy infrastructure to uphold its dedication to reaching Net Zero while guaranteeing the UK maintains a secure, dependable, and cost-effective energy provision. NPS EN-1 outlines the government’s strategy for executing crucial energy infrastructure projects in England and Wales. It affirms the substantial requirement to introduce new energy

infrastructure for supporting economic growth, boosting productivity, enhancing competitiveness, supporting social well-being and decarbonising the energy system to meet the government's net zero targets.

### **Critical National Priority (CNP) Infrastructure**

- 5.3.59 The need for nationally significant low carbon infrastructure is further reinforced by the Government's conclusion that there is a critical national priority (CNP) for its provision (Paragraphs 3.3.62 and 4.2.4 of NPS EN-1).
- 5.3.60 Although the project itself is not defined as an NSIP it is a crucial part in enabling NSIP projects and delivering the overarching Great Grid Upgrade. The policy relating to CNP is therefore a material consideration insofar as the NPS is material and relevant to this TCPA application.
- 5.3.61 Paragraph 3.3.63 of NPS EN-1 states that "*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*". This helps to reinforce the importance of delivering low carbon infrastructure by recognising that the need for it is so critical that the benefits will generally outweigh any residual adverse impacts in all but the most exceptional circumstances.
- 5.3.62 Paragraph 3.2.70 recognises that the grid is a network and that all parts of that network have an important role in delivering new electricity networks: "*As all new grid projects have a role in efficiently constructing, operating and connecting low carbon infrastructure to the National Electricity Grid, the scope of networks CNP infrastructure is not limited to those associated specifically with a particular project*".
- 5.3.63 As set out in Paragraph 4.2.16 of EN-1, '*the Secretary of State will take as the starting point for decision-making that such [CNP] infrastructure is to be treated as if it has met any tests which are set out within the NPSSs, or any other planning policy, which requires a clear outweighing of harm, exceptionality or very special circumstances.*' This means that the Secretary of State will take as a starting point that CNP Infrastructure will meet the non-exhaustive list of tests (as set out in paragraph 4.2.17).
- 5.3.64 Although the proposed 400kV substation at Long Lane is being consented under the Town and Country Planning Act 1990 rather than as a Development Consent Order under the Planning Act 2008, the definition of CNP is considered to be a material consideration in the determination of this planning application.
- 5.3.65 The Long Lane Substation forms part of National Grid's wider transmission reinforcement strategy identified through the Electricity System Operator's Holistic Network Design (HND) and subsequent Centralised Strategic Network Plan (CSNP), which together set out nationally critical reinforcements required to connect new offshore generation and strengthen the onshore 400kV network. The proposed substation provides a vital node in this system, supporting the transfer of renewable generation and system resilience across northern England. Consequently, substantial weight should be afforded to the national need and strategic importance of the development, consistent with the approach in EN-1 and EN-5, irrespective of the consenting route.

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

- 5.3.66 NPS EN-5 (DESNZ, 2024a) was designated in January 2024. Although the primary purpose of EN-5 is to be applied to decisions for Nationally Significant Infrastructure Projects (NSIPs), it is also a material consideration in the determination of planning applications for energy infrastructure.
- 5.3.67 NPS EN-5 applies to electricity networks in England with a voltage of 132kV or higher which are carried on towers/poles or buried underground, as well as associated infrastructure including substations.
- 5.3.68 Emphasising the crucial role of electricity networks in bolstering the new electricity generation infrastructure necessary for the UK's transition to net zero, NPS EN-5, in paragraph 1.1.5, reaffirms the government's stance on CNP Infrastructure, stating:
- '...government has concluded that there is a critical national priority (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. These are viewed by the government as being CNP infrastructure and should be progressed as quickly as possible'*
- 5.3.69 Paragraphs 2.4.3 to 2.4.4 state 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.*
- 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 (particularly those detailed in Section 2.9 below) – the functional performance of the infrastructure in respect of security of supply and public and occupational safety must not thereby be threatened'.*
- 5.3.70 At paragraphs 2.2.1 to 2.2.2, NPS EN-5 states:
- '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.*
- 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'.*
- 5.3.71 With specific regard to substations, paragraphs 2.2.8 to 2.2.9 of NPS EN-5 state that:
- 'There will usually be a degree of flexibility in the location of the development's associated substations, and applicants should consider carefully their location, as well as their design. In particular, the applicant should consider such characteristics*

*as the local topography, the possibilities for screening of the infrastructure and/or other options to mitigate any impacts’.*

- 5.3.72 At paragraph 2.9.18, reference is made to the Horlock Rules, whereby its principles should be embodied in applicants’ proposals for the infrastructure associated with new overhead lines.

### **2025 Consultation on Revisions to Energy National Policy Statements**

- 5.3.73 In April 2025, the government launched a consultation on proposed changes to EN-1 and EN-5 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); and
  - Draft National Policy Statement for Electricity Networks Infrastructure (EN-5) (DESNZ, 2025b).
  - Draft National Policy Statement for Renewable Energy Infrastructure (EN-3) (DESNZ, 2025c).
- 5.3.74 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.
- 5.3.75 The Clean Power Report explicitly identifies the Brinsworth to Chesterfield (and Chesterfield to High Marnham) project as one of four schemes which will provide significant additional capacity on the network to facilitate flow from north to south. The Brinsworth to Chesterfield project needs to be delivered by 2030 to enable an affordable and secure clean power system.
- 5.3.76 The emerging draft of EN-1 reinforces the approach taken by National Grid 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 per cent 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 this PDAS.
- 5.3.77 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, climate resilience and the mitigation hierarchy. The EAR is considered to be in compliance with these emerging draft NPSs.

## **5.4 Other Material Considerations**

### **International Climate Policy Context**

- 5.4.1 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.

- 5.4.2 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 (UNFCCC) 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.
- 5.4.3 The Conference of Parties (COP26) held in Glasgow in 2021 agreed on accelerated action on climate change this decade, 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 carbon dioxide emissions by 45 per cent by 2030 relative to the 2010 level and to net zero around mid-century'*.
- 5.4.4 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.
- 5.4.5 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.
- 5.4.6 At the 2024 United Nations Climate Change Conference (COP29) held in Baku, Azerbaijan, the United Kingdom made significant commitments to address climate change which included:
- Enhanced Emission Reduction Target: The UK announced a new Nationally Determined Contribution, pledging to reduce greenhouse gas emissions by 81 per cent by 2035 compared to 1990 levels. This target reflects an increase from the previous goal of a 78 per cent reduction and aligns with recommendations from climate advisers.
  - 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.
  - 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**

- 5.4.7 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.
- 5.4.8 Through the Climate Change Act 2008, 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 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 Committee on Climate Change's Adaptation Committee advises on these climate change risks and assesses progress towards tackling them.

- 5.4.9 The Climate Change Act 2008 originally committed the UK to reducing its greenhouse gas emissions by 80 per cent by 2050, compared to 1990 levels. However, in 2019 this was changed to a target to reduce greenhouse gas emissions by 100 per cent by 2050, compared to 1990 levels; this is commonly known as ‘net zero’.
- 5.4.10 In recent years there has been a succession of reports, strategies and policy 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 Scheme would contribute to fulfilling the aims of these strategies, demonstrating its national importance and need. These include the following:
- **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 (DESNZ, Department for Business, Energy & Industrial Strategy (BEIS), 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, promoting electric vehicles and boosting green transport.
  - **November 2020:** National Infrastructure Strategy: Fairer, Faster, Greener (HM 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 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 climate goals whilst simultaneously providing energy security and securing greater energy independence.
  - **September 2022:** The Growth Plan 2022 (HM Treasury, 2022) included measures to support the 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 (Department for Environment, Food and Rural Affairs (Defra), 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:** 2023 Progress Report to Parliament (Climate Change Committee, 2023): 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.
- **January 2024:** DESNZ designated revised National Policy Statements (NPSs) for energy. The two most relevant NPSs are:
  - NPS EN-1 (DESNZ, 2024b); and
  - NPS EN-5 (DESNZ, 2024a).
- **March 2024:** Beyond 2030: A National Blueprint for a Decarbonised Electricity System in Great Britain (National Grid ESO, 2024a). 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 Scenarios: ESO Pathways to Net Zero (National Grid ESO, 2024b).
- **November 2024:** NESO Clean Power 2030: Advice on achieving clean power for Great Britain by 2030 (NESO, 2024).
- **December 2024:** Clean Power 2030 Action Plan: A new era of clean electricity (DESNZ, 2025c). 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, 2025) provides a 10-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.

- 5.4.11 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.
- 5.4.12 More recently the government has had an ambition for Great Britain to be supplied with clean power by 2030. <sup>4</sup>This forms part of a plan to Make Britain a Clean Energy Superpower (Prime Minister’s Office, n.d.). To achieve the Clean Power 2030 goal the NESO was formally commissioned by the Secretary of State and DESNZ to provide independent advice on the pathway towards the 2030 ambition. The following reports have subsequently been released:
- Clean Power 2030; and
  - Clean Power 2030 Action Plan: A New Era of Clean Electricity; Clean Power 2030.
- 5.4.13 In November 2024 the UK’s NESO published its independent analysis on how the Department for Energy Security and Net Zero (DESNZ) can achieve its ambitious Clean Power (CP2030) goal.
- 5.4.14 In the Clean Power 2030 report, NESO (2024) set 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 per cent. New dispatchable low carbon technologies, such as 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.
- 5.4.15 Associated with 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. The Long Lane Substation proposal, forms part of the Brinsworth to Chesterfield project which is specifically referenced in NESO’s Clean Power 2030 Reports one of four schemes which will provide significant additional capacity on the network to facilitate flow from north to south. The Brinsworth to Chesterfield project needs to be delivered by 2030 to enable an affordable and secure clean power system.
- 5.4.16 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.

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

- 5.4.17 Following the publication of the NESO (2024) 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 setting targets required to achieve

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<sup>4</sup> Available to view at: [Make Britain a Clean Energy Superpower - GOV.UK](https://www.gov.uk/missions/clean-energy) <https://www.gov.uk/missions/clean-energy>

clean power by 2030. The Clean Power 2030 Action Plan (DESNZ, 2025c) 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.

- 5.4.18 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 per cent of Great Britain's generation; reducing the carbon intensity of the nation's generation from 171gCO<sub>2</sub>e/kWh in 2023 to well below 50gCO<sub>2</sub>e/kWh in 2030.
- 5.4.19 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; and
  - 45-47 GW of solar power.
- 5.4.20 These will be complemented by flexible capacity, including 23-27GW of battery capacity and 4-6GW of long-duration energy storage.
- 5.4.21 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.

## 5.5 Summary

- 5.5.1 The review of the policy context for the Scheme presented in this section has established that:
- Section 70(2) of TCPA 1990 and Section 38 (6) of the Planning and Compulsory Purchase Act 2004 confirm that planning applications must be determined in accordance with the Development Plan unless material circumstances indicate otherwise.
  - The development plan for the purposes of the Long Lane Substation includes:
    - Rotherham Local Plan Core Strategy 2013-2028 (adopted 2014) (RMBC, 2014);
    - Sites and Policies document (adopted 2018) (RMBC, 2018); and
    - The Barnsley, Doncaster and Rotherham Joint Waste Plan (adopted 2012) (Barnsley Metropolitan Borough Council et al., 2012).
    - SPD's summarised in Appendix E.
  - For the purposes of Paragraph 11 of the NPPF specific development plan policies relating to development in the Green Belt are considered out of date following the publication of the December 2024 iteration of the NPPF.

- the NPPF establishes a presumption in favour of sustainable development, sets out that significant weight should be placed on the need to support economic growth and productivity and requires that planning decisions should address the locational requirements of different sectors;
- infrastructure, including energy infrastructure, investment is a key pillar underpinning the government's wider economic policies and objectives;
- there is a recognised, urgent need for new electricity transmission and distribution infrastructure in the UK. The Long Lane Substation proposal, forms part of the Brinsworth to Chesterfield project which is specifically referenced in NESO's Clean Power 2030 Reports one of four schemes which will provide significant additional capacity on the network to facilitate flow from north to south. The Brinsworth to Chesterfield project needs to be delivered by 2030 to enable an affordable and secure clean power system.
- Although the application will be determined in accordance with TCPA 1990, the NPSs for Energy are a material consideration for this application, which will enable the delivery of NSIPs (which are recognised as having a critical national priority) and the Great Grid Upgrade.

5.5.2 The determination of this planning application against the development plan and other identified material considerations should be made in the context of the urgent need to deliver this infrastructure upgrade.

# 6. Planning Assessment

## 6.1 Introduction

- 6.1.1 Section 70(2) of TCPA 1990 and Section 38 (6) of the Planning and Compulsory Purchase Act 2004 establish that planning applications should be determined in accordance with the Development Plan unless material circumstances indicate otherwise.
- 6.1.2 The principle of a presumption in favour of granting permission for developments which are in accordance with the development plan has been developed and clarified by subsequent appeal history and case law, which has confirmed that a particular proposal does not need to accord with each and every policy in a development plan, rather that it accords with the overall thrust of development plan policies taken as a whole.
- 6.1.3 The primary consideration for decision making is that the Scheme consistent with the Core Strategy (adopted 2014) (RMBC, 2014), Sites and Policies Document (adopted 2018) (RMBC, 2018) and Barnsley, Doncaster and Rotherham Joint Waste Plan (adopted 2012) (Barnsley Metropolitan Borough Council et al., 2012) having regard to other material considerations - which as set out in Chapter 5 of this report include various local supplementary planning guidance, the NPPF and the NPSs for Energy.
- 6.1.4 NPPF policies are particularly relevant where, in the case of Green Belt policy, the latest Government position (i.e. the introduction of the principle of grey belt) is not reflected in development plan policy which predates the latest NPPF.
- 6.1.5 NPS policy is relevant in highlighting the urgent need for energy infrastructure which, whilst not defined as an NSIP, this application will deliver – including enabling other nationally significant projects.
- 6.1.6 This section identifies those issues anticipated to be material considerations in the determination of the planning application and assesses them in the context of the policy environment discussed. The main planning issues raised by this application are considered within the remainder of this section under the following headings. Each section contains a summary of review and reports undertaken for each respective topic to assist in navigation and understanding of the wider environmental reports:
- Principle of the Development;
  - Design overview;
  - Ecology (including Arboriculture);
  - Green Belt and grey belt;
  - Landscape and Visual Character;
  - Historic Environment;
  - Traffic and Transport;
  - Air Quality;
  - Noise and Vibration;

- Land and Ground Conditions;
- Minerals safeguarding;
- Water Resources and Flood Risk; and
- Socioeconomics and Human Health.

## 6.2 Principle of the Scheme

- 6.2.1 National Grid as a statutory undertaker has a statutory responsibility to meet the needs of the modern economy in supplying electricity to the regional DNOs and end users including industrial, business and domestic users.
- 6.2.2 The delivery of the Scheme would enable National Grid to fulfil its statutory obligations to provide a secure, reliable and efficient electricity supply, while also strengthening its capacity to meet both current and future customer demand. This will be achieved through the delivery of essential infrastructure, specifically, the elements included within this planning submission, such as new substations, upgraded transmission lines and the associated reinforcement of other proposed network assets. These improvements are designed not only to enhance the resilience and flexibility of the electricity network, making it better able to withstand fluctuations in demand and supply, but also to facilitate the transition to a low-carbon energy system.
- 6.2.3 By providing the necessary capacity and technical capability to integrate increased volumes of renewable and low-carbon energy sources, the Scheme will directly support the decarbonisation of the electricity sector. This is a fundamental component of the government's broader climate and sustainability agenda, including the statutory commitment to achieve Net Zero Carbon emissions by 2050. Furthermore, at the national policy level, there is unambiguous support for critical infrastructure projects of this kind. Such projects are explicitly recognised as essential for maintaining energy security, supporting economic growth, and enabling the UK's transition to a sustainable and resilient low-carbon energy future.
- 6.2.4 The Development Plan does not contain explicit policy relating to the development of new substations. However, Section 3 of the CS identifies that the Borough must encourage renewable energy projects. Continuing, Objective 13 of the CS states that RMBC supports the development for renewable and low carbon energy generation to help bolster the borough's renewable infrastructure, *'By the end of the plan period, the borough's carbon footprint will have been reduced from current levels. Implementation of the Plan's policies will have secured an increased proportion of energy generation via renewable and low carbon means and will have promoted energy efficiency, energy conservation and the use of sustainable construction techniques'*. Renewable energy development in this context includes utilities assets such as new substations and on this basis, the CS provides general support for infrastructure such as the Scheme to help alleviate current issues and provide a cleaner, climate friendly future.
- 6.2.5 As noted above, although the proposed 400kV substation at Long Lane is being consented under the TCPA 1990 rather than as a Development Consent Order under the Planning Act 2008, it nonetheless constitutes critical national priority infrastructure in policy terms. National Policy Statements EN-1 and EN-5 identify the need for new and reinforced electricity transmission infrastructure as a critical national priority to maintain security of supply and deliver the transition to net zero.

- 6.2.6 The Long Lane Substation forms part of National Grid’s wider transmission reinforcement strategy identified through the Electricity System Operator’s Holistic Network Design (HND) and subsequent Centralised Strategic Network Plan (CSNP), which together set out nationally critical reinforcements required to connect new offshore generation and strengthen the onshore 400kV network. The proposed substation provides a vital node in this system, supporting the transfer of renewable generation and system resilience across northern England. Consequently, substantial weight should be afforded to the national need and strategic importance of the development, consistent with the approach in EN-1 and EN-5, irrespective of the consenting route.
- 6.2.7 Policy CS30 is the overarching policy relating to renewable development, the policy encourages development for renewable energy development so long as there are no unacceptable adverse effects on:
- residential living conditions, amenity and quality of life;
  - character and appearance of the landscape and surrounding area;
  - biodiversity, geodiversity and water quality;
  - historical, archaeological and cultural heritage assets; and
  - highway safety and infrastructure.
- 6.2.8 The policy states that careful consideration will be given to the capacity of the landscape to accommodate renewable energy developments, the ability to mitigate visual intrusion and the cumulative impact of individual sites. The policy also requires proposals to be supported with information that clearly shows how the surrounding environment will be protected and how site restoration will be carried out when production ends. As a part of formal planning submission, and as will be demonstrated in the subsequent sections, the planning application will be accompanied by comprehensive technical documentation evidencing the measures for protection and restoration.
- 6.2.9 The Application Site is an area of agricultural land that is designated as Green Belt. However, in an update in December 2024 the NPPF established ‘grey belt’ as a category of land within the Green Belt where development is potentially not inappropriate.
- 6.2.10 As set out in the Green Belt Assessment Report included in this planning application, the applicant considers that the Site is grey belt, as it does not ‘strongly contribute’ to the Green Belt purposes as set out in Paragraph 143 of the NPPF and is not excluded by any of the designations set out in NPPF Footnote 7.
- 6.2.11 The Site also meets the other criteria, beyond constituting grey belt land, required to ‘not be regarded as inappropriate’ as set out in NPPF Paragraph 155.
- 6.2.12 The Green Belt Assessment Report also sets out how the Scheme can, in any case, demonstrate that very special circumstances exist that would justify inappropriate development in the Green Belt.
- 6.2.13 To reiterate, the Scheme is being brought forward to ensure that there is sufficient capacity to meet demand from National Grid’s customers and help reinforce the existing network in the wake of increasing capacity of renewable energy creation. The combination has meant that sections of the existing network have been identified as requiring upgrades to secure the operation of the transmission system, ensuring reliable, economic and long-term supply.

- 6.2.14 The need for the Scheme is substantiated by National Policy Statements, specifically NPS EN-1 and NPS EN-5, which identify substations as critical components of national infrastructure that should be progressed expeditiously. The Scheme incorporates appropriate landscaping and mitigation measures, and its justification is further reinforced by the presence of the existing Brinsworth Substation in close proximity, as well as clear national-level policy support.
- 6.2.15 In conclusion, the principle of the Scheme is unequivocally established by multiple supporting national policy documents, including NPS EN-1 and NPS EN-5, and is further supported by Core Strategy policies and overriding objectives relating to increasing renewable energy infrastructure provisions. The proposal is largely consistent with local planning policies and there are significant material considerations in favour of the Scheme.

### 6.3 Design Overview (Layout, Design and External Appearance)

- 6.3.1 The Development Plan, NPPF, NPS EN-1 and NPS EN-5 collectively advocate for high-quality design in new developments, including energy infrastructure.
- 6.3.2 Core Strategy Policies CS3, CS21, CS23, CS27, CS28, CS30; and SP2, SP55, SP57 from the Sites and Policies document, establish specific requirements to ensure that development respects the form, scale, and character of the surrounding landscape.
- 6.3.3 The NPSs for Energy provide policy on design to energy and specifically electricity infrastructure which adds relevant context the type of infrastructure proposed – which is materially relevant to this application (despite not being an NSIP) by highlighting the importance of function, safety and security.
- 6.3.4 Paragraph 4.7.1 of NPS EN-1 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’*.
- 6.3.5 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.’*
- 6.3.6 Section 2.4 of NPS EN-5 reinforces this and sets out the need for applicants to consider the criteria for good design in NPS EN-1 at an early stage when developing projects.
- 6.3.7 Paragraph 2.4.3 of NPS EN-5 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 on to 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.'*

- 6.3.8 Good design of substations is primarily governed by application of the 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 environmental appraisal 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.
- 6.3.9 The Scheme has undergone careful consideration of the siting, scale, design, and use of materials, taking into account the site and its context with regard to layout, form, height, massing, scale, size, elevational treatment, materials and orientation. The objective is to ensure that built form is effectively integrated into the local setting while making a positive contribution to the quality of the local environment.
- 6.3.10 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.
- 6.3.11 The Natural Environment and Trees SPDs (RMBC, 2021b; 2023c) emphasise that the environment must be a central consideration in all design processes, ensuring that potential indirect impacts of development are identified at the earliest stage and addressed through appropriate, design-led mitigation measures. In accordance with this guidance, Policy CS21 requires that development proposals safeguard and enhance the quality, character, distinctiveness, and amenity value of the borough's landscapes. This includes delivering environmental enhancements that improve visual distinctiveness through effective landscape management and ensuring the long-term maintenance of landscaping for the lifetime of the development. Furthermore, all developments are expected to respect neighbouring settlements and preserve the visual landscape or character of the surrounding area.
- 6.3.12 The Site currently predominantly comprises agricultural fields, bounded to the north by woodland and Whiston Brook, with further agricultural land and residential development beyond. The Site is bordered by Long Lane to the west and the M1 motorway to the south, alongside additional agricultural land, while agricultural parcels and residential dwellings are situated directly to the east, with the A618 Pleasley Road beyond. The surrounding area to the north and west is characterised by developed urban land uses, whereas the south and east retain a more agricultural character, with the M1 forming a notable feature running east to west to the south of the Site.
- 6.3.13 The Scheme would introduce significant built form, in the form of a new 400kV substation but the Site benefits from effective screening to the south due to roadside embankments and existing vegetation along the M1, with boundary trees retained and no tree removal required; new planting within the site would further contribute to the screening of views and enhance integration with the surrounding landscape. Additional filtering and screening to the west would be provided by the existing species-rich hedgerow, while mitigation planting enhancements along the northern,

western, and eastern boundaries would support integration with the existing tree and hedgerow cover and improve the landscape setting. The LVIA concludes that the site is generally capable of accommodating the Scheme without substantial detrimental effects on landscape character. The new built form would be primarily visible from the north, east, and west, affecting residential properties and road users with medium to high sensitivity and susceptibility to change; however, views are limited by gaps in existing buildings and roadside vegetation.

- 6.3.14 Due to the nature of the Scheme and the need to ensure operational stability, security and safety, there is limited flexibility in terms of design, architecture and the selection of materials relative to other types of development. This is expressly recognised in NPS EN-5; at paragraph 2.4.3, it 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'*. At paragraph 2.4.4, 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'*. In this regard, the substations and other buildings associated with the Scheme have been designed in accordance with National Grid Technical Specification.
- 6.3.15 Notwithstanding the limited flexibility associated with the design of substations, the Scheme has had regard to the design principles established in the Development Plan and nationally planning policy, as well as the Horlock Rules. In particular:
- a GIS technological solution has been adopted for the new substations in order to minimise land-take and impacts on landscape character and amenity;
  - the proposed colour and finishes to new structures will use a muted colour palette to reduce contrast, minimise visual impact and aid assimilation with the colours of the wider landscape;
  - a lighting regime will be adopted to minimise light spill;
  - a planting regime will be implemented in accordance with the illustrative landscape mitigation and enhancement plan to minimise visual impacts; and
  - appropriate security measures are included in the design of the Scheme, including fencing and controlled site access, to reduce the opportunity for crime.
- 6.3.16 The Site would remain well screened from the south due to embankments and trees along the M1, with additional planting measures planned to enhance screening and landscape integration. The visual impact is assessed as medium adverse during construction and shortly thereafter, diminishing to small as landscape mitigation matures over a period of five to fifteen years. Overall, initial visual effects are judged to be moderate adverse, reducing to minor adverse over time, and are ultimately considered not significant. Considering the nature of the Scheme and the design measures incorporated therein, the Scheme is evaluated as being in compliance with the policies set forth in the Development Plan, as well as national planning policies regarding design and layout. Furthermore, the Scheme has been strategically located and designed to minimise environmental and amenity impacts to the least extent possible.

## 6.4 Ecology (Including Arboriculture)

- 6.4.1 Under the Electricity Act 1989 and Natural Environment and Rural Communities Act 2006, National Grid has a statutory duty to conserve and enhance biodiversity. Schedule 14 of the Environment Act 2021, meanwhile, requires that development subject to planning permission provides a 10 per cent gain in biodiversity.
- 6.4.2 Both national and local planning policies also place a strong emphasis on the conservation and enhancement of biodiversity. Policy CS20 serves as RMBC's overarching environmental policy, establishing RMBC commitment to conserving and enhancing Rotherham's natural environment. This includes the protection of biodiversity and geodiversity resources, and the implementation of measures to enhance these assets at both nationally and locally prioritised sites, habitats, features, and for protected and priority species. Notably, Policy CS20 also applies to the conservation and enhancement of sites and features of demonstrable biodiversity and geodiversity value such as woodlands, significant trees, hedgerows, watercourses, caves, crags, and structures, even where these are not formally designated.
- 6.4.3 Policy CS24 seeks to prevent the deterioration of watercourses, promote the achievement of 'good quality' status under the Water Framework Directive, and improve water quality and water management.
- 6.4.4 Policy SP33 stipulates that development should conserve, enhance, and create features of biodiversity and geodiversity value. Where adverse effects cannot be avoided, development proposals must minimise harm through careful design, layout and effective mitigation, and provide compensation for any residual impacts, with a minimum requirement of 'no net loss' of biodiversity. Planning permission will not be granted where development would result in the loss or deterioration of irreplaceable habitats or features, unless the need for and benefits of the development clearly outweigh such loss. On site enhancements to biodiversity and geodiversity are expected, contributing to wider ecological networks and priority habitats, and RMBC retains the power to designate Tree Preservation Orders where appropriate.
- 6.4.5 Policy SP35 requires the protection of protected and priority species, mandating that mitigation and/or compensation measures are agreed prior to the commencement of development and are implemented before the development is brought into use.
- 6.4.6 Policy SP52 seeks to mitigate pollution and contamination by ensuring that appropriate measures are employed to minimise impacts on health, the environment, and local amenity.
- 6.4.7 The Natural Environment and Trees SPDs (RMBC, 2021b; 2023c) further reinforce the requirement for the environment to be a central consideration in all design processes. They mandate that potential indirect impacts be identified early and addressed through appropriate, design-led mitigation. Planning decisions should avoid harm to biodiversity and geological interests, and where significant harm cannot be avoided, the LPA must be satisfied that there are no reasonable alternative sites. Where avoidance is not possible, developers are required to minimise impacts by modifying design, layout, size or operation, and by incorporating suitable mitigation. Developers should also identify existing biodiversity interests and features and maximise opportunities to enhance these as part of the development and its ongoing management. Appropriate biodiversity and geodiversity principles and survey requirements are set out within these documents to guide development proposals.

- 6.4.8 Whilst there is no specific local policy on BNG, the Scheme includes proposals to secure a minimum of 10 per cent BNG. In accordance with the Natural Environment SPD (RMBC, 2021b), which sets out the preference that new planting should use species and varieties native to the area, suitable native tree species local to the area are to be planted as on-site scattered tree replacement (re-provisioning) as part of the BNG and landscape strategy. As such, the statutory 10 per cent BNG has been achieved.
- 6.4.9 The NPPF, at paragraph 187, requires planning decisions to contribute to, and enhance, the natural and local environment by protecting and enhancing sites of biodiversity value and minimising impacts on, and providing net gains for, biodiversity. Paragraph 193 stipulates (inter alia) that:
- development should be refused where significant harm to biodiversity cannot be avoided, mitigated, or as a last resort, compensated for;
  - development which is likely to have an adverse effect on a SSSI should not be permitted except where the benefits clearly outweigh the impacts on site specific features of special scientific interest and the national network of SSSIs;
  - development resulting in the loss or deterioration of irreplaceable habitats should be refused, unless there are exceptional reasons and a suitable compensation strategy exists; and
  - development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to improve biodiversity in and around developments should be integrated as part of their design, especially where this can secure measurable net gains for biodiversity or enhance public access to nature where this is appropriate.
- 6.4.10 At paragraph 5.4.48, NPS EN-1 explains how the Secretary of State should approach the consideration of effects on biodiversity in determining DCO applications, which is relevant to this application despite not being an NSIP, given the Scheme will enable nationally important infrastructure. It states that appropriate weight should be attached to designated sites, protected species, habitats and other species of principal importance, and to biodiversity and geological interests within the wider environment. With specific regard to regional and local sites, both NPS EN-1 and NPS EN-5 set out that, in the context of new nationally significant infrastructure, these should not be used in themselves to refuse development consent.
- 6.4.11 With specific regard to arboriculture, national and local planning policies seek to retain, and encourage the planting of new trees. In this regard, paragraph 193(c) of the NPPF stipulates 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’*.
- 6.4.12 Consistent with the requirements of the development plan and the NPPF a Phase 1 Habitat Survey has been undertaken and sits within the Ecology Report (Ref. EDEU-ARC-ENV-REP-0023). Collated into the EAR, biodiversity and ecology assets have been identified and assessed against potential effects arising from the Scheme. The assessment presented in the EAR has informed a suite of measures to mitigate adverse impacts on biodiversity and these are set out in the OCEMP which is also submitted with the planning application.

## Statutory Designated Sites

- 6.4.13 There are no internationally designated sites identified within 10km of the Site including Special Areas of Conservation (SACs), Special Protection Areas (SPAs) or Ramsar sites.
- 6.4.14 There is one statutory designated site for nature conservation within 2km of the Site, which is Catcliffe Flash LNR located approximately 1.8km south west of the Site.

## Non-statutory Designated Sites

- 6.4.15 There are ten non-statutory sites located within 2km of the Site, comprising eight LWSs and two cLWSs, as detailed in Table 4.2 of the EAR.
- 6.4.16 The EAR confirms that all non-statutory designations would remain unaffected by the Scheme. In accordance with Policies CS20 and SP33, the Scheme would uphold the protection of non-statutory designated sites of biodiversity and geodiversity value. Furthermore, through the implementation of BNG measures, as detailed in the BNG Report, the Scheme will ensure the enhancement of biodiversity assets and prevent any residual impacts on the borough's biodiversity resources.

## Habitats

- 6.4.17 Full details of the results of the Extended Phase 1 survey are detailed within the Long Lane New 400kV Substation Ecology Report, Appendix F of the EAR.
- 6.4.18 The desk study identified two Habitats of Principal Importance (HPIs) within 200m of the Site. One area of coastal and floodplain grazing marsh HPI was identified, approximately 10m west of the Site, on the opposite side of Long Lane. One area of deciduous woodland HPI was also identified, located adjacent to the north of the Scheme boundary.
- 6.4.19 The EAR details that the Site predominantly comprises the following habitats:
- Improved Grassland
    - Two parcels of improved grassland were recorded within the Scheme boundary: one in the south west corner and the other in the north east corner of the Site within an unmanaged section of arable field around an electricity pylon. These parcels comprised the following species: cock's-foot (*Dactylis glomerata*), false oat grass (*Arrhenatherum elatius*), ribwort plantain (*Plantago lanceolata*), creeping bent (*Agrostis stolonifera*), creeping buttercup (*Ranunculus repens*), red clover (*Trifolium pratense*), Yorkshire fog (*Holcus lanatus*), marsh thistle (*Cirsium palustre*), marsh bedstraw (*Galium palustre*), tufted hair grass (*Deschampsia cespitosa*), common hogweed (*Heracleum sphondylium*), groundsel (*Senecio vulgaris*), common ragwort (*Packera aurea*), mugwort (*Artemisia vulgaris*), willowherb sp. (*Epilobium* sp.) and broadleaved dock (*Rumex obtusifolius*).
  - Arable Land
    - The majority of the Site is occupied by arable field. The field margins are narrow (under 1m wide) and dominated by common nettle (*Urtica dioica*). They do not meet the definition of arable field margins HPI.

- Hedgerows
  - There are three hedgerows recorded on the Site: two that demarcate the field boundaries and one that sits partially within the Scheme boundary to the west of the Site.
  - Both field boundary hedgerows are species-poor and comprised hawthorn (*Crataegus monogyna*) and elder (*Sambucus nigra*).
  - The hedgerow that sits partially within the Scheme boundary to the west is species-rich and comprised a mix of hawthorn, elder, blackthorn (*Prunus spinosa*), hazel (*Corylus avellana*) and field maple (*Acer campestre*).
  - All hedgerows within the Site consisted predominantly (i.e. 80 per cent or more cover) of at least one woody UK native species and, as such, met the definition of hedgerow HPI. Hedgerows are also Rotherham Biodiversity Action Plan (BAP) habitats.
- Dry Ditch
  - A dry ditch runs along the base of one of the hedgerows located to the south of the Site. The ditch is approximately 50cm wide x 20cm deep and lacked vegetation indicative of regular flooding. The vegetation in the ditch predominantly comprised common nettle (*Urtica dioica*).

6.4.20 The BNG Report reports that the site has a baseline value of 35.07 Biodiversity Units. The baseline is presented in Table 6.1 below. A baseline habitat map is presented in Figure 2 Appendix A of the BNG Report. The baseline hedgerows on-site have been calculated as having a value of 9.17 BU, as shown in Table 6.2.

Table 6.1 Baseline Area Habitats

| Broad Habitat | Metric Habitat Type             | Area (ha)    | Distinctiveness | Condition | Strategic Significance | Baseline Biodiversity Units |
|---------------|---------------------------------|--------------|-----------------|-----------|------------------------|-----------------------------|
| Grassland     | Modified grassland              | 0.03         | Low             | Poor      | High                   | 0.06                        |
| Cropland      | Cereal crops                    | 16.06        | Low             | N/A       | Low                    | 32.12                       |
| Cropland      | Temporary grass and clover leys | 1.45         | Low             | N/A       | Low                    | 2.89                        |
| Urban         | Developed land; sealed surface  | 0.01         | V. Low          | N/A       | Low                    | 0.00                        |
| <b>Total</b>  |                                 | <b>17.54</b> |                 |           |                        | <b>35.07</b>                |

Table 6.2 Baseline Hedgerow

| Broad Habitat | Metric Habitat Type                                          | Area (ha)   | Distinctiveness | Condition | Strategic Significance | Baseline Biodiversity Units |
|---------------|--------------------------------------------------------------|-------------|-----------------|-----------|------------------------|-----------------------------|
| Hedgerow      | Native hedgerow - associated with bank or ditch              | 0.57        | Medium          | Good      | High                   | 7.88                        |
| Hedgerow      | Species-rich native hedgerow - associated with bank or ditch | 0.06        | High            | Good      | High                   | 1.30                        |
| <b>Total</b>  |                                                              | <b>0.63</b> |                 |           |                        | <b>9.17</b>                 |

6.4.21 As shown in Table 6.3, the Scheme will create 5.18ha of developed land; sealed surface. The remaining land will comprise of the retained hedgerow and habitat creation. The habitat creation will generate 55.65 BU.

6.4.22 As shown in Table 6.5, there will be a total of 0.22km of hedgerow retained. Post development there will be 1.29km of hedgerow created generating 12.72 BU or an increase of 3.55 BU.

Table 6.3 Post development on-site created areas habitats

| Broad Habitat       | Metric Habitat Type            | Area (ha) | Distinctiveness | Condition   | Strategic Significance | Biodiversity Units Delivered |
|---------------------|--------------------------------|-----------|-----------------|-------------|------------------------|------------------------------|
| Grassland           | Modified grassland             | 0.15      | Low             | Moderate    | High                   | 0.60                         |
| Grassland           | Other neutral grassland        | 10.11     | Medium          | Moderate    | High                   | 77.82                        |
| Heathland and shrub | Mixed scrub                    | 1.22      | Medium          | Moderate    | Medium                 | 8.95                         |
| Woodland and forest | Other woodland; broadleaved    | 0.63      | Medium          | Poor        | High                   | 2.43                         |
| Lakes               | Ponds (priority habitat)       | 0.21      | High            | Poor        | High                   | 0.92                         |
| Urban               | Developed land; sealed surface | 5.18      | V.Low           | N/A - Other | Low                    | 0.00                         |

| Broad Habitat | Metric Habitat Type | Area (ha) | Distinctiveness | Condition | Strategic Significance | Biodiversity Units Delivered |
|---------------|---------------------|-----------|-----------------|-----------|------------------------|------------------------------|
| Total         |                     | 17.54     |                 |           |                        | 90.72                        |

Table 6.4 Post development hedgerow creation and retention

| Broad Habitat            | Metric Habitat Type                                          | Area (ha) | Distinctiveness | Condition | Strategic Significance | Baseline Biodiversity Units |
|--------------------------|--------------------------------------------------------------|-----------|-----------------|-----------|------------------------|-----------------------------|
| <b>Created Hedgerow</b>  |                                                              |           |                 |           |                        |                             |
| Heathland and shrub      | Species-rich native hedgerow                                 | 0.59      | Medium          | Good      | High                   | 5.27                        |
| Heathland and shrub      | Species-rich native hedgerow – associated with bank or ditch | 0.15      | High            | Good      | High                   | 2.00                        |
| Heathland and shrub      | Native hedgerow                                              | 0.14      | Low             | Good      | High                   | 0.64                        |
| Heathland and shrub      | Native hedgerow - associated with bank or ditch              | 0.23      | Medium          | Good      | High                   | 2.06                        |
| <b>Retained hedgerow</b> |                                                              |           |                 |           |                        |                             |
| Heathland and shrub      | Native hedgerow - associated with bank or ditch              | 0.22      | Medium          | Good      | High                   | 3.04                        |
| Total                    |                                                              | 1.33      |                 |           |                        | 12.72                       |

- 6.4.23 It should be noted that, one ditch was recorded on-site, it was assessed as completely dry, and as such it does not qualify within the statutory metric calculations for BNG.
- 6.4.24 To summarise, if the habitat creation/enhancement recommendations are followed, this would deliver an on-Site net gain of 55.65 habitat units (+158.67%) and 3.55 hedgerow units (+38.68%), meaning the overall Scheme will result in a net gain in biodiversity on Site.

## Species

- 6.4.25 Full details of the results of the Extended Phase 1 survey are detailed within the Long Lane New 400kV Substation Ecology Report, Appendix F of the EAR. The Phase 1 Habitat Map can be found in Appendix E of the EAR.
- 6.4.26 As detailed in the EAR, a desk study returned records of five protected and/or notable plant species. The closest records were of bluebell within Whiston Meadows LWS, which is located adjacent to the north of the Site.
- 6.4.27 There were no records of protected/notable plant species within the Site.
- 6.4.28 There were no Invasive Non-Native Species identified within the Site; however, Himalayan balsam (*Impatiens glandulifera*) was recorded within 2m of the northern section of the Scheme boundary in 2023, within Whiston Meadows LWS.
- 6.4.29 The desk study returned records of seven notable invertebrate species. The closest was a record of white-letter hairstreak (*Satyrium w-album*) located approximately 390m south west of the Site.
- 6.4.30 The habitats on the Site were noted to offer the potential to support a limited assemblage of common and widespread invertebrate species. The likelihood that the Site supports notable and/or protected species or a significant assemblage of invertebrate species is considered to be negligible.
- 6.4.31 As detailed in the EAR, there are no records of protected and/or notable fish species; and no suitable aquatic habitats are present within the Site. Fish are therefore not considered further.
- 6.4.32 The EAR notes records of smooth newt (*Lissotriton vulgaris*), common toad (*Bufo bufo*) and common frog (*Rana temporaria*). The closest record was of common toad, located approximately 360m north west of the Site. There were no records of great crested newt.
- 6.4.33 Regarding reptiles, the EAR notes previous identified records of grass snake (*Natrix natrix*), common lizard (*Zootoca vivipara*), and adder (*Vipera berus*), in the area, with the nearest record being a grass snake approximately 90m north of the Site at Whiston Meadows LWS. While the site's boundary hedgerows offer suitable shelter and are connected to known reptile habitats, the majority of the site consists of intensively managed arable land and improved grassland which are unsuitable for reptiles. Therefore, significant reptile populations are unlikely to be present on-site, though small numbers may occur due to the proximity to Whiston Meadows LWS.
- 6.4.34 Regarding birds, a desk study recorded 33 protected and/or notable bird species within 2km of the Site, including species listed as Birds of Conservation Concern under Schedule 1 of the Wildlife and Countryside Act 1981, or as Species of Principal Importance. The closest records were redwing (*Turdus iliacus*) and Kingfisher (*Alcedo atthis*) within Whiston Meadows LWS, just north of the Site, and peregrine falcon (*Falco peregrinus*) recorded on a pylon 1.25km west. The Site's hedgerows provide breeding habitat for shrub nesting birds, while the arable and improved grassland support ground nesting species. Both the site and adjacent woodlands also offer foraging opportunities for a variety of birds, including wintering species.
- 6.4.35 Regarding bats, a desk study identified 64 records of various bat species within 2km of the Site, with the nearest being a common pipistrelle (*Pipistrellus pipistrellus*) about 150m north east of the Scheme boundary and the closest roost record approximately 490m south east. Three European Protected Species licences for

common pipistrelle have been granted nearby, but no SACs for bats exist within 10km. Surveys found no suitable trees or structures for roosting bats on the Site. Night-time surveys recorded widespread bat activity, mainly involving common and soprano pipistrelle (*Pipistrellus pygmaeus*) and *Myotis* species, with foraging and commuting activity concentrated along woodland edges and hedgerows that provide habitat connectivity.

- 6.4.36 Regarding badgers (*Meles meles*), a desk study identified 20 records of badger within 2km of the Site, with the nearest record approximately 80m north in Whiston Meadows LWS. No evidence of badger activity was found on-site during surveys, although the site's hedgerows, adjacent woodlands, and surrounding agricultural land provide suitable foraging and dispersal habitat.
- 6.4.37 Regarding otters (*Lutra lutra*) and water voles (*Arvicola amphibius*), desk study identified two otter records within 2km of the Site, the nearest being 630m south west along the River Rother, and no records of water vole. The Site contains no permanent watercourses or waterbodies, and the on-site ditch is unsuitable for these species. Nearby habitats are also unsuitable for otter breeding, and existing road disturbance further reduces suitability. Consequently, otter and water vole are likely absent from the site.
- 6.4.38 A desk study found four records of hedgehog (*Erinaceus europaeus*) within 2km of the Site, the nearest 150m east, and suitable habitat is present on and around the Site. Brown hare (*Lepus europaeus*), are likely to use the site for commuting and foraging, despite no local records, due to the presence of arable fields, grassland, and woodland edges. During a walkover, a small mustelid was observed near the Site, possibly a species such as stoat or American mink; however, there are no desk study records or suitable permanent watercourses within the Site, so the likelihood of American mink presence is considered low.
- 6.4.39 It is not necessary to carry out detailed assessment of features that are sufficiently widespread, unthreatened and resilient to project impacts and will remain viable and sustainable (Chartered Institute of Ecology and Environmental Management, 2018). For this reason, where receptors have been assessed as being of less than Local importance, or where the Scheme is not considered to have any impacts upon the receptors, these have been scoped out of further assessment.
- 6.4.40 Specific mitigation measures for receptors that are scoped in, are listed in Table 4.2 of the EAR. These include Whiston Meadows LWS, hedgerows, INNS, common amphibians, reptiles, breeding and wintering birds, commuting and foraging bats, badgers and European hedgehogs.
- 6.4.41 These measures include, but are not limited to, the installation of appropriate fencing and clear signage to ensure that no construction activities encroach upon sensitive areas of the LWS, with both temporary and permanent fencing arrangements detailed within the CEMP. To avoid indirect impacts, such as pollution events, the CEMP will incorporate a Dust Management Plan (DMP) and Surface Water Management Plan (SWMP). For those INNS within or up to 30m of the site, mitigation employs fencing them off with a 10m buffer during construction. If this is not possible, a full INNS PWMS and cleaning facilities would be in place to prevent further spread. Pollution prevention measures set out in the CEMP will safeguard hedgerow habitats by requiring that all activities involving potential pollutants, such as the use of concrete or fuel, are confined to designated areas designed to capture and properly dispose of any spills, leaks, or contaminated run-off. Processes that are likely to create dust will be enclosed or otherwise contained, with dust collectors or

extractors installed where necessary to prevent the spread of airborne dust to other areas.

- 6.4.42 In relation to protected and notable species present on site, whilst incorporating additional mitigation measures for each specific receptor, all works are to be undertaken in accordance with a Precautionary Working Method Statement (PWMS) and under the supervision of an Ecological Clerk of Works (ECoW) or Site Ecologist. All such measures will be clearly presented in the CEMP and adhered to throughout the construction period.
- 6.4.43 As indicated within Section 4 of the EAR, a comprehensive range of potential impacts and the corresponding control measures have been identified to mitigate any adverse effects on ecological features. The adoption and strict implementation of the control measures detailed in Table 4.2 of the EAR are designed to address all identified risks and ensure that effective mitigation is in place. Consequently, with these measures applied, no residual impacts or adverse effects are anticipated on any ecological features throughout the duration of the works.
- 6.4.44 As detailed above, the Scheme is fully compliant with Policies CS20, SP33 and SP35, which require the protection and enhancement of biodiversity and geodiversity resources. These policies mandate the implementation of measures to enhance ecological assets at both nationally and locally prioritised sites, including habitats, features, and protected or priority species. All mitigation and/or compensation measures must be agreed prior to the commencement of development and implemented before the development is brought into use. These requirements have been met through the completion of appropriate ecological surveys and the incorporation of suitable mitigation measures within the Scheme.

## Arboriculture

- 6.4.45 As indicated within the Arboricultural Impact Assessment (presented in Appendix T of the EAR), a total of 12 arboricultural features were recorded within the study area. These were recorded as three individual trees, two groups of trees, six hedgerows and one woodland.
- 6.4.46 Each arboricultural feature was assigned to one of four categories, as listed in Table 6.5.

Table 6.5 Tree categories recorded

| Tree Category                                               | No. of Individual Trees | No. of Groups of Trees | No. of Hedgerows | No. of Woodland Groups |
|-------------------------------------------------------------|-------------------------|------------------------|------------------|------------------------|
| Category A (trees of high quality)                          | -                       | -                      | -                | 1                      |
| Category B (trees of moderate quality)                      | -                       | 2                      | -                | -                      |
| Category C (trees of low quality)                           | 3                       | -                      | 6                | -                      |
| Category U (trees of poor quality unsuitable for retention) | -                       | -                      | -                | -                      |
| <b>Total</b>                                                | <b>3</b>                | <b>2</b>               | <b>6</b>         | <b>1</b>               |

- 6.4.47 It was confirmed by the RMBC that no trees surveyed are subject to Tree Preservation Orders or conservation area restrictions.
- 6.4.48 It was confirmed that there are no designated ancient woodlands in the study area and no veteran trees were identified during the survey.
- 6.4.49 Policy CS20 requires the conservation and enhancement of woodlands, significant trees, and hedgerows, regardless of their formal designation status. Where adverse effects cannot be fully avoided, Policy SP33 and the Natural Environment and Trees SPD stipulate that development proposals must minimise harm through careful design, layout, and the implementation of effective mitigation measures. Furthermore, compensation must be provided for any residual impacts, with a minimum requirement of achieving 'no net loss' of biodiversity.
- 6.4.50 A total of three low-value Category C features, all of which are hedgerows, require removal as a result of the Scheme; these are early mature features of fair condition. Based on the relatively low heights of the features to be partially removed, there is a limited potential risk of windthrow to the trees to be retained as a result of the partial removals. The proposed removals are considered to represent a low impact to the overall visual public amenity and arboricultural value of the Site.
- 6.4.51 As noted in the Arboricultural Impact Assessment, the Scheme aligns with the Policy CS20. Arboricultural features requiring removal are low value and are situated within the limits of the Site. They provide minimal character and amenity value to the local area and loss of canopy cover and will be appropriately mitigated to compensate for the required removals.

## Ecology (including Arboriculture) Conclusion

- 6.4.52 Overall, the Scheme is assessed as being in accordance with Development Plan policy and the NPPF (and NPS EN-1 and NPS EN-5 as far as they are relevant to the consideration of biodiversity) as well as the RMBC Trees SPD (RMBC, 2023c). By minimising adverse impacts on biodiversity and delivering an overall net gain, it is also in accordance with National Grid's statutory duties.
- 6.4.53 With appropriate mitigation, as detailed in the EAR, the construction and operation of the Scheme is predicted to have no likely significant effects on habitats or protected species. No significant effects on the designated nature conservation site, Whiston Meadows LWS, are likely to occur.
- 6.4.54 In accordance with national and local planning policies and associated guidance, the Scheme includes a range of enhancement measures that would generate positive ecological effects and deliver in excess of a 10 per cent gain in biodiversity.
- 6.4.55 The Scheme would not impact irreplaceable habitats protected under the NPPF.
- 6.4.56 All tree works must be carried out by an Arboricultural Association approved contractor in accordance with BS 3998:2010 Tree work – Recommendations (British Standards Institution, 2010).

## 6.5 Green Belt and Grey Belt

- 6.5.1 Green Belt policy is set out in the development plan through Policy CS4, CS5 and SP2. These policies predate the latest (December 2024) iteration of the NPPF which introduced significant changes to Green Belt policy. The development plan policies are not consistent with the NPPF and are now out of date.

- 6.5.2 The NPPF establishes 'grey belt' as a category of land within the Green Belt where development is potentially not inappropriate. The NPPF defines grey belt land as follows:
- 'For the purposes of plan-making and decision-making, 'grey belt' is defined as land in the Green Belt comprising previously developed land and/or any other land that, in either case, does not strongly contribute to any of purposes (a), (b), or (d) in paragraph 143. 'Grey belt' excludes land where the application of the policies relating to the areas or assets in footnote 7 (other than Green Belt) would provide a strong reason for refusing or restricting development.'*
- 6.5.3 Footnote 7 states:
- 'The policies referred to are those in this Framework (rather than those in development plans) relating to: habitats sites (and those sites listed in paragraph 194) and/or designated as Sites of Special Scientific Interest; land designated as Green Belt, Local Green Space, a National Landscape, a National Park (or within the Broads Authority) or defined as Heritage Coast; irreplaceable habitats; designated heritage assets (and other heritage assets of archaeological interest referred to in footnote 75); and areas at risk of flooding or coastal change.'*
- 6.5.4 As demonstrated in the Green Belt Assessment Report that accompanies this planning application, the Site constitutes grey belt land as defined by national planning policy. The site does not '*strongly contribute*' to Green Belt purposes (a), (b) or (d) and is not excluded by any of the designations set out in NPPF Footnote 7.
- 6.5.5 The NPPF then at paragraph 155 sets out circumstances in which the development of Grey Belt land would not be regarded as inappropriate development namely:
- a. The development would utilise grey belt land and would not fundamentally undermine the purposes (taken together) of the remaining Green Belt across the area of the plan;*
- b. There is a demonstrable unmet need for the type of development proposed;*
- c. The development would be in a sustainable location, with particular reference to paragraphs 110 and 115 of this Framework<sup>57</sup>; and*
- d. Where applicable the development proposed meets the 'Golden Rules' requirements set out in paragraphs 156-157 below.*
- 6.5.6 The Green Belt Assessment demonstrates that each of these criteria (as far as they are relevant – criterion d only relates to housing schemes) are complied with and as such, the Scheme should not be considered inappropriate development in the Green Belt.
- 6.5.7 A consequence of a Grey Belt definition and satisfying the paragraph 155 criteria is that it is not necessary to give weight to any harm to the Green Belt, including to its openness (as stated in Footnote 66 to the NPPF). It is also not necessary to demonstrate very special circumstances (VSC) for development of the site.
- 6.5.8 However, even if this primary case is not accepted, as demonstrated in the Green Belt Assessment, very special circumstances would exist and any harm to the Green Belt would be clearly outweighed by the benefits.

## 6.6 Landscape and Visual Character

- 6.6.1 National Grid has a statutory duty under the Electricity Act 1989 to conserve and enhance the natural beauty of the countryside. Local and national planning policies also seek to conserve and enhance landscape and visual amenity.
- 6.6.2 Policy CS1 places a large emphasis on the role of green infrastructure within RMBC jurisdiction, noting it will extend from urban areas into rural surroundings, achieving a net gain by protecting and enhancing existing assets and creating new multifunctional spaces and connections. As a part of this, the policy protects, amongst others, the district's national landscape, and promotes sustainable land management. In part this sees the support for development that provides ecosystem services, including the use and management of green infrastructure areas to reduce the impacts of climate change, using vegetation to cool the environment, provision of new open space to remedy the need for natural and semi-natural flood storage and managing surface water to ensure landscape change impacted by climate change has long-term benefits.
- 6.6.3 Policy CS21 sets out RMBC's overriding policy approach to landscape. It notes that new developments must safeguard and enhance the quality, character, and amenity value of Rotherham's landscapes by respecting national and local landscape character areas, preserving significant features and views, and achieving high standards of design. In areas of high landscape value, development is only permitted if it does not detract from the area's character. Proposals should reduce negative visual impacts, respect neighbouring settlements, and support landscape enhancement initiatives. Landscape works must be appropriate in scale, with developers required to ensure long-term management and maintenance. Support will also be given to projects promoting integrated, landscape-scale conservation. This sentiment is echoed in tailored policy for the historic environment, Policy CS23 and SP43.
- 6.6.4 Specifically for Low Carbon and Renewable Energy Generation, Policy CS30 states that such development is appropriate so long as it does not cause unacceptable adverse effects on residential amenity, landscape character, biodiversity, heritage assets or highway safety. As such, the landscape's capacity, visual impact and cumulative effects must be carefully considered. Applications require the inclusion of information on environmental protection and site restoration after energy production ends.
- 6.6.5 Further protection and guidance are supplied in Policy SP32 which states that RMBC requires all new developments to protect, enhance, create, and manage multi-functional green infrastructure proportional to their scale and impact, addressing the needs of future users. In areas of high landscape sensitivity, development is only allowed if it preserves landscape and visual character and meets high design standards. It is required that applicants assess existing green infrastructure, landscape sensitivity and potential impacts, proposing mitigation or compensation where necessary.
- 6.6.6 For major developments, the policy requires demonstrated consideration of topography, ecology, habitat networks, historic features, access routes, landscape character, and long-term sustainable management, including climate adaptation.
- 6.6.7 Policy SP69 states that RMBC will seek to ensure that the district has an efficient provision of electricity services which avoid or, where this is not possible, minimise any adverse landscape and environmental impacts. The policy states development

proposals must consider both existing and new service infrastructure, including all associated equipment and the need for maintenance access. Proposals near overhead power lines should also address the potential impact of transmission towers and cables on the amenity of future occupiers.

- 6.6.8 As detailed in Chapter 5 of the EAR, Landscape and Visual baseline conditions and the environmental appraisal of the potential Landscape and Visual impacts associated with the construction and operation of the Scheme have been conducted. Where potential environmental impacts are identified, relevant control measures are prescribed to reduce or avoid these impacts.
- 6.6.9 As noted, there are no landscape-related designated sites within the study area. However, the scheduled monument 'Blue Man's Bower moated site, Whiston' falls within the 1km study area. There are several Grade I and II listed buildings within Whiston to the north east. Much of the study area lies within Green Belt land, as defined by RMBC.
- 6.6.10 The study area lies within National Character Area (NCA) 38: 'Nottinghamshire, Derbyshire and Yorkshire Coalfield' character (Natural England, 2013). The study area and its environs are therefore likely to exhibit characteristics of this NCA.
- 6.6.11 The Rotherham Landscape Character Assessment and Landscape Capacity Study (RMBC, 2010) places the Site within the following LCAs:
- LCA 5C – Coalfield Tributary Valleys – Canklow; and
  - LCA 6 – Rother Valley Floor character areas.
- 6.6.12 The Site is situated on a plateau mainly comprising agricultural fields bordered by incomplete hedgerows. It is visually screened from the north by broadleaf woodland and from the south and west by highway embankments and roadside vegetation, while the east features a mix of fields, hedgerows, and some residential properties. The surrounding area is more urban to the north and west, but remains rural to the east and south beyond the M1. The sensitivity of visual receptors in this area varies based on their interest in the environment and the value they place on current views. These are detailed in Table 5.1 of the EAR.
- 6.6.13 National Grid is committed to implementing the identified control measures to reduce or avoid any potential impacts that may occur during the construction and operation of the Scheme. The control measures are to be included in the CEMP and their implementation will be monitored by National Grid.
- 6.6.14 As aforementioned, the Scheme has been carefully sited and designed to minimise environmental and amenity impacts to the fullest extent practicable. It is acknowledged that despite this, the development would still result in an intensification of a landscape that already contains existing electricity infrastructure.
- 6.6.15 The following sections will therefore discuss construction and operational impacts and mitigation measures.

## **Construction**

- 6.6.16 The construction of the Scheme infrastructure would introduce temporary incongruent elements to the existing landscape setting to varying degrees at different stages throughout the construction of the Scheme.

- 6.6.17 Given the relatively small scale of the Scheme in relation to the scale of the NCA, it is not anticipated that there would be any effects that are likely to materially alter the character of the wider NCA. Finer grained assessments at regional or local scale are more suitable for use.
- 6.6.18 At a regional level, the Site and its surroundings already feature visible electrical transmission infrastructure, and although the wider area is mostly rural, its proximity to urban settlements and the M1 reduces the LCA sensitivity to development to medium/low. While local landscape features such as fields and vegetation would be noticeably affected, these impacts are mostly limited to the site itself, with minimal effects on the broader LCA. During construction, temporary impacts such as noise, dust and reduced tranquillity would extend beyond the site, resulting in a medium/low magnitude of change and a minor adverse effect on the landscape character.
- 6.6.19 At the local scale, the landscape is defined by irregular agricultural fields, mature hedgerows, woodland, and the presence of existing electrical infrastructure, the nearby M1 motorway, and the urban fringe. These factors result in a low sensitivity to change. Construction activities are expected to temporarily increase noise and disturbance, resulting in a moderate adverse effect on the local landscape character.
- 6.6.20 Movement and activity during construction, such as machinery, lighting and noise would be highly noticeable and attract attention, but these effects are temporary and short-term. The impacts are to be lessened by considerate construction practices and would diminish further once the Scheme is operational and mitigation planting matures.
- 6.6.21 Several residential properties are located within the study area, but many have views screened by woodland to the north and vegetation along the M1 to the south. For those with views of the Site, sensitivity is considered medium due to existing visual detractors. Properties off the A618 and on the urban fringe of Whiston would experience limited, partially screened views of construction activity, resulting in a temporary minor adverse effect. Properties within the Spa Farm estate, which have elevated and more open views, would experience a temporary moderate adverse effect due to visible construction activity. All effects are temporary, with visibility largely reduced by local vegetation and topography.
- 6.6.22 There are several PRoWs within the study area, each subject to varying degrees of exposure to the Scheme and offering different viewpoints. All PRoWs within the study area are considered to be of medium sensitivity.
- 6.6.23 PRoWs passing through or directly adjacent to the Site would have unavoidable, highly noticeable views of construction, resulting in a temporary major to moderate adverse effect. PRoWs slightly further away may experience limited glimpses due to topography and vegetation gaps, with a temporary moderate adverse effect. More distant or screened PRoWs are expected to experience only moderate to minor adverse effects during construction. Highways near the Site, such as Long Lane and the M1, are of low sensitivity and would have partially obscured, oblique views, resulting in a minor to negligible temporary effect.
- 6.6.24 As detailed in Table 5.3 within the EAR, the Scheme includes a range of mitigation measures to address potential landscape and visual impacts that may arise during the construction phase. These measures would be implemented to avoid or prevent adverse effects where possible, or otherwise to reduce the significance of such impacts on landscape character and visual amenity receptors throughout the construction period.

- 6.6.25 The mitigation measures proposed have been captured within the OCEMP. It is anticipated that the OCEMP and the measures proposed would be secured through a planning condition.

### **Operation**

- 6.6.26 As aforementioned, the development would result in an intensification of a landscape that already contains existing electricity infrastructure. The assessment considers the likely landscape effects both at Year 1 of operation and at Year 15, when mitigation planting is mature and residual effects are realised.
- 6.6.27 Given the relatively small scale of the Scheme in relation to the scale of the NCA, it is not anticipated that there would be any effects that are likely to materially alter the character of the wider NCA.
- 6.6.28 At the regional level, the area already contains visible electrical infrastructure, and while the broader landscape is mostly rural, nearby urban settlements and the M1 corridor reduce its sensitivity to development to medium/low. Local features such as fields and vegetation would be affected, but impacts on the wider LCA would be limited, especially as mitigation planting matures. Overall, the landscape can accommodate these changes and operational effects are expected to be minor to negligible adverse.
- 6.6.29 At the local scale, the landscape consists of irregular agricultural fields bordered by mature hedgerows, woodland and the M1 embankment, with low sensitivity due to the presence of existing electrical infrastructure, the motorway and nearby urban areas. Once operational, construction-related noise and activity would cease, and part of the Site would transition to industrial use. This change is expected to result in a moderate to minor adverse effect in Year 1, reducing to minor adverse by Year 15 as the setting adjusts.
- 6.6.30 A number of residential properties are present within the study area, but many have views screened by woodland to the north and M1 embankment vegetation to the south. For those with partial views, sensitivity is considered medium due to existing visual detractors. For properties off the A618, views in Year 1 would be mostly obscured, resulting in a minor adverse effect, reducing to negligible by Year 15 as mitigation planting matures. Properties in the Spa Farm estate, on higher ground, would have partial views of the operational Scheme, but these would be seen in the context of existing infrastructure, resulting in a minor adverse effect in both Years 1 and 15. Properties on the urban fringe of Whiston would have limited or obscured views due to woodland screening, with only minor to negligible effects expected over time.
- 6.6.31 During operation, those PRowS passing through or adjacent to the Site would have unavoidable and prominent views, resulting in a moderate adverse effect in Year 1 which reduces to minor adverse by Year 15 as mitigation planting matures. PRowS slightly further away would have limited glimpses of the Scheme, with minor adverse effects in Year 1 and negligible effects by Year 15. Most other PRowS would have views sufficiently screened by existing and future vegetation, resulting in negligible adverse residual effects. Highways such as Long Lane and the M1, of low sensitivity, would experience negligible adverse effects throughout, as visibility is reduced by distance and screening.

## Landscape and Visual Conclusion

- 6.6.32 The landscape baseline of the Site consists of a semi-urban environment, notably influenced by existing electrical transmission infrastructure and the M1 corridor, with a degree of tranquillity and visual containment generally present within approximately 1km of the Site. Although the Scheme would result in a material change in land use from semi-rural to industrial across part of the Site, the presence of existing infrastructure ensures that the Scheme would be less incongruent within its landscape context. Strategic landscape mitigation planting would serve to contain and screen the Scheme from the wider landscape, thereby reducing residual effects to no greater than moderate adverse at the site level and minor adverse across the wider landscape character areas in which it is situated.
- 6.6.33 Although the Scheme the is intensifying existing electricity infrastructure in the area, substantial screening from existing hedgerows, woodland, and the M1 embankment, combined with strategic mitigation planting, would help integrate the development into the landscape over time. By Year 15, mature mitigation planting and existing vegetation would effectively screen the Scheme, so that residual visual effects for all identified receptors are not expected to exceed minor adverse.
- 6.6.34 The future landscape is expected to become more suburban, leading to lower landscape sensitivity and a reduced magnitude of change, resulting in a lower overall landscape effect. While more residents may be present near the Site, any new developments are assumed to include their own visual mitigation measures.
- 6.6.35 When determining the acceptability of the Scheme in this context it is important to recognise that energy projects would often give rise to landscape and visual effects and that a judgement is therefore required as to whether the scale and significance of such effects is sufficient to outweigh the benefits of the Scheme. This is expressly recognised in NPS EN-1 (paragraph 5.10.35).
- 6.6.36 In regard to Policy CS21, that requires that the visual impacts schemes must not be detrimental to landscape at a national character, regional and local level. The LVIA concludes that once mitigation measures are implemented, the Scheme would result in a moderate to minor adverse effect at a local landscape level in Year 1, reducing to minor adverse by Year 15 as the setting adjusts to the Landscape Mitigation Plan. At a regional level, a minor to negligible adverse level of effect upon LCA is anticipated once the scheme becomes operational, at a national landscape level, it is not anticipated that there will be any effects that are likely to materially alter the character of the wider NCA.
- 6.6.37 Policy CS30, Low Carbon and Renewable Energy Generation, deems development (including supporting infrastructure) acceptable so long as environmental protection and site restoration continue after energy production ends. As highlighted above and in below sections (see Historic Environment) the Scheme is not anticipated to cause significant negative impacts on local historical assets or conservation areas, especially when considering mitigation measures would be implemented. The need for the Scheme as set out in Section 7.2 emphasises the Scheme is a response to help the UK's electricity infrastructure become carbon neutral and climate conscious.
- 6.6.38 Whilst not directly classified as Green Infrastructure, the Scheme would promote the establishment of vegetation in the area, as shown through the Landscape Mitigation Plan. The proposed can thereby also be seen as contributing to the objectives of Policy SP32, by enhancing green infrastructure within rural areas and addressing the needs of future users by appropriately mitigating changes to the landscape, the

Scheme has demonstrated a commitment to long-term, landscape sensitive and climate conscious management.

- 6.6.39 Whilst it has been largely demonstrated that the proposed construction and operational mitigation measures are consistent with local policy requirements, it should also be acknowledged that RMBC, through Policy SP69, recognises the need to ensure the efficient provision of electricity services within the district. The Scheme has provided clear evidence that it would meet this requirement, thereby supporting both local policy objectives and RMBC's commitment to maintaining and enhancing essential infrastructure provision. In doing so, the Scheme has demonstrated it has *'avoided or, where this is not possible, minimised any adverse landscape and environmental impacts'*.
- 6.6.40 When determining the acceptability of the Scheme in the context of the LVIA, it is important to recognise that energy projects would often give rise to landscape and visual effects and that a judgement is therefore required as to whether the scale and significance of such effects is sufficient to outweigh the benefits of the project. This is expressly recognised in NPS EN-1 (paragraph 5.10.35) in respect of energy projects. Core Strategy Policy CS21, meanwhile, requires that development proposals safeguard and enhance the quality, character, distinctiveness and amenity value of the borough's landscapes. Given the need for the Scheme (as set out in Section 7.2) and the fact that there would be no significant landscape and visual effects, the balance is considered to be firmly with the Scheme. The Scheme is therefore assessed as being in accordance with NPS EN-1, NPS EN-5 and the Development Plan.

## 6.7 Historic Environment

- 6.7.1 National Grid has a statutory duty under Schedule 9 paragraph 1 of the Electricity Act 1989 to protect buildings and objects of architectural, historic or archaeological interest.
- 6.7.2 Development Plan policies, including CS23, seek to conserve, enhance and manage Rotherham's historic environment, with support being given to those proposals that safeguard the heritage significance and setting of locally important heritage assets, including notable buildings, archaeological sites, and parks and gardens.
- 6.7.3 Policy CS28 highlights that development must consider impacts on heritage, townscape and landscape character including the height, scale, massing, density, layout, building styles and materials of the built form, particularly (but not exclusively) within and adjacent to conservation areas.
- 6.7.4 Policy SP42 stipulates that development which would harm the significance of nationally important archaeological remains and scheduled monuments will not be permitted. Where development has the potential to affect such assets, it may be deemed acceptable in principle only if the preservation of remains in situ can be ensured. In accordance with Policy SP43, any such development will also require comprehensive assessment and recording of the heritage assets prior to commencement, to ensure that their significance is appropriately documented and protected.
- 6.7.5 The NPPF (paragraph 207) requires applicants to describe the significance of any heritage assets (including their setting) affected by development, providing a level of detail which is proportionate to the assets' importance.

- 6.7.6 The NPPF policies differentiate between designated heritage assets and non-designated heritage assets.
- 6.7.7 With regard to designated assets, paragraph 212 requires that *‘when considering the impact of a proposed development on the significance of a designated heritage asset, great weight should be given to the asset’s conservation (and 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’*. In other words any harm to a designated heritage asset must be given great weight in the planning balance irrespective of the level of that harm.
- 6.7.8 Where harm to a designated asset is deemed to be ‘substantial’ paragraphs 213 and 214 of the NPPF are engaged. Where there would be ‘less than substantial harm’ to a designated asset paragraph 215 is engaged, which requires that harm to be weighed against the public benefits of the proposal.
- 6.7.9 In relation to non designated heritage assets paragraph 216 confirms that any effects should be taken into account in determining the application, continuing 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”*.
- 6.7.10 The following summary of the historic environmental features of relevance to the planning applications summarise in Chapter 6 of the EAR.

### **Designated Heritage Assets**

- 6.7.11 There are no world heritage sites, battlefields or registered parks and gardens within the Site or study area.
- 6.7.12 There are no designated heritage assets located within the Site, but there are two scheduled monuments, one conservation area, and 12 listed buildings within the 1km study area.

### **Scheduled Monuments**

- 6.7.13 Within the 1km study area, there are two scheduled monuments, Blue Man’s Bower moated site and Canklow Hill earthworks. Blue Man’s Bower is well screened from the Site along Long Lane and the Site does not form part of the monument’s setting, which is assessed as being of high value. Similarly, the setting of the Canklow Hill earthworks, also assessed as high value, does not encompass the Site.
- 6.7.14 As detailed in Table 6.1 of the EAR, the Canklow Hill earthworks have been scoped out of mitigation requirements, as no construction or operational impacts were identified. In contrast, Blue Man’s Bower has been considered further due to its proximity.
- 6.7.15 Assessment of construction control and monitoring measures confirms that Blue Man’s Bower will not be subject to direct (physical) impacts from the construction of the new 400kV substation, given its location approximately 260 metres west of the Site. While there is potential for temporary audible impacts resulting from construction noise, these impacts are anticipated to be negligible.
- 6.7.16 It has been assessed that mitigation is not required for the aforementioned heritage assets, with sufficient protection being applied through general control measures relating to temporary construction activity, this would be implemented through the CEMP and CTMP.

- 6.7.17 No potential operational impacts were identified for heritage receptors within the Site.
- 6.7.18 Operation of the Scheme would not change the setting of the Blue Man's Bower scheduled monument, i.e. how it is experienced; therefore, no operational impacts were identified for this receptor.

### **Conservation Area**

- 6.7.19 Whiston Conservation Area (WCA) is the only conservation area located within 1km of the Site. WCA is partially located within the 1km study area, but lies outside the planning application site, approximately 220m to the north east. It encompasses the medieval historic core of Whiston Village, including several listed buildings such as the Grade II\* Church of St. Mary Magdalene.
- 6.7.20 The area is characterised by two-storey stone dwellings, open greenspace and mature vegetation, retaining a rural character despite its urban context. The wider setting, consisting of agricultural landscape and former farmsteads, contributes to the conservation area's significance and can be visually appreciated from its southern edge. The Site lies within this wider agricultural setting but is not visible from the conservation area due to intervening valley sides and ridgelines. As such, the Site makes only a minor contribution to the significance of the conservation area, which is considered to be of medium value.
- 6.7.21 It has been assessed that during construction, there is potential for minor temporary audible changes to the WCA's setting from construction activity/increased traffic; however, these impacts would be negligible. It has been assessed that mitigation is not required for heritage asset, with sufficient protection being found through general control measures relating to temporary construction activity, implemented through the CEMP and CTMP.
- 6.7.22 It has been assessed that operational mitigation measures would not be required as the immediate setting of WCA is characterised by the village's historic core which includes several Listed Buildings, while the wider setting of the conservation area is characterised by the surrounding agricultural landscape. Although the Site falls within the wider setting of WCA, it is not visible from the conservation area itself as it lies beyond a ridgeline of trees to the south west. Operation of the Scheme would not change how the setting of the conservation area is experienced; therefore, no operational impacts were identified for this receptor.

### **Listed Buildings**

- 6.7.23 There are 12 listed buildings located within the 1km study area; of these, six are located within WCA. The other six listed buildings are located outside of the conservation area.
- 6.7.24 It has been assessed that construction and operational mitigation measures are necessary for only the listed buildings within the Whiston CA, as there is the potential for minor temporary audible change to asset's setting from construction activity/increased traffic. It is assessed however that these impacts would be negligible. As detailed in Table 6.1 of the EAR, direct mitigation measures are not required for any of the listed buildings beyond those general control measures relating to temporary construction activity that would be implemented through the CEMP and CTMP.

## **Non-Designated Heritage Assets**

- 6.7.25 There are no non-designated post-medieval period assets recorded within the Site, but there are five recorded within the 1km study area.
- 6.7.26 Of note for mitigation measures, around 80 flints were previously recorded within the Site in the 1940s, in the eastern field and south western corner adjacent to Long Lane. The extensive nature of finds within the Site and recorded activity within the 1km study area indicates potential for Prehistoric remains within the Site which (if present) would be directly (physically) impacted by construction of the Scheme.
- 6.7.27 To manage this, mitigation measures in the form of geophysical survey are to be undertaken to investigate potential for remains. Trial trenching is to be carried out to target any potential remains identified from the geophysical survey.
- 6.7.28 Depending on the results of additional survey, an Archaeological Mitigation Strategy may need to be implemented via a Written Scheme of Investigation. This would identify the risk of archaeological remains being impacted by the Scheme and develop a mitigation approach to be implemented ahead of construction works to reduce potential impacts. Mitigation may include archaeological recording prior to construction, or a watching brief.
- 6.7.29 Further archaeological investigation could provide additional information leading to more detailed interpretation. Therefore, it is possible that the value of the assets could change. Based on their current low value/significance, the construction impact would not be significant.

## **Historic Environment Conclusion**

- 6.7.30 The Project has been carefully designed to avoid, reduce or mitigate potentially significant effects on cultural heritage and archaeology assets.
- 6.7.31 As demonstrated, the Scheme has effectively identified and assessed all heritage assets within its heritage baseline. With the implementation of the proposed mitigation measures, it is concluded that there would be no significant impact on any heritage assets within the study area during the construction and operation of the Scheme. The Scheme would not result in substantial harm to any designated heritage assets. Accordingly the policy assessment contained in Paragraph 214 of the NPPF is not engaged.
- 6.7.32 It is considered that any adverse effect should be considered harm in the context of the NPPF, and therefore only a neutral effect should be considered as indicating no harm to designated heritage assets. The assessment presented within the Cultural Heritage section of the EAR concludes that with the adoption of mitigation measures during construction, that there would be no significant effects on the designated assets described above. The Cultural Heritage Assessment concludes that during construction any impacts would be negligible. No adverse operational effects are anticipated. Accordingly, it is considered that the Scheme will result in less than substantial harm to the significance of designated heritage assets.
- 6.7.33 Whilst the potential impacts on non-designated heritage assets have been assessed as temporary, occurring during construction Paragraphs 215 and 216 of the NPPF is engaged. The Planning Practice Guidance (PPG) (Heritage: Paragraph 018) notes that harm can arise from change in setting or temporary development if it affects the way significance is experienced. However, the duration, reversibility, and extent of the impact are key factors.

*'In assessing any proposal that directly or indirectly affects a designated heritage asset, it is important to understand the particular significance of the asset that may be affected and the extent of any impact on that significance. Temporary works or changes may also cause harm, but the degree of harm and its duration are relevant considerations.'*

- 6.7.34 Accordingly, less than substantial harm on both designated and non-designated assets has been assessed as likely to arise during construction works, these impacts are both temporary and reversible and will not result in the permanent loss of significance. Given the short duration and reversible nature of the impact, the harm should be afforded limited weight in the overall planning balance.
- 6.7.35 Policy CS23 requires development to conserve, enhance and manage heritage assets within Rotherham. In line with Policy SP42 the Scheme has supplied a comprehensive assessment and will record heritage assets prior to commencement, to ensure that their significance is appropriately documented and protected.
- 6.7.36 Policy SP42 further stipulates that where development has the potential to affect such assets, it may be deemed acceptable in principle only if the preservation of remains in situ can be ensured. As required by the policy the Scheme has demonstrated that the significance of heritage assets including listed buildings, scheduled monuments, conservation areas and other non-designated assets will not be significantly harmed. As previously noted, the Site and recorded activity within the 1 km study area indicate a potential presence of Prehistoric remains that could be directly impacted by Scheme construction. Depending on the results of further surveys, an AMS may be required via a WSI. This would assess potential risks to archaeological remains and outline mitigation measures to be implemented prior to construction, such as pre-construction archaeological recording or a watching brief during works. As detailed, all other heritage designations are assessed as not being significantly harmed by the Scheme.
- 6.7.37 Furthermore, Policy CS28 emphasises that development situated within or adjacent to conservation areas must carefully consider its impact on heritage, townscape, and landscape character. This includes factors such as the height, scale, massing, density, layout, building styles and materials of the proposed built form, with particular relevance to those areas within or near conservation areas. As previously noted, during construction on the Scheme there is the potential for temporary negligible audible impacts, these have been assessed as so limited that specific mitigation outside those general control measures as to be included in CEMP and CTMP are not required. During operation of the Scheme would not alter the way in which the setting of the WCA is experienced. Consequently, no operational impacts have been identified for this receptor. It can therefore be assessed that the Scheme adheres to the policy.
- 6.7.38 National Grid is committed to implementing the identified control measures to reduce or avoid any potential impacts during the construction and operation of the Scheme. These control measures would be incorporated into the CEMP, and their implementation would be closely monitored by National Grid.
- 6.7.39 Accordingly, with no operational impacts identified and with those during construction being appropriately mitigated for, the Scheme is fully compliant with the heritage policies of the Development Plan, the NPPF, and NPS EN-1, as well as National Grid's statutory duties under the Electricity Act 1989.

## 6.8 Traffic and Transport

- 6.8.1 The NPPF, NPS EN-1 and RMBC policies promote sustainable transport modes and seek to avoid adverse impacts on the highways network.
- 6.8.2 Policy CS14 does not permit new development within Air Quality Management Areas unless the associated traffic and air quality impacts are appropriately mitigated. The policy also seeks to maximise the use of the PRoW network and other routes to promote travel by foot and bicycle. Furthermore, it requires the submission of Transport Assessments for developments of an appropriate scale, in accordance with current national guidance on thresholds, relevant to the type of development proposed.
- 6.8.3 Policy CS15 aims to improve key transport routes to manage congestion through the implementation of traffic management measures, bus priority initiatives, and enhanced facilities for cyclists and pedestrians. Complementing this, Policy SP28 requires careful consideration of any potential adverse impacts of development on key transport routes and the strategic road network. For the Scheme, this includes mitigating potential impacts affecting the M1.
- 6.8.4 Policy SP56 addresses the visual impact of parking on the street scene and requires defined visitor parking to be provided on street. It discourages the obstruction of footways by kerbside parking and prohibits parking arrangements that compromise highway operation. Furthermore, it aims to ensure that in-curtilage or on-plot parking does not result in streets being dominated by parking platforms or large expanses of garage doors facing the street. These parking requirements are detailed further in the Transport Assessments, Travel Plans and Parking Standards SPD. Due to the type of development and relative countryside setting, primary consideration of the policy will be to ensure that car parking for service use is limited from public view. As outlined in Appendix A of the SPD, a Travel Statement is required for general industrial developments exceeding 1,250m<sup>2</sup>, while a Transport Assessment and Travel Plan are necessary for developments over 2,500m<sup>2</sup>. Chapter 11 of the EAR forms the basis of the Transport Assessment. Based on the construction personnel numbers, it is not considered necessary to produce a travel plan for the Scheme.
- 6.8.5 The NPPF (paragraph 115) stipulates that (inter alia) applications for development should ensure that: sustainable transport modes are prioritised; safe and suitable access to the Site can be achieved for all users; and any significant impacts from the development on the transport network or on highway safety can be cost-effectively mitigated to an acceptable degree. At paragraph 116, the NPPF goes on to state that development should only be refused on highways grounds if there would be an unacceptable impact on highway safety, or the residual cumulative impacts on the road network would be severe. For developments that will generate significant amounts of movement, Paragraph 117 requires that applications are supported by a vision-led transport statement or transport assessment. NPS EN-1 is broadly consistent with the policy contained in the NPPF.
- 6.8.6 As detailed in Chapter 11 of the EAR, the extent of highway network considered within this appraisal was informed by the proposed construction route identified for material and equipment delivery to the Site and by roads which will be used by construction staff traffic. The construction route consists of Long Lane, A631 West Bawtry Road and the A630 connecting to the M1 Junction 33 (Catcliffe Roundabout) which forms part of the strategic road network.

- 6.8.7 Long Lane is located to the south of the A631 and will serve as the primary access route to the Site. The route is predominantly rural, bordered by agricultural fields and farms, and lacks designated pedestrian or cycling infrastructure. Long Lane has been assessed as not sensitive, given the minimal presence of sensitive receptors, with only PRoWs accessed via this route.
- 6.8.8 The existing walking and cycling infrastructure along the proposed construction route includes no footway or designated cycle lanes on the A630 and Long Lane. There is a shared use pathway on the eastbound side near settlements, with widths ranging from 2.5-3.1m. No footpaths, bridleways, or crossings are present near the Site access, although two footpaths (Whiston Footpath 10 and Whiston Footpath 12) are located south of the Site.
- 6.8.9 Included within the baseline assessment, the EAR details the local public transport in relation to the site consisting of several bus services that route on the A631, near the junction with Long Lane. The closest railway station is Rotherham Central Station, a driving distance of 5.1km from the Site access on Long Lane.
- 6.8.10 The appraisal, as detailed in the EAR, includes estimated maximum daily traffic movements associated with construction activities, with a predicted maximum of 210 movements per road assessed, comprising 130 HGV two-way movements and 80 two-way movements by cars or Light Goods Vehicles. Construction is scheduled to commence in September 2026 and conclude in January 2031, with peak traffic anticipated in 2027. This peak period has been used to assess the worst-case scenario for construction traffic volumes.
- 6.8.11 According to Table 11.5 of the EAR, the projected increase in construction HGV traffic on Long Lane relative to 2027 baseline flows, exceeds the 30 per cent threshold recommended in IEMA guidance. Consequently, an assessment of potential residual effects on existing and future road users, as well as other receptors, has been undertaken.
- 6.8.12 While the projected increase in HGV movements is significant, it should be considered in the context of the very low future traffic baseline on Long Lane. During peak construction, a maximum of 65 HGVs (equivalent to 130 two-way movements) per day is anticipated, averaging 10 to 11 two-way HGV movements per hour.
- 6.8.13 The construction phase will be temporary, and appropriate control measures to minimise adverse traffic effects will be incorporated into the detailed CTMP, as outlined in Table 11.4 of the EAR.
- 6.8.14 Potential effects along Long Lane are therefore to be short term and temporary, and are assessed as negligible and not significant.
- 6.8.15 No operational control measures have been identified for heritage assets within the site or the study area. During the operational phase, the only traffic generated would be associated with infrequent repair, routine maintenance, inspection activities, and a small number of operational staff, estimated at approximately 10 vehicles per year, subject to operational requirements. Consequently, operational traffic is not anticipated to have a material impact on the transport network or receptors, and no further assessment is considered necessary.

## Traffic and Transport Conclusion

- 6.8.16 Overall, the Scheme would not have unacceptable adverse highways and traffic (including safety) impacts and the operational capacity of the highway would not be exceeded during both the construction and operational phases of the Scheme.
- 6.8.17 The construction route of Long Lane, A631 West Bawtry Road, and the A630, connecting to the M1 Junction 33 is expected not to have an unacceptable adverse effect on amenity or the character of the area. Owing to the temporary nature of construction traffic, taking into account the mitigation embedded in the Scheme and measures contained in the CTMP, and given the very low volume of operational traffic and vehicle movements associated with the Scheme, it is not anticipated that adverse transport-related issues would arise.
- 6.8.18 In accordance with Policy CS14, engagement has taken place with RMBC to discuss the requirement for a temporary closure and permanent realignment of Whiston Footpath 10. The proposed permanent diversion would largely follow the existing PRoW. No objections or concerns pertaining to the temporary closure and permanent diversion were made by RMBC. When operational, the Scheme would maintain continued access across the wider Long Lane site and into the wider countryside.
- 6.8.19 The Scheme is, therefore, in accordance with Policies CS14, CS15 and SP28 of the Local Plan, the NPPF and NPS EN-1.

## 6.9 Air Quality

- 6.9.1 As required by the Environment Act 1995 (amended 2021), Sheffield City Council and RMBC have both undertaken a review and assessment of air quality within their areas of jurisdiction. This process has indicated that within Sheffield City Council's authority there are three declared AQMAs and within RMBC's authority there are four declared AQMAs.
- 6.9.2 The Local Plan requires that new development in AQMAs is only permitted if traffic and air quality impacts are appropriately mitigated (Policy CS14). Policy CS27 states that development must be suitable for its location, considering existing sources of pollution and necessary remedial measures. Policy SP52 further requires that developments likely to cause or be exposed to pollution are only allowed if mitigation measures can protect health, environmental quality, and amenity, including compliance with national air quality objectives and local Air Quality Action Plans.
- 6.9.3 The Air Quality and Emissions SPD (RMBC, 2020a) stresses early engagement with the LPA for proposals likely to affect areas exceeding NO<sub>2</sub> limits and sets requirements for electric vehicle charging infrastructure in non-residential developments (20 per cent for parking above five spaces), as well as the need for an Air Quality Impact Assessment and a Mitigation Statement.
- 6.9.4 As detailed in Chapter 7 of the EAR, the Scheme is located within one of RMBC's AQMAs, 'Rotherham AQMA 1'. This AQMA was declared in 2002 for annual mean NO<sub>2</sub> concentrations and covers the area along the M1 between Upper Whiston (to the east of the Site) and the boundary with Sheffield City Council (to the west of the Site) and extending on either side to encompass Brinsworth and Catcliffe. The Scheme is also located within 1km of the Sheffield City Council AQMA 'Sheffield Citywide AQMA', which was declared in 2010 for NO<sub>2</sub> and Particulate Matter less than 10 micrometres in diameter (PM<sub>10</sub>).

- 6.9.5 As the Scheme is located within an AQMA, there is potential for increased human exposure to air pollutants. To assess baseline air quality, existing monitoring data in the area have been reviewed, and a project-specific monitoring survey has been commissioned for more detailed baseline information.
- 6.9.6 The NPPF (Paragraph 199) states that: 'Planning policies and 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. Opportunities to improve air quality or mitigate impacts should be identified, such as through traffic and travel management, and green infrastructure provision and enhancement [...] Planning decisions should ensure that any new development in Air Quality Management Areas and Clean Air Zones is consistent with the local air quality action plan'. Paragraph 5.2.7 of NPS EN-1, meanwhile, requires that, where a project is likely to have adverse effects on air quality, the applicant should undertake an assessment of the impacts of the project on air quality as part of an ES.
- 6.9.7 As detailed within Chapter 7 of the EAR, a review of diffusion tube monitoring data, currently monitored by Sheffield City Council and RMBC, within 3km of the Scheme shows that in 2022 there were no exceedances of the Air Quality Strategy objective for NO<sub>2</sub>, with all monitoring sites recording annual mean concentrations below the threshold. To better inform baseline conditions in the immediate vicinity of the Scheme, a six-month NO<sub>2</sub> diffusion tube monitoring survey was carried out from May 2024 to November 2024. All monitoring sites, with the exception of one (B1\_T), monitored NO<sub>2</sub> concentrations that are well below the Air Quality Strategy objective for NO<sub>2</sub>.
- 6.9.8 The Scheme has undertaken a construction phase dust risk assessment in accordance with the Institute of Air Quality Management (IAQM) (2024) construction dust guidance. Control measures are listed in Table 7.4 of the EAR to ensure applicability to policy requirements and national guidance. These include a Dust Management Plan which would be implemented to reduce or avoid any potential impacts that may occur during the construction of the Scheme. The control measures are to be included in the CEMP and their implementation will be monitored by National Grid.
- 6.9.9 There is to be no demolition activities as part of this application during the construction of the Scheme. With appropriate mitigation, all dust generating activities would result in a negligible impact during the construction phase.

### **Construction Traffic**

- 6.9.10 The Scheme has also assessed the potential construction traffic flows associated with the Scheme. These have been assessed against thresholds set out in IAQM (2017) Development Control guidance for human receptors; and National Highways' (2024) Design Manual for Roads and Bridges LA 105 Air Quality for sites with relevant ecological designations.
- 6.9.11 Due to the presence of Rotherham AQMA 1, the more stringent IAQM criteria were applied. Forecasts indicated that, during two separate years of construction, traffic flows would exceed IAQM screening criteria for both light duty vehicles (an increase of 104 LDVs in 2028) and heavy duty vehicles (an increase of 26 HDVs in 2027), requiring a detailed assessment of potential impacts on human receptors. However, these increases did not exceed the Design Manual for Roads and Bridges LA 105

thresholds for ecological receptors (over 1,000 Annual Average Daily Traffic or 200 HDVs), so impacts to designated ecological sites were screened out.

- 6.9.12 A worst-case scenario was modelled using conservative assumptions regarding traffic volumes, assessment year, routeing and emission rates, focusing on sensitive human receptors within 200m of haul routes. The assessment compared baseline (Do Nothing, 2024) and construction (Do Something, 2024) scenarios, with particular attention to NO<sub>2</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub>, the principal pollutants associated with traffic emissions.
- 6.9.13 The magnitude of impacts at modelled receptors was categorised according to IAQM (2017) guidance and summarised in Table 7.6 of the EAR. As detailed, the impacts are categorised as negligible for each pollutant and therefore there are no residual significant effects associated with emissions from construction vehicle movements.
- 6.9.14 During normal operation of the Scheme, the only traffic generated would be associated with infrequent repair and routine maintenance and inspection activities and a small number of operational staff (assumption of 10 vehicles per year). This number of vehicle movements is well below screening thresholds, therefore an operational phase air quality assessment is scoped out.

## Air Quality Conclusion

- 6.9.15 Through the implementation of a Dust Management Plan as part of the CEMP, the Scheme would not have any unacceptable residual impacts on air quality. Appropriate and required surveys and statements would accompany planning submission.
- 6.9.16 An appropriate provision for electric vehicle charging spaces has been achieved, exceeding the minimum of 20 per cent of parking spaces having charging points.
- 6.9.17 The Scheme is therefore in accordance with Policy CS27, SP52, the Air Quality and Emissions SPD (RMBC, 2020a) as well as the NPPF and NPS EN-1.

## 6.10 Noise and Vibration

- 6.10.1 Policy SP52 stipulates that development proposals likely to cause or be exposed to pollution will only be permitted where it can be demonstrated that mitigation measures will reduce potential impacts to levels that protect health, environmental quality, and amenity. In light of the presence of noise-generating uses near the Site, as well as the potential for noise from the Scheme, a Noise Assessment will be required to support clear decision making in relation to any planning application.
- 6.10.2 Policy CS27 requires that new development be appropriate and suitable for its location. Proposals must consider whether the development, either proposed or existing, would contribute to, or be at unacceptable risk from, pollution.
- 6.10.3 Additionally, consideration of both the natural and built environment must address the relevant assets as outlined in Policies CS20, SP33, SP35, and SP41.
- 6.10.4 The Noise Policy Statement for England (NPSE) (Defra, 2010) sets out the long-term vision of government noise policy which is to promote good health and good quality of life through the management of noise. The thresholds for assessing health effects and quality of life are important, particularly when considering and comparing different scenarios as well as establishing the need for, and extent of, noise

mitigation. The NPSE introduces the concept of the NOAEL (No Observed Adverse Effect Level), LOAEL (Lowest Observed Adverse Effect Level), and SOAEL (Significant Observed Adverse Effect Level). The PPG also introduces the concept of the UAEL (Unacceptable Adverse Effect Level).

- 6.10.5 Paragraph 187 of the NPPF states that, 'planning decisions should contribute to and enhance the natural and local environment by [...] preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of [...] noise pollution'. Paragraph 198 stipulates that planning decisions should ensure that proposals are appropriate for their location, mitigating and reducing to a minimum potential adverse impacts resulting from noise and preventing noise giving rise to significant adverse impacts on health and quality of life.
- 6.10.6 NPS EN-5, sets out at paragraph 2.11.7 that relevant assessment methodologies have been used in the evidence presented, and that the appropriate mitigation options have been considered and adopted. It states that, where the applicant can demonstrate that appropriate mitigation measures will be put in place, the residual noise impacts are unlikely to be significant.
- 6.10.7 As aforementioned, the Horlock Rules also apply noise regulations alongside their recommendations for designing and positioning substations adjacent to CSE compounds and line entries. Horlock Rule 5 states that proposals should keep visual, noise and other environmental effects to a minimum.
- 6.10.8 An Operational Noise Impact Assessment Report (Ref. EEN/565/NOTE2024) accompanies the submission. Its findings have been summarised in Chapter 10 of the EAR.
- 6.10.9 The acoustic environment at the Site, as described in Chapter 10 of the EAR, is primarily influenced by traffic on the M1, with occasional birdsong and infrequent aircraft noise. The most exposed noise-sensitive receptors identified are properties at Whiston Vale (especially 41 Whiston Vale, approximately 200m north east of the Scheme boundary) and residential property (Games) (about 250m west of the Scheme boundary).
- 6.10.10 According to the Noise Impact Assessment, unmitigated noise levels from the Scheme are considered acceptable, as background sound levels are within set limits and impacts are expected to be negligible. Therefore, no further acoustic mitigation is required. Overall, noise impacts to all noise-sensitive receptors are anticipated to be negligible, and the only mitigation considered necessary is for specific equipment (e.g., SGTs, shunt reactor, power quality filter, circuit breakers, disconnectors, relay room) to ensure compliance with noise standards.
- 6.10.11 Details of environmental management and control procedures for vibration, alongside ecology, traffic, noise, dust, contamination, hazardous materials, drainage, and pollution, are to be set out in the OCEMP, to be agreed with RMBC before construction begins. After planning approval, the Construction Main works contractor will update the OCEMP to a full CEMP, which will adhere to the OCEMP. National Grid is committed to implementing and monitoring these control measures, using a Best Practicable Means approach to plan construction primarily during daytime hours (7am–5pm, Monday to Friday) to minimise noise and vibration impacts on residents. Any works outside these hours would require prior agreement with RMBC.

- 6.10.12 The Noise and Vibration chapter concludes that the Scheme may potentially introduce additional sources of noise and vibration, such as construction work and operation of construction traffic, plant and equipment. National Grid is committed to implementing control measures to reduce or avoid any potential impacts that may occur during the construction of the Scheme. Appendix B of the OCEMP contains outline proposals to manage noise and vibration during construction and will be updated for the detailed CEMP.

## **Noise and Vibration Conclusion**

- 6.10.13 The Noise and Vibration assessment presented in the EAR concludes that during construction the scheme has the potential to introduce additional sources of noise and vibration. National Grid is committed to implementing control measures to reduce or avoid any potential impacts. The control measures are identified within the OCEMP which would be secured by planning condition. with the mitigation measures identified within the OCEMP during construction.
- 6.10.14 During operation, based on the acoustic modelling undertaken, the noise impacts are anticipated to be negligible to all receptors. Therefore, a power quality filter, circuit breakers, disconnectors and relay room are considered suitable to mitigate potential noise impacts from the Scheme. No further acoustic mitigation is proposed.
- 6.10.15 It is therefore in accordance with Policy SDC13, the NPSE, NPPF, NPS EN-1 and NPS EN-5.

## **6.11 Land and Ground Conditions**

- 6.11.1 RMBC Core Strategy Policy CS27 details that new development should be appropriate for its location and must consider several key factors in its design and siting. These include, but are not limited to, assessing whether the development could contribute to, or be at risk from, pollution, natural hazards, or land instability. As a part of this, development must evaluate public safety and health risks arising from current or past site activities and potential indirect or cumulative effects on sensitive uses and ecosystems considering the impact of existing pollution sources and the scope for remedial action on contamination and land stability.
- 6.11.2 In addition, Policy SP54 requires proposals to demonstrate that there is no significant harm or risk to human health, the environment, or any watercourse or groundwater on land that is known or suspected to be contaminated, or from development that may lead to the release of contaminants from adjacent land, or where unstable ground conditions exist. Proposals should ensure that all necessary remedial actions are undertaken to protect users or occupiers of the site and neighbouring land, as well as the environment and any buildings or services, from contamination during and after development. They must also show that adverse ground conditions have been properly identified and safely treated, and clearly demonstrate to the satisfaction of the LPA that the land is suitable for its current or proposed use.
- 6.11.3 Policy SP36 highlights that in regard to soils during both construction and operation, proposals should show feasible methods for the temporary storage and reuse of high quality soils and ensure built development is designed with respect to soil function and capacity, aiming to preserve or enhance soil functions. Incorporating green space and sustainable drainage to retain permeable surfaces, promote water infiltration, reduce erosion, and maintain natural soil functions is encouraged.

Practices that waste, degrade, compact, or pollute soil, or create largely impermeable surfaces, should be avoided.

- 6.11.4 When development is proposed on BMV agricultural land, lower-grade land should be prioritised, and measures to conserve soil resources must be demonstrated. Detailed soil assessments may be required to support sustainable soil reuse. Proposals that promote soil conservation and minimise the use of imported soils and aggregates, while considering impacts on local geodiversity and biodiversity, are supported.
- 6.11.5 The NPPF and NPS EN-1 seek to ensure that proposals incorporate measures to mitigate the contamination of land and that, where necessary, appropriate remediation is undertaken. The NPPF stipulates that planning policies and decisions should promote the effective use of land and recognise the benefits of the BMV agricultural land. Annex 2 of the NPPF defines BMV agricultural land as that which is in Grades 1, 2 and 3a of the Agricultural Land Classification. The NPPF establishes that, where significant development of agricultural land is demonstrated to be necessary, areas of poorer quality land should be preferred to those of a higher quality. Similarly, NPS EN-1 sets out that applicants should seek to minimise impacts on BMV land and preferably use land in areas of poorer quality, except where this would be inconsistent with other sustainability considerations. However, at paragraph 5.11.3, NPS EN-1 recognises that, whilst the re-use of previously developed land can make a major contribution to sustainable development, this is not always possible for many forms of energy infrastructure.
- 6.11.6 NPS EN-1 notes that an energy infrastructure project will have direct effects on the existing use of a site and may have indirect effects on the use, or planned use, of land in the vicinity for other types of development. At paragraph 5.11.8, NPS EN-1 requires that an applicant's ES should identify existing and proposed land uses near development proposals and any effects of replacing an existing development or use of the site with the proposed project or preventing a development or use on a neighbouring site from continuing. It sets out that applicants should also assess any effects that potentially risk precluding another development or use proposed in the development plan.
- 6.11.7 Consistent with the requirements of the Development Plan and national planning policy, a Ground Investigation Report including Contaminated Land Assessment has been completed alongside a Coal Mining Risk Assessment for Site and is submitted with the planning application.

## **Mining**

- 6.11.8 The Consultants Coal Mining Report (The Coal Authority, 2023) covers a broader area than the specific site, with distances from the Scheme boundary approximated. No coal seams are mapped directly beneath the Site, but one seam is present about 45m east. Two unlicensed opencast coal mining areas are noted locally: one adjacent to the eastern Scheme boundary (following the coal seam) and another over 400m south, outside the study area. There is no evidence of mining directly below the Site, but this cannot be fully confirmed due to the unlicensed nature of adjacent works and the report's coverage area. No mine entries or mine gas records exist within 100m of the Scheme boundary. While the Site lies within an area of shallow coal and a potential mineral safeguarding area as per local policy, no coal seams or other mineral resources are mapped within the Scheme boundary itself. Therefore, the Scheme is unlikely to sterilise any economically viable coal or mineral resources.

## Contamination

- 6.11.9 As part of the Ground Investigation (2024), 17 natural soil samples from the Site were analysed, showing no exceedances of industrial/commercial assessment criteria and no detection of asbestos, polycyclic aromatic hydrocarbons, mineral oil, methyl tertiary-butyl ether (MTBE), benzene, toluene, ethylbenzene, and xylene (BTEX), or polychlorinated biphenyls above laboratory limits. Soil leachate testing on 11 samples found minor exceedances of chromium, copper, cadmium and mercury compared to Environmental Quality Standards, but these were within the same order of magnitude as the standards. Groundwater monitoring at several locations identified exceedances of certain metals, sulphate, and phenol, particularly near historical mining areas. Surface water monitoring in Ulley Brook revealed minor exceedances of fluoranthene and chromium species. No visual or olfactory evidence of contamination was noted, and all soil samples were classified as non-hazardous waste.
- 6.11.10 The baseline ground and hydrogeological conditions are not expected to change significantly before construction, and although gross contamination is not anticipated, this would be confirmed by further site-specific investigations to determine if remediation is required. Overall, significant changes to ground conditions are not expected.
- 6.11.11 Appropriate mitigation measures are outlined in Table 9.5 of the EAR and include the adoption of an appropriate CEMP.

## Geology

- 6.11.12 A ground investigation was undertaken on the Site and surrounding land between 17 September and 18 October 2024. This was undertaken by Winshall Ltd with Jacobs Ltd as designers and producers of the Ground Investigation Report, Ref: B2441B05-JAC-BR-XX-RP-C-02106, dated February 2025. The following exploratory holes were undertaken within the Scheme boundary; four hand dug trial pits (TP), five machine-excavated trial pits and three boreholes (BH) comprising dynamic sampling/rotary follow on.
- 6.11.13 The general conditions encountered comprised a thin layer of organic topsoil and weathered Mexborough Rock (predominantly recorded as medium dense red brown gravel) over intact Mexborough Rock (extremely weak to medium strong thinly bedded red brown sandstone. Within TP4 between 1.7-2m below ground level and in BH1 between 0.95-2m below ground level, cohesive deposits were encountered which were interpreted by Jacobs as Pennine Coal Measure overlying the Mexborough Rock.
- 6.11.14 Mitigation measures outlined in Table 9.5 of the EAR include:
- appropriate geotechnical design;
  - update of the mining risk assessment with the information from the ground investigation; and
  - adoption of an appropriate CEMP and Construction Phase (Health and Safety) Plan.

## Hydrogeology

- 6.11.15 As detailed in Chapter 9 of the EAR, a desk study including the use of Defra (2024) Multi-Agency Geographic Information for the Countryside (MAGIC) maps indicate that the Site is underlain by a Secondary A aquifer, which can support local water supplies and contribute to river base flows.
- 6.11.16 Nearby, alluvium to the west is also classified as a Secondary A aquifer, and Head deposits to the north are considered secondary undifferentiated aquifers. The bedrock aquifer is rated as medium to high vulnerability, but the Site is not within a Source Protection Zone. No superficial deposits underlie the Site itself, though nearby Head and alluvium deposits are highly vulnerable.
- 6.11.17 There are no private water supplies or groundwater abstractions on site or within 250m. Groundwater monitoring from three boreholes in 2024 found groundwater generally between 2-4m below ground level, though measurements may vary seasonally.
- 6.11.18 The existing baseline conditions with respect to hydrogeology are unlikely to change significantly within the time prior to the construction. Based on the available information, gross and widespread contamination is not anticipated, however, this is subject to completion of site-specific ground investigation works to confirm if remediation is needed. Significant changes to ground conditions are not anticipated.
- 6.11.19 Mitigation measures outlined in Table 9.5 of the EAR include the requirement that, should piled foundations be necessary, a piling risk assessment must be undertaken to assess possible risks to groundwater, surface water, and potential ground gases. In addition, the adoption of an appropriate CEMP is recommended to ensure effective risk management.

## Unexploded Ordnance

- 6.11.20 The Unexploded Ordnance (UXO) risk maps (Zetica, 2024) indicate the Site is located within an area of low risk, 'indicated as having less than 15 bombs per 1,000 acres. The Preliminary Desk Study Assessment for the Site concluded that 'a detailed desk study, whilst always prudent, is not considered essential in this instance'.

## Radon

- 6.11.21 According to the UK Radon Risk Map (UK Health Security Agency, 2024), the Site is in an area where <1 per cent of properties are estimated to be above the radon action level. As such, it is unlikely that new development or structures within the Site will require radon protection measures.

## Agricultural Land

- 6.11.22 Available national soil survey information indicates that the soils across the Site are predominantly characterised by the Rivington 1 Association, which comprises well-drained coarse loamy soils over sandstone. A small area along the west of the Site is characterised by the Conway Association, comprising deep stoneless fine silty and clayey soils variably affected by groundwater.
- 6.11.23 The Agricultural Land Classification survey identified two main soil types within the area: shallow loam over sandstone and deep loam with varying clay and sand content. Most of the Site consists of non-BMV agricultural land, classified as Grade

3b (24 per cent) and Grade 4 (70 per cent), which are of moderate or poor quality. Only a small portion, 1.0 hectares (6 per cent), is classified as Grade 2, representing very good quality (BMV) agricultural land.

- 6.11.24 While the partial loss of Grade 2 land is acknowledged as an adverse effect, it represents only a small proportion of the overall site area and a very limited loss of BMV land within the local and regional context. The proposal has been designed to minimise the extent of BMV land affected, concentrating built form and associated infrastructure on the lower-grade areas wherever practicable.
- 6.11.25 An Outline Soil Management Plan (Ref. EDEU-ARC-ENVS-XXXXXX-RP -ENS - 000003) has been prepared and is submitted alongside this EAR as part of the planning application. A detailed Soil Management Plan is to be prepared post-planning consent and implemented during construction and operation to protect agricultural land quality and soil resources, ensuring that good practice measures are implemented for soil stripping, stockpiling and reinstatement.

### **Historic Land Use**

- 6.11.26 A review of historical OS maps shows that the Site has largely remained agricultural or undeveloped since 1855, with early maps labelling it as liable to flooding and marshy. Notable developments in the surrounding area include a sandstone quarry to the north west (old by 1891), Whiston Brook to the west, and a covered sewage works appearing by 1891 just north of the Site. The M1 motorway was constructed about 30m south of the Site, and nearby areas saw the development of Woodfoot Farm, a gas valve compound, and a builder's yard (demolished by 1995). Over time, residential development occurred to the north east along Meadowcroft Close and Whiston Vale, and public footpaths have crossed the Site. Overall, the area transitioned from predominantly rural and undeveloped to include infrastructure and residential land uses.
- 6.11.27 There are no active or historic landfills, waste sites, or waste exemptions within the study area, according to the Groundsure report. Current industrial land use on-site is limited to pylons associated with the overhead line, with nearby industrial uses including electricity substations (75m north and 130m east), a bike box manufacturer (30m north east), and a gas valve compound (80m north). No sites have been identified as contaminated land by Rotherham Council, though 11 pollution incidents (mainly fuel or sewage spills) are recorded in the Environment Agency database, the closest being a minor diesel spill 10m north of the Site in 2002. The Site is designated as greenbelt and is not within a Site of Special Scientific Interest (SSSI) or SSSI impact risk zone.

### **Land and Ground Condition Conclusion**

- 6.11.28 Consistent with Policies CS1, CS27 and SP54, the accompanied documentation, including that which is summarised within the EAR, demonstrates that the Scheme will not cause significant changes to the land conditions including contamination at the Site, with those that could potentially arise being effectively mitigated.
- 6.11.29 The Scheme has demonstrated that it is in line with Policy SP36, the NPPF and NPS EN-1 which collectively require that soil function and capacity are protected throughout construction and operation, with appropriate measures to mitigate land contamination and implement remediation where necessary. These are again demonstrated above as being mitigated for without causing significant changes to the Site and the surrounding environment.

- 6.11.30 Local and national policy also emphasise the importance of effective use of land and acknowledge the importance of BMV agricultural land. While the reuse of previously developed land can contribute to sustainable development, it is recognised in NPS EN-1 that this may not always be practicable for energy infrastructure projects. Accordingly, applicants are required to identify both existing and proposed land uses, assess the potential effects of Scheme on these uses, and consider any impacts on planned developments within the vicinity. As summarised, the Agricultural Land Classification indicates that the construction and operation of the Scheme could impact agricultural land quality and soil resources. The proposed development would result in the permanent loss of approximately 6% of the site's area identified as Grade 2 agricultural land, which falls within the definition of best and most versatile (BMV) land under paragraph 175 of the National Planning Policy Framework (NPPF). The remainder comprises approximately 24% Grade 3b and 70% Grade 4 land, which are not classed as BMV and are of moderate to low agricultural value.
- 6.11.31 While the partial loss of Grade 2 land is acknowledged as an adverse effect, it represents only a small proportion of the overall site area and a very limited loss of BMV land within the local and regional context. The proposal has been designed to minimise the extent of BMV land affected, concentrating built form and associated infrastructure on the lower-grade areas wherever practicable.
- 6.11.32 Paragraph 175 of the NPPF advises that local planning authorities should seek to avoid the development of BMV agricultural land where reasonable alternatives exist. In this case, the site has been selected following a proportionate site-search exercise which demonstrates no suitable alternative of lower agricultural quality is available that could meet the scheme's locational and operational requirements.
- 6.11.33 When weighed in the overall planning balance, the limited loss of higher-grade land is clearly outweighed by the substantial public benefits of the development including securing greater capability out of the existing electricity transmission network, helping to accelerate the connection of clean energy projects. The development will therefore not conflict with national or local planning policy on the protection of agricultural land, and the proposal accords with the NPPF taken as a whole. An Outline Soil Management Plan has been submitted with the planning application. After planning consent, a detailed Soil Management Plan would be developed and implemented to ensure best practices in soil stripping, stockpiling and reinstatement, protecting land quality and soil resources throughout the Scheme.

## **6.12 Mineral Safeguarding**

- 6.12.1 The Site is located in a Mineral Safeguarding Zone in relation to Shallow Coal Fire and Brick Clay and Sand and Gravel. Policy CS26 states that Mineral Safeguarding areas will be defined around all deposits of coal that are considered to be of current or future economic importance.
- 6.12.2 Continuing, the policy notes that proposals for non-mineral development within Mineral Safeguarding Areas will be supported if it can be demonstrated (in part) that there are no minerals present or those present have no economic value and/or the need for the Scheme outweighs the need to safeguard minerals for future use.
- 6.12.3 Complementary to this, Paragraph 225 of the NPPF states that LPAs should not normally permit other development proposals in Mineral Safeguarding Areas if it might constrain potential future use for mineral working.

- 6.12.4 As noted in Chapter 9 of the EAR, a Consultants Coal Mining Report (Ref. 51003373983001 (The Coal Authority, 2023) has been completed. As summarised within the EAR, the report found no coal seams mapped to directly underly the Site, however an observed coal seam is mapped approximately 45m east of the Site. The report indicates that there were two primary areas of unlicensed opencast coal mining in the local area. One record is adjacent east of the Site which follows the area of the observed coal seam, and the other is outside of the study area more than 400m south of the Site. It is indicated that no mining was undertaken directly below the Site, but this cannot be confirmed as the works adjacent east were unlicensed and the Coal Mining Report is not directly related to the Scheme boundary.
- 6.12.5 No mine entries are recorded within 100m of the Scheme boundary and no mine gas records are present within the study area.
- 6.12.6 As no coal seams or other potential mineral resources are mapped within the Scheme boundary, it is not likely that the Scheme would sterilise coal or other potential mineral resources that are economically viable to extract.

### Mineral Safeguarding Conclusion

- 6.12.7 As set out above, Policy CS26 states that the LPA would resist proposals for any development which would sterilise or prejudice the future working of important economically workable mineral deposits. As demonstrated, the Site is not likely to sterilise coal or other potential mineral resources that are economically viable to extract as there are no mine entries recorded within 100m of the Scheme boundary and no mine gas records are present within the study area. In this regard, the Scheme is in accordance with paragraph 225 of the NPPF.
- 6.12.8 Policy CS26, in any case, also clarifies that development will be accepted if there is an over-riding need for the development. As established in Section 2.2, there is an over-riding need for the new substations and associated infrastructure and in consequence, the Scheme meets the exception within the policy.

## 6.13 Water Resources and Flood Risk

- 6.13.1 Policy CS25 highlights that support will only be given to development that is not subject to unacceptable levels of flood risk, does not result in increased flood risk elsewhere and, where possible, achieves reductions in flood risk overall. Development proposals must demonstrate a sequential approach to flood risk, prioritising sites within Flood Zone 1 (lowest risk), then considering Flood Zone 2 only if no suitable sites in zone 1 are available, and Flood Zone 3 only if zones 1 and 2 are unavailable.
- 6.13.2 Where the exception test is required, it must be shown that the development provides wider sustainability benefits that outweigh the flood risk, is safe, does not increase flood risk elsewhere, and, where possible, reduces overall flood risk. Within each flood zone, higher vulnerability uses should be located in areas with the lowest probability of flooding. Proposals must also comply with the recommendations of the Strategic Flood Risk Assessment (RMBC, 2008) and be supported by a detailed Flood Risk Assessment. in line with national planning policy guidance.
- 6.13.3 As complemented by Policy SP47, RMBC expects proposals to demonstrate an understanding of surface water flood routes during extreme events, with appropriate mitigation measures included. Surface water runoff should be managed as close to

its source as possible using Sustainable Drainage Systems (SuDS), considering natural flood storage solutions. The policy also upholds that a maintenance strip of at least 8m for main rivers or 5m for ordinary watercourses must be maintained and free from development encroachment. Major developments must comply with relevant Defra and local drainage standards.

- 6.13.4 Paragraph 175 the NPPF explains 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)’.
- 6.13.5 Paragraph 187 of the NPPF states that planning decisions should contribute to and enhance the natural and local environment by (inter alia) ‘*preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability. Development should, wherever possible, help to improve local environmental conditions such as air and water quality*’.
- 6.13.6 The NPPF, at paragraphs 170-182, provides the basis for the consideration of flood risk in determining planning applications and requires that proposals seek to avoid inappropriate development in areas of flood risk and ensure that development does not increase flood risk elsewhere.
- 6.13.7 Paragraph 181 states that development ‘*should only be allowed in areas at risk of flooding where, in the light of this assessment (and the sequential and exception tests, as applicable) it can be demonstrated that:*
- *within the site, the most vulnerable development is located in areas of lowest flood risk, unless there are overriding reasons to prefer a different location;*
  - *the development is appropriately flood resistant and resilient such that, in the event of a flood, it could be quickly brought back into use without significant refurbishment;*
  - *it incorporates sustainable drainage systems, unless there is clear evidence that this would be inappropriate;*
  - *any residual risk can be safely managed; and*
  - *safe access and escape routes are included where appropriate, as part of an agreed emergency plan.*’
- 6.13.8 NPPF policy on flood risk is reflected in NPS EN-1 and NPS EN-5.

### **Waterbodies**

- 6.13.9 The nearest watercourse is Whiston Brook, located approximately 40m to the north of the Site and flowing in a north east to south west direction, before draining to the River Rother. The River Rother is situated approximately 400m west of the Site and flows from north to south. Additionally, Ulley Brook, located approximately 150m to the south of the Site runs in a north-north west to south-south east direction.
- 6.13.10 There are several minor surface water features located within 250m of the Scheme boundary, most significant of which is a waterbody located less than 50m from the

western edge of the Scheme boundary, which forms part of the Canklow Washlands, a strategic flood risk management asset operated by the Environment Agency to reduce flood risk to downstream centres of population.

- 6.13.11 There are two drainage ditches within the Scheme boundary, one of which flows across the Site from south east to west and the other which is associated with Long Lane. The Flood Risk Assessment confirms that the drainage ditch which flows across the site is a small depression (less than 30cm) in the land. The ditch does not cross under Long Lane and so is not hydraulically connected to the waterbody adjacent to the Site.
- 6.13.12 As to be detailed, works are to be undertaken in accordance with a CEMP to ensure that pollution prevention measures are in place during the construction phase, reducing any risk of works significantly impacting watercourses. Direct control, enhancement and monitoring measures are listed in Table 8.3 of the EAR. These would ensure that water quality within, and in the proximity of local waterbodies, is protected.
- 6.13.13 Table 8.4 of the EAR informs that the Scheme would also include the proposition of SuDS, which would treat operational surface water runoff and protect the water quality attributes of water environmental receptors.

### **Water Quality**

- 6.13.14 The study area drains to two Water Framework Directive (WFD) surface waterbody catchments: the Rother (Doe Lea to Don) and Ulley Brook (Source to River Rother). Table 8.1 within the EAR details the current status and lists the Reasons for Not Achieving Good (RNAG) overall status for these waterbodies. Both were found to not require assessment.
- 6.13.15 To ensure that water quality is not negatively impacted from construction through operation, as detailed in the EAR, appropriate baseline and mitigation studies have been carried out.
- 6.13.16 During construction, as surface water runoff could carry debris, silt, or pollutants from the Site, potentially degrading water quality, this risk would be managed through pollution prevention and drainage measures outlined in the CEMP, along with an emergency spill response plan and on-site spill response equipment and training.
- 6.13.17 Sustainable drainage systems (SuDS) would treat operational runoff as there would be an increase in permeability. This would help tackle flood risk and protect water quality. Additional best practice measures, such as proper wastewater disposal, material storage, dewatering, and water consumption are to be implemented, and their effectiveness will be monitored by National Grid as set out in the CEMP. Overall, these mitigation and control measures are designed to minimise potential adverse impacts on water quality during construction and operation.

### **Flood Risk**

- 6.13.18 A Flood Risk Assessment (Appendix M of the EAR) has been prepared to accompany this planning application submission.
- 6.13.19 The Site is located predominately within Flood Zone 1, with the western part within Flood Zone 2 and Flood Zone 3. As noted within Chapter 8 of the EAR, the Site is generally at a very low risk of flooding from surface water, with some small, isolated areas having a low to high risk. These higher-risk areas are associated with an

overland flow path through the south west corner of the Site, originating from a culvert under the M1. This is linked to a drainage feature described in Section 2.1.2 of the Flood Risk Assessment (Appendix M of the EAR), which showed a shallow (less than 30cm) depression in the ground where localised ponding and overland flow are more likely during intense rainfall. If surface water depths are deep enough there is the potential that flows could cross Long Lane and drain into the surface water body. The Flood Risk Assessment has also assessed flood risk from reservoirs, groundwater and sewers, all of which are considered to present a low risk to the Scheme.

- 6.13.20 The design of the Scheme has taken into consideration the nature of flood risk affecting the site with the development platform located within Flood Zone 1; hence the operational part of the Scheme will not be at risk in a fluvial flood event. A small area (approximately 120m<sup>2</sup>) of earthworks for the access track where it meets Long Lane crosses into Flood Zone 2. However, the access track remains in Flood Zone 1 and will be elevated above the flood level. As the built development is within Flood Zone 1, it is considered that there is no requirement to apply the Sequential Test described above.
- 6.13.21 The proposed Public Right of Way diversion of Whiston Footpath No. 10 will also be within Flood Zone 1.
- 6.13.22 Regarding policy, baseline studies have been accompanied by construction and operational mitigation measures to ensure that the Scheme does not contribute to flood risk. It is noted in Chapter 8 that during construction, surface water runoff could carry debris, silt, or pollutants into nearby drains and flow paths, potentially impacting water quality. This risk would be controlled through pollution prevention and drainage measures in the CEMP, and a spill response plan will be in place. Excess silt could affect local watercourses' hydromorphology, but this would be managed by storing soil away from water features and using sediment control measures. Temporary changes to land permeability and overland flow may increase flood risk or impede drainage. This would be mitigated by providing sustainable surface water drainage for construction compounds and reinstating the pre-existing land drainage regime once works are complete.
- 6.13.23 Potential increased flood risk from historical mines are to be managed through preconstruction investigations, monitoring, and contingency plans. Overall, with these control and monitoring measures, the Scheme is expected to have a low to negligible impact on water environment receptors during construction.
- 6.13.24 During operation, increased impermeable land cover may affect local drainage, but suitable site drainage systems would mitigate any surface water flood risk or water quality impacts. Elevated platform levels and construction methods would keep the substation at low risk of groundwater flooding, even near existing surface water areas. The design avoids floodplain encroachment and does not change overland flow routes, so no other significant water environment impacts are anticipated. With these embedded design and mitigation measures, the Scheme is expected to have a low overall impact on water environment receptors during operation.

## Water Resources and Flood Risk Conclusion

- 6.13.25 The Site is located predominately within Flood Zone 1, with the western part within Flood Zone 2 and Flood Zone 3. As aforementioned the location of the Scheme has been carefully considered amongst National Grid's consenting regime that is used for every substation application. In the siting study, the Site chosen as favourable came from careful analysis of multiple potential sites.

- 6.13.26 As noted in the Flood Risk Assessment, the construction of the Scheme would increase surface water runoff rates and volumes if left unmitigated. To manage this, attenuation storage is required to restrict runoff to greenfield rates. Surface water from hardstanding, roofs, and access roads would be collected and attenuated before being discharged to a nearby ditch via an attenuation pond. Other areas would be covered with gravel to allow natural drainage and infiltration where possible. The Site's drainage is divided into three systems, using SuDS such as filter drains and attenuation ponds to effectively manage surface water.
- 6.13.27 As detailed in the Water Resources and Flood Risk Chapter of the EAR (Table 8.3 and Table 8.4), the Scheme would employ control, enhancement and monitoring measures including SuDS. This features a Surface Water Management Strategy (SWMS) which demonstrates how surface water generated by the Scheme would be managed in accordance with best practice, avoiding exacerbation of surface water flood risks to third parties. The Scheme is considered to have a low overall impact on water environment receptors during construction and operation, for both water quality and flood risk. As such, the Scheme meets the requirements as set out in local and national policy.
- 6.13.28 The Main works contractor will be responsible for reviewing and updating the OCEMP prior to construction commencing. The Main works contractor will also provide welfare facilities that comply with health and safety regulations, with foul water stored on site and removed by a licensed waste management provider. During operation, foul water would be discharged via gravity pipework to a cesspool located within the Scheme near the internal access roads.
- 6.13.29 The Scheme is therefore assessed as being in accordance with Policies CS25 and SP47 of the Local Plan, as well as the NPPF, NPS EN-1 and NPS EN-5.

## **6.14 Socioeconomics and Human Health**

- 6.14.1 The Development Plan seeks to support local businesses. Policy CS9 sets out Rotherham overarching economy policy. Within the policy it sets out how Rotherham looks to promote its economy transformation. For development, proposals in part receive support from RMBCs if they support small and start-up businesses.
- 6.14.2 Policy CS27 requires development to protect and promote a healthy and safe environment while minimising health inequalities. Proposals must aim to reduce pollution and avoid creating hazards that could harm communities or the environment, with appropriate mitigation measures required where necessary. Where possible, existing issues such as land contamination, pollution, land instability, or poor air quality should be addressed through remedial action.
- 6.14.3 In accordance with Policy SP54, proposals must demonstrate that there will be no significant harm or risk to human health, the environment, or any watercourse or groundwater where land is known or suspected to be contaminated, where development may result in the release of contaminants from adjacent land, or where unstable ground conditions exist. Proposals are required to ensure that all necessary remedial actions are undertaken to protect site users or occupiers, neighbouring land, the environment, and any buildings or infrastructure from contamination both during and after development.
- 6.14.4 Policy SP55 states that as a part of design consideration, applicants are strongly encouraged to demonstrate an appropriate level of community engagement in their

preparation; to comprehensively consider health and equalities impacts and safety and security issues, and clearly demonstrate through their submission, how these issues and any impacts arising, have influenced the final design solution. Complementary to this, Policy CS28 highlights the importance of protecting or contributing to securing a healthy and safe environment, including minimising opportunities for crime, the risk of terrorism and addressing any specific risks to health or safety from the local environment. Encouragement will be given to incorporation of Secured by Design principles in new development and in the design of public spaces.

- 6.14.5 Policy SP52 highlights the importance of development considering pollution, mainly in the form of air, noise, light and vibration and the potential detrimental impact on the amenity of the local area, including an assessment of the risks to public health. In cases where there is potential noise likely to be generated by the Scheme, a Noise Assessment will be required to enable clear decision making on any planning application. Regarding artificial lighting, development proposals should ensure that adequate and reasonable controls to protect dwellings and other sensitive property, the rural night-sky, observatories, road users, and designated sites for conservation of biodiversity or protected species, are included within the proposals.
- 6.14.6 The NPPF seeks to promote healthy and safe communities and states that planning decisions should guard against the unnecessary loss of valued facilities and services, particularly where this would reduce the community's ability to meet its day-to-day needs. At paragraph 5.13.19, NPS EN-1 requires that the Secretary of State (in respect of DCO applications) should have regard to the potential socioeconomic impacts of new energy infrastructure.
- 6.14.7 In response to the above policy, the following section summarises the anticipated socioeconomic impacts associated with these policy requirements for both the construction and operational phases:
- Employment and income: The potential employment opportunity would be limited due to the nature of the Scheme. These limited employment gains are likely to result in induced employment from the potential limited additional spending from the construction workers. This is likely to result in beneficial health outcomes, such as improved mental health and provide opportunities for social contact. Therefore, a temporary negligible beneficial impact is anticipated on human health associated with employment and income.
  - Physical form: The construction of the Scheme is expected to cause temporary disruptions and diversions to some PRow, potentially increasing journey lengths and discouraging physical activity, while also resulting in adverse visual impacts for users. However, transparent communication with the public is planned to manage expectations, and as a result, the temporary residual impact on human health due to reduced physical activity is anticipated to be negligible. Permanently, Whiston Footpath 10 is to be diverted, but the new alignment would remain close to the current route, so significant changes in journey length are not expected. Initial moderate to negligible adverse effects on visual amenity are expected for PRow users, but proposed mitigation planting should reduce these impacts to minor or negligible by Year 15 as vegetation matures. Overall, the permanent residual impact on human health related to physical activity is anticipated to be low.

- **Visual amenity:** Construction activities are expected to cause moderate to minor adverse visual impacts for residential properties within 2km, but these effects would be temporary and short term, resulting in only a low adverse residual impact on mental wellbeing and quality of life. During the operation of the Scheme, minor to negligible adverse effects on visual amenity are anticipated for residential properties in both Years 1 and 15. While some individuals may experience negative impacts, these are not expected to be significant or to disproportionately affect vulnerable populations. The Scheme's design also aims to minimise impacts on vegetation and includes new planting. Therefore, the permanent residual impact on human health related to mental wellbeing and quality of life is expected to be negligible.
- **Air Quality:** Construction activities, including demolition, earthworks, and vehicle movements, are expected to cause low to medium impacts from construction dust, with negligible impacts from vehicle emissions. While decreased air quality could adversely affect people with pre-existing respiratory and cardiovascular conditions, mitigation measures would be implemented to control dust. As a result, air quality is expected to remain within statutory standards, leading to only a temporary negligible adverse residual impact on human health related to respiratory and cardiovascular disease.
- **The Scheme is expected to have a low to negligible impact on water quality and flood risk during both construction and operation, with potential risks from surface water runoff and flooding effectively managed through mitigation measures. With these measures in place, any changes would remain within statutory standards, resulting in only a temporary negligible adverse impact on human health related to water quality and flood risk.**
- **Radiation and mental health:** Although the substation may raise concerns about electric and magnetic fields (EMFs) and their potential impact on mental health, the Scheme is sited in a rural area and would be designed and operated in full compliance with established EMF guidelines and health and safety standards. As a result, any potential EMF impacts would be effectively mitigated, leading to a permanent negligible adverse impact on human health related to radiation and mental health.
- **Land Quality:** The Scheme is expected to result in slight to neutral adverse effects from potential exposure to contaminated dust and ground gas during both construction and operation. However, with the implementation of appropriate management plans, land contamination investigations, and remedial actions as needed, exposure risks would be minimised and remain within statutory standards. Consequently, only a temporary negligible adverse impact on human health related to land contamination is anticipated.
- **Noise:** Construction activities and traffic may temporarily increase noise levels, potentially affecting mental wellbeing. However, with mitigation measures in place to manage and reduce construction noise, noise levels are expected to remain within statutory standards. As a result, only a temporary negligible adverse impact on human health associated with noise is anticipated.
- **Transport:** The Scheme is expected to have a negligible effect on transport modes, access, and connections due to an increase in construction traffic. With mitigation measures such as the CTMP in place to manage traffic, any changes would remain within statutory standards, resulting in only a temporary negligible adverse impact on human health related to access.

## Socio Economics and Human Health Conclusion

- 6.14.8 As outlined in the preceding sections of this PDAS, the Scheme is not expected to have significant adverse effects on health and wellbeing, the local economy, local roads, neighbouring amenities, or businesses.
- 6.14.9 The proposal has taken into account factors such as ground stability, contamination, flooding, and other environmental considerations to ensure that with appropriate mitigation measures in place, the development, while not offering substantial benefits to the broader environment and economy, does not significantly impede these aspects either.
- 6.14.10 Overall, the Scheme can be regarded as net beneficial to both the local and wider economy and environment, particularly considering the development's necessity as outlined in Section 2.2. Consequently, it can be argued that the proposal successfully demonstrates compliance with aforementioned local policies whilst also supporting the overall stance of promoting sustainable development for the environment and the local people as set out by the NPPF.

## 6.15 Electromagnetic Fields

- 6.15.1 EMFs arise from the generation, transmission, distribution and use of electricity and can have adverse effects on human health, including impacts on the nervous system. Direct effects on human health are primarily a result of the induction of currents around power lines and electric cables, particularly where the public may be exposed for a considerable time. Indirect effects can occur as a result of the build-up of electric charges on the surface of the body producing a microshock. For electricity substations, the EMFs close to sites tend to be dictated by the overhead lines and cables entering the installation, not the equipment within the Site.
- 6.15.2 The International Commission on Non-Ionizing Radiation Protection (ICNIRP) guidelines<sup>5</sup> set 'reference levels' of electric field strength (for electric fields) and magnetic flux density (for magnetic fields). The reference levels are such that compliance with them will ensure that 'basic restrictions', in terms of the induced current density in affected tissues of the body, are not reached or exceeded. Section 2.11.10 of NPS EN-5 does not repeat the ICNIRP guidelines but requires the Secretary of State to be satisfied that proposals are in accordance with them.
- 6.15.3 National Grid has a very clear policy on EMFs, as set out in its Public Position Statement (National Grid, 2014b), which states '*...In all our operations, as a minimum we comply with EMF regulations, guidelines or practices in force in the countries and different jurisdictions in which we operate*'. An assessment of the EMF effects of the Scheme has been completed and is submitted with the planning application.
- 6.15.4 The EMF Assessment concludes that the proposed substations would be fully compliant with the government's policy on EMFs, with all fields produced being below the relevant exposure limits. On this basis, there would be no significant EMF effects resulting from the Scheme. The overhead lines will be the predominant source of

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<sup>5</sup> ICNIRP. (1998). International Commission on Non-Ionizing Radiation Protection (ICNIRP) guidelines.

EMFs arising from the Scheme. The EMF Assessment confirms that EMFs from these overhead lines will also comply with the relevant exposure limits.

## Electromagnetic Fields Conclusion

- 6.15.5 There would be no significant EMF effects associated with the Scheme and fields would be below exposure limits. On this basis, the Scheme is in accordance with NPS EN-5. EMFs arising from the overhead line works associated with the wider Scheme would also comply with the relevant exposure limits.

## 7. Planning Balance and Conclusion

### 7.1 Introduction

- 7.1.1 Section 70(2) of TCPA 1990 and Section 38(6) of the Planning and Compulsory Purchase Act 2004 establish that the planning application for the Scheme must be determined in accordance with the Development Plan, unless material considerations indicate otherwise.
- 7.1.2 This section of the PDAS presents the overall planning balance. Drawing on the planning assessment presented in Section 6, and in accordance with the legislative requirements above, national planning policy reiterates the essential need for the Scheme, before summarising the benefits and adverse impacts and concluding on the overall planning balance.

### 7.2 Need for the Scheme

- 7.2.1 The Long Lane Substation forms part of National Grid's wider transmission reinforcement strategy identified through the Electricity System Operator's Holistic Network Design (HND) and subsequent Centralised Strategic Network Plan (CSNP), which together set out nationally critical reinforcements required to connect new offshore generation and strengthen the onshore 400kV network. The proposed substation provides a vital node in this system, supporting the transfer of renewable generation and system resilience across northern England.
- 7.2.2 Consequently, substantial weight should be afforded to the national need and strategic importance of the development, consistent with the approach in EN-1 and EN-5, irrespective of the consenting route. Rising electricity demand is expected as power generation for residences, business operations and transport undergoes transformation. The UK government has committed to reach net zero emissions by 2050. This means achieving a balance between the greenhouse gases put into the atmosphere and those taken out. Decarbonising the energy system is vital to achieve net zero; the fossil fuels that once powered the economy would be replaced with sources of low-carbon electricity.
- 7.2.3 There is an increased growth forecast in offshore wind capacity in Scotland and the North East of England, as well as increasing power flows to and from European power grids. This would put pressure on the existing network, such that reinforcement of the transmission network has been identified as necessary to secure the operation of the transmission system and ensure reliable, economic and long-term supply.
- 7.2.4 To achieve this, National Grid needs to upgrade the high voltage power network in England to connect these new sources of offshore energy to the energy network. The Great Grid Upgrade plans are part of the biggest overhaul of the energy network in a generation, and would see significant investment and improvement in the nation's energy infrastructure as the UK continues its transition towards net zero and more sources of low carbon power are developed.
- 7.2.5 The Great Grid Upgrade would connect clean energy produced here in the UK, increasing the self-sufficiency of energy supplies.

- 7.2.6 The Great Grid Upgrade comprises 17 major infrastructure projects that would both scale up the grid and update existing networks. It would enable National Grid to carry more clean, secure energy from where it is generated.
- 7.2.7 The proposal for a new 400kV substation at Long Lane (the Scheme) falls within the scope of the Project, the purpose of which is to reinforce the electricity network by uprating the existing 275kV transmission lines to operate at 400kV. The proposed Scheme would also require the construction of the Long Lane New 400kV substation, next to the M1, and works to connect the proposed Scheme to a new Chesterfield 400kV substation, off Calow Lane in Derbyshire.
- 7.2.8 The related but independent project, the Chesterfield to High Marnham project, will reinforce the grid between High Marnham and Chesterfield, including the construction of a new substation at both High Marnham (the High Marnham Site), in Nottinghamshire and Chesterfield (the Chesterfield Site).
- 7.2.9 The scheme is specifically referenced in the Clean Power 2030 Report by the National Energy System Operator as one of four projects which, if not delivered by 2030, would have a significant impact on the ability of the country to deliver clean power. Consequently, substantial weight should be afforded to the national need and strategic importance of the development, consistent with the approach in EN-1 and EN-5, irrespective of the consenting route.

## 7.3 Benefits of the Scheme

- 7.3.1 There is a compelling need for the Scheme. In the summary, the Scheme would:
- Reinforce and upgrade the electricity network by uprating the existing 275kV transmission lines to operate at 400kV to both transport clean energy and increase the networks capacity from the North of England to homes and businesses to the Midlands and beyond, playing an important role in building a more secure and resilient future energy system, equipped to a higher capacity.
  - ensure that National Grid meets its statutory duties to develop and maintain an efficient, co-ordinated and economical system of electricity transmission and to facilitate competition in the supply and generation of electricity;
  - deliver substantial and important economic and social benefits associated with the construction of the substations and, during operation, electricity supplies to homes and businesses including data centres; and
  - ensure that adverse impacts on the environment and local communities are minimised, and secure enhancements. In accordance with national and local planning policies and associated guidance, the Scheme includes a range of enhancement measures that would generate positive ecological effects and deliver a net gain in biodiversity.

## 7.4 Adverse Impacts of the Scheme

- 7.4.1 The potential environmental impacts of the Scheme have been comprehensively assessed in the suite of environmental assessments submitted with the planning application and presenting in the EAR. Wherever practicable, likely adverse effects have been avoided or minimised through measures embedded into the design of the Scheme, and taking into account the findings of the assessments, consultation with

stakeholders and national and local policy requirements. Additional mitigation measures are presented in the OCEMP which would be secured by Planning Condition.

- 7.4.2 The assessments which are summarised in this PDAS, demonstrate that the Scheme would not result in any significant adverse environmental effects. The Scheme has the potential to result in localised moderate adverse effects on landscape character during the construction phase but these effects would be temporary and would reduce once proposed mitigation planting has matured. There will be a residual minor to negligible adverse impact on landscape and visual amenity. This latter impact relates to properties to residential properties along the urban fringe of Whiston, located to the north-north west of the Site, with limited or restricted views towards the Site due to visual screening provided by existing woodland along the northern Scheme boundary; however those properties with an open southerly aspect may still experience glimpses of the Site.
- 7.4.3 The Project has been carefully designed to avoid, reduce or mitigate potentially significant effects on cultural heritage and archaeology assets. Overall, the Scheme would result in less than significant harm to both designated and non-designated assets. This assessment of less than significant harm relates to temporary impacts which may arise during the construction period. These impacts are both temporary and reversible and will not result in the permanent loss of significance. Given the short duration and reversible nature of the impact, the harm should be afforded limited weight in the overall planning balance. It is considered that where the Scheme will result in less than substantial harm to the significance of designated heritage assets the benefits of the proposal clearly outweigh that limited harm.
- 7.4.4 The proposed development would result in the permanent loss of agricultural land. Approximately 6% of the site's area is identified as Grade 2 agricultural land, which falls within the definition of best and most versatile (BMV) land under paragraph 175 of the National Planning Policy Framework (NPPF). The remainder comprises approximately 24% Grade 3b and 70% Grade 4 land, which are not classed as BMV and are of moderate to low agricultural value.
- 7.4.5 While the partial loss of Grade 2 land is acknowledged as an adverse effect, it represents only a small proportion of the overall site area and a very limited loss of BMV land within the local and regional context. The proposal has been designed to minimise the extent of BMV land affected, concentrating built form and associated infrastructure on the lower-grade areas wherever practicable.
- 7.4.6 When weighed in the overall planning balance, the limited loss of higher-grade land is clearly outweighed by the substantial public benefits of the development including securing greater capability out of the existing electricity transmission network, helping to accelerate the connection of clean energy projects. The development will therefore not conflict with national or local planning policy on the protection of agricultural land, and the proposal accords with the NPPF taken as a whole.
- 7.4.7 With mitigation, all other adverse effects associated with the Scheme, including in respect of , traffic and transport, air quality, noise and vibration, land quality and use, minerals, water quality, flood risk, climate change and EMFs, would be minor or negligible and are not considered to be unacceptable.
- 7.4.8 The site is located in the Green Belt but as demonstrated in the Green Belt Assessment, the site clearly meets the definition of 'grey belt' and does not represent inappropriate development in the Green Belt. As such Green Belt harm is not a factor

for the planning balance. In the event that this primary case is not agreed and the scheme is considered to represent inappropriate development, the benefits of the proposal by far outweigh any harm to the Green Belt.

## **7.5 Cumulative Impacts**

- 7.5.1 The EAR reports the results of the appraisal of the intra-project and inter-project cumulative impacts associated with the construction and operation of the Scheme. There are two types of cumulative impacts, both of which are considered within this EAR:
- intra-project cumulative impacts: the combination of individual impacts from the Scheme on a particular receptor; and
  - inter-project cumulative impacts: the combination of impacts from several developments, in this case, and the Scheme together with other reasonably foreseeable developments, which individually might have negligible or slight impacts, but when considered together could create a moderate or major cumulative impact.
- 7.5.2 The following receptors have been identified in Table 14.1 of the EAR as having the potential for intra-project cumulative impacts during the construction phase:
- Long Lane;
  - Ulley Brook;
  - PRoW 41/12/1 (Whiston Footpath 12); and
  - PRoW 41/10/1 (Whiston Footpath 10).
- 7.5.3 Through the implementation of a CEMP and provision of alternative access arrangements (for Whiston Footpath 10 and 12) no additional mitigation for intra-project cumulative impacts is required.
- 7.5.4 With regard to inter-project impacts, due to the distance between the Scheme and the committed developments identified in Table 14.3 of the EAR, the intervening topography and the nature of the Scheme, only limited inter-project cumulative impacts are anticipated. During construction, inter-project impacts on landscape and visual impacts and cultural heritage have been assessed with regard to the emerging proposals for Whitestone Net Zero Solar Farm during construction and operation, associated with construction activities taking place at the same time and the proximity between the two projects.

## **7.6 The Overall Planning Balance**

- 7.6.1 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 Scheme would provide a crucial contribution to the delivery of these policy aims, by improving the existing electricity transmission network.
- 7.6.2 The Scheme would not result in any significant adverse environmental effects. Where there are residual impacts mitigation measures have sought to reduce these as far as practicable and to an acceptable level.

- 7.6.3 Overall, the need for, and benefits of the Scheme clearly outweigh its adverse impacts, The planning balance is firmly in favour of the Scheme and in accordance with the presumption in favour of sustainable development advanced in the NPPF, it is respectfully submitted that planning permission be granted.

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# Appendix A.

## Title of section here

# Appendix A

## Proposed Draft Planning Conditions

- A.1.1 Condition 1: Commencement of Development. The development hereby permitted shall be begun before the expiration of three years from the date of this permission.
- A.1.2 Condition 2: Approved Drawings. The development shall be carried out in accordance with the approved plans listed below:
- A.1.3 Condition 3: Construction and Environmental Management Plan. Prior to the commencement of development, a full Construction Environmental Management Plan (CEMP) must be submitted to, and approved in writing by, the local planning authority. The CEMP shall include:
- a) details of measures to minimise noise, dirt, dust, (and other airborne particles) to include an Air Quality Dust Management Plan (DMP), during construction;
  - b) details of measures to prevent pollution, including to watercourses;
  - c) a waste management plan;
  - d) proposed working hours, including any night-time working hours; and
  - e) details relating to site access.
- A.1.4 The CEMP shall be completed in accordance with the British Standard on Biodiversity BS 42020:2013, and include:
- a) details of what biodiversity features could be impacted and what development activities could be potentially damaging;
  - b) a rolling timetable of when and where specific measures to avoid/reduce impacts are to be carried out, including any seasonal or legal implications (e.g. the bird nesting season) and who is responsible;
  - c) details of method statements for specific biodiversity issues (e.g. for specific destructive activities such as vegetation clearance, hedgerow removal, tree felling, soil stripping and building demolition);
  - d) details of all practical measures (e.g. fencing, protective barriers and warning signs) and sensitive working practices to avoid impacts;
  - e) details of inspections to ensure wildlife does not become trapped in excavations or machinery;
  - f) details of other responsible persons and lines of communication on-site in relation to the implementation of the CEMP;
  - g) details of contingency measures in the event of an accident or other potentially damaging incident (e.g. pollution incidents, how to deal with previously unrecorded protected species found during construction and restoration, unexpected bad weather and repair of damaged features, etc.);
  - h) details of procedures to avoid pollution incidents (e.g. from fuel spills and site runoff based on an understanding of the wildlife interest at risk);

i) regular review of the implementation of the CEMP throughout the construction/restoration phase to monitor effectiveness of mitigation measures and compliance with legal, planning and/or contractual requirements;

A.1.5 The construction of the development shall be carried out in accordance with the approved CEMP.

A.1.6 Condition 4. Construction Traffic Management Plan: Prior to the commencement of development, a full Construction Traffic Management Plan (CTMP) must be submitted to, and approved in writing by, the local planning authority. The CTMP shall include details of:

a) the routes to be used by contractors' vehicles moving to and from the Site (and the appropriate signage thereof);

b) HGV delivery times;

c) construction vehicle specification requirements, including number of anticipated vehicle movements;

d) measures to manage debris and damage to the highway network including the submission of a road condition survey;

e) construction staff travel; and

f) site safety arrangements, including in respect of users of affected PRowWs.

Thereafter, the development shall be undertaken in accordance with the approved CTMP.

Condition 5. Works to protect retained trees and hedgerows shall be carried out in accordance with the approved Arboricultural Impact Assessment. The works shall be carried out in accordance with the following measures:

a) methods of any construction related activities within root protection areas (RPA as defined in BS 5837:2012) of the retained trees;

b) where relevant, a full specification for the construction of any roads and footways including details of the no-dig specification and extent of the areas to be constructed using a no-dig specification. Details shall include relevant sections through them;

c) a specification for protective fencing to safeguard retained trees during clearance and construction phases;

d) methodology and specification for any facilitation pruning, including root pruning in accordance with BS 3998:2010.

A.1.7 Condition 6. Archaeology. No development shall take place, unless agreed by the local planning authority, until the applicant, or their agent or successors in title, have undertaken archaeological evaluation in accordance with a written scheme of investigation which has been submitted to and approved in writing by the local planning authority. This may lead to preservation in situ or further mitigation.

NOTE: the need for the above condition is dependent on the results of the geophysical survey and trial trenching.

7.6.4 Condition 7. Soil Management Plan. Prior to the commencement of development, a Soil Management Plan shall be submitted to, and approved in writing by, the local planning authority. Thereafter, the development shall be implemented in accordance with the approved plan.

- 7.6.5 Condition 8 Surface Water Drainage: Prior to the commencement of development on the substation site, a surface water drainage scheme, based on the Surface Water Drainage strategy (Insert reference here), must be submitted to, and approved in writing by, the local planning authority. The scheme shall also include:
- a) existing and proposed discharge rates and volumes;
  - b) ground investigations including infiltration in accordance with BRE365. Subject to infiltration being inviable, the applicant shall demonstrate that an alternative means of surface water disposal is practicable, subject to the drainage hierarchy as outlined in paragraph 056 of the Planning Practice Guidance;
  - c) full construction details of all SuDS and drainage components;
  - d) detailed drainage layout with pipe numbers, gradients, and pipe sizes complete, together with storage volumes of all SuDS components;
  - e) calculations to demonstrate that the proposed drainage system can contain up to the 1 in 30 storm event without flooding. Any on-site flooding between the 1 in 30 and the 1 in 100 plus climate change storm event should be safely contained on site; and
  - f) details of proposed overland flood flow routes in the event of system exceedance or failure, with demonstration that such flows can be appropriately managed on site without increasing flood risk to occupants, or to adjacent or downstream sites. The Scheme shall be implemented in accordance with the approved details before the development is completed.
- 7.6.6 Condition 9: Maintenance of Surface Water Drainage. Prior to the first use of the development, a whole-life maintenance plan for the surface water drainage for the site shall be submitted to, and approved in writing by, the local planning authority. The plan shall set out how and when to maintain the full drainage system during and following construction, with details of who is to be responsible for carrying out the maintenance. The plan shall subsequently be implemented in accordance with the approved details.
- 7.6.7 Condition 10. Lighting. Prior to the first use of the development hereby approved, a Lighting Design Strategy for Biodiversity shall be submitted to, and approved in writing by, the local planning authority. The strategy shall:
- a) identify those areas/features on site that are particularly sensitive for bats and other nocturnal wildlife and that are likely to cause disturbance in or around their breeding sites and resting places, or along important routes used to access key areas of their territory, for example, for foraging;
  - b) show how and where external lighting will be installed (through the provision of appropriate lighting contour plans and technical specifications) so that it can be clearly demonstrated that areas to be lit will not disturb or prevent the above species using their territory or having access to their breeding sites and resting places;
  - c) include details of maximum luminance and lights to be erected, location, height, type and direction of light sources and intensity of illumination; and
  - d) include details of the lights to be switched off and/or dimmed at night including times. All external lighting shall be installed in accordance with the specifications and locations set out in the approved *strategy*, *and these shall be maintained thereafter in accordance with the strategy. No external lighting other than that approved shall be installed.*

- 7.6.8 Condition 11: Landscaping. Prior to the first use of the development, details of soft landscaping works and an implementation and management programme shall be submitted to and approved in writing. The details shall include:
- a) planting plans, including details of schedules of plants noting species, planting sizes and proposed numbers/densities;
  - b) written specifications (including soil depths, cultivation and other operations associated with plant and grass establishment); and
  - c) all soft landscaping shall be carried out in accordance with the approved details, implementation programme and British Standard BS 4428:1989 Code of Practice for General Landscape Operations and implemented prior to first use of the development, and therefore retained and maintained in accordance with the approved management programme.
- 7.6.9 Condition 12. Landscape Maintenance. Any planting which within a period of five years from planting fails to become established, becomes seriously damaged or diseased, dies or for any reason is removed shall be replaced in the next planting season by a tree or shrub of a species, size and maturity to be approved in writing by the local planning authority.
- 7.6.10 Condition 13 Contamination. In the event that contamination that was not previously identified, is found at any time during the construction of the approved development', it must be reported in writing immediately to the local planning authority. An investigation and risk assessment must be undertaken, and where remediation is necessary, a remediation scheme must be prepared, which is subject to the approval in writing of the local planning authority. Following completion of measures identified in the approved remediation scheme, a verification report must be prepared, which is subject to approval in writing by the local planning authority.

# **Appendix B.**

# **RMBC: Core Strategy**

# **(2014)**

## Appendix B

### RMBC: Core Strategy (2014)

| Policy Number                                | Policy Text                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
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| CS1: Delivering Rotherham's Spatial Strategy | <p>1. Overall Strategy</p> <p>Most new development will take place within Rotherham's urban area and at Principal Settlements for Growth. At Principal Settlements and Local Service Centres development will be appropriate to the size of the settlement, meet the identified needs of the settlement and its immediate area and help create a balanced sustainable community. Our strategy will make the best use of key transport corridors, existing infrastructure, services and facilities to reduce the need to travel and ensure that wherever possible communities are self contained.</p> <p>Where new development cannot be accommodated in a sustainable way to meet the needs of the settlement as determined by the settlement hierarchy, then consideration will be given to identifying sites in other appropriate settlements within the same tier or within or on the edge of a higher order settlement before searching for sites in settlements of a lower order in the hierarchy.</p> <p>Rotherham's spatial strategy will be delivered through new investment and development in sustainable locations in accordance with the settlement hierarchy set out below. The hierarchy should also be used by public service providers to inform decisions about the provision of their services and infrastructure.</p> <p>2. Strategic Allocation</p> <p>A strategic allocation is identified at Bassingthorpe Farm on the north western edge of Rotherham urban Area for future development as shown on the key diagram. The revised Green Belt boundary and indicative extent of developable areas and distribution of proposed uses is illustrated on Map 3 'Strategic Allocation Policies Map'.</p> <p>Development will provide for around 2,400 new dwellings on site with around 1,700 new dwellings expected to be developed in the Plan period (12% of Rotherham's housing requirement) with a mix of housing tenures, types and sizes and will also provide opportunities to allow people to work from home. Around 11 hectares (5%) of Rotherham's employment requirement will be developed in this area. A new primary school and a local centre with a mix of community facilities integrated with the new neighbourhoods are required.</p> <p>A green infrastructure corridor located between new development and the existing northern edge of the town will be maintained for the purposes of avoiding the joining together of settlements, promoting their identity and character, maintaining amenity space, access to the countryside, and biodiversity.</p> <p>A concept framework has been prepared jointly by the landowner/s and Rotherham Council; this will be used as a basis for further</p> |

| Policy Number | Policy Text                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
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|               | <p>comprehensive masterplanning. Design quality will be secured through the application and use of appropriate design controls (e.g. design codes), Building for Life Assessment and a design review process.</p> <p>Planning permission will be granted provided:</p> <ol style="list-style-type: none"> <li>Any application for development is preceded by, and is consistent with, a comprehensive masterplan prepared collaboratively with and approved by the Council. The masterplan will include the whole site which integrates the site with its surrounding communities, wider countryside and town centre.</li> <li>The proposals relate to the whole allocated development or if less do not in any way prejudice the implementation of the whole development.</li> <li>The proposals include a phasing and delivery strategy that identifies the timing, funding and provision of green, social and physical infrastructure, including the primary school and the local centre.</li> <li>An access and transport strategy is developed that maximises the potential for walking, cycling and use of public transport, especially to the town centre, (including along Rodger Street and the Thornhill Recreation Ground) and provides a connected, legible network of streets with the proposed primary route extending from Fenton Road to Carr Hill which will provide a public transport corridor.</li> <li>A multifunctional green infrastructure strategy is developed that retains, enhances, connects and increases the biodiversity of Bassingthorpe Spring Ancient Woodland, Clough Streamside and Greasborough Dyke, retains and enhances any important hedgerows or tree belts, provides well-integrated green space (formal, natural and allotments), ensures that any displaced allotment spaces are re-provided at an appropriate and suitable location, provides well integrated sustainable drainage systems and provides cycle and pedestrian links through the site that connect to the existing network and town centre.</li> <li>A heritage management strategy is provided that is informed by the mitigation measures proposed in the Bassingthorpe Farm Heritage Impact Assessment which safeguards and where possible enhances those elements which contribute towards the significance of heritage assets in the area especially the character and setting of Wentworth Woodhouse and the Registered Park and Gardens.</li> <li>Where the site benefits from an undulating topography, notable ridgelines and some important viewpoints into and from the site (e.g. from the town centre), proposals will need to demonstrate an appropriate design response (e.g. the location, orientation, density of development), and landscape/planting treatment in these sensitive areas, including appropriate landscape treatment</li> </ol> |

| Policy Number                              | Policy Text                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
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|                                            | <p>to the new green belt boundary to avoid or minimise any negative landscape or visual impact.</p> <p>h) Appropriate remediation and mitigation measures for new development has been agreed to address the site's ground conditions (e.g. areas of previous open cast mining and any identified contamination of land.</p> <p>3. Broad Location for Growth</p> <p>A Broad Location for Growth is identified at Dinnington East. Development will provide for around 700 new dwellings (5% of Rotherham's housing requirement) in accordance with detailed masterplanning of this area to ensure the delivery of new residential development with appropriate supporting facilities and sufficient greenspace to meet the needs of new residents.</p> <p>Future masterplanning, to be prepared in conjunction with appropriate consultation with local communities and key stakeholders, will need to investigate the issues arising from new development in the area, including the impact on the existing landscape and townscape, particularly in relation to trees, the impact on biodiversity and the natural environment. Furthermore, masterplanning will address the need to integrate the Scheme with the existing community, to ensure the protection and enhancement of existing bridleways, cycle ways and footpaths and the promotion and enhancement of sustainable transport accessibility.</p> <p>4. New Community at Waverley</p> <p>Waverley is identified as a Principal settlement. Planning permission has been granted for the creation of a new community of 3,900 homes with supporting services and facilities. It is expected that in the plan period 2,500 dwellings will be built on the site and approximately 42 hectares of employment land developed.</p> |
| CS2: Delivering Development on Major Sites | <p>Detailed masterplanning and the preparation of appropriate Design Codes will be required prior to the submission of any planning application, to bring forward the strategic allocation and broad location for growth in a coherent way to ensure that all new development meets the aims of the borough Spatial Strategy. Masterplanning will ensure that the phasing and delivery of essential infrastructure will enable the creation of sustainable communities. It will minimise the impact of new development on existing services and facilities, ensure the delivery of new social infrastructure to meet the requirements of the development and minimise harm to, and maximise benefits for, the environment. Detailed masterplanning will also be encouraged on all large scale major sites for new development to meet these broad aims. The Council will expect masterplans to demonstrate an appropriate level of community engagement in their preparation.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| CS4: Green Belt                            | <p>Land within the Rotherham Green Belt will be protected from inappropriate development as set out in National Planning Policy.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |

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|                          | <p>In line with Policy CS1, land within the Strategic Allocation at Bassingthorpe Farm is removed from the Green Belt, as shown in Map 3 'Strategic Allocation Policies Map'.</p> <p>A comprehensive review of the remaining boundaries of the Green Belt will be undertaken and shown on the Policies Map to company the Sites &amp; Policies document. This Review will assess land against the national purposes of Green Belt and, together with sustainability and constraints considerations, will identify sufficient land to meet housing, employment and other development needs in the borough.</p> <p>Changes to the Green Belt will be considered in the following locations:</p> <ul style="list-style-type: none"> <li>• The wider Rotherham Urban Area;</li> <li>• Principal Settlements for Growth;</li> <li>• Principal Settlements;</li> <li>• Thurcroft;</li> <li>• A broad location for growth is identified at Dinnington East, which will be removed from the Green Belt; the detailed Green Belt boundaries will be defined in the Sites and Policies document and accompanying Policies Map; and</li> <li>• Consideration will be given to a limited review of the Green Belt in other locations, as necessary, to deliver the spatial growth strategy established in CS1 and to ensure the long-term sustainability of all communities.</li> </ul> <p>Land will also be removed from the Green Belt and identified as Safeguarded Land available for longer term development beyond the Plan period.</p> <p>Opportunities to support and enhance the beneficial use of the Green Belt will be pursued in the future through compensatory measures including the creation or enhancement of Green Infrastructure.</p> |
| CS5:<br>Safeguarded Land | <p>Safeguarded Land will be identified, in areas between the Green Belt and Settlements, in the Sites and Policies document to meet possible longer term development needs equivalent to 5 years beyond the Core Strategy Plan period.</p> <p>The broad areas of search for Safeguarded Land will be considered in the following locations:</p> <ul style="list-style-type: none"> <li>• The wider Rotherham Urban Area;</li> <li>• Principal Settlements for Growth; and</li> <li>• Principal Settlements.</li> </ul> <p>Consideration may need to be given to identifying safeguarded land in other locations to provide a defensible Green Belt boundary throughout the borough.</p> <p>Safeguarded land will be removed from the Green Belt but not allocated for development. The principles of protection enshrined in national Green Belt policy will apply to safeguarded land during the current Plan period. Development of safeguarded land will require a review of the Local Plan and assessment of the land in relation to the need for</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |

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|                                                | <p>development at that time and the identification of the most appropriate locations for development to take place.</p> <p>Temporary developments which assist in ensuring that the land is properly managed may be permitted where they do not conflict with other relevant Core Strategy or development management policies. No development which would prejudice later comprehensive development will be permitted.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| CS9:<br>Transforming<br>Rotherham's<br>Economy | <p>Rotherham's economic performance and transformation will be supported by:</p> <ol style="list-style-type: none"> <li>1. Allocating sufficient land in the Sites and Policies document to meet Rotherham's employment land requirement of 230 hectares of land for business and industrial development and 5 hectares of land for office floorspace for the Plan period in accordance with the Spatial Strategy set out in Policy CS1 Delivering Rotherham's Spatial Strategy. These allocations will support employment growth in sustainable locations and meet modern economic requirements.</li> <li>2. Protecting viable employment sites and supporting the regeneration and intensification of previously developed land, including proposals which safeguard the viability of established industrial and business areas through improvements to buildings, infrastructure and the environment.</li> <li>3. Safeguarding our manufacturing base and targeting the following priority sectors: <ol style="list-style-type: none"> <li>a) Creative and Digital Industries</li> <li>b) Advanced Manufacturing and Materials</li> <li>c) Environmental and Energy Technologies</li> <li>d) Construction Industries</li> <li>e) Business, Professional and Financial Services; and</li> <li>f) Low Carbon Industries.</li> </ol> </li> <li>4. Encouraging the development of an Advanced Manufacturing cluster at Waverley by supporting proposals for complementary uses.</li> <li>5. Encouraging developments which support small and start-up businesses.</li> <li>6. Encouraging proposals which support the Dearne Valley Eco-vision.</li> <li>7. Supporting innovative and flexible schemes, such as live/work developments, which diversify Rotherham's employment opportunities.</li> <li>8. Supporting rural farm diversification proposals where they are modest in scale, additional to the main agricultural / farm use and re-use existing buildings wherever possible.</li> <li>9. Assisting the relocation of uses which are ill-suited to their surroundings and which prejudice the satisfactory planning of the area, whilst protecting existing and potential employment opportunities.</li> </ol> |

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| CS14:<br>Accessible<br>Places and<br>Managing<br>Demand for<br>Travel | <p>The Council will work with partners and stakeholders to focus transport investment on making places more accessible and on changing travel behaviour. Accessibility will be promoted through the proximity of people to employment, leisure, retail, health and public services by:</p> <ul style="list-style-type: none"> <li>a) Locating new development in highly accessible locations such as town and district centres or on key bus corridors which are well served by a variety of modes of travel (but principally by public transport) and through supporting high density development near to public transport interchanges or near to relevant frequent public transport links.</li> <li>b) Enabling walking and cycling to be used for shorter trips and for links to public transport interchanges.</li> <li>c) Reducing car parking provision in town centre and other accessible sites if public transport and other sustainable modes can accommodate travel but not to an extent where the town centre is unattractive when compared to out of town shopping centres.</li> <li>d) Set thresholds where existing and future employers and institutions will need to adopt Travel Plans or Area Travel Plans as part of a programme of sustainable transport promotion.</li> <li>e) The use of maximum parking standards for non-residential developments aimed at reducing the number of car trips to and from them.</li> <li>f) Adopting car parking policies for vehicles and bicycles in accordance to national guidelines that support and complement public transport and the introduction of sustainable travel modes.</li> <li>g) The use of Transport Assessments for appropriate sized developments, taking into account current national guidance on the thresholds for the type of development(s) proposed.</li> <li>h) The safeguarding of suitable land for the provision of transport infrastructure.</li> <li>i) Prohibiting development where this is prejudicial to projects outlined in the Local Transport Plan or for any other transport proposals. Land to be safeguarded will be contained in specific transport proposals, the Sites and Policies document or other Local Development Plan Documents as appropriate.</li> <li>j) Implementing the Public Rights of Way Improvement Plan and maximising the use of the Public Rights Of Way network and other routes such as canal towpaths and disused railway lines for local transport connections on foot and by bicycle.</li> <li>k) Not allowing new development in Air Quality Management Areas unless traffic and air quality impacts are appropriately mitigated.</li> <li>l) Promoting Park and Ride where other sustainable travel choices cannot deliver similar benefits.</li> <li>m) Maintaining and improving School Travel Plans to manage demand for travel to and from schools and colleges.</li> </ul> |

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| CS15: Key Routes and the Strategic Road Network | <p>The Key Route and Motorway network will provide efficient access between the main Rotherham Urban Area, Principal Settlements and the regional and national road network. This will be achieved by:</p> <ol style="list-style-type: none"> <li>Concentrating through traffic on Motorways and ‘A’ Roads with best use being made of the existing road capacity to enable this.</li> <li>Improving specific Key Routes to manage congestion including traffic management measures, bus priority and facilities for cyclists and pedestrians.</li> <li>Integrating Park and Ride projects into bus priority schemes where they create a demonstrable reduction in vehicle mileage and are proven to be self financing.</li> <li>Concentrating road based freight onto those key routes where it would not have an unacceptable impact on local communities.</li> </ol> <p>Investment in key routes will be complemented by improved links for public transport, walking and cycling into the communities they serve. Where a key route passes through a community or acts as the main transport link between communities, it will be modified to reflect the needs of local people with priority given to accommodating vulnerable road users.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| CS19: Green Infrastructure                      | <p>Rotherham’s network of Green Infrastructure assets, including the Strategic Green Infrastructure Corridors will be conserved, extended, enhanced, managed and maintained throughout the borough. Green Infrastructure will permeate from the core of the built environment out into the rural areas.</p> <p>A net gain in Green Infrastructure will be realised through the protection and enhancement of existing assets and the creation of new multi functional areas, assets and linkages to include promoting: recreation and tourism, public access (including walking and cycling), green education, biodiversity (incorporating the promotion of ecological networks and habitat connectivity), public health and well being, water management, the protection and enhancement of the local and national landscape character area and historic assets, the mitigation of climate change, green economic uses and sustainable land management.</p> <p>Action will be targeted to the safeguarding and enhancement of functions and assets of the Strategic Green Infrastructure Corridors and any future refinement work and the delivery of objectives and actions identified in local and sub-regional Green Infrastructure Strategies. This will include long term management and maintenance of these assets.</p> <p>Developer contributions will be used to facilitate improvements through quality, robustness, establishment, enhancement, and the on going management of Rotherham’s Green Infrastructure, investing in enhancement and restoration where opportunities exist and the creation of new resources where necessary.</p> <p>Proposals will be supported which make an overall contribution to the Green Infrastructure network based upon the principles set out below:</p> <ol style="list-style-type: none"> <li>Securing provision, either on or off-site, of an appropriate size, shape, scale and type and having regard to the nature of the</li> </ol> |

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|                                        | <p>development, its impact on the wider network and contribution to the overall quality of the area.</p> <ul style="list-style-type: none"> <li>b) Avoiding damage to or loss of Green Infrastructure assets. Where loss is unavoidable and the benefits of the development outweigh the loss, appropriate mitigation and compensation measures, should be included as part of development proposals.</li> <li>c) Investment in Green infrastructure will be prioritised to increase functionality of individual assets and safeguard existing functions, such as habitats for wildlife.</li> <li>d) Improving connectivity between new developments and the Strategic Green Infrastructure network and providing buffering to protect sensitive sites.</li> <li>e) Supporting ecosystem services, including the use and management of Green Infrastructure areas to reduce the impacts of climate change, using vegetation to cool the environment, provision of new open space to remedy the need for natural and semi natural flood storage and managing surface water to ensure landscape change impacted by climate change has long term benefits.</li> <li>f) Promoting design which replicates or incorporates natural processes for river morphology and water storage along the regionally important rivers Don, Rother and Dearne.</li> <li>g) Promoting innovative development which manages quantifiable risks such as flooding.</li> <li>h) Assisting with the integration of new development into the natural and historic environment.</li> </ul> |
| CS20:<br>Biodiversity and Geodiversity | <p>The Council will conserve and enhance Rotherham's natural environment. Biodiversity and geodiversity resources will be protected and measures will be taken to enhance these resources in terms of nationally and locally prioritised sites, habitats and features and protected and priority species. Priority will be given to:</p> <ul style="list-style-type: none"> <li>a. Protecting the integrity of European and nationally designated sites for nature conservation, biodiversity and geodiversity, from inappropriate development;</li> <li>b. Supporting the positive management and protection of nationally, regionally and locally designated sites for nature conservation;</li> <li>c. Conserving and enhancing populations of protected and identified priority species by protecting them from harm and disturbance and by promoting recovery of such species populations to meet national and local targets;</li> <li>d. Conserving and enhancing sites and features which have demonstrable biodiversity and geodiversity value, including woodland, important trees, hedgerows, watercourse, caves, crags and structures, but which are not included in designated sites;</li> </ul>                                                                                                                                                                                                                                                                                                                                                     |

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|                    | <ul style="list-style-type: none"> <li>e. Supporting the delivery of objectives set out in the Rotherham Biodiversity Action Plan and the Yorkshire and Humber Biodiversity Strategy and Delivery Plan;</li> <li>f. Supporting the production of further relevant biodiversity and ecological network strategies identified by local partnerships, to deliver the restoration and expansion of priority habitats, including within identified biodiversity opportunity areas;</li> <li>g. Supporting the delivery of objectives set out in the UK Geodiversity Action Plan, other relevant geodiversity strategies;</li> <li>h. Encouraging the inclusion of natural environment assets, networks and opportunity areas in Green Infrastructure development;</li> <li>i. Supporting the maintenance of nature conservation evidence bases to ensure that adequate, up-to-date and relevant evidence on environmental characteristics and prospects is available;</li> <li>j. Managing land use sympathetically, understanding the naturally functioning processes of habitat succession, flood &amp; water management and climate change adaptation; contributing to landscape-scale and green infrastructure delivery;</li> <li>k. Protecting soil resources and managing the release of the BMV agricultural land, taking into account it's economic and other benefits and releasing only areas of poorer quality in preference to that of a higher quality; and</li> <li>l. Ensuring that development decisions will safeguard the natural environment and will incorporate best practice including biodiversity gain, green construction, sustainable drainage and contribution to green infrastructure.</li> </ul> |
| CS21:<br>Landscape | <p>New development will be required to safeguard and enhance the quality, character, distinctiveness and amenity value of the borough's landscapes. This will be achieved through the principles set out below:</p> <ul style="list-style-type: none"> <li>a) All new development proposals will be required to respect and enhance the character and distinctiveness of the relevant National Character Areas and the Local Landscape Character Areas identified for Rotherham.</li> <li>b) Within Areas of High Landscape Value, development will only be permitted where it will not detract from the landscape or visual character of the area and where appropriate standards of design and landscape architecture are achieved.</li> <li>c) Significant landscape features, important views including landmarks and skylines will be safeguarded and enhanced. Proposals that reduce the negative visual impact of landscape detractors will be encouraged.</li> <li>d) Development will respect the setting of neighbouring settlements.</li> <li>e) Where opportunities exist, the Council, and its partners, will support landscape enhancement, restoration, reclamation and other environmental improvements to enhance the quality,</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                               |

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|                                        | <p>appearance and attractiveness of the borough and encourage future investment, development and tourism.</p> <p>f) Landscape works shall be appropriate to the scale of the development.</p> <p>g) Developers will be required to put in place effective landscape management mechanisms including long term landscape maintenance for the lifetime of the development.</p> <p>h) Support will be given to initiatives, strategies and projects working towards or contributing to landscape scale conservation, implementing an integrated approach to managing the environment and all its functions.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| CS23: Valuing the Historic Environment | <p>Rotherham's historic environment will be conserved, enhanced and managed, in accordance with the principles set out below:</p> <p>a) Proposals and initiatives will be supported which conserve and enhance the heritage significance and setting of the borough's heritage assets, specifically those elements which contribute to the distinct identity of the borough. These include:</p> <ol style="list-style-type: none"> <li>I. The Roman Ridge, Roche Abbey, motte and bailey castles, historic houses and historic parks and gardens.</li> <li>II. The borough's industrial past with particular regard to Catcliffe Glassworks, Swinton Pottery and the Chesterfield Canal.</li> <li>III. The historic grain of the town centre and historic village cores, including street layout and plot sizes.</li> <li>IV. Early 20th century developments including planned colliery villages.</li> <li>V. Encouraging suitable new uses for vacant, under-used and derelict historic buildings.</li> </ol> <p>b) The character and setting of Rotherham Minster and the Chapel on the Bridge will be conserved and enhanced. Proposals will be supported which respect and enhance key views and vistas to both these and other significant buildings such as the Church of All Saints at Laughton en le Morthen.</p> <p>c) The character and setting, including key views to and from the historic buildings and designated landscape, of the Wentworth Woodhouse Estate will be conserved, enhanced and protected from inappropriate development.</p> <p>d) Proposals will be supported which protect the heritage significance and setting of locally identified heritage assets such as buildings of local architectural or historic interest, locally important archaeological sites and parks and gardens of local interest.</p> |
| CS24: Conserving and Enhancing the     | <p>Proposals will be supported which:</p> <p>a) do not result in the deterioration of water courses and which conserve and enhance:</p> <ol style="list-style-type: none"> <li>I. the natural geomorphology of watercourses,</li> </ol>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |

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| Water Environment             | <p>II. water quality; and</p> <p>III. the ecological value of the water environment, including watercourse corridors.</p> <p>b) contribute towards achieving 'good status' under the Water Framework Directive in the borough's surface and groundwater bodies.</p> <p>c) manage water demand and improve water efficiency through appropriate water conservation techniques including rainwater harvesting and grey-water recycling.</p> <p>d) improve water quality through the incorporation of appropriately constructed and maintained Sustainable Urban Drainage Systems or sustainable drainage techniques as set out in Policy CS25 Dealing with Flood Risk.</p> <p>e) dispose of surface water appropriately according to the following networks in order of preference: i. to an infiltration based system wherever possible (such as soakaways) ii. discharge into a watercourse with the prior approval of the landowner and navigation authority (to comply with part a. this must be following treatment where necessary or where no treatment is required to prevent pollution of the receiving watercourse.) iii. discharge to a public sewer.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| CS25: Dealing with Flood Risk | <p>Proposals will be supported which ensure that new development is not subject to unacceptable levels of flood risk, does not result in increased flood risk elsewhere and, where possible, achieves reductions in flood risk overall.</p> <ol style="list-style-type: none"> <li>1. Proposals should demonstrate that development: <ol style="list-style-type: none"> <li>a. has been directed to areas at the lowest probability of flooding by demonstrating compliance with the sequential approach as follows: i. Sites are within flood risk zone 1; or ii. Sites within flood zone 2 are considered only when it can be demonstrated that there are no reasonably available sites within flood zone 1; or iii. Sites within flood zone 3 are considered only when it can be demonstrated that there are no reasonably available sites with flood zones 1 or 2; and iv. Proposed uses are appropriate within the flood risk zone having regard to Table 10 'Flood Risk Vulnerability of Uses'; and v. Where Table 10 'Flood Risk Vulnerability of Uses' indicates the exception test is required proposals must demonstrate that the development: a. provides wider sustainability benefits to the community that outweigh the flood risk; and b. will be safe, without increasing flood risk elsewhere and, where possible, will reduce flood risk overall;</li> <li>b. within each flood zone is located where there is the lowest probability of flooding and that uses with higher vulnerability are located on parts of the site with the lowest probability of flooding;</li> <li>c. Is in accordance with the recommendations set out in the Strategic Flood Risk Assessment level 1 and level 2 documents; and</li> </ol> </li> </ol> |

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|                | <ul style="list-style-type: none"> <li>d. Is supported by a detailed Flood Risk Assessment (FRA) having regard to the guidance in National Planning Policy.</li> </ul> <p>2. Within the Rotherham Regeneration Area the Council will support proposals which demonstrate that they have assessed, and, where necessary, mitigated flood risk in accordance with the Flood Risk Took Kit. Proposals will not be supported where the risk cannot be satisfactorily mitigated.</p> <p>Proposals within flood zones 2 and 3 will be required to demonstrate that other sites in lower flood risk zones within the Rotherham Regeneration Area have been assessed and can be shown to be unable to accommodate the Scheme. Applicants must also set out the flood risk mitigation measures incorporated into the design and demonstrate how these reduce flood risk to an acceptable level and maintain safe access both to the site and its surroundings during times of flood. Any flood risk management measures implemented through development must be compatible with the requirements of the Council's community wide Rotherham Renaissance Flood Alleviation Scheme.</p> <p>3. The extent and impact of flooding will be reduced by:</p> <ul style="list-style-type: none"> <li>a. Requiring all development proposals on brownfield sites to reduce surface water run-off by at least 30% and development on greenfield sites to maintain or reduce existing surface water run off rates, unless it can be demonstrated to be impractical or unfeasible.</li> <li>b. Requiring the use of appropriately constructed and maintained Sustainable Urban Drainage Systems or sustainable drainage techniques on all sites where practical and feasible taking account of the location and the scale of the development proposed.</li> <li>c. Encouraging the removal of culverting. Building over a culvert or culverting of watercourses will only be permitted where it can be demonstrated that it is necessary.</li> <li>d. Protecting areas of functional floodplain as shown in the Strategic Flood Risk Assessment level 1 and level 2 documents and not increasing, and where possible reducing, the building footprint within the developed floodplain and where necessary designing new buildings to take into account flood risk.</li> <li>e. Identifying new areas of natural flood storage.</li> <li>f. Requiring appropriate mitigation and construction methods for developments in areas with known surface water flooding issues as well as not increasing the likelihood or extent of surface water flooding.</li> </ul> |
| CS26: Minerals | <p>Provision will be made for mineral extraction during the Plan period in an orderly and sustainable manner in line with the principles set out below.</p> <p>1. Mineral Safeguarding Areas</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |

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|               | <p>Mineral Safeguarding Areas will be defined around all deposits of coal, aggregate limestone (in the south eastern part of the borough between Thorpe Salvin and Maltby), and brick clay (between Hellaby and Maltby), that are considered to be of current or future economic importance.</p> <p>The purpose of Mineral Safeguarding Areas is to ensure resources are protected beyond the plan period, therefore in Mineral Safeguarding Areas there is no presumption that safeguarded resources will be worked but any potentially incompatible development should not sterilise underlying or adjacent mineral resources. All non-mineral development proposals within the</p> <p>Mineral Safeguarding Areas will be encouraged to extract any viable mineral resources present in advance of construction where practicable, and where this would not have unacceptable impacts on neighbouring uses.</p> <p>Proposals for non-mineral development within the Mineral Safeguarding Areas (except for householder development and conversions/changes of use which do not involve any new building or excavation works) will be supported where it can be demonstrated that:</p> <ol style="list-style-type: none"> <li>the proposal incorporates the prior extraction of any minerals of economic value in an environmentally acceptable way; or;</li> <li>mineral resources are either not present or are of no economic value; or</li> <li>it is not possible to extract the minerals in an environmentally acceptable way or this would have unacceptable impacts on neighbouring uses or the amenity of local communities; or</li> <li>the extraction of minerals is not feasible; or</li> <li>the need for the development outweighs the need to safeguard the minerals for the future; or</li> <li>the development is minor or temporary in nature; or</li> <li>Development would not prevent the future extraction of minerals beneath or adjacent to the site.</li> </ol> <p>Where prior extraction is proposed supporting information should provide details of the extraction scheme.</p> <p>In addition, Mineral Safeguarding Sites will be identified which are used for or have the potential to be used for mineral transport or processing facilities, or for safeguarding against sensitive development which might constrain its continued or future use.</p> <p><b>2. Limestone Aggregates</b></p> <p>Provision will be made to ensure an appropriate contribution towards the sub regional apportionment figure for crushed rock (identified in the Local Aggregate Assessment) for the plan period and jointly with Doncaster Council will aim to maintain a minimum land bank equivalent to ten years' sales.</p> <p>Preferred Areas for the future working of limestone aggregates will be suitable extension(s) to the existing Harry Crofts Quarry. Proposals for new quarries or extensions to existing quarries will be considered with</p> |

| Policy Number | Policy Text                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
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|               | <p>regard to the need to maintain the landbank in accordance with national policy, and whether they are necessary to maintain apportioned provision for South Yorkshire.</p> <p>3. Other Minerals</p> <p>a. Brick Clay - Areas of extant planning permission for the extraction of remaining brick clay resources adjacent to the former Maltby Brickworks will be protected from inappropriate development that could result in their sterilisation.</p> <p>b. Natural Building Stone - Proposals for the extraction of building or roofing stone for notable building conservation and restoration projects will be considered on their merits in accordance with National Planning Policy. Applications for development within a former building or roofing stone quarry will be required to demonstrate that the mineral is not of sufficient quantity or quality to justify extraction or make provision for the removal of the mineral before development takes place.</p> <p>c. Energy Minerals - Proposals for underground coal mine extensions (including colliery spoil disposal) and surface mining in addition to proposals for the exploration, appraisal and production of onshore oil and gas, including the gasification of coal, coal mine methane and coal bed methane will be assessed on their merits against all material planning considerations including National Planning Policy.</p> <p>d. Efficient use of minerals, substitutes and recycled materials - Proposals for the recycling of aggregates, recovery of material from waste tips, use of surplus soil making material from mineral workings and locally sourced fill materials from borrow pits will be supported where:</p> <ol style="list-style-type: none"> <li>I. Recovered materials assist in avoiding the use of primary minerals and the reduction of unnecessary transportation movements, and</li> <li>II. Recovery operations are of a limited scale and duration with no adverse amenity or environmental impacts and are subject to suitable site management and timely restoration measures.</li> </ol> <p>The use of surplus fill or soil making materials from mineral workings will normally be utilised in situ for restoration purposes. Proposals involving the importation and utilisation of such material on other sites will be subject to the assessment of separate planning applications. Proposals for sites for the blending, processing and distribution of substitute and secondary materials will be supported in appropriate locations where adverse amenity and environmental impacts can be mitigated and where sustainable transport by rail and canal can be optimised.</p> <p>4. New Quarries and Extensions to Existing Quarries</p> <p>Proposals for new quarries and extensions to existing quarries will only be permitted where it can be demonstrated that:</p> <p>a. production of waste during mineral working will be minimised, and</p> |

| Policy Number                              | Policy Text                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
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|                                            | <ul style="list-style-type: none"> <li>b. environmental, historic and cultural constraints have been assessed and that any impacts arising from mineral operations and the transport of minerals are kept to an acceptable minimum, and</li> <li>c. local amenity will be safeguarded, and</li> <li>d. the use of methods other than road haulage have been explored and utilised wherever possible, and</li> <li>e. sensitive working, restoration and aftercare practices will be adopted to preserve and enhance the overall quality of the environment once extraction has ceased, and</li> <li>f. they meet the requirements of other development plan policies and national planning guidance.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| CS27:<br>Community<br>Health and<br>Safety | <p>Development will be supported which protects, promotes or contributes to securing a healthy and safe environment and minimises health inequalities.</p> <p>Development should seek to contribute towards reducing pollution and not result in pollution or hazards which may prejudice the health and safety of communities or their environments. Appropriate mitigation measures may be required to enable development. When the opportunity arises remedial measures will be taken to address existing problems of land contamination, land stability or air quality.</p> <p>Proposals within Coal Mining Development Referral Areas must be accompanied with a risk assessment.</p> <p>New development should be appropriate and suitable for its location. Proposals will be required to consider the following factors in locating and designing new development:</p> <ul style="list-style-type: none"> <li>a. Whether proposed or existing development contributes to, or is put at unacceptable risk from pollution, natural hazards or land instability.</li> <li>b. Public safety and health risks directly arising from in-situ operations, past mining activity, and/ or from potential indirect or cumulative impacts on surrounding areas, sensitive land uses, and the maintenance of healthy functioning ecosystems.</li> <li>c. The impact of existing sources of pollution and the potential for remedial measures to address problems of contamination, land stability or air quality.</li> <li>d. Potential adverse effects of additional development near to hazardous installations and upon Air Quality Management Areas.</li> </ul> |
| CS28:<br>Sustainable<br>Design             | <p>Proposals for development should respect and enhance the distinctive features of Rotherham. They should develop a strong sense of place with a high quality of public realm and well designed buildings within a clear framework of routes and spaces.</p> <p>Development proposals should be responsive to their context and be visually attractive as a result of good architecture and appropriate landscaping.</p> <p>Development should protect or contribute to securing a healthy and safe environment, including minimising opportunities for crime, the risk</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |

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|                                                | <p>of terrorism and addressing any specific risks to health or safety from the local environment. Encouragement will be given to incorporation of Secured by Design principles in new development and in the design of public spaces.</p> <p>Development proposals will be expected to secure sustainable design and construction, ensuring the flexibility and adaptability of new development and increasing the energy and water efficiency of buildings. Encouragement will be given to the development of lifetime homes.</p> <p>In preparing development proposals for new build, refurbishment and extensions to existing buildings, consideration should be given to the inclusion of sustainable drainage schemes, grey water recycling, green and brown roofing and walls, landscaping and connectivity to ecosystems. Provision should be made for sustainable waste management.</p> <p>Design should take all opportunities to improve the character and quality of an area and the way it functions.</p> <p>The design process shall take into account:</p> <ol style="list-style-type: none"> <li>a. the topography, landforms, Green Infrastructure assets, river and canal corridors, important habitats, waterways, woodlands, other natural features and open spaces that provide opportunities for an accessible choice of shade and shelter, recognise opportunities for flood storage, wildlife and people provided by multi-functional greenspaces.</li> <li>b. views and vistas to landmarks and skylines into and out of Rotherham Town Centre and across Rotherham to the surrounding countryside.</li> <li>c. heritage, townscape and landscape character including the height, scale, massing, density, layout, building styles and materials of the built form particularly (but not exclusively) in and around: <ol style="list-style-type: none"> <li>I. Rotherham Town Centre</li> <li>II. within and adjacent to Conservation Areas.</li> </ol> </li> </ol> |
| CS30: Low Carbon & Renewable Energy Generation | <ol style="list-style-type: none"> <li>1. Energy Developments should seek to reduce carbon dioxide emissions through the inclusion of mitigation measures in accordance with the following energy hierarchy: <ol style="list-style-type: none"> <li>a. Minimising energy requirements through sustainable design and construction;</li> <li>b. Maximising Energy Efficiency; and</li> <li>c. Incorporating low carbon and renewable energy sources.</li> </ol> <p>Developments will be supported which encourage the use of renewable, low carbon and decentralised energy. All development should achieve, as a minimum, the appropriate carbon compliance targets as defined in the Building Regulations.</p> </li> <li>2. Developments that produce renewable energy</li> </ol>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |

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| CS32:<br>Infrastructure<br>Delivery and<br>Developer<br>Contributions | <p>Proposals for the development of renewable and low carbon sources of energy, particularly from community owned projects, will be encouraged provided that there are no unacceptable adverse effects on:</p> <ol style="list-style-type: none"> <li>Residential living conditions, amenity and quality of life</li> <li>Character and appearance of the landscape and surrounding area</li> <li>Biodiversity, geodiversity and water quality</li> <li>Historical, archaeological and cultural heritage assets</li> <li>Highway safety and infrastructure</li> </ol> <p>Careful consideration will be given to the capacity of the landscape to accommodate renewable energy developments, the ability to mitigate visual intrusion and the cumulative impact of individual sites.</p> <p>Any proposals will be accompanied by supporting information to clearly show how the surrounding environment will be protected and how site restoration will be carried out when production ends.</p> <p><b>Infrastructure Delivery and Developer Contributions</b></p> <p>It is essential to have in place a strong mechanism to ensure the monitoring and delivery of the strategy and the timely provision of the infrastructure on which it depends. For that reason, the Council has appointed a lead officer to head the Infrastructure Delivery Group of officers, members and service providers. Its functions will include assessing the progress of the strategy, identifying risks and priorities and the resolution of any problems. This approach will focus on actual and potential departures from the strategy and recommending to the Council any actions needed to keep the strategy on track, and/or bringing it back on track. The lead officer will liaise with the external Infrastructure Delivery Forum, setting up meetings on a regular basis to promote the effectiveness and implementation of the Core Strategy.</p> <p>The Council will work with infrastructure providers and developers to ensure timely delivery of infrastructure is provided to support growth. An assessment of the infrastructure required to support the delivery of the growth strategy is set out in the Infrastructure Delivery Schedule contained in Appendix A. The Schedule will be subject to regular review and update by the Council through liaison with providers reflecting the capacity and requirement at any point in time.</p> <p>Development will be required to contribute to funding all or part of the items of infrastructure listed in the Infrastructure Delivery Schedule, through a combination of mechanisms such as a Community Infrastructure Levy (CIL) and S106 Planning obligations. The Infrastructure Delivery Schedule is indicative and final requirements will be assessed based on the specific requirements stemming from each development, taking account of capacity and legislation concerning developer contributions.</p> <p>It is acknowledged that in some instances there may be a need for negotiation and prioritisation of the overall developer contribution requirements (based on what is needed to make the development acceptable and what the development can afford to contribute). Any negotiation will need to take account of all policy requirements</p> |

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|                                                           | <p>stemming from this plan, including requirements such as affordable housing and renewable energy generation.</p> <p>Where there is a need to negotiate on the level of developer contribution, the onus will be on the developer to fund and submit an independent viability appraisal and valuation of costs. The appraisal should set out the residual land value based on policy compliant requirements, and additional scenarios should demonstrate the variations in contributions to achieve a neutral and positive residual land value.</p> <p>This viability appraisal will be based on jointly agreed input assumptions (agreed by the Council and the developer). The developer will need to submit evidence of the amount paid for the land – noting that any abnormal payments beyond current market values will not be accepted. All assumptions will be based on current market conditions as at the date of the grant of planning permission.</p>                                                                                                                                                                                                                                                                                                                     |
| CS33:<br>Presumption in Favour of Sustainable Development | <p>When considering development proposals the Council will take a positive approach that reflects the presumption in favour of sustainable development contained in the National Planning Policy Framework. It will work with applicants to find solutions which mean that proposals can be approved wherever possible, and to secure development that improves the economic, social and environmental conditions in the area.</p> <p>Planning applications that accord with the policies in this Local Plan (and, where relevant, with policies in neighbourhood plans) will be approved without delay, unless material considerations indicate otherwise.</p> <p>Where there are no policies relevant to the application or relevant policies are out of date at the time of making the decision then the Council will grant permission unless material considerations indicate otherwise – taking into account whether:</p> <ol style="list-style-type: none"> <li>Any adverse impacts of granting permission would significantly and demonstrably outweigh the benefits, when assessed against the policies in the National Planning Policy Framework taken as a whole; or</li> <li>Specific policies in that Framework indicate that development should be restricted.</li> </ol> |

# **Appendix C. Sites and Policies (2018)**

## Appendix C

### Sites and Policies (2018)

| Policy                                                                | Policy Text                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
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| SP 2 Development in the Green Belt                                    | <p>A Green Belt whose boundaries are defined on the Policies Map will be applied within Rotherham Borough.</p> <p>Inappropriate development is, by definition, harmful to the Green Belt and should not be approved except in very special circumstances. In considering planning applications for new development, including improvements to essential infrastructure such as operational Waste Water Treatment Works, and mineral workings within the Green Belt and to ensure proposals minimise the impact of the development on the openness of the Green Belt particular regard will be had to the following factors: the size, scale, volume, height, massing, position, lighting and any proposed enclosures of the proposals; or screen banks.</p> <p>All new buildings should be well-related to existing buildings, where relevant, and should be of a size commensurate with the established functional requirement. Effective siting, screening and high standards of design appropriate to the setting of the proposals can minimise the impact of future development on the openness of the Green Belt. Where possible proposals should reflect the architectural style of original buildings, and/or the vernacular styles in the locality.</p> <p>All proposals for development should satisfy other relevant policies of the Local Plan and National Guidance.</p> |
| SP 28 Development Affecting Key Routes and the Strategic Road Network | <p>Careful consideration will be given to any potential adverse impacts of development on the Key Transport Routes and the Strategic Road Network, having regard where relevant to guidance in Circular 02/2013 or any subsequent replacement. Where a proposal is likely to have transport implications, applicants must set out suitable mitigation measures in their Transport Assessment.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| SP 32 Green Infrastructure and Landscape                              | <p>The Council will require proposals for all new development to support the protection, enhancement, creation and management of multi-functional green infrastructure assets and networks including landscape, proportionate to the scale and impact of the development and to meeting needs of future occupants and users.</p> <p>Within the most sensitive landscape character areas (identified as high or moderate to high landscape sensitivity), development will only be permitted where it will not detract from the landscape or visual character of the area and where appropriate standards of design and landscape architecture are achieved.</p> <p>In preparing planning applications developers will be expected to consider:</p> <ol style="list-style-type: none"> <li>the location and function of existing green infrastructure assets in relation to the development, and the potential to contribute to wider green infrastructure networks and initiatives;</li> </ol>                                                                                                                                                                                                                                                                                                                                                                                        |

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|        | <p>b. sensitively managing change in the landscape and contributing, where appropriate, to the enhancement of the urban fringe and other degraded areas having regard to identified Landscape Character Area management strategies. Further detail is provided in the Landscape Character Assessment and Landscape Capacity Study 2010, the Landscape and Visual Impact Assessment 2015, and the Landscape Capacity Assessment Addendum No 1 2015. Map 4 'Landscape Character Area Sensitivity' and Table 14 'Landscape Sensitivity Matrix' illustrate the Landscape Character Areas and their sensitivity to change.</p> <p>Where development proposals will most likely result in a significant impact on the borough's green infrastructure, landscape and visual amenity, the proposals should assess the potential impact and propose how any negative effects will be minimised. In doing so consideration should be given to:</p> <p>c. the incorporation of suitable mitigation measures or; where suitable mitigation measures are not achievable on site, then development should provide appropriate compensation off-site</p> <p>For major development of more than 10 dwellings, or more than 1,000 square metres of floorspace applicants are expected to demonstrate how they have considered the elements listed below, and to clearly set out appropriate enhancement, mitigation and / or compensation measures as appropriate:</p> <p>d. topography and geology;</p> <p>e. the type, location and composition of wildlife habitats and ecological networks;</p> <p>f. the creation of new and enhancement of existing green infrastructure to enhance links, increase function, and to address deficits, priorities, needs and opportunities;</p> <p>g. the presence, pattern and composition of existing historic landscape features including hedgerows, field boundaries, ancient and semi-natural woodland and veteran trees, and disused quarries;</p> <p>h. the pattern, distribution and relationship of footpaths, cycleways, including Public Rights of Way and national trails, and roads to settlements;</p> <p>i. the special qualities and landscape features which contribute to landscape character, local distinctiveness and the setting of neighbouring settlements; and where relevant, adjacent landscape character areas;</p> <p>j. provision for sustainable long term maintenance and management including climate change adaptation.</p> <p>This policy should be read in conjunction with Core Strategy Policies CS 19 'Green Infrastructure' and CS 21 'Landscape'.</p> <p>Where the prime function of green infrastructure is for recreational open space, development proposals will be primarily considered by Policy SP 37 'New and Improvements to Existing Green Space', Policy SP 38</p> |

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|                                                               | <p>'Protecting Green Space', and Policy SP 39 'Design and Location of Green Space, Sport and Recreation' as appropriate.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <p>SP 33 Conserving and Enhancing the Natural Environment</p> | <p>Development should conserve and enhance existing and create new features of biodiversity and geodiversity value.</p> <p>Where it is not possible to avoid negative impact on a feature of biodiversity or geodiversity value through use of an alternate site, development proposals will be expected to minimise impact through careful consideration of the design, layout, construction or operation of the development and by the incorporation of suitable mitigation measures.</p> <p>Where, despite mitigation, there will be residual adverse impact on biodiversity or geodiversity value or on wider ecological networks, development should provide an adequate level of compensation. The aim of mitigation and compensation should be to respond to impact or loss with something of greater value; the minimum requirement will be to maintain 'no net loss'.</p> <p>Planning permission will not be granted for development that is likely to, directly or indirectly, result in the loss or deterioration of sites, habitat or features that are considered to be irreplaceable due to their age, status, connectivity, rarity or continued presence unless the need for, and benefits of, the development in that location clearly outweigh the loss. The presumption in favour of sustainable development will not apply where development requiring appropriate assessment under the Birds or Habitats Directives is being considered, planned or determined.</p> <p>Development will be expected to enhance biodiversity and geodiversity on-site with the aim of contributing to wider biodiversity and geodiversity delivery including, where appropriate, direct contribution to Ecological Networks, the Green Infrastructure network, Biodiversity Opportunity Areas, Nature Improvement Areas and Living Landscapes (see Map 5 'Rotherham Biodiversity Opportunity Areas' for details).</p> <p>Development that contributes to the preservation, restoration and creation of priority habitats or geological features, ecological networks, ecosystem services and the protection and recovery of priority species populations, will be supported.</p> <p>The Council can protect individual and groups of trees by the declaration of Tree Preservation Orders where it is important in the interest of amenity and there is reason to believe that trees are under specific threat.</p> |
| <p>SP 34 Sites Protected for Nature Conservation</p>          | <p>Development or changes of use on land within or outside a statutorily protected site (either individually or in combination with other developments) which would adversely affect the notified special interest features, fabric or setting of the statutorily protected site will not be permitted.</p> <p>Development that would either directly or indirectly, adversely affect a non-statutorily protected site will not normally be permitted. An exception should only be made where the need for the development in that location outweighs both the impact on the site's intrinsic interest</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |

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|                                      | <p>and any broader impacts on the national network of protected sites, and that adequate mitigation and/or compensation measures can be delivered.</p> <p>Before any development or land use change that may affect a protected site is commenced any measures considered necessary to mitigate or compensate for any harm to the site or its features of interest must be agreed and put in place.</p> <p>Development adjacent to a protected site will be expected to incorporate adequate buffer zones or other measures to support the conservation of protected sites.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| SP 35 Protected and Priority Species | <p>Planning permission for development likely to have a direct or indirect adverse impact on the following will only be granted if they can demonstrate that there are no alternative sites with less or no harmful impacts that could be developed and that mitigation and/or compensation measures can be put in place that enable the status of the species to be conserved or enhanced:</p> <ol style="list-style-type: none"> <li>Protected species;</li> <li>Species of principal importance for the conservation of biodiversity;</li> <li>Species prioritised for action within the Rotherham Biodiversity Action Plan; and</li> <li>Populations of species associated with statutorily protected sites.</li> </ol> <p>Measures to mitigate and, or compensate for, any impact must be agreed prior to development commencing and should be in place by the time development is brought into use.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| SP 36 Soil Resources                 | <p>Development will be required to demonstrate the sustainable use of soils during construction and operation stages, where appropriate and to be determined in discussion with the Local Planning Authority. Applicants should demonstrate, in their proposals, that there are feasible and appropriate methods, locations and receptors for the temporary storage and reuse of high quality soils. Built development should be designed and sited with an appreciation of the relative functional capacity of soil resources and threats to soils with the aim of preserving or enhancing identified soil functions.</p> <p>Measures to incorporate green space and sustainable drainage elements that retain permeable surfaces, allow water infiltration, reduce soil erosion and maintain natural soil functions will be supported. Measures that waste soil resource, reduce soil quality, compact or pollute soils or that create a predominantly impermeable surface should be avoided.</p> <p>Where development is proposed on the BMV agricultural land it should, as far as possible, use the lowest grade of land suitable for the development and should demonstrate adequate measures to conserve the soil resource and functions in agreement with the Local Planning Authority. Where appropriate, developers should provide up-to-date</p> |

| Policy                                                  | Policy Text                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
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|                                                         | <p>detailed assessment to determine the quality of soils and to identify sustainable re-use for soils which are to be translocated.</p> <p>Proposals that promote careful management practises to conserve the character of the borough's soils will be supported. The use of imported soil and aggregates in development proposals should be avoided where possible. Where use is necessary consideration will need to be shown of the impact on local geodiversity and associated biodiversity.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| SP 42 Archaeology and Scheduled Ancient Monuments       | <p>Development proposals that may impact upon archaeology, whether designated as a Scheduled Ancient Monument or undesignated, will be considered against the following principles:</p> <ol style="list-style-type: none"> <li>development that would result in harm to the significance of a Scheduled Monument or other nationally important archaeological site will not be permitted;</li> <li>the preservation of other archaeological sites will be an important consideration. When development affecting such sites is acceptable in principle, the Council will seek preservation of remains in situ, as a preferred solution. When in situ preservation is not justified, the developer will be required to make adequate provision for archaeological recording to ensure an understanding of the remains is gained before they are lost or damaged, in accordance with Policy SP 43 'Conserving and Recording the Historic Environment'.</li> </ol>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| SP 43 Conserving and Recording the Historic Environment | <p>All proposals affecting a heritage asset will require careful assessment as to the impact and appropriateness of development to ensure that the historic, architectural, natural history, or landscape value of the asset and / or its setting are safeguarded and conserved, and any conflict avoided or minimised in accordance with the policies of this Local Plan.</p> <p>Development proposals that affect known or potential heritage assets will need to provide supporting information in sufficient detail that the impact of the proposed scheme on those heritage assets can be established, in line with the following approach:</p> <ol style="list-style-type: none"> <li>where proposals involve sites which have been assessed as part of the Council's Archaeological Scoping Studies evidence base, Heritage Statements will be required where sites are identified as having 'major', 'potential' or 'uncertain' objections to development. Where this applies to sites allocated through Policy SP 1 'Sites Allocated for Development' it is identified in the site specific development guidelines at Chapter 5 'Site development guidelines';</li> <li>proposals on other sites will be required to submit a Heritage Statement if development would affect a known or potential heritage asset.</li> </ol> <p>Heritage Statements should consider the impact of the specific development proposed with regard to: the setting of heritage assets on or in the vicinity of the site; detailed archaeological assessment; and the results of field evaluation.</p> |

| Policy                                                          | Policy Text                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
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|                                                                 | <p>In the exceptional circumstances that harm could be justified, resulting in the loss or damage of a heritage asset, appropriate recording will be required to an agreed standard in advance of any alteration, demolition or groundworks, to ensure that: an understanding of the remains is gained before they are lost or damaged, that the knowledge gained is widely disseminated, and that the resulting archive is deposited for long-term duration.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <p>SP 47 Understanding and Managing Flood Risk and Drainage</p> | <p>The Council will expect proposals to:</p> <ol style="list-style-type: none"> <li>demonstrate an understanding of the flood route of surface water flows through the Scheme in an extreme event where the design flows for the drainage systems may be exceeded, and incorporate appropriate mitigation measures;</li> <li>control surface water run-off as near to its source as possible through a sustainable drainage approach to surface water management (SuDS). The Council will expect applicants to consider the use of natural flood storage / prevention solutions (such as tree planting) in appropriate locations, and the use of other flood mitigation measures such as raised finished floor levels and compensatory storage; and</li> <li>consider the possibility of providing flood resilience works and products for properties to minimise the risk of internal flooding to properties.</li> </ol> <p>A maintenance strip should be maintained between Scheme and watercourses. There should be no encroachment into this strip during any stage of development. The width measured from the top of bank should be a minimum of 8 metres for watercourses designated as ‘main rivers’ or a minimum of 5 metres for ordinary watercourses. Where flood defences exist, the maintenance strip should be 8 metres, measured from the landward toe of any flood defence or the top of bank if closer.</p> <p>Foul water should be disposed of to public sewer wherever possible. Non-mains foul drainage disposal options will only be considered where it is robustly demonstrated that a mains connection is impracticable, unsustainable or too costly, compared against the lifetime costs/impacts of the non-mains alternative. Any proposals involving non-mains drainage must be accompanied by a suitable foul drainage assessment.</p> <p>Major developments of more than 10 dwellings, or more than 1,000 square metres of floorspace should comply with Defra Sustainable Drainage Systems Non-statutory Technical Standards for Sustainable Drainage Systems (March 2015) and the South Yorkshire Interim Local Standards for Sustainable Drainage Systems (May 2015), or any future documents which supersede them.</p> <p>Floor levels for habitable buildings should normally be a minimum of 600mm above the 100 year plus climate change flood level.</p> <p>Where development causes a loss of available flood storage capacity adjacent to a watercourse, compensatory capacity should be provided in a suitable location and at the same elevation.</p> |

| Policy                                    | Policy Text                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
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| SP 49 Safeguarding Mineral Infrastructure | <p>Permission for non-minerals development involving, or within 250 metres of existing, planned or potential safeguarded mineral infrastructure sites will be granted where it can be demonstrated that:</p> <ol style="list-style-type: none"> <li>the infrastructure is no longer required or no longer meets the needs of the mineral or construction industry; or</li> <li>development will not prejudice the mineral infrastructure's operation or current or future use; or</li> <li>an alternative, appropriate, site provides capacity for delivery of the mineral infrastructure; or</li> <li>the need for the Scheme outweighs the need to safeguard the site for mineral infrastructure.</li> </ol> <p>The policy will also apply to sites in use for concrete batching, the manufacture of coated materials, other concrete products and the handling, processing and distribution of substitute, recycled and secondary aggregate material not identified on the Policies Map.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| SP 52 Pollution Control                   | <p>Development proposals that are likely to cause pollution, or be exposed to pollution, will only be permitted where it can be demonstrated that mitigation measures will minimise potential impacts to levels that protect health, environmental quality and amenity. When determining planning applications, particular consideration will be given to:</p> <ol style="list-style-type: none"> <li>the detrimental impact on the amenity of the local area, including an assessment of the risks to public health;</li> <li>the presence of noise generating uses close to the site, and the potential noise likely to be generated by the proposed development. A Noise Assessment will be required to enable clear decision-making on any planning application;</li> <li>the impact on national air quality objectives and an assessment of the impacts on local air quality; including locally determined Air Quality Management Areas and meeting the aims and objectives of the Air Quality Action Plan;</li> <li>any adverse effects on the quantity, quality and ecology features of water bodies and groundwater resources; and</li> <li>The impact of artificial lighting. Artificial lighting has the potential to cause unacceptable light pollution in the form of sky-glow, glare or intrusion onto other property and land. Development proposals should ensure that adequate and reasonable controls to protect dwellings and other sensitive property, the rural night-sky, observatories, road-users, and designated sites for conservation of biodiversity or protected species are included within the proposals.</li> </ol> |
| SP 54 Contaminated and Unstable Land      | <p>Where land is known to be or suspected of being contaminated, or development may result in the release of contaminants from adjoining land, or there are adverse ground conditions caused by unstable land, development proposals should:</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |

| Policy                         | Policy Text                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
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|                                | <ul style="list-style-type: none"> <li>a. demonstrate there is no significant harm, or risk of significant harm, to human health or the environment or of pollution of any watercourse or ground water;</li> <li>b. ensure necessary remedial action is undertaken to safeguard users or occupiers of the site or neighbouring land and protect the environment and any buildings or services from contamination during development and in the future;</li> <li>c. demonstrate that adverse ground conditions have been properly identified and safely treated; and</li> <li>d. clearly demonstrate to the satisfaction of the Local Planning Authority, that the land is suitable for its current or proposed use.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <p>SP 55 Design Principles</p> | <p>All forms of development are required to be of high quality, incorporate inclusive design principles, create decent living and working environments, and positively contribute to the local character and distinctiveness of an area and the way it functions. This policy applies to all development proposals including alterations and extensions to existing buildings.</p> <p>Proportionate to the scale, nature, location and sensitivity of development, regard will be had to the following when considering development proposals:</p> <ul style="list-style-type: none"> <li>a. the setting of the site, including the size, scale, mass, volume, height, orientation, form, and grain of surrounding development;</li> <li>b. that an assessment of local building materials, their colour and architectural detailing has been undertaken and submitted with the application;</li> <li>c. the use of appropriate materials and landscaping and utilisation of natural features, such as topography, watercourses, trees, boundary treatments, planting and biodiversity to create visually attractive high quality development;</li> <li>d. proposals reinforce and complement local distinctiveness and create a positive sense of place; public art should be incorporated into proposals where appropriate;</li> <li>e. the legibility and permeability of development to promote ease of movement, the creation of safe, secure and accessible environments and provide clear distinction between public and private spaces - lighting of the public realm and the built development will be particularly important;</li> <li>f. the provision of satisfactory arrangements for the storage and collection of refuse, recyclable materials and garden waste to enable easy and convenient recycling and composting;</li> <li>g. the design and layout of buildings to enable sufficient sunlight and daylight to penetrate into and between buildings, and ensure that adjoining land or properties are protected from overshadowing;</li> <li>h. the need to optimise the potential of sites to accommodate development which could, in appropriate instances, involve maximising densities;</li> </ul> |

| Policy                         | Policy Text                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
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|                                | <ul style="list-style-type: none"> <li>i. new public and commercial developments are encouraged to include baby changing facilities, breast feeding facilities and accessible 'Changing Places' toilet facilities in addition to standard accessible toilets.</li> </ul> <p>All development proposals must have regard to the presence of sensitive land uses and be designed in such a way that the amenity of any land use and the specific characteristics of the sensitive area are not adversely affected.</p> <p>Design and Access Statements, and where appropriate detailed masterplanning, will be expected to encompass these broad aims and principles and have regard to the Building for Life toolkit, or the most up to date guidance. Applicants are strongly encouraged to demonstrate an appropriate level of community engagement in their preparation; to comprehensively consider health and equalities impacts and safety and security issues and, clearly demonstrate through their submission, how these issues and any impacts arising, have influenced the final design solution.</p>                                                                                                                                                                                                                                                                                |
| SP 56 Car Parking Layout       | <p>In terms of car parking, layouts must be designed to:</p> <ul style="list-style-type: none"> <li>a. reduce the visual impacts of parking on the street-scene and provide defined visitor parking on-street;</li> <li>b. discourage the obstruction of footways by kerb parking, and parking that compromises the operation of the highway; and</li> <li>c. ensure in-curtilage / on plot parking does not result in streets dominated by parking platforms to the front of the property or large expanses of garage doors fronting the street.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| SP 57 Sustainable Construction | <p>To enable high quality, functional and sustainable design to be clearly embedded in future development, proposals will need to be designed to withstand and adapt to the predicted impacts of climate change. The evidence supporting the planning application should be proportionate to the scale of the development and:</p> <ul style="list-style-type: none"> <li>a. identify how recycled materials will be used during construction unless it can be demonstrated that it would not be technically feasible or financially viable or the nature of the development requires appropriate use of local materials;</li> <li>b. meet the relevant BREEAM 'very good' standards or better for non-residential buildings over 1,000 square metres unless it can be demonstrated that it would not be technically feasible or financially viable; and</li> <li>c. demonstrate how the installation of integrated renewable and low carbon energy technologies in new and existing non-residential developments, in order to off-set CO<sub>2</sub> emissions and mitigate the impacts of climate change, has been assessed and included within the development unless it can be demonstrated that it would not be technically feasible or financially viable. These could include (but are not limited to): <ul style="list-style-type: none"> <li>i. solar thermal</li> </ul> </li> </ul> |

| Policy                         | Policy Text                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
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|                                | <ul style="list-style-type: none"> <li>ii. solar photovoltaic</li> <li>iii. biomass boilers</li> <li>iv. ground source heat pump</li> <li>v. wind turbines</li> <li>vi. combined heat and power schemes &amp; associated infrastructure</li> </ul> <p>This policy should be read in conjunction with Policy WCS 7 'Managing waste in all developments' of the Barnsley, Doncaster and Rotherham Joint Waste Plan (Barnsley Metropolitan Borough Council <i>et al.</i>, 2012) regarding the management of waste products arising from the development and future occupation and Policy SP 36 'Soil Resources'.</p>                                                                                                                                                                                                               |
| SP 69 Utilities Infrastructure | <p>The Council will seek to ensure the efficient provision of gas, water, drainage, electricity and telecommunication services which avoid or, where this is not possible, minimise any adverse landscape and environmental impacts.</p> <p>In granting planning permission, the Council, in consultation with utility companies, will require that development proposals take into account any existing and new service infrastructure requirements, together with associated apparatus, installations and operational land and the need for access for maintenance and repair purposes.</p> <p>Proposals for development close to overhead power lines should take into account the effect of the transmission towers and cables in the vicinity of the site on the amenity of the occupiers of the proposed development.</p> |

# **Appendix D. Joint Waste Plan (2012)**

## Appendix D

### Joint Waste Plan (2012)

| Policy                                                                                                       | Requirement                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
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| Policy WCS1: Barnsley, Doncaster and Rotherham's Overall Strategy For Achieving Sustainable Waste Management | <p>Provision will be made to maintain, improve and expand the network of waste management facilities throughout Barnsley, Doncaster and Rotherham to achieve sustainable waste management across all waste streams.</p> <p>A. To facilitate proposals to address the identified municipal, commercial and industrial waste management capacity gap:</p> <ol style="list-style-type: none"> <li>1. existing strategic waste management facilities are safeguarded to maximise their efficiency;</li> <li>2. three sites are allocated for new strategic waste management facilities (and a fourth site is reserved); and</li> <li>3. new or replacement smaller-scale facilities will be supported where these are required to serve local catchment areas and communities.</li> </ol> <p>B. No capacity gaps are identified for construction, demolition and excavation waste, hazardous waste or agricultural waste and therefore specific sites are not safeguarded or allocated. Proposals for new facilities processing these waste streams will be assessed on a case by case basis.</p> <p>C. Existing landfill sites are safeguarded, and proposals to maximise their life and efficiency will be supported. Proposals for additional capacity must demonstrate why it is required.</p> <p>D. The key principles set out below will guide the assessment of waste proposals.</p> <ol style="list-style-type: none"> <li>1. Large-scale waste management proposals will be directed towards the strategic site allocations where possible.</li> <li>2. Innovative waste technologies will be allowed and promoted where these support the vision and aims of the Joint Waste Plan.</li> <li>3. Proposals will be supported which enable Barnsley, Doncaster and Rotherham's waste to be managed locally, whilst allowing waste to be imported or exported where this represents the most sustainable option.</li> <li>4. Priority will be given to waste proposals which maximise the reuse of vacant or underused brownfield land, particularly within established</li> </ol> |

| Policy                                          | Requirement                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|-------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                 | <p>employment areas and which provide opportunities for co-location and priority areas for regeneration.</p> <ol style="list-style-type: none"> <li>5. Waste proposals will be directed towards accessible locations with good transport links, particularly in and around urban areas.</li> <li>6. Waste proposals will be directed away from the most sensitive locations so as to avoid adverse harm to ground water aquifers (especially the Sherwood Sandstone and Magnesian Limestone aquifers), Thorne and Hatfield moors, historic assets and the functional floodplain.</li> <li>7. Waste proposals will not be allowed (including on safeguarded or allocated sites under policies WCS2, WCS3 and WCS5) which may undermine the integrity of nature conservation sites of international importance (such as Thorne and Hatfield Moors Special Protection Area and Special Areas of Conservation).</li> </ol> <p>E. All development proposals (including non-waste uses such as housing) must:</p> <ol style="list-style-type: none"> <li>1. promote high quality design and layouts that minimise waste and reduce resources (e.g. recycled materials and secondary aggregates), especially during the construction process; and</li> <li>2. ensure that they do not prevent or prejudice either the delivery or continued operation of waste facilities on safeguarded or allocated sites.</li> </ol> |
| Policy WCS7: Managing Waste in All Developments | <p>A. All development proposals (excluding minor planning applications) must submit a waste management plan as part of the planning application. In particular, such plans will need to include:</p> <ol style="list-style-type: none"> <li>1. information on the amount and type of waste that will be generated from the site;</li> <li>2. measures to reduce, re-use and recycle waste within the development, including the provision of on-site separation and treatment facilities (using fixed or mobile plants where appropriate);</li> <li>3. an assessment of the potential to re-use or adapt existing buildings on the site (if demolished it must explain why it is not possible to retain them);</li> </ol>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |

| Policy | Requirement                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
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|        | <ol style="list-style-type: none"> <li>4. design and layouts that allow effective sorting and storing of recyclables and recycling and composting of waste and facilitate waste collection operations during the lifetime of the development;</li> <li>5. measures to minimise the use of raw materials and minimise pollution of any waste;</li> <li>6. details on how residual waste will be disposed in an environmentally responsible manner and transported during the construction process and beyond;</li> <li>7. construction and design measures that minimise the use of raw materials and encourage the re-use of recycled or secondary resources (particularly building materials) and also ensure maximum waste recovery once the development is completed; and</li> <li>8. details on how the development will be monitored following its completion.</li> </ol> <p>B. Where waste management plans include on-site recycling, recovery and re-processing provision they must demonstrate how these activities will comply with the requirements set out under policy WCS6.</p> <p>C. Proposals for non-waste development must not prevent or prejudice the delivery and operation of waste management facilities within the vicinity of the safeguarded and allocated sites set out under policies WCS2, WCS3 and WCS5.</p> |

# Appendix E. Supplementary Planning Documents

# Appendix E

## Supplementary Planning Documents

### E.1 Air Quality and Emissions Supplementary Planning Document (SPD)

- E.1.1 The Air Quality and Emissions SPD (RMBC, 2020a) serves as a framework for incorporating air quality considerations into land-use planning and development management policies. The SPD aims to support the reduction of road transport emissions through its integration into the planning process.
- E.1.2 The SPD constitutes a key component of RMBC's Air Quality Action Plan.
- E.1.3 The SPD outlines that the UK government has identified Sheffield and Rotherham as areas within England where annual average concentrations of nitrogen dioxide (NO<sub>2</sub>) exceed statutory limits. In response, the government mandated RMBC in 2017 to collaborate with Sheffield City Council to establish and implement a Clean Air Zone. For any Scheme likely to impact air quality within Rotherham's designated exceedance areas, developers will be required to place particular emphasis on implementing mitigation measures to ensure no adverse effects on air quality.
- E.1.4 The SPD emphasises the importance of early engagement with the LPA at the pre-application stage for developments that may affect locations where annual average concentrations of NO<sub>2</sub> exceed statutory limits. This early communication is essential to ensure compliance with air quality requirements and to address potential impacts effectively.
- E.1.5 The SPD outlines that a standard provision of electric vehicle charging points is anticipated in most developments. This requirement is in addition to any mitigation measures identified through the exposure assessment, which will be enforced through planning conditions, as follows:
- Non residential developments (for proposals with five or more parking spaces): Provision of vehicle charging point infrastructure (cabling routes) to serve every car parking space and a minimum of 20 per cent of parking spaces to have charging points.
- E.1.6 The specific number, specification, location, and maintenance schedule for electric vehicle charging infrastructure must be agreed upon with the relevant authority. As outlined in Figure 1: Air Quality Impact Assessment Flow Chart; and Table 1: Criteria for Development Classification within the SPD, the Scheme will require an Air Quality Impact Assessment. Furthermore, the pollution damage costs associated with the predicted change in emissions resulting from a major proposal will determine the level of compensatory mitigation required to offset the development's impact. Potential mitigation strategies are detailed in Box 5 of the SPD.
- E.1.7 The SPD continues, noting that each development will require a mitigation statement which must include:
- the calculated damage cost (certain Medium and all Major proposals);
  - proposed mitigation/compensation measures;

- estimated mitigation cost (Major proposals) that is equivalent to the value of the emissions calculation (appropriate to the type and size of development and local policy requirements); and
- a proposed demolition/construction management plan that includes:
  - a brief project description and likely sources of dust emissions;
  - measures to be adopted to minimise dust emissions;
  - emergency measures to be adopted in the event of unforeseen circumstances;
  - incident logging and reporting procedures.

## **E.2 Development in the Green Belt SPD**

- E.2.1 The Development in the Green Belt SPD (RMBC, 2023a) has been prepared in line with national planning policy and relevant legislation and regulations. It should be noted that, since the publication of the SPD, the NPPF has been updated to include grey belt land. This new land classification has specific implications for the designation and potential declassification of Green Belt land. Consequently, the SPD is now out of date and can no longer be considered a material consideration for RMBC.
- E.2.2 The SPD, having been adopted in July 2023, quotes a previous iteration of the NPPF. The SPD highlights that certain forms of development are not inappropriate in the Green Belt provided they preserve its openness and do not conflict with the purposes of including land within it. Included within this are engineering operations.
- E.2.3 Furthermore, the SPD states that any development within the Green Belt should have only a minimal impact on its openness and visual character. The physical effects of buildings and structures on the Green Belt are influenced by several factors, including their size, design, location, screening, enclosures, and lighting. By carefully considering each of these factors, the physical impact of a development on the Green Belt can be effectively mitigated.
- E.2.4 Continued it notes that limited infilling which can demonstrate that it will not erode the character of the area may be acceptable in the villages listed in Policy SP8 Infilling Development within the Green Belt. This policy defines infilling as the filling of a small gap in an otherwise built up frontage and defines a small gap as a gap which fronts onto a highway and has a width less than 20m between the existing buildings.
- E.2.5 The SPD, states that planning applications to change the way land is used will need to show that the openness of the Green Belt will not be affected and there is no conflict with the reason the land was made part of the Green Belt.
- E.2.6 They shall also comply with local and national policy which establishes that inappropriate development should not be approved except in very special circumstances, and that '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.

## **E.3 Equal and Healthy Communities SPD**

- E.3.1 The Equal and Healthy Communities SPD (RMBC, 2020b) was adopted in June 2020. Under the terms of the Equality Act 2010, RMBC has a duty to prevent discrimination based on nine protected characteristics, advance equality of opportunity and foster good relations. Rotherham's Local Plan contributes towards meeting these duties, and also supports the vision and objectives of the Rotherham Health and Wellbeing Strategy; in particular promoting healthy lifestyles and seeking to reduce poverty.
- E.3.2 A Promoting and Healthy Community Checklist, as shown in Appendix 1 within the SPD, will be required as the application will meet the 1,000m<sup>2</sup> threshold for non-residential floor space.

## **E.4 Natural Environment SPD**

- E.4.1 The Natural Environment SPD (RMBC, 2021b), adopted in June 2021, is designed to assist developers in addressing the natural environment within development proposals, including considerations for wildlife habitats, species, and geology. A key planning principle emphasised in the SPD is the conservation and enhancement of the natural environment. The guidance aims to provide general advice while supporting the principles of biodiversity and geodiversity protection and enhancement. It serves to assist applicants in preparing and submitting proposals that prioritise biodiversity and geodiversity, aligning with relevant objectives and policies. Detailed, site-specific advice can be provided upon request as part of the planning process.
- E.4.2 The SPD outlines that the natural environment must be considered at each stage of the planning process. During the pre-application stage, this involves identifying the current site status, determining the extent of survey and impact assessment required, and scheduling the necessary survey work. At the application stage, developers are required to submit ecological survey and impact assessment reports, include the results of the ecological survey in the Design & Access Statement, and demonstrate how ecological recommendations have influenced or been integrated into the proposals. The Planning Agreement stage should include conditions to ensure biodiversity recommendations are agreed, while the Delivery stage requires information to support the discharge of relevant conditions, evidence of implemented measures, results from agreed monitoring, and demonstration of long-term maintenance of ecological features.
- E.4.3 The level of biodiversity mitigation, compensation, and gain proposed should be proportionate to the scale and impact of the development. Biodiversity net gain will be sought for all development that affects the natural environment. The SPD provides guidelines with various elements that can be incorporated into development proposals to showcase the measures taken to conserve and enhance the natural environment.
- E.4.4 The SPD outlines that developers should identify existing biodiversity interests and key features on a site, as well as explore opportunities to enhance them through development and site management. Part 1 of the SPD sets out general principles to support nature conservation, alongside specific recommendations covering various aspects such as landscaping, planting and open spaces. These include guidance on hedgerows, trees and shrubs, climbing plants, wildflower-rich grass, watercourses,

wetlands and their banks, amphibians and reptiles, living roofs and walls, biodiversity in the built environment, and species-specific considerations for common swifts, house martins, barn swallows, house sparrows, starlings, garden birds, birds of prey, bat species and hedgerows. Additionally, it provides guidance on nature improvement areas to further support biodiversity conservation and enhancement.

- E.4.5 Appendix 1 outlines common and indicative species associated with various habitats, based on the Rotherham LWS selection criteria. Appendix 2 specifies the ecological survey information that must be submitted as part of the planning process. Appendix 3 provides an ecological survey calendar detailing the appropriate survey periods for different species.

## **E.5 Transport Assessments, Travel Plans and Parking Standards SPD**

- E.5.1 The Transport Assessments, Travel Plans, and Parking Standards SPD (RMBC, 2021c), adopted in June 2021, provides detailed guidance on how RMBC expects parking and travel plan policies within the Development Plan to be applied in specific circumstances or areas. It is designed to support the operation of the development management process and serve as a resource for developers and land use managers, outlining the general principles of parking and sustainable transport and how these are assessed during the planning process.
- E.5.2 As outlined in Appendix A of the SPD, a Travel Statement is required for general industrial developments exceeding 1,250m<sup>2</sup>, while a transport assessment and travel plan are necessary for developments over 2,500m<sup>2</sup>. It is recommended to seek pre-application advice from the Council to fully determine specific requirements.
- E.5.3 Appendix B of the SPD, specifies the Vehicle Parking Standards, set at one space per 50m<sup>2</sup>, in addition to providing accessible parking. Appendix C outlines the cycle parking standards, stipulating one space per 1,000m<sup>2</sup> of gross floor space for short-stay parking and one space per 20 staff members for long-stay parking.

## **E.6 Developer Contributions SPD**

- E.6.1 The Developer Contributions SPD (RMBC, 2023b), adopted in July 2023, establishes the overarching principles for securing development contributions through planning obligations. These contributions are intended to mitigate the impacts associated with new development within RMBC.
- E.6.2 The SPD outlines that planning obligations are employed as part of the planning application process to address specific planning-related issues and impacts resulting from development proposals. These obligations are typically formalised through a legal agreement, referred to as a Section 106 (S106) agreement, which is negotiated between RMBC, landowners, and developers. The purpose of such agreements is to ensure that developments, which would otherwise be unacceptable in planning terms, are made acceptable.
- E.6.3 In securing developer contributions, RMBC will base its assessment on the needs arising from new development.

- E.6.4 The SPD reiterates that Policy SP55 requires a Health Impact Assessment (HIA) for developments exceeding 50 units or 1,000m<sup>2</sup>, as well as for developments where potential health-related issues are identified. These assessments may be secured through planning obligations.

## **E.7 Trees SPD**

- E.7.1 The Trees SPD (RMBC, 2023c), adopted in July 2023, guides developers in considering and justifying tree-related aspects of development proposals. It promotes best practice for integrating existing and new trees and offers additional guidance in alignment with RMBC's Local Plan Core Strategy (RMBC, 2014) and Sites and Policies Document (RMBC, 2018). This SPD will be used in the evaluation of all planning applications.
- E.7.2 This SPD primarily focuses on protecting and replacing trees affected by development, while supporting BNG principles. RMBC encourages early consideration of existing trees and hedgerows in development for their benefits. RMBC endorses British Standard BS 5837:2012 (British Standards Institution, 2012), providing guidance on integrating trees, shrubs, and hedgerows with new structures.
- E.7.3 As noted within the SPD, trees provide habitats for various species, including bats, birds, insects, and fungi, some of which are legally protected and considered in the planning process. Sites with trees that have bat roost potential must comply with The Conservation of Habitats and Species Regulations 2010 (as amended) prior to determining a planning application. While the presence of roosting bats does not necessarily prevent tree works, a mitigation scheme and a European Protected Species licence from Natural England are required before proceeding. Ancient and veteran trees, as well as other high-distinctiveness woodland habitats, are classified as irreplaceable under Paragraph 180(c) of the NPPF. Advice should be sought prior to initiating any work on such habitats.
- E.7.4 Further, the SPD states that all trees must be assessed for retention suitability and categorised in accordance with BS 5837:2012 prior to drafting development plans, ensuring that trees suitable for retention inform the final site layout. Trees protected by a Tree Preservation Order (TPO) or classified as category A or B in a BS 5837:2012 survey must be retained. If removal of such trees is proposed, applicants must either redesign the site or justify the removal as essential, alongside proposing mitigation measures. Category C trees may typically be removed, with their collective value mitigated through replanting on or off site, in line with Local Plan Core Strategy Policy CS19.
- E.7.5 The SPD mandates the submission of a tree survey, aligned with BS 5837:2012 guidance, alongside planning applications. Additional surveys such as topographical and soil assessment, may be required if significant land level changes exceed 50mm within root protection areas. RMBC advises submitting an Arboricultural Impact Assessment (AIA) for sites containing or adjacent to trees, to ensure comprehensive consideration of tree-related impacts. Furthermore, the SPD introduces the Rotherham Tree Replacement Standard, a method of assessing tree value based on financial replacement cost when tree retention is unfeasible. RMBC requires replacement of lost trees through on-site or off-site replanting, or a combination, in accordance with Core Strategy policy CS19, as outlined in Table 2 of the SPD for trees not under Council ownership or TPOs.

- E.7.6 When RMBC deems tree loss unavoidable, applicants should prioritise replacing the lost tree value on site. If on-site replacement is not feasible, RMBC may require a financial contribution for off-site tree planting and maintenance.
- E.7.7 Developer contribution costs are as follows:
- £396 for the supply, planting, and maintenance of one tree, and
  - £18,960 for one hectare of woodland.
- E.7.8 Where new trees are planted on RMBC land through developer contributions, a maintenance contribution is also required to ensure the successful establishment of the trees to maturity. Costs associated with this are outlined in Table 4 of the SPD.
- E.7.9 The SPD affirms that new landscaping is integral to development proposals, aiding their integration into the existing environment. To ensure its success, landscaping must be considered early in the development process. For proposals affecting heritage assets, any works to existing trees or new tree planting must assess the impact on the significance of the heritage asset, as part of the Design and Access Statement and/or Heritage Statement, as appropriate.
- E.7.10 To secure approval for new tree planting, the proposed tree landscaping scheme must include:
- a scaled plan showing the locations of new trees (the locations of existing trees must also be identified on the plan);
  - the species and stock size;
  - the planting intended to mitigate the tree losses detailed in the AIA;
  - an assessment of the suitability of the planting location, as set out in the SPD;
  - actions taken to mitigate any foreseeable issues i.e., the use of root barriers/ deflectors, flexi-paving, appropriate species selection, structured soils, foundations, etc; and
  - proposals shall be in accordance with British Standard BS 8545:2014 Trees: from nursery to independence in the landscape (British Standards Institution, 2014).
- E.7.11 The SPD outlines the need for effective management and protection of trees and hedgerows designated for retention during construction to preserve these valuable green infrastructure assets. For developments where the AIA identifies potential direct or indirect tree conflicts, RMBC requires the submission of an outline Tree Protection Plan and a draft method statement at the application stage. In other cases, conditions will be imposed to ensure a Tree Protection Plan is submitted prior to the commencement of works. Where development activities must occur in close proximity to trees, the Tree Protection Plan should include an Arboricultural Method Statement to demonstrate how impacts on the trees will be minimised. This provides a detailed description of the timing and construction techniques to reduce potential harm to trees. RMBC also recommends engaging an arboricultural consultant to oversee and monitor tree protection measures on-site before construction begins.
- E.7.12 The SPD also highlights that certain types of development can be carried out under permitted development rights without the need for planning permission. However, if such developments impact trees protected by TPO legislation, formal consent must be obtained from RMBC through the TPO works application process.

## **E.8 Preparing a Soil Strategy SPD**

- E.8.1 Preparing a Soil Strategy SPD (RMBC, 2023d), adopted in July 2023, provides guidance to developers on proposals involving works to soils. It aims to assist developers, landowners and other stakeholders in understanding RMBC's approach to evaluating development proposals and the standards of provision expected.
- E.8.2 As highlighted within the SPD, habitat restoration has become a key aspect of nature conservation. Government planning regulations promote restoration through various measures, including funding the rehabilitation of degraded sites.
- E.8.3 Development frequently necessitates the stripping, storage, shaping, and compaction of soils to establish a construction base. These processes can significantly impair the soil's functionality, including its capacity to retain water and air, and maintain the nutrients essential for future plant and crop growth. By incorporating soil considerations into construction and design and implementing protective measures during development, the extent of soil loss and damage can be minimised, thereby enhancing the quality and sustainability of the development. Effective site restoration requires an understanding of the soil and ecological conditions of nearby landscapes to inform the appropriate course of action.
- E.8.4 For proposals that may impact soil quality, a Soil Resource Survey (SRS) and a Soil Resources Plan (SRP) are required to support the planning application, with conditions applied to any planning permission to ensure adherence to the SRP. Ideally, and particularly for major developments, the SRS and SRP should be prepared by a soil scientist. However, if the expertise of a soil scientist is unavailable within an agreed timeframe, other suitably qualified professionals such as environmental scientists, arboriculturists, horticulturists, or landscape architects may be considered, provided they can robustly demonstrate expertise in preparing both an SRS and SRP.
- E.8.5 The SPD provides Policy Guidance Notes outlining best practices for protecting soils during development, covering the following key areas:
- in situ soil retention;
  - soil stripping and storage principles;
  - soil placement; and
  - type and extent of soil amelioration.

# Appendix F.

# Abbreviations

## Appendix F

### Abbreviations

| Abbreviation | Full Reference                              |
|--------------|---------------------------------------------|
| AC           | Alternating Current                         |
| AIA          | Arboricultural Impact Assessment            |
| AIL          | Abnormal Indivisible Load                   |
| AIS          | Air Insulated Switchgear                    |
| AMS          | Arboricultural Method Statement             |
| AOD          | Above Ordnance Datum                        |
| AQDMP        | Air Quality Dust Management Plan            |
| AQMA         | Air Quality Management Area                 |
| BAP          | Biodiversity Action Plan                    |
| BH           | boreholes                                   |
| BMV          | Best and most versatile                     |
| BNG          | Biodiversity Net Gain                       |
| BPM          | Best Practicable Means                      |
| CCS          | Carbon capture and storage                  |
| CCTV         | Closed-Circuit Television                   |
| CIL          | Community Infrastructure Levy               |
| cLWS         | candidate Local Wildlife Site               |
| CNP          | Critical national priority                  |
| CoCP         | Code of Construction Practice               |
| COP          | Conference of Parties                       |
| CS           | Core Strategy                               |
| CSE          | Cable Sealing End                           |
| CTMP         | Construction Traffic Management Plan        |
| CWS          | County Wildlife Site                        |
| DAS          | Design and Access Statement                 |
| DC           | Direct Current                              |
| DESNZ        | Department for Energy Security and Net Zero |

| Abbreviation    | Full Reference                                                                   |
|-----------------|----------------------------------------------------------------------------------|
| DNO             | Distribution Network Operator                                                    |
| EAR             | Environmental Appraisal Report                                                   |
| EIA             | Environmental Impact Assessment                                                  |
| EMF             | Electric and Magnetic Field                                                      |
| EN-1            | Overarching National Policy Statement for Energy (EN-1)                          |
| EN-5            | National Policy Statement for Electricity Networks Infrastructure (EN-5)         |
| ESO             | Electricity System Operator                                                      |
| FRA             | Flood Risk Assessment                                                            |
| GIB             | Gas Insulated Busbar                                                             |
| GIS             | Gas Insulated Switchgear                                                         |
| GRP             | Glass-Reinforced Plastic                                                         |
| HGV             | Heavy Goods Vehicle                                                              |
| HPI             | Habitats of Principal Importance                                                 |
| IAQM            | Institute of Air Quality Management                                              |
| ICNIRP          | International Commission on Non-Ionizing Radiation Protection                    |
| km              | kilometre                                                                        |
| kV              | kilovolt                                                                         |
| LEMP            | Landscape and Ecological Management Plan                                         |
| LNR             | Local Nature Reserve                                                             |
| LOAEL           | Lowest Observed Adverse Effect Level                                             |
| LPA             | Local planning authority                                                         |
| LWS             | Local Wildlife Site                                                              |
| MCZ             | Marine Conservation Zone                                                         |
| MHCLG           | Ministry of Housing, Communities and Local Government                            |
| NCA             | National Character Area                                                          |
| NESO            | National Energy System Operator                                                  |
| NETS SQSS       | National Electricity Transmission System Security and Quality of Supply Standard |
| NO <sub>2</sub> | Nitrogen Dioxide                                                                 |
| NOAEL           | No Observed Adverse Effect Level                                                 |

| Abbreviation | Full Reference                                        |
|--------------|-------------------------------------------------------|
| NPPF         | National Planning Policy Framework                    |
| NPPG         | National Planning Practice Guidance                   |
| NPS          | National Policy Statement                             |
| NPSE         | Noise Policy Statement for England                    |
| NSIP         | Nationally Significant Infrastructure Project         |
| OCEMP        | Outline Construction Environmental Management Plan    |
| OCTMP        | Outline Construction Traffic Management Plan          |
| OS           | Ordnance Survey                                       |
| OSWMP        | Outline Site Waste Management Plan                    |
| PDAS         | Planning, Design and Access Statement                 |
| PRoW         | Public Right of Way                                   |
| RMBC         | Rotherham Metropolitan Borough Council                |
| RNAG         | Reasons for Not Achieving Good                        |
| SAC          | Special Area of Conservation                          |
| SMP          | Soil Management Plan                                  |
| SOAEL        | Significant Observed Adverse Effect Level             |
| SPA          | Special Protection Area                               |
| SPD          | Supplementary Planning Document                       |
| SRP          | Soil Resources Plan                                   |
| SRS          | Soil Resource Survey                                  |
| SSSI         | Site of Special Scientific Interest                   |
| SuDS         | Sustainable Drainage System                           |
| SWMP         | Site Waste Management Plan                            |
| SWMS         | Surface Water Management Strategy                     |
| UAEL         | Unacceptable Adverse Effect Level                     |
| UNFCCC       | United Nations Framework Convention on Climate Change |
| UXO          | Unexploded Ordnance                                   |
| TCPA         | Town and Country Planning Act 1990                    |
| TP           | trial pits                                            |
| TPO          | Tree Preservation Order                               |

| Abbreviation | Full Reference            |
|--------------|---------------------------|
| TPP          | Tree Protection Plan      |
| WCA          | Whiston Conservation Area |
| WFD          | Water Framework Directive |

# Appendix G.

## Glossary

## Appendix G

### 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 (>18.65m), and width (>2.9m).                                                                               |
| 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 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 2ha 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 Scheme.                                                                                                                                                              |
| 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. |
| Biodiversity                                                                   | The variability among living organisms from all sources including terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they                                                                                                                                                                                     |

| Term                          | Description                                                                                                                                                                                                                                                                                       |
|-------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                               | 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 400kV 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 Scheme.                                                                                                                                   |
| Conductor                     | The overhead wire that carries electricity from one place to another, for example the line between two pylons.                                                                                                                                                                                    |

| Term                                 | Description                                                                                                                                                                                                                                                                                                                                                                                            |
|--------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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.                                                                                                                                                                          |
| Construction Traffic Management Plan | Plan detailing the procedures, requirements and standards necessary for managing the traffic effects during construction of the Scheme 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 in or under the land 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.                                                                                                                                                                                                                                                                                                                                    |
| Dewatering                           | The removal of groundwater (e.g. by pumping) to keep a below-ground works area dry.                                                                                                                                                                                                                                                                                                                    |
| 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.                          |

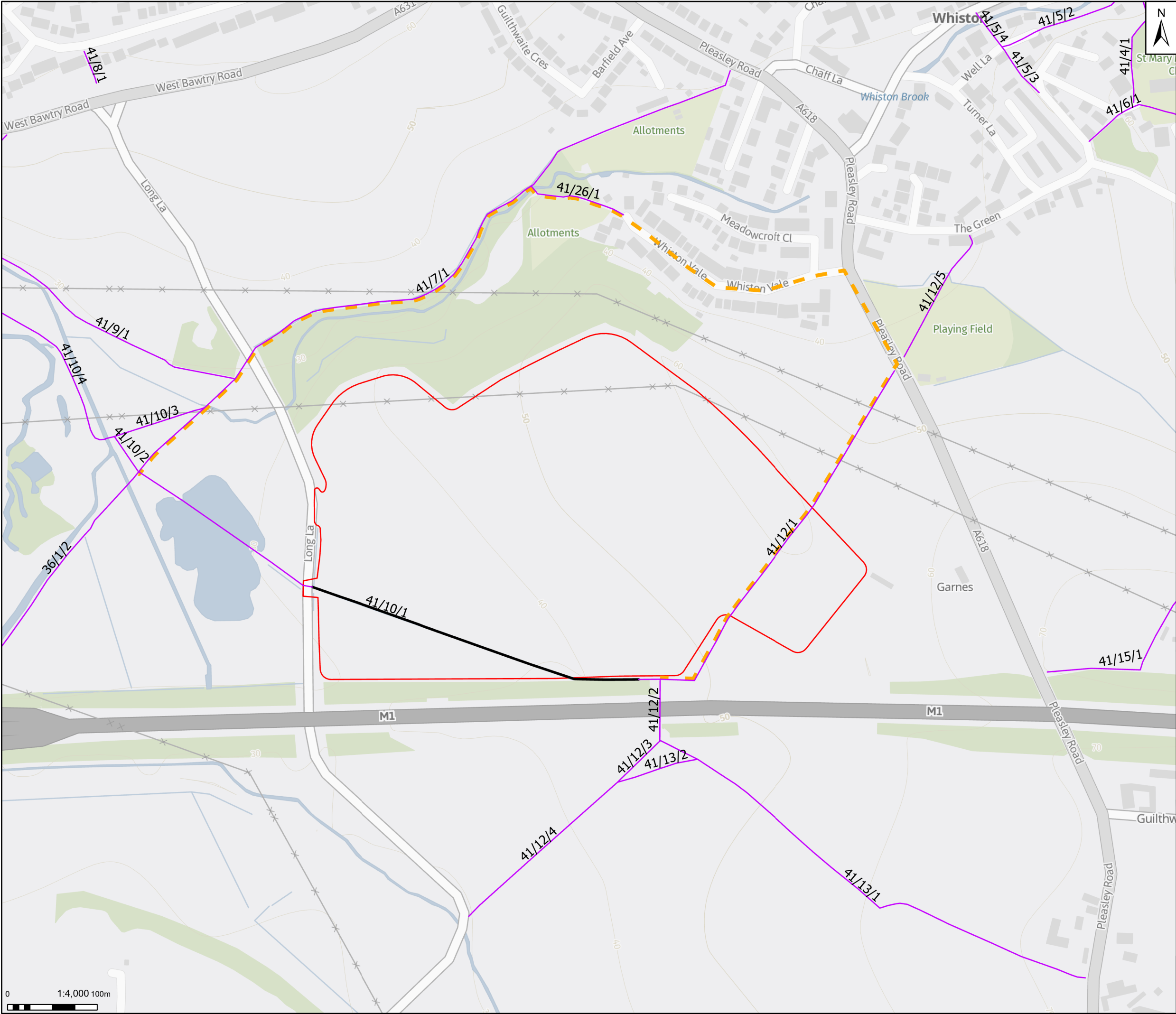
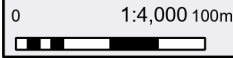
| Term                                 | Description                                                                                                                                                                                                                                                                                                                                                                                                                                |
|--------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Embedded design measures             | Mitigation measures are those that are intrinsic to and built into the design of the Scheme.                                                                                                                                                                                                                                                                                                                                               |
| Environmental Areas                  | Locations identified for environmental embedded measures, mitigation and/or Biodiversity Net Gain/ environmental enhancement.                                                                                                                                                                                                                                                                                                              |
| Environmental Appraisal Report (EAR) | <p>The Environmental Appraisal Report (EAR) has been prepared by Arcadis Consulting (UK) Ltd on behalf of the Applicant, National Grid, which is proposing to develop a new 400kV GIS substation ('the Scheme') on land near Brinsworth ('the Site').</p> <p>The EAR is to provide RMBC with a summary of the environmental information contained in the environmental reports submitted with the planning application for the Scheme.</p> |
| 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 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 <sub>2</sub> ), methane (CH <sub>4</sub> ) and nitrous oxide (N <sub>2</sub> O).                                                                                                                                                                                                                                          |
| Groundwater                          | Water that is in the ground. This is usually referring to water in the saturated zone below the water table.                                                                                                                                                                                                                                                                                                                               |
| 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 3,500kg.                                                                                                                                                                                                                                                                                                                                                                                                 |
| 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.                                                                                                                                                                                                               |

| Term                                                                             | Description                                                                                                                                                                                                                              |
|----------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| High voltage alternating current                                                 | The transmission and distribution of electrical energy using alternating current (AC) at high voltage levels.                                                                                                                            |
| 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 50m in height) and low height lattice pylons (approximately 40m in height) are proposed on the Scheme.             |
| Light Goods Vehicles                                                             | Goods vehicle weighing 3,500kg or less.                                                                                                                                                                                                  |
| 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. |
| 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 Scheme                                                                                                                                                                         |
| Mitigation                                                                       | The action of reducing the severity and magnitude of change (impact). 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.                                          |
| 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.                                                                                  |

| Term                                          | Description                                                                                                                                                                                                                                                                                                                                                                            |
|-----------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Permanent access                              | Access required to infrastructure during the operational phase of the Scheme, for operational and maintenance purposes.                                                                                                                                                                                                                                                                |
| 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. |
| 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).                                                                                                                                                                                                                                                                                                                                |
| Site access points                            | A location connecting a construction site to the public highway.                                                                                                                                                                                                                                                                                                                       |
| Standard mitigation measures                  | Management activities and techniques which would be implemented throughout construction of the Scheme 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.                                                                                                                                                                                                                                  |
| 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 Scheme 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 from which the new conductor is fed out during construction. This also includes a tensioning winch to keep the conductor off the ground.                                                                                                                                                                                                                                        |

| Term                             | Description                                                                                                                                                                                                                                                                                                                                                                                                                          |
|----------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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 (275kV 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 (132kV or below) for supply via distribution lines to local communities. |
| Trenchless crossing              | A crossing installation method that has limited above-ground disturbance and 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 Scheme. 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 (Portakabins).                                                                                                                                                           |
| Underground cable                | An insulated conductor carrying electric current designed for underground installation. Underground cables link together two CSE compounds.                                                                                                                                                                                                                                                                                          |
| 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.                                                                |

# Appendix H. PRoW Diversion Route



Legend

- Site Boundary
- Temporary Closure
- Diversion Route
- Public Right of Way

Notes: Contains OS data © Crown Copyright and database right 2025  
Contains data from OS Zoomstack

| Rev | Date     | Description   | Drawn | Check | Approv |
|-----|----------|---------------|-------|-------|--------|
| 01  | 22/10/25 | INITIAL ISSUE | RM    | JG    | SN     |

Client:

PROJECT:  
**BRINSWORTH TO  
CHESTERFIELD**

Site

High Marnham

Client

1-3 Strand  
London  
WC2N 5EH

Registered office:  
80Fen  
80 Fenchurch Street  
London  
EC3M 4BY  
www.arcadis.com

Coordinating Office:  
Suite 1A  
4 Piccadilly Place  
Manchester  
M1 3BN

Title:

**PRoW Diversion Route**

|                   |         |                 |          |
|-------------------|---------|-----------------|----------|
| Designed          | J.G.    | Date: 22 OCT 25 | Signed   |
| Drawn             | R.M.    | Date: 22 OCT 25 | Signed   |
| Checked           | J.G.    | Date: 22 OCT 25 | Signed   |
| Approved          | S.N     | Date: 22 OCT 25 | Signed   |
| Scale:            | 1:4,000 | Datum:          | AOD      |
| Original Size:    | A3      | Grid:           | OS       |
| Suitability Code: | S2      | Project Number: | 30184504 |

Suitability Description:

**For Information**

Drawing Number:  
30184504-ARC-EGN-ZZ-DR-ZZ-00157-S2

Revision:  
**P01**

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