

YG-DCO-030

# Yorkshire Green Energy Enablement (GREEN) Project

Volume 5

Document 5.2.1 ES Chapter 1: Introduction

Final Issue A

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Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009 Regulation 5(2)(a)

**nationalgrid**

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Appendix 5.3.1A List of competent experts and applicant's confirmation of competency

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# 1. Introduction

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# 1. Introduction

## 1.1 Introduction to this Environmental Statement

- 1.1.1 This Environmental Statement (ES) accompanies an application for development consent ('the Application') by National Grid Electricity Transmission plc (National Grid) for powers to construct, operate and maintain the Yorkshire Green Energy Enablement (GREEN) Project (referred to as the Project or Yorkshire GREEN throughout the ES), formerly known as the Central Yorkshire Reinforcement (CYR) project. The Project is located within the administrative boundaries of Hambleton District Council, City of York Council, Harrogate Borough Council, Selby District Council, Leeds City Council and North Yorkshire County Council<sup>1</sup>, as shown on **Figure 1.1, Volume 5, Document 5.4.1**.
- 1.1.2 The Project is defined as a Nationally Significant Infrastructure Project (NSIP) under Section 14(1)(b) and Section 16 of the Planning Act 2008 ("the Act")<sup>2</sup> as it comprises new overhead electricity transmission connections of more than 2 kilometres (km) in length, with an operating voltage above 132 kilovolts (kV). Under Section 31 of the Act, development consent is required for development to the extent that it is or forms part of an NSIP. Development consent is granted by the making of a Development Consent Order (DCO) for which an application may be made under section 37 of the Act<sup>2</sup>.
- 1.1.3 This ES has been prepared in accordance with the Act<sup>2</sup>, the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (the EIA Regulations)<sup>3</sup> and the Infrastructure Planning (Applications: Prescribed Forms and Procedures) Regulations 2009<sup>4</sup> as amended (the APFP Regulations).

## 1.2 Overview of the Yorkshire GREEN Project

- 1.2.1 In line with the UK government's legal commitment to reduce greenhouse gas emissions by at least 100% of 1990 levels (net zero) by 2050, growth in offshore wind generation and interconnectors to Europe has seen a significant number of connections planned in Scotland and coastal areas of the North of England.
- 1.2.2 The existing electricity transmission network was not designed to transfer the current and increasing volume of generation capacity from the North to major centres of

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<sup>1</sup> The local authorities' boundaries and titles are correct at the time of submission November 2022. North Yorkshire County Council, Hambleton District Council, Selby District Council, Ryedale District Council, Scarborough Borough Council, Harrogate Borough Council, Craven District Council and Richmondshire District Council are expected to form a new single council (North Yorkshire Council) on 1 April 2023 as a result of Local Government Reorganisation.

<sup>2</sup> The Planning Act 2008 (Online). Available from:

<https://www.legislation.gov.uk/ukpga/2008/29/contents> (Accessed 14 October 2021)

<sup>3</sup> The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (Online). Available at: <https://www.legislation.gov.uk/uksi/2017/572/regulation/31/made> (Accessed 14 October 2021).

<sup>4</sup> The Infrastructure Planning (Applications: Prescribed Forms and Procedures) Regulations 2009 (Online). Available at: <https://www.legislation.gov.uk/uksi/2009/2264/contents/made> (accessed 13 June 2021)

electricity demand which continue to exist in central and southern England. The network will require significant reinforcement in the Yorkshire area to provide capacity for these connections and customers to ensure that power can be transferred securely to onshore demand centres in the south to meet the needs of Great Britain electricity consumers.

- 1.2.3 Therefore there is an urgent need to deliver reinforcement in the Yorkshire Area which will be achieved through the implementation of the Project. Further information about the Project need is provided in **Chapter 2: Project Need and Alternatives, Volume 5, Document 5.2.2** and **Updated Need Case Document (Volume 7, Document 7.4)**.
- 1.2.4 The Project is sited within Yorkshire, with the most northerly components located approximately 1.5km north-east of the village of Shipton and approximately 10km north-west of York city centre. The most southerly components are at the existing Monk Fryston Substation, located to the east of the A1 and immediately south of the A63 (see **Figure 1.1**).
- 1.2.5 The Project will comprise both new infrastructure and works to existing transmission infrastructure and facilities. The Project is divided into six sections for ease of reference as indicated in **Figure 1.2, Volume 5, Document 5.4.1** and described below.
- Section A (Osbalwick Substation): Minor works at the existing Osbalwick Substation comprising the installation of a new circuit breaker and isolator along with associated cabling, removal and replacement of one gantry and works to one existing pylon. All substation works would be within existing operational land.
  - Section B (North west of York Area): Works would comprise:
    - reconductoring of 2.4km of the 400kV Norton to Osbalwick (2TW/YR) overhead line and replacement of one pylon on this overhead line;
    - the new 400kV YN overhead line (2.8km), north of the proposed Overton Substation;
    - the new Shipton North and South 400kV cable sealing end compounds (CSECs) and 230m of cabling to facilitate the connection of the new YN 400kV overhead line with the existing Norton to Osbalwick YR overhead line;
    - a new substation (Overton 400kV/275kV Substation<sup>5</sup>) approximately 1km south of Shipton by Beningbrough;
    - two new sections of 275kV overhead line which would connect into Overton Substation from the south (the 2.1km XC overhead line to the south-west and the 1.5km SP overhead line to the south-east);
    - works to 5km of the existing XCP Poppleton to Monk Fryston overhead line between Moor Monkton in the west and Skelton in the east comprising a mixture of decommissioning, replacement and realignment. To the south and south-east of Moor Monkton the existing overhead line would be realigned up to 230m south from the current overhead line and the closest pylon to Moor Monkton (340m south-east) would be permanently removed. A 2.35km section of this existing overhead line permanently removed between the East Coast Mainline (ECML) Railway and Woodhouse Farm to the north of Overton.

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<sup>5</sup> In earlier stages of the Project this substation was known as ‘York North Substation’ but has been renamed as Overton Substation.



- Section C (Moor Monkton to Tadcaster): Works proposed to the existing 275kV Poppleton to Monk Fryston (XC) overhead line north of Tadcaster (Section D) include replacing existing overhead line conductors, replacement of pylon fittings, strengthening of steelwork and works to pylon foundations.
- Section D (Tadcaster Area): Two new CSECs (Tadcaster East and West 275kV CSECs) would be installed approximately 3km south-west of Tadcaster and north-east of the A64/A659 junction where two existing overhead lines meet. One pylon on the existing 275kV Tadcaster Tee to Knaresborough (XD/PHG) overhead line would be replaced.
- Section E (Tadcaster to Monk Fryston): Works proposed to the existing 275kV Poppleton to Monk Fryston (XC) overhead line south of Tadcaster (Section D) include replacing existing overhead line conductors, replacement of pylon fittings, strengthening of steelwork and works to pylon foundations.
- Section F (Monk Fryston Area): A new substation would be constructed to the east of the existing Monk Fryston Substation which is located approximately 2km south-west of the village of Monk Fryston and located off Rawfield Lane, south of the A63. A 1.45km section of the 275kV Poppleton to Monk Fryston (XC/XCP) overhead line to the west of the existing Monk Fryston Substation and south of Pollums House Farm would be realigned to connect to the proposed Monk Fryston Substation. East of the existing Monk Fryston Substation the existing 4YS 400kV Monk Fryston to Eggborough overhead line, which currently connects to the existing substation, would be reconfigured to connect to the proposed Monk Fryston Substation.

1.2.6 Further detail about the Project is provided in **Chapter 3: Description of the Project (Volume 5, Document 5.2.3)**.

### 1.3 The need for an Environmental Impact Assessment

- 1.3.1 Environmental Impact Assessment (EIA) is a process required by UK law which brings together information about the likely significant effects of a development. The legal basis for EIA arises from the EIA Regulations which were made to implement European Community Directive 85/337/EEC<sup>6</sup> (the EIA Directive) prior to the UK leaving the EU. The EIA Regulations, which set out the procedures to be followed in relation to EIAs undertaken for NSIPs in England and Wales, continue to have effect notwithstanding the UK's departure from the EU.
- 1.3.2 EIA is mandatory for development projects defined under Schedule 1 of the EIA Regulations. Those development projects defined in Schedule 2 only require EIA if they are likely to have significant effects on the environment by virtue of their nature, size or location.
- 1.3.3 As the proposed length of the overhead lines is less than 15km, the Project does not fall within the provisions of Schedule 1. The Project falls within paragraph 3(b) of Schedule 2, as it comprises "*transmission of electrical energy by overhead cables*". As set out in

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<sup>6</sup> European Commission (1985). The EIA Directive (85/337/EEC) (online). Available at: [\[REDACTED\]](#) (Accessed 12 May 2021).

paragraph 1.4.5 of the EIA Scoping Report<sup>7</sup>, considering the nature and size of the Project, National Grid gave notice in line with Regulation 8(1)(b) of the EIA Regulations that an EIA will be prepared for the Project and that the application for a DCO will be accompanied by an ES.

- 1.3.4 Therefore, this ES has been prepared for the purpose of meeting the requirements of the EIA Regulations that pertain to the ES. The ES provides part of the information that will be used by the Planning Inspectorate and others to inform the process of determining the DCO application for the Project.
- 1.3.5 It includes an assessment of the likely environmental effects of the Project that could be significant. This reflects the requirement of the EIA Regulations for an ES to discuss in any depth only those effects that are likely to be significant. The Regulations do not define significance; the overall approach that has been taken to defining significance, as well as further information about the approach to preparing the ES, are outlined in **Chapter 4: Approach to this ES (Volume 5, Document 5.2.4)**.

## 1.4 The applicant and the EIA team

### The applicant

- 1.4.1 National Grid owns the high voltage electricity transmission system in England and Wales and operates the high voltage electricity network throughout Great Britain, transporting electricity from generators (such as power stations and wind farms) to local distribution network operators (DNOs). DNOs, such as Northern Powergrid, are the companies that own and operate the local power lines and infrastructure that delivers electricity to individual properties. National Grid Electricity Transmission network does not connect directly to homes and businesses, because the voltage at which it transmits electricity is too high for domestic and commercial properties.
- 1.4.2 The electricity transmission system is made up largely of 400kV, 275kV and 132kV assets connecting separately owned generators and interconnectors, with the demand for electricity fed directly from the transmission and distribution systems. The 'transmission' classification in England and Wales applies to assets at 275kV and above. The electricity transmission system comprises some 7,200km of overhead lines, 700km of underground cable and around 340 substations. At the substations, electricity that has been produced by generators is connected to the transmission system and the primary transmission voltage of 400kV or 275kV is transformed to lower voltages for the DNOs to distribute.
- 1.4.3 The electricity transmission system is designed to make sure there is sufficient transmission capacity to allow the system to be operated in an economic and efficient way by National Grid Electricity System Operator ('ESO'), ensuring power can be moved from where it is generated to demand centres across the UK. This planning and development of the electricity transmission system is governed by the Security and Quality of Supply Standards ('SQSS')<sup>8</sup> which ensure that the network is developed and operated securely and is resilient to any foreseeable network faults and disruption.

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<sup>7</sup> National Grid (2021). Environmental Impact Assessment Scoping Report: <https://infrastructure.planninginspectorate.gov.uk/wp-content/uploads/projects/EN020024/EN020024-000008-YGRN%20Scoping%20Report.pdf>

<sup>8</sup> National Electricity Transmission System, 01 April 2021, Security and Quality of Supply Standard Version 2.5.

## The EIA team

- 1.4.4 Regulation 14(4) of the EIA Regulations requires that an ES is prepared by ‘competent experts’ and that the ES is accompanied by a statement outlining the relevant expertise or qualifications of such experts.
- 1.4.5 This ES has been prepared by suitably qualified and experienced specialists (competent experts). This ES has been produced and co-ordinated by environmental consultants who are members of the Institute of Environmental Management and Assessment’s (‘IEMA’) EIA Quality Mark scheme. The Quality Mark requires its members to provide evidence of their EIA activities and adhere to certain commitments set out by IEMA. IEMA carry out an independent audit of those commitments each year by reviewing the ES’s produced by Quality Mark members.
- 1.4.6 Competent experts have also been responsible for preparing aspect specific chapters of this ES and further details of their expertise and qualifications are provided in **Appendix 5.3.1A, Volume 5, Document 5.3.1**.

## 1.5 Structure of the ES

- 1.5.1 The ES (**Volume 5, Documents 5.2.1 to 5.2.18**) is structured as follows:
- **Chapter 1** provides an introduction to the ES.
  - **Chapter 2** explains the need for Yorkshire GREEN, outlines the main alternatives considered for meeting this need and indicates the main reasons for the preferred choice.
  - **Chapter 3** provides a detailed description of the Project.
  - **Chapter 4** details the approach and methodology that has been adopted in preparing the ES as well as an overview of the consultation and engagement undertaken to date.
  - **Chapter 5** provides an overview of the legislation and policies that are relevant to the ES.
  - **Chapters 6 to 17** set out the technical assessments for the environmental aspects that need to be considered in the ES and comprise:
    - **Chapter 6: Landscape and Visual;**
    - **Chapter 7: Historic Environment;**
    - **Chapter 8: Biodiversity;**
    - **Chapter 9: Hydrology;**
    - **Chapter 10: Geology and Hydrogeology;**
    - **Chapter 11: Agriculture and Soils;**
    - **Chapter 12: Traffic and Transport;**
    - **Chapter 13: Air Quality;**
    - **Chapter 14: Noise and Vibration;**
    - **Chapter 15: Health and Wellbeing;**
    - **Chapter 16: Socio-economics;** and

– **Chapter 17: Climate Change.**

- **Chapter 18** sets out the cumulative effects from the Project.

- 1.5.2 All Appendices referred to in this report are provided in **Volume 5, Documents 5.3.1A to 5.3.18A.**
- 1.5.3 All Figures referred to in this report are provided in **Volume 5, Documents 5.4.1 to 5.4.18.**
- 1.5.4 A separate non-technical summary is also available **Volume 5, Document 5.1.**

## **1.6 Other DCO documents**

- 1.6.1 The DCO application for the Project consists of seven Volumes. Each Volume contains a number of plans and/or reports that have each been assigned a specific document number as set out in the Navigation Document and Guide to the Application (**Volume 1, Document 1.3**). Cross-references are therefore given in this ES, where appropriate, to other DCO documents which contain further information on a specific topic. The DCO Volumes are:
- Volume 1: Application Information.
  - Volume 2: Plans and Drawings.
  - Volume 3: Development Consent Order.
  - Volume 4: Compulsory Acquisition Information.
  - Volume 5: Environmental Information.
  - Volume 6: Reports and Statements.
  - Volume 7: Other Documents.
- 1.6.2 A glossary of all abbreviations used in this document (and others forming the DCO application documents) is provided in **Volume 1, Document 1.4.**

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