Scotland England Green Link 2 - English Onshore Scheme

Planning Statement

May 2022

For: National Grid Electricity Transmission

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Executive Summary

National Grid Electricity Transmission (NGET) (the Applicant) and Scottish and Southern Electricity Networks (SSEN) are developing a 2 giga watt (GW) high voltage electricity transmission link between Peterhead in Aberdeenshire and Drax in Selby District, North Yorkshire, known as the Scotland England Green Link 2 (SEGL2). This Link will enable the transfer of green electrical energy from Scotland to England (and vice versa as required) via long-distance submarine cables, connected to converter and electricity substations in each country via onshore underground cables.

The Planning Applications

As part of the SEGL2 project NGET is submitting an Application for Full Planning Permission to East Riding of Yorkshire Council (ERYC) for the laying of approximately 67km of underground High Voltage Direct Current (HVDC) cable and associated works and infrastructure.

As part of the SEGL2 project it is also submitting a Hybrid Planning Application comprising two parts to Selby District Council (SDC). This comprises (Part 1) Full Planning Permission for the laying of 2 km underground High Voltage Direct Current (HVDC) cable and associated works and infrastructure; the laying of 0.5 km underground High Voltage Alternating Current (HVAC) cable and associated works and infrastructure; (Part 2) Outline Planning Permission for a Converter Station, associated equipment and infrastructure with all matters reserved.

Environmental Statement

ERYC and SDC have determined that the proposed development is ‘EIA development’ and therefore a formal EIA has been undertaken and an Environmental Statement (ES) prepared to accompany the planning applications. This assesses the likely significant environmental effects of the Proposed Development. Due to the linear nature of the Proposed Development, the ES splits the Proposed Development into four ‘Route Sections’. Route Sections 1-3 are located within the administrative area of ERYC and Route Section 1 is located within the administrative area of SDC.

Need for the development

Both the UK and Scottish Governments have set legally binding targets to achieve Net-Zero across all greenhouse gases, by 2050 for England and Wales, and 2045 for Scotland. To meet these targets the UK will need to continue to move away from traditional and polluting forms of energy generation to heat homes, charge vehicles and power businesses, and there will be a greater need for cleaner, greener energy.

In November 2020 the UK Government set out its Ten Point Plan for a Green Industrial Revolution. The Plan lays the foundations for the UK to meet its legal obligation to deliver Net Zero greenhouse gas emissions by 2050. The Plan also fully recognises that in order to connect green energy generation, specifically offshore wind, the UK must undertake a significant transformation and reinforcement of its existing electricity transmission network. This requirement has been further increased by the UK Government’s recent British Energy Security Strategy (April 2022) which now identifies a target of delivering 50 GW of renewable wind energy by 2030, a fivefold increase on what we produce today and enough energy to power every home in the UK.

The British Energy Security Strategy sets out the Government’s aims to reduce reliance on coal and gas and to generate and store more renewable and nuclear energy in the UK and recognises the importance of the transmission network within this strategy, noting that accelerating our domestic supply of clean and affordable electricity also requires the expansion and growth of that transmission network to connect new green energy generation, and to transfer the power to where it is needed most.

Huge volumes of renewable energy generation, specifically offshore wind, are proposed to connect to the electricity transmission system over the next 10 years. Electricity demand is predominantly located in the south-east, necessitating the requirement to enable high north-south power flows. The primary objective of the Project is to reinforce the electricity network and increase transmission network capability between Scotland and northern England by 2029 in order to enable the efficient and economic transmission of electricity.

The need for the Proposed Development, including the technical need for the Proposed Development, is set out in more detail in section 1.5.

The Proposed Development and Planning Policy

This Planning Statement describes the Proposed Development, its location, legislative and policy context, and presents an appraisal of its compliance with the Development Plan, taking account of material considerations.

The Proposed Development as part of the SEGL2 Project represents enhanced electricity infrastructure that national planning policy sets out is urgently needed in order for the government's objectives and commitments for a secure and low carbon energy system to be achieved. It accords with the government's adopted and draft overarching National Policy Statement for Energy (EN-1) and National Policy Statement for Electricity Networks Infrastructure (EN-5), which are material considerations for the planning applications. The requirement to meet the urgent national need for enhanced energy infrastructure weighs heavily in favour of planning permission being granted.

Local planning policies also support the delivery of electricity infrastructure and support the principles of siting infrastructure near to Drax Power Station, where the Converter Station is proposed, subject to the effects not being unacceptable.

The location of the end point of the SEGL2 Project adjacent to Drax Substation has been carefully selected to provide the transmission benefits that arise from the Converter Station and Substation being located close to the point of connection to the National Electricity Transmission System (NETS), whilst balancing the environmental and financial implications of its delivery.

The scale of the Converter Station in SDC is necessary for it to operate effectively and has been kept to the appropriate envelope that is needed to accommodate the Proposed Development. Approval of the design of the Converter Station will be sought via a reserved matters planning application, and the detailed design process will seek to further minimise the effects of the Proposed Development.

The routing of the HVAC Cable in SDC and the HVDC Cable in SDC and ERYC has been carefully designed to avoid areas where impacts on amenity, the environment and land use may be greatest, taking account for the need to minimise the total length of the cables required.

This Planning Statement and the supporting ES describe the approach taken by the Applicant that has mitigated many of the identified impacts of the Proposed Development. It identifies that the Proposed Development would result in only a small number of significant environmental effects, which mostly comprise temporary effects during the construction period. It concludes that the Proposed Development accords with the Development Plan and this, along with material considerations including the national need for the Proposed Development weigh heavily in favour of planning permission being granted.

1. Introduction

1.1 Purpose and Structure of this Planning Statement

1.1.1 National Grid Electricity Transmission (NGET) and Scottish and Southern Electricity Networks (SSEN) are jointly developing proposals for a subsea High Voltage Direct Current (HVDC) Link between Peterhead in Aberdeenshire and Drax in Selby District, North Yorkshire, referred to as the Scotland England Green Link 2 (herein referred to as the SEGL2 Project). Figure 1-1, provides and overview of the SEGL2 Project.

1.1.2 The SEGL2 Project is a HVDC reinforcement, which will allow the transfer of electricity between Scotland and England (and vice versa as required) via underground and subsea cables, connected to Converter Stations in each country which are in turn connected to the electricity transmission system via existing Substations. This is illustrated by the schematic included as Figure 1-2.

1.1.3 NGET (herein referred to as the 'Applicant') is submitting planning applications to East Riding of Yorkshire Council (ERYC) and Selby District Council (SDC) for the elements of the SEGL2 Project that are located on land in England. These are referred to as the English Onshore Scheme. The English Onshore Scheme is illustrated by Figure 1-3, below.

1.1.4 The planning applications are supported by an Environmental Statement (ES) and other supporting documents, which are listed in Sections 3.1 and 3.2.

1.1.5 The purpose of this Planning Statement is to support the planning applications for the English Onshore Scheme by describing the Proposed Development in ERYC and the Proposed Development in SDC, presenting a review and appraisal of compliance of the Scheme with the Development Plan, taking account of material considerations, including other local and national planning policy.

1.1.6 The Planning Statement is a single volume document which is structured as set out below.

- Section 1: introduces the SEGL2 Project and the English Onshore Scheme, for which planning permission is sought. It also outlines the need case for the SEGL2 Project.
- Section 2: presents an overview of the development proposals within the administrative areas of each of the two planning authorities.
- Section 3: describes the two planning applications that are being submitted (one to ERYC and one to SDC).
- Section 4: describes the site and surroundings.
- Section 5: presents a summary of the structure and main conclusions of the Environmental Statement.
- Section 6: provides an overview of the main relevant legislative and policy context.
- Section 7: identifies the main policies of the Development Plan and other planning policies that are likely to be material considerations.
- Section 8: sets out how the Scheme complies with the main themes of the planning policy identified in Section 8.
- Section 9: provides an overall summary, conclusion and planning balance.

1.2 Important Definitions

1.2.1 This Planning Statement uses the terms and abbreviations that are defined in the table, below.

Abbreviations	Definition	Geographical Area
NGET	National Grid Electricity Transmission: Owner of the high-voltage electricity transmission network in England and Wales.	England and Wales
The Applicant	NGET	N/A
ERYC	East Riding of Yorkshire Council	East Riding of Yorkshire
SDC	Selby District Council	Selby District in North Yorkshire
HVDC	Underground High Voltage Direct Current Cable	East Riding of Yorkshire and Selby District Council
HVAC	Underground High Voltage Alternating Current Cable	Selby District Council
The SEGL2 Project	Scotland England Green Link 2 – A project which primarily comprises High Voltage Direct Current Link between Peterhead in Aberdeenshire and Drax in North Yorkshire via the North Sea.	Scotland, North Sea, and England
The English Onshore Scheme	The part of the SEGL2 Project that comprises approximately 67km of underground HVDC cable in East Riding of Yorkshire and Selby District from the landfall at Fraisthorpe Beach to the proposed converter station close to the existing Drax Substation in Selby. It also includes a new converter connected to the existing Drax Substation by approximately 500 m of underground HVAC cable.	East Riding of Yorkshire and Selby District in North Yorkshire
The Proposed Development in ERYC	The section of the English Onshore Scheme located within the administrative area of ERYC. This comprises approximately 67km Underground HVDC cable.	Fraisthorpe to River Ouse
The Proposed Development in SDC	The section of the English Onshore Scheme located within the administrative area of SDC. This comprises approximately 2km Underground HVGC Cable; Converter Station; 500m Underground HVAC Cable.	River Ouse to Drax Power Station

1.3 About the SEGL2 Project

1.3.1 The SEGL2 Project is a major reinforcement of the electricity transmission system which will provide additional north-south transmission capacity across transmission network boundaries ensuring that green energy is transported from where it is produced to where it is needed. This Project is being developed by NGET and SSEN.

1.3.2 The SEGL2 Project, which extends between Peterhead, Aberdeenshire, and Drax, North Yorkshire, comprises the components described below and as shown by the schematic overview, provided as Figure 1-2. The following descriptions also summarise the primary consenting requirements for each of the main scheme components.

- **Scottish Onshore Scheme**: A converter station at Peterhead in Aberdeenshire, Scotland which is connected to the new Peterhead Substation (currently under construction) by approximately 500 m of underground High Voltage Alternating Current (HVAC) cables. From the converter station approximately 2 km of underground HVDC cable will be installed to a landfall at Sandford Bay. The Scottish Onshore Scheme will be consented separately by the relevant consent granting bodies in Scotland.
- **Marine Scheme**: Approximately 436 km subsea HVDC cable from Sandford Bay on the east coast of Scotland to Fraisthorpe Beach in East Riding of Yorkshire, in the east of England. The Marine Scheme will be consented separately by the relevant consent granting bodies.
- **English Onshore Scheme**: Approximately 69 km of underground HVDC cable in East Riding of Yorkshire and Selby District from the landfall at Fraisthorpe Beach to the proposed converter station close to the existing Drax Substation in Selby. The converter station will be connected to the existing substation by approximately 500 m of AC underground cable. Planning Permission for the English Onshore Scheme is being sought from ERYC and SDC.

1.3.3 Consent applications for the Scottish Onshore Scheme and the Marine Scheme are being submitted separately, to the relevant consent granting bodies.

1.3.4 This Planning Statement supports planning applications for the English Onshore Scheme, as set out in Section 2, English Onshore Scheme Description, and Section 3, The Planning Applications.

1.4 The Applicant

1.4.1 The SEGL2 Project is being jointly developed by NGET and SSEN however consents for the English Onshore Scheme are being sought by NGET. NGET owns the high-voltage electricity transmission network in England and Wales. It is responsible for making sure electricity is transported safely and efficiently from where it's produced and where it's needed.

1.4.2 NGET, the Applicant, is the transmission licence holders under the Electricity Act 1989 and has a number of statutory duties which includes the requirement *"to develop and maintain an efficient, coordinated and economical system of electricity transmission"* as well as specific responsibilities under Schedule 9 with regard to the preservation amenity.

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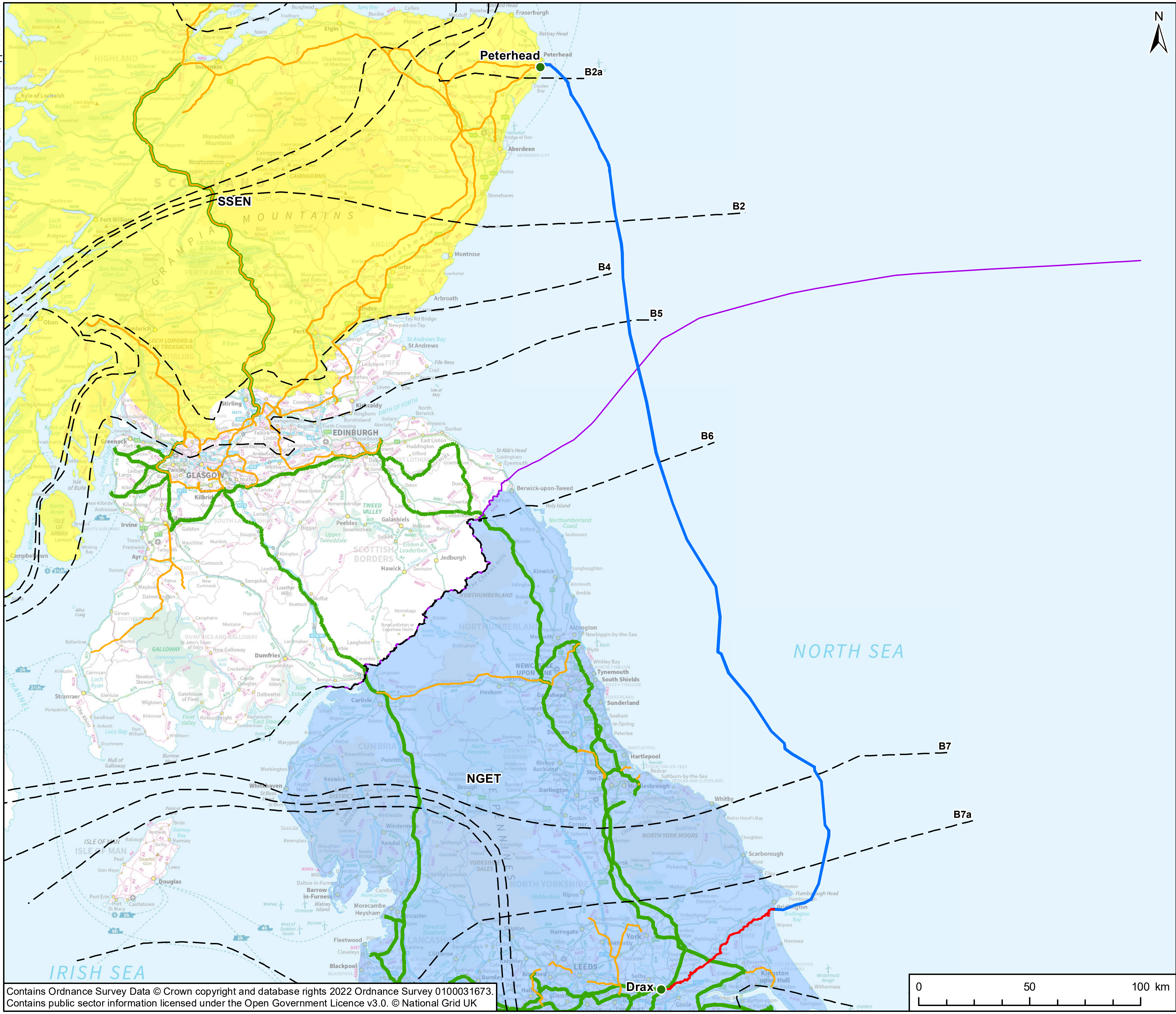


Coordinate System: British National Grid

Scale @ A3 1:1,600,000

nationalgrid

PROJECT

Scotland England Green Link 2

KEY

- Planning Application Boundary - English Onshore Scheme
- Marine Scheme
- England/Scotland Border
- Connection Point (Substation) Location
- Network Transmission Boundary

High Voltage Transmission System

- 275 kV
- 400 kV

Transmission Operator Boundary

- National Grid Electricity Transmisison (NGET) Licence Area
- Scottish and Southern Electricity Networks (SSEN) Licence Area

TITLE

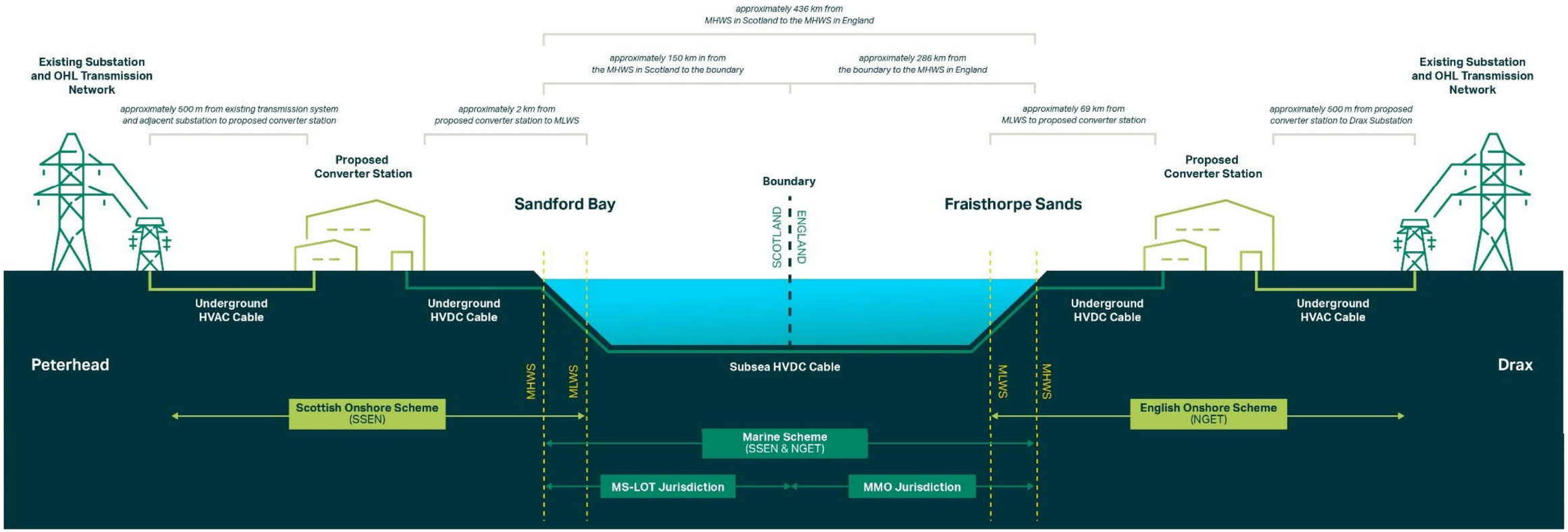
Figure 1-1
The Project

REFERENCE

SEGL2_T_PS_1-1_v1_20220531

SHEET NUMBER: 1 of 1

DATE: 31/05/2022



Key:

HVDC - High Voltage Direct Current
HVAC - High Voltage Alternating Current
OHL - Overhead Line

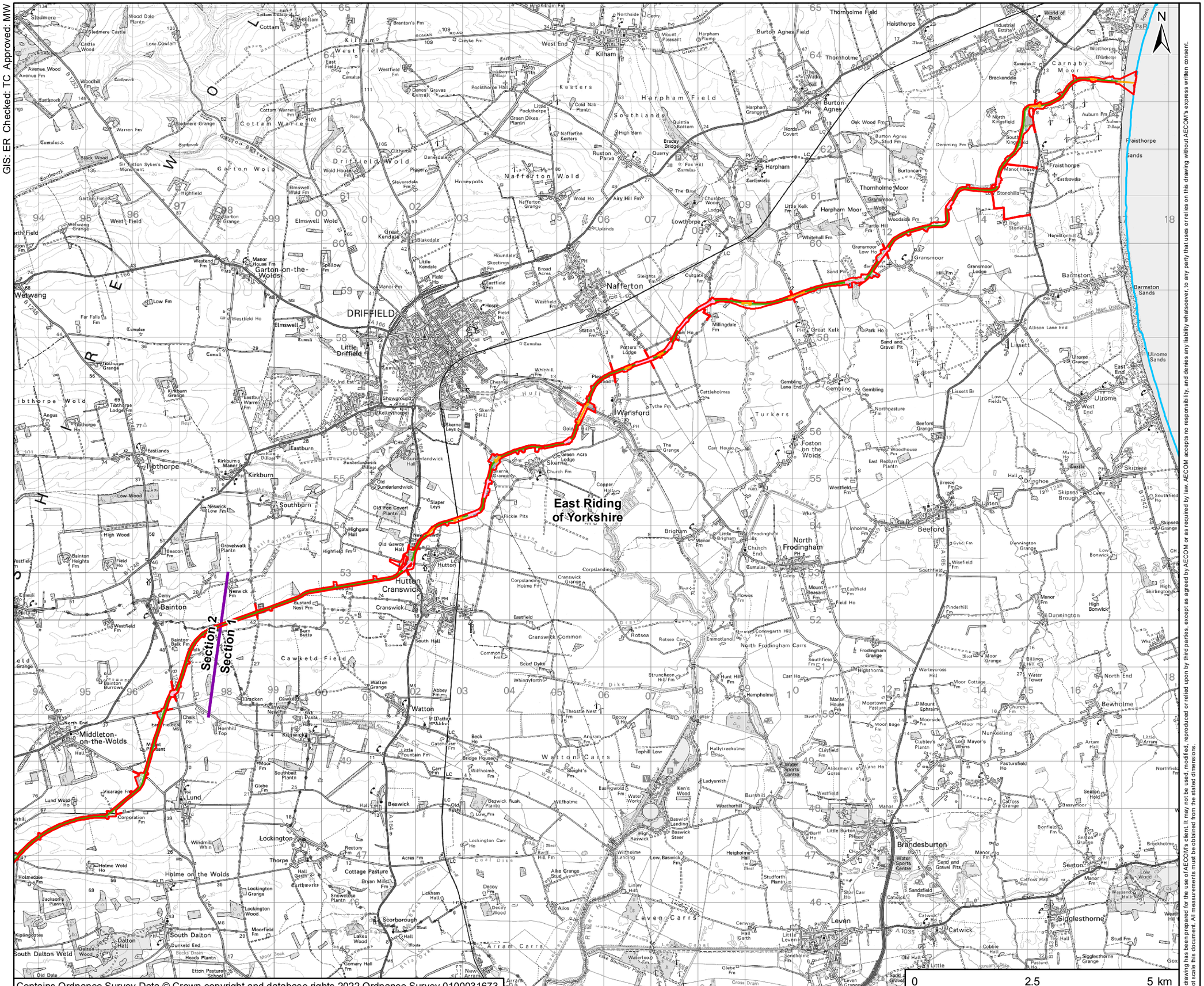
MHWS - Mean High Water Springs
MLWS - Mean Low Water Springs
MMO - Marine Management Organisation

MS-LOT - Marine Scotland Licensing Operations Team
NGET - National Grid Electricity Transmission
SSEN - Scottish and Southern Energy Networks

Figure is not to scale.

Figure 1-2: Overview of the SEGL2 HVDC transmission link

GIS: ER Checked: TC Approved: MW



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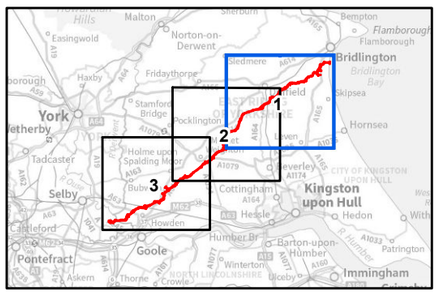
PROJECT

Scotland England Green Link 2

KEY

- Planning Application Boundary
- Route Section Break
- Mean Low Water Springs
- HDD - Proposed
- HDD - Unless Otherwise Agreed to be Open Cut
- DC Cable Alignment – Open Cut
- DC Cable Route Working Width (40m)
- Temporary Attenuation Pond and Outfall
- Temporary Construction Compound



TITLE

Figure 1-3
SEGL2 English Onshore Scheme

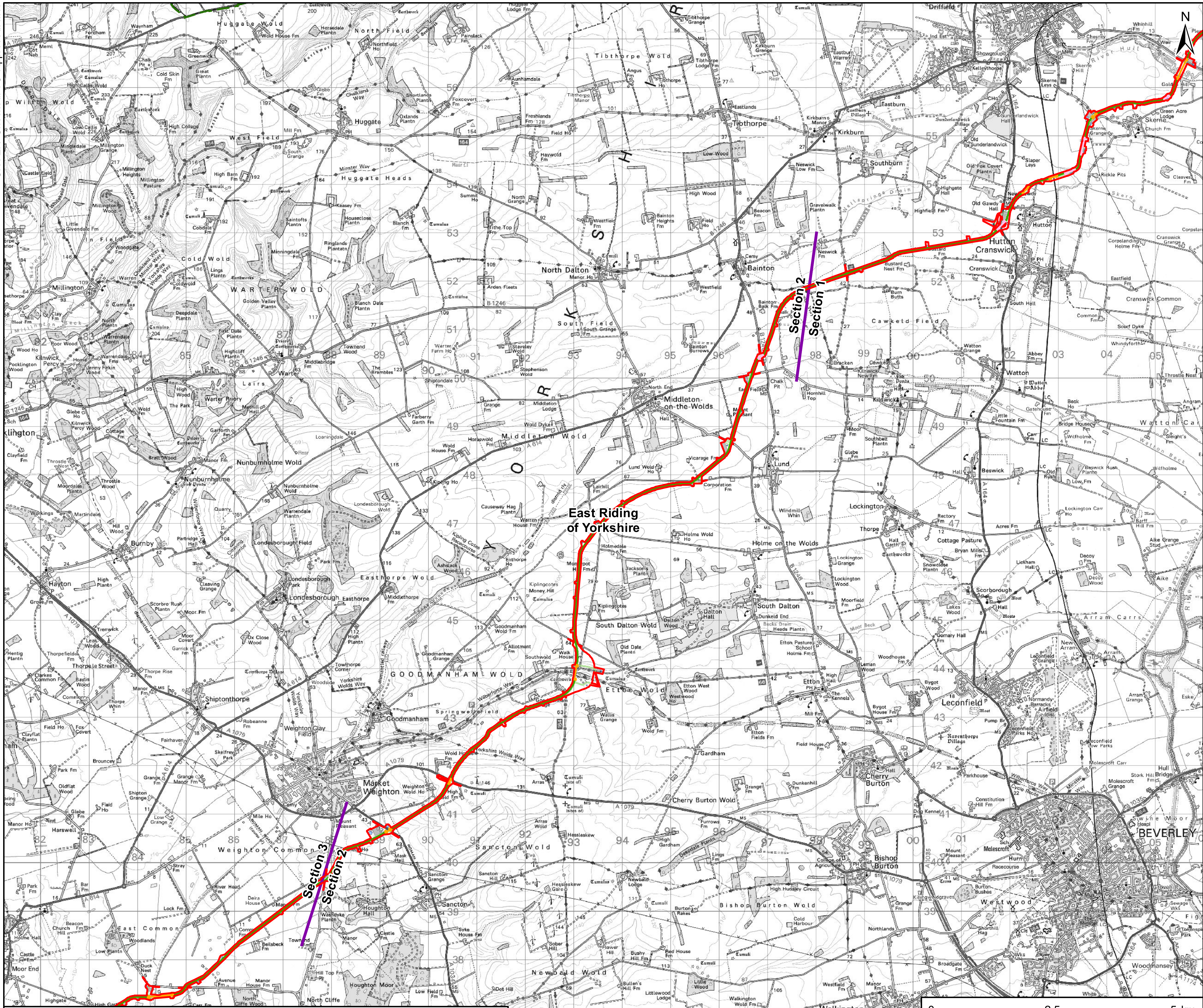
REFERENCE

SEGL2_T_PS_1-3_v1_20220531

SHEET NUMBER: 1 of 3

DATE: 31/05/2022

GIS: ER Checked: TC Approved: MW



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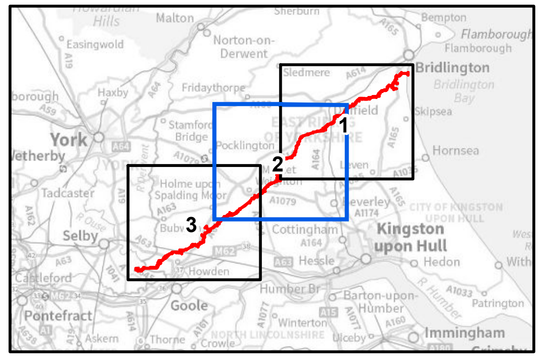
PROJECT

Scotland England Green Link 2

KEY

- Planning Application Boundary
- Route Section Break
- District Borough Unitary Boundary
- HDD - Proposed
- HDD - Unless Otherwise Agreed to be Open Cut
- DC Cable Alignment – Open Cut
- DC Cable Route Working Width (40m)
- Temporary Attenuation Pond and Outfall
- Temporary Construction Compound



TITLE

Figure 1-3
SEGL2 English Onshore Scheme

REFERENCE

SEGL2_T_PS_1-3_v1_20220531

SHEET NUMBER: 2 of 3

DATE: 31/05/2022

GIS: ER Checked: TC Approved: MW

Section 4
Section 3
Section 2
Section 1

East Riding of Yorkshire

Selby District

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Coordinate System: British National Grid

0 2.5 5 km

Scale @ A3 1:75,000

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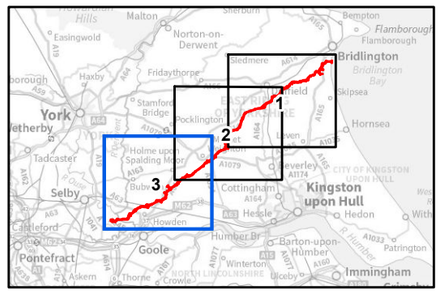
PROJECT

Scotland England Green Link 2

KEY

- Planning Application Boundary
- Route Section Break
- District Borough Unitary Boundary
- HDD - Proposed
- HDD - Unless Otherwise Agreed to be Open Cut
- DC Cable Alignment – Open Cut
- DC Cable Route Working Width (40m)
- AC Cable Route Working Width (60m)
- Temporary Attenuation Pond and Outfall
- Temporary Construction Compound
- Permanent Attenuation Pond
- Converter Station Area



TITLE

Figure 1-3
SEGL2 English Onshore Scheme

REFERENCE

SEGL2_T_PS_1-3_v1_20220531

SHEET NUMBER: 3 of 3

DATE: 31/05/2022

1.5 Need for the SEGL2 Project

1.5.1 This section explains the important need for enhancements to the National Electricity Transmission System (NETS) in order to develop and maintain an efficient and economical electricity transmission system in the context of a rapid changes to the way electricity is generated and used.

1.5.2 In response to the UK and Scottish Government's legally binding commitment to reach net zero in their greenhouse gas emissions by 2050 and 2045 respectively, the way in which energy is generated is undergoing transformational change. The past year has seen increased ambition for offshore wind in particular with the UK Government's Ten Point Plan re-affirming the commitment to reach 40 gigawatts (GW) of installed capacity by 2030, the British Energy Security Strategy increasing this to an ambition to reach 50GW by 2030, and the recent Scotwind leasing round awarding rights to develop up to 25 GW of offshore wind capacity in Scottish waters. Huge volumes of renewable energy generation including onshore and offshore wind as well as interconnectors will connect to the electricity transmission system over the coming years.

1.5.3 To economically and efficiently transmit this energy from where it is generated to where it is needed there is a requirement to increase the capability of the electricity transmission system. Electricity demand is predominantly located in the south of Great Britain, leading to high north-south power flows. These flows are highly variable due to the intermittent nature of renewable generation and interconnection. The north-south flows contribute significantly to potential constraints across the transmission system. To operate the network safely and efficiently, north-south power flows across the Scotland England boundary cannot exceed the capability of the network between the two regions.

1.5.4 In the short to medium-term, increased power flows through Scotland and between Scotland and England are caused by generation already connected to the transmission network, and by generation which is contracted to connect to the network in the Scotland and North of England region. In the medium to long-term a significant increases in north to south power flows is expected including a tripling of wind generation connected to the network in Scotland between 2021 and 2030, driving higher north-to-south power transfers, and at least a doubling of transfer requirements from northern Scotland to the Midlands over the next 10 years. New reinforcements will be required to increase network capability, facilitate these power flows and get energy to where it is needed.

1.5.5 The need for SEGL2 is based on providing additional network capability across boundaries in Scotland and England and to increase capability to accommodate (primarily) additional North-South flows on the network. This is due to increasing quantities of power generation (particularly onshore and offshore wind generation) and interconnection capacity in Scotland and the north east of England which will significantly increase cross-border and north-south boundary transfer requirements over time.

1.5.6 By overlaying current transmission system boundary capabilities with required capability based on the scenarios set out in Future Energy Scenarios (FES) 2020 and 2021 there is a clear need to increase network capability. The required transfers across all four FES (Steady Progression, Leading the Way, Consumer Transformation and System Transformation) significantly exceed capability, indicating a strong need for reinforcement.

1.5.7 For those boundaries within NGET's licence area (B6, B7, B7a and B8, illustrated by Figure 1-1) the required boundary transfer capability typically starts to increase in all four FES by the mid 2020s with the divergence between existing and required capability becoming more pronounced in the late 2020s.

1.5.8 The divergence between existing and required boundary transfer capability between now and the late 2020s drives the need for SEGL2. Reinforcements to provide increased boundary transfer capability are required to ensure the economic and efficient operation of the transmission system in line with NGET's statutory obligations. This will prevent excessive constraints from occurring and allow the network to keep pace with projected growth supporting the UK and Scottish Governments' net zero ambitions.

1.5.9 The primary objective of the Project is therefore to reinforce the electricity network and increase transmission network capability between Scotland and northern England by 2029 in order to enable the efficient and economic transmission of electricity.

1.5.10 Further information on Network Planning and Electricity Planning System can be found in **Chapter 2: Project Alternatives** of the ES.

2. English Onshore Scheme Description

2.1 Overview and Structure of Planning Applications

2.1.1 As set out in Section 1.3 of this Planning Statement, the SEGL2 Project is split into three main sections (the Scottish Onshore Scheme; the Marine Scheme; and the English Onshore Scheme). The English Onshore Scheme is the subject of this Planning Statement.

2.1.2 Due to its linear nature the land needed for the English Onshore Scheme is partly within the administrative area of ERYC and partly within the administrative area of SDC. The Applicant is therefore required to submit two planning applications under the Town and Country Planning Act 1990 (the TCPA); one to ERYC and one to SDC for the components of the scheme that are in the administrative area of each authority.

2.1.3 To maintain consistency and provide context for the entire English Onshore Scheme for the adjoining determining authorities, this single Planning Statement covers both of the planning applications. The following sections describe the English Onshore Scheme and Section 3 describes the Planning Applications submitted to EROY and SDC.

2.2 Overview of the English Onshore Scheme

2.2.1 The English Onshore Scheme comprises the components of the SEGL2 Project from Mean Low Water Springs (MLWS) where the Marine Scheme makes landfall at Fraisthorpe to the proposed converter station and existing substation at Drax. It is noted that the boundaries for the English Onshore Scheme and the Marine Scheme overlap in the intertidal zone between MLWS and Mean High Water Springs (MHWS).

2.2.2 At the proposed landfall site, it extends from MLWS across the intertidal zone with two HVDC cables (plus additional fibre optic cable(s) for monitoring and communication purposes), which will terminate at a buried transition joint pit (TJP). From this pit, the proposed underground HVDC cable route extends for approximately 69 km inland in a broadly south western direction until it reaches the proposed converter station site at Drax. The proposed underground cable crosses through both ERYC (approximately 67 km) and SDC (approximately 2 km) authority areas.

2.2.3 The proposed converter station will convert the electricity from DC to AC and will be connected to the existing National Electricity Transmission System (NETS) at the existing 400 kV Drax Substation by approximately 500 m of underground HVAC cable directly across New Road. Access to the converter station will be provided by a new permanent access road off the existing New Road immediately west of the proposed converter station site.

2.2.4 For ease of describing the proposed route, and for the identification and assessment of potentially significant impacts, the English Onshore Scheme is split in to four Route Sections. Route Sections 1, 2 and 3 fall within ERYC, and Route Section 4 is within SDC. These are illustrated in Figures 1-3a, 1-3b and 1-3c. The four Route Sections are:

- Route Section 1 – Landfall to Bainton;
- Route Section 2 – Bainton to Market Weighton;
- Route Section 3 – Market Weighton to River Ouse; and
- Route Section 4 – River Ouse to Drax Substation.

2.3 Development Proposals within East Riding of Yorkshire Council (Route Sections 1-3)

HVDC Cable

2.3.1 The Proposed Development in ERYC comprises approximately 67km of underground HVDC cable stretching from Fraisthorpe (landfall) on the east coast in a south westerly direction to the River Ouse is proposed.

2.3.2 The HVDC cables will be laid within a single trench (and trenchless installation methods will be used in some areas). In some locations they may be pulled through pre-installed ducts where required to avoid constraints. In addition, a fibre optic cable may also be installed within the HVDC Cable trench for performance monitoring.

2.3.3 Route Sections 1, 2 and 3 are wholly within ERYC and are described in detail by ES **Chapter 3: Description of the English Onshore Scheme** and illustrated by **Figure 1-3**.

2.4 Development Proposals within Selby District Council (Route Section 4)

HVDC Cable

2.4.1 The Proposed Development in SDC includes approximately 2km of underground HVDC cable stretching from the River Ouse on the eastern boundary of the District in a westerly direction to the proposed converter station adjacent to Drax Power Station.

2.4.2 The HVDC cables are laid within a single trench (and trenchless installation methods will be used in some areas). In some locations they may be pulled through pre-installed ducts where required to avoid constraints. In addition, a fibre optic cable may also be installed within the HVDC Cable trench for performance monitoring.

2.4.3 Route Section 4 as is wholly within SDC and in detail by ES **Chapter 3: Description of the English Onshore Scheme** and illustrated by **Figure 1-3**.

Converter Station and HVAC Cable

2.4.4 The Proposed Development in SDC also includes a converter station. This is required in order to convert electricity from alternating current (AC) to direct current (DC) and *vice versa*. It will comprise specialist electrical equipment, some of which must be located within buildings as well as some which can be located outdoors. Both the buildings and outdoor electrical equipment range in size up to a maximum of 30 m in height.

2.4.5 The underground AC cables will connect the converter station to the existing 400 kV Drax substation. Six or twelve underground AC cables (subject to final design) will be installed across New Road, up to 500m in length, and will run in a westerly direction from the proposed converter station to the existing substation.

2.4.6 The converter station will comprise the following components within a secure fenced compound:

- *DC Hall* - the underground DC cables terminate here. The switch hall also contains DC switchgear to connect to power electronics. This equipment will be enclosed in a building up to 30 m height;
- *Valve Halls and AC Inductors* – contain high voltage power electronics equipment that converts electricity from DC to AC and vice-versa. This equipment must be located indoors in buildings up to 30 m height within a controlled environment;
- *Control Building* – contains control panels and associated operator stations, protection and communication equipment, offices and welfare facilities and other auxiliary systems all located within an enclosed building up to 15 m high;
- *Transformer bays* – these change the AC voltage to an appropriate level for transmission via the AC system/ or prior to conversion to DC. The transformers are normally sited outdoors and separated by concrete fire protection walls. Typical dimensions are 15 m long by 15 m wide by 16 m high. Cooling fans are also provided on transformers. Noise enclosures can be fitted around the transformers if required;
- *AC Switch gear and filters ("switch yard")* – connects the converter station to the AC transmission system. It includes a range of electrical equipment including harmonic filtration and reactive compensation equipment, circuit breakers, transformers, busbars and insulators. The main function is to allow the effective integration of the DC system into the AC system. Commonly the AC switchyard and associated

equipment is located outdoors although this equipment can be enclosed in a building or series of buildings, and will be the subject of detailed design;

- *Diesel Backup Generator* – the converter station requires its own power typically provided at 11 kV, the diesel back-up generator will be used to provide back-up electricity supply in the unlikely event of a failure of the low voltage electricity supply; and
- *Spares Building* – a building to house spare parts and components; this will be supplemented by hardstanding areas provided for storage of a spare transformer and spare cable drums.

2.4.7 The above components of the Converter Station could be arranged differently subject to the ongoing design process considering engineering, environmental and other requirements.

2.4.8 The Converter Station Site will be within a securely fenced compound with restricted access. The site will also be monitored by CCTV and security gates will be in place for restricted/controlled access.

2.4.9 Lighting of the Converter Station during operation will be required for safe movement around the compound. This will be minimised wherever possible and will be directional to prevent/reduce light spill. External lighting will be off as a default during the hours of darkness unless otherwise needed. The lighting scheme for the converter station is subject to detailed design.

2.5 Operation of the English Onshore Scheme

HVDC Cable (in ERYC and SDC)

2.5.1 Once operational, the SEGL2 Project will form an integral part of the electricity transmission network. The HVDC Cable will operate automatically and won't require day-to-day manual operation. Inspections will be carried out along the route with access points to monitoring locations being incorporated in the design. Inspection visits will be via a small van.

Converter Station (in SDC)

2.5.2 Following a period of commissioning and testing, the proposed Converter Station will operate continuously throughout the year. The proposed Converter Station will be operated by a small team based on site with a minimum of two operators always present. During normal operation there will be approximately six personnel on site, divided between three shifts over a 24-hour period.

HVAC Cable (in SDC)

2.5.3 The HVAC Cable will operate automatically and won't require day-to-day manual operation. Inspections will be carried out along the route with access points to monitoring locations being incorporated in the design. Inspection visits will be via a small van.

2.6 Construction of the English Onshore Scheme

HVDC Cable (in ERYC and SDC)

2.6.1.1 Cable installation and commissioning for the proposed underground HVDC cable route is scheduled to take approximately five years. The indicative installation programme assumes a start date for installation activities in late 2024 and for the link to be commissioned prior to the end of 2029.

2.6.1.2 Typical work activity phasing for the installation of the DC cables would include:

- Bellmouth creation and construction compound establishment, amending existing access routes (where necessary);
- Creation of haul road/working width;
- Cable trench excavation and HDD of sensitive crossing;
- Establishing joint bays;

- Cable laying/ pulling through ducts;
- Cable trench backfilling and reinstatement; and
- Removal of construction compounds, and making good land used temporarily for construction.

2.6.2 Cable installation is not required to be undertaken sequentially; as a result, installation could occur in multiple sections along the length of the proposed underground DC cable route in parallel and therefore enabling the construction period to be reduced compared to an and-to-end linear sequential installation. Restoration works will also be undertaken progressively, with restoration undertaken on completion of installation works in each location.

2.6.3 The exact phasing of some activities will depend on the Contractor and detailed design, however further details of the Converter Station programme can be found in **Chapter 3: Project Description** of the **ES.**

Converter Station (in SDC)

2.6.4 Construction of the proposed Converter Station will be undertaken by the appointed Contractor. It is anticipated that construction activities will comprise:

- *Preliminary works*: This will include further site investigation and preconstruction surveys required to be undertaken in advance of construction. This will also include utilities diversions as necessary;
- *Site establishment*: This includes vegetation clearance, soil removal and establishment of all temporary facilities including site offices, lay down and storage areas and welfare facilities, development of electricity and water supplies, erection of security fencing or hoarding and implementation of external lighting for security;
- *Earthworks*: This will include land re-profiling in order to establish the level platform on which the proposed converter station will be constructed. The site level will be raised to 6.47 m above ordnance datum (AOD) to protect the electrical equipment housed on site from a 1:1,000 year flood event (including future climate change prediction). This will entail the need to build up the current ground level by between 1.8-3 m. Therefore large volumes of material will need to be imported to site during this phase of works;
- *Civil engineering works*: This will include construction of building foundations, development of the platforms' permanent drainage system and construction of internal roads and car parking arrangements;
- *Building works*: This will include the construction of building units including erection of steel frames and cladding;
- *Cable installation*: This will include the installation of the proposed underground DC cables entering the proposed converter station as well as proposed underground AC cables between the proposed converter station and the existing substation;
- *Provision/ installation of permanent services*: This will include water supplies, foul drainage, low voltage electricity supply and telecommunications;
- *Mechanical and electrical works*: This will include installation of high voltage AC and DC electrical equipment and transformers within the proposed converter station;
- *Commissioning*: Following completion of all construction works there will be a period of commissioning and testing; and
- *Site Reinstatement & Landscape Works*: This will include removal of site offices and temporary facilities, land reinstatement and landscape works.

2.6.5 The majority of works activities as outlined above would be completed under normal working hours/restrictions as follows, however some works activities may need to occur out of these hours and times due to activities not being able to be paused (such as concrete pouring and delivery of abnormal loads):

- Mon-Fri: 07.00-19.00,

- Sat: 08.00-17.00,
- No working on Sundays, or Bank Holidays unless otherwise agreed with SDC/ERYC.

2.6.6 The exact phasing of some activities will depend on the Contractor and detailed design, however further details of the Converter Station programme can be found in **Chapter 3: Project Description of the ES.**

HVAC Cable (in SDC)

2.6.7 Construction of the HVAC Cable will be as per construction of the HVDC Cable, which is described above.

3. The Planning Applications

3.1 Planning Application to East Riding of Yorkshire

3.1.1 The Planning Application submitted to ERYC seeks Full Planning Permission for the Proposed Development within ERYC. This comprises:

- Approximately 67km of Underground High Voltage Direct Current Cable (HVDC)

3.1.2 The Full Planning Application description is as follows:

> *Full Planning permission for the installation of high voltage direct current (HVDC) underground cables from Mean Low Water Springs (MLWS) at Fraisthorpe, East Riding to the River Ouse as well as all associated temporary works including compounds, accesses and bellmouths as part of the construction of Scotland-England Green Link 2 (SEGL2), a two gigawatt (GW) reinforcement of the electricity transmission system between Peterhead, Scotland and Drax, England. [Construction of a converter station and installation of HVDC an HVAC cables and associated temporary works relating to land in an adjoining authority]*

3.1.3 The application for full planning permission for the underground cable route includes a Limit of Deviation (LoD). This is intended to provide for reasonable flexibility in the planning permission for the cable route to avoid areas of sensitivity or risk (such as unsuitable ground or previously unknown archaeological sites) that may be identified during construction. Through most of the proposed route the LoD are approximately 20 m (i.e. 10 m either side) beyond the required working width. As a result, the planning application boundary is typically 60 m wide through for most of the proposed route (i.e. 40 m working width, plus an additional 10 m either side to provide the flexibility needed to ensure the Proposed Development is deliverable). It should be noted that, the LoD are wider in areas of greater risk, such as at sensitive crossing locations.

3.2 Planning Application in Selby District Council

3.2.1 The Planning Application submitted to SDC seeks Hybrid Planning Permission for the part of the Proposed Development within SDC. This comprises:

- A new Converter Station;
- Approximately 2km of Underground High Voltage Direct Current Cable (HVDC)
- Approximately 0.5km of Underground High Voltage Alternating Current Cable (HVAC)

3.2.2 The Hybrid Planning Application description is as follows:

> *Hybrid Planning Application comprising two parts: (Part 1) Outline planning permission (all matters reserved) for the construction of a converter station at Drax, Selby; (Part 2) full planning permission for the installation of high voltage direct current (HVDC) underground cables from the River Ouse to the converter station and high voltage alternating current (HVAC) underground cables from the converter station to the existing Drax Substation as well as all associated temporary works including compounds, accesses and bellmouths as part of the construction of Scotland-England Green Link 2 (SEGL2), a two gigawatt (GW) reinforcement of the electricity transmission system between Peterhead, Scotland and Drax, England. [Installation of underground HVDC cables from Mean Low Water Springs (MLWS) at Fraisthorpe, East Riding to the River Ouse and associated temporary works relating to land in an adjoining authority]*

3.2.3 The level of detail within the design is commensurate to the hybrid approach to the planning application, setting out maximum parameters within which the English Onshore Scheme will be designed and installed/constructed. The finalised design of the English Onshore Scheme is contractor-dependent and subject to a competitive tender process.

3.2.4 Part 1 of the Hybrid Planning Application seeks full planning permission for the HVDC and HVAC cables, and includes a Limit of Deviation (LoD). This is intended to provide for reasonable flexibility in the planning permission for the cable route to avoid areas of sensitivity or risk (such as unsuitable ground or previously unknown archaeological sites) identified during construction. Through most of the proposed route the LoD are approximately 20 m (i.e. 10 m either side) beyond the required working width. As a result, the planning application boundary is typically 60 m wide through for most of the proposed route (i.e. 40 m working width, plus an additional 10 m either side to provide the flexibility needed to ensure the Proposed Development is deliverable). It should be noted that, the LoD are wider in areas of greater risk, such as at sensitive crossing locations.

3.2.5 Part 2 of the Hybrid Planning Application seeks outline planning permission for the converter station. Detailed design of the converter station is yet to be completed. However, the 'Rochdale Envelope' approach is used for the converter station for which the Applicant is seeking outline planning permission. This allows specific maximum parameters to be assessed for which the likely significant effects are established and assessed on a realistic 'worst case' basis. This allows sufficient flexibility for the appointed Contractor's final design to be undertaken within these parameters. Such an approach is common for major infrastructure projects (typically referred to as a 'Rochdale Envelope') after the legal cases which established its precedent[1].

3.2.6 Outline planning permission is sought for the Converter Station with the parameters set out in this Planning Application. The matters set out below are proposed to be reserved for consideration as part of subsequent reserved matter applications in respect of the detailed design of the Converter Station to SDC:

- Appearance – the detailed design and materials of the Converter Station;
- Layout – the detailed layout of the components of the Converter Station within the Site; and
- Scale – the final dimensions of the buildings and plant that will comprise the Converter Station, although approximate maximum dimensions are defined in this Planning Application
- Landscaping – the detailed design of hard and soft landscaping within the Converter Station Site
- Access – details of the proposed access to the Converter Station

3.3 Planning Application Material

3.3.1 For full transparency, and due to the inter-related nature of the Proposed Developments within ERYC and SDC, the material to be submitted in support of both planning applications seeking Full Planning Permission from ERYC, and Hybrid Planning Permission from SDC comprises the same documents. This has been agreed in advance with each planning authority.

3.3.2 The planning applications comprises the following documents:

- Planning Application Drawings:
    - Site Location Plan
        - Overview Plan – Drawing Ref: SEGL2_T_PA_1_v1_20220531
        - East Riding of Yorkshire Plan – Drawing Ref: SEGL2_T_PA_2_v1_20220531
        - Selby District Plan – Drawing Ref: SEGL2_T_PA_3_v1_20220531

[1] R. v Rochdale MBC ex parte Milne (No. 1) and R. v Rochdale MBC ex parte Tew [1999]; and R. v Rochdale MBC ex parte Milne (No. 2) [2000].

        - Detailed 1:2,500 Scale Plans – Drawing Ref: SEGL2_T_PA_4_v1_20220531
    - Block Plan – Drawing Ref: SEGL2_T_PA_5_v1_20220531
    - Outline Landscape Mitigation Plan – Drawing Ref: 60641917-SHT-LA-0000-L-0001
    - Temporary Access Bellmouth Plans (various) – Drawing Refs: PDD-100822-LAY-065 to PDD-100822-LAY-0078
    - Permanent Access Arrangement – Drawing Ref: PDD-100822-LAY-082
    - Typical Works Design Drawings:
        - 421631-MMD-00-XX-DR-C-0030
        - 421631-MMD-00-XX-DR-C-0031
        - 421631-MMD-00-XX-DR-C-0032
        - 421631-MMD-00-XX-DR-C-0034
        - 421631-MMD-00-XX-DR-C-0035
        - 421631-MMD-00-XX-DR-C-0036
        - 421631-MMD-00-XX-DR-C-0037
        - 421631-MMD-00-XX-DR-C-0039
        - 421631-MMD-00-XX-DR-C-0040
        - 421631-MMD-00-XX-DR-C-0041.
- Planning Statement
- Design and Access Statement
- Non-statutory Community Engagement Report
- Outline Biodiversity Net Gain Strategy Report
- Environmental Statement (inc. Non-Technical Summary)
    - Flood Risk Assessment Report (included within the ES, Vol.3, Appendix 11B)
    - Habitat Regulations Assessment Report (included within the ES, Vol.3, Appendix 7F)
    - Water Framework Directive Compliance Assessment Report (included within the ES, Vol.3, Appendix 11A)
    - Outline Construction Environmental Management Plan (included within the ES, Vol.2, Chapter 18).
    - Wireframe Visualisations of the proposed Converter Station from Selected Viewpoints (included within the ES, Vol.3, Appendix 8B).

3.4 Permitted Development

3.4.1 Minor works are also required within Drax Substation. These works, comprising modifications within the footprint of existing substation to facilitate connection of SEGL2, are to be undertaken using NGET's permitted development rights, as set out within Part 15, Class B (a) of the Town and Country Planning (General Permitted Development) (England) Order 2015 (as amended) (the GPDO)[2]. These therefore do not form part of the Proposed Development for which planning permission is sought.

[2]PART 15: Power related development, Class B – electricity undertakings
Permitted development
B. Development by statutory undertakers for the generation, transmission, distribution or supply of electricity for the purposes of their undertaking consisting of-
(a) the installation or replacement in, on, over or under land of an electric line and the construction of shafts and tunnels and the installation or replacement of feeder or service pillars or transforming or switching stations or chambers reasonably necessary in connection with an electric line

4. The Site and Surroundings

4.1 The Site within East Riding of Yorkshire (Route Sections 1-3)

Land Use

4.1.1 Land use within the area is predominantly rural and agricultural, with various small settlements scattered throughout, the largest of which, Market Weighton, is located centrally in the alignment of the Proposed Development in ERYC. The area is generally flat, and low lying with the central area rising over higher ground through the Yorkshire Wolds. The low-lying sections of the route are characterised by large fields with numerous drainage ditches and small watercourses. The Proposed Development in ERYC crosses various classified and unclassified watercourses including Driffield Canal, the River Hull and River Ouse.

4.1.2 From review of 1:250,000 Agricultural Land Classification (ALC) maps, agricultural land within this area is Grade 2 and Grade 3. An area of Grade 1 agricultural land is located along the River Ouse valley. Grade 1, Grade 2 and Grade 3a land is classified as Best and Most Versatile (BMV).

4.1.3 The HVDC cable route passes through the planning permission area of Gransmoor Quarry. Through careful routing, including liaison with the quarry operator, the HVDC corridor has avoided areas consented for mineral extraction, crossing via the access track to the northern section of the quarry from Kelk Lane/Gransmoor Lane.

Physical Environment

4.1.4 There are a number of waterbodies that will be crossed by the Proposed Development in ERYC, including main rivers The Earl's Dike, Kelk Beck, Naffeton Beck, River Hull, Driffield Canal, Skerne Beck, Back Delfin, River Foulness, Commonend Drain and the River Ouse. The main river valleys across the English Onshore Scheme location, namely the River Hull, River Foulness and the River Ouse, are subject to varying extents of flood risk (Flood Zone 3; 1 in 100 or greater annual probability of flooding). The route of the proposed HVDC cable is partly within the boundary of three Internal Drainage Boards (IDBs), being Ouse and Humber IDB, Beverley & North Holderness IDB, and Selby IDB.

4.1.5 At the coastline, the Shoreline Management Plan (Flamborough Head to Gibraltar Point[1]) notes the coastline to be an area of no active management, and subject to a small extent of erosion (based on long term (to 2105) projections in comparison to areas adjacent on the East Yorkshire coastline).

4.1.6 There are three Source Protection Zones (SPZ) identified adjacent to the Proposed Development in ERYC between Hutton Cranswick and Market Weighton, it crosses the Outer Protection Zone.

Nature Reserves and Designated Areas

4.1.7 The Proposed Development in ERYC crosses the River Hull Headwaters Site of Special Scientific Interest (SSSI) at Kelk Beck (Great Kelk) and the River Hull (Wansford). Both of these crossings would be via Horizontal Directional Drill (HDD) and avoid direct impacts to the waterbodies. There are no other internationally or nationally designated sites that directly interface with the Proposed Development in ERYC.

4.1.8 At the landfall location the proposed cable route crosses the deleted Fraisthorpe Beach Local Wildlife Site (LWS). HDD will be used to avoid any direct impacts to the LWS. Other crossings or interactions with locally designated areas include: Little Kelk Grassland, Etton-Gardham Disused Railway, all of which are LWSs. The Etton-Gardham Disused Railway is also the location of the Hudson's Way Local Nature Reserve (LNR).

4.1.9 The Proposed Development in ERYC is otherwise routed through mainly agricultural land. Some areas are noted to be Priority Habitat (namely grazing marshland). It is noted that at field boundaries and crossings of local roads, land parcels may be demarcated by hedgerow and mature vegetation features.

4.1.10 Parts of the HVDC cable route also pass through mineral safeguarding areas (MSA).

Settlement & Population

4.1.11 At the landfall settlement to the north includes villages on the outskirts of Bridlington, such as Hilderthorpe, and Fraisthorpe to the south. Through the remainder of the alignment of the Proposed Cable Route, the population is located within small villages, greater in frequency towards the coast and around Driffield and Hutton Cranswick, and to the west between Brind and Asselby. Centrally, beyond the main settlement of Market Weighton within the Yorkshire Wolds, the population is largely in scattered properties and farmsteads. The coastline is a recognised recreational resource and contains a relatively concentrated network of public rights of way (PRoW), parking facilities for visitors to the coastal strip, caravan parks and holiday parks.

Landscape

4.1.12 The Proposed Development in ERYC stretches the full width of the county. It includes parts of the low-lying and undulating coastline and inland agricultural coastal plain of Holderness to the east, the undulating to rolling agricultural landscape of the Yorkshire Wolds, and the large-scale agricultural landscape of the Humberhead Levels to the west.

4.1.13 The Proposed Development in ERYC passes through 13 Local Character Types (LCTs), 21 Local Character Areas (LCAs) and 4 National Character Areas (NCAs). In addition, the Yorkshire Wolds (which is crossed by the Proposed Development in ERYC) and the River Derwent Corridor and Lower Derwent Valley (which are beyond the Proposed Development in ERYC) are defined as Important Landscape Areas.

National Character Areas (NCA)

- NCA27: Yorkshire Wolds
- NCA28: Vale of York
- NCA39: Humberhead Levels
- NCA40: Holderness

Local Character Types and Local Character Areas

Landscape Character Type (LCT)	Landscape Character Area (LCA)
LCT1: Flat Open Farmland	1A: Shiptonthorpe and Market Weighton Farmland
LCT4: River Corridors	4B: River Ouse Corridor, Barmby on the Marsh to M62 Bridge
LCT5: Open Farmland	5A: Howden to Bubwith Farmland
LCT6: Wooded Open Farmland	6B: South Cliffe and Hotham Common
LCT7: Foulness Open Farmland	7A: South of Holme on Spalding Moor Farmland 7B: Eastrington Farmland
LCT10: Complex Sloping Farmland	10G: West Wolds Edge Elevated Farmland 10H: West Facing Scarp Slope
LCT11: Jurassic Hills Farmland	11A: West Facing Open Farmland
LCT12: Sloping Wooded Farmland	12A: South Western Sloping Wolds Farmland
LCT13: Open High Rolling Farmland	13A: South Dalton Estate Farmland 13C: South Wolds Rolling Farmland 13D: North Wolds Plateau Farmland
LCT16: Sloping Farmland	16A: Southwest Driffield Parkland and Golf course 16B: Kilnwick Percy Wooded Farmland 16D: Nafferton Sloping Farmland 16E: Lund Sloping Farmland
LCT18: Low-Lying Drained Farmland	18A: River Hull Corridor 18E: Kelk Beck Farmland
LCT19: Open Farmland	19C: North Holderness Open Farmland

Landscape Character Type (LCT)	Landscape Character Area (LCA)
LCT20: Coastal Farmland	20C: Bridlington to Hornsea Coast

4.1.14 ES Chapter 07: Landscape and Visual Amenity Landscape sets out further detail of the landscape character of the Site in ERYC.

Cultural Heritage

4.1.15 The Proposed Development in ERYC has been developed to avoid known designated assets and features, including listed buildings, registered parks and gardens and scheduled monuments that are located throughout the area between the landfall and the River Ouse. It is noted however that a large number of assets are present within the surrounding area with the largest number of assets contained within the Yorkshire Wolds landscape in the central section of the Proposed Development in ERYC.

4.2 The Site within Selby District Council (Route Section 4)

Land Use

4.2.1 Land use within the area is predominantly agricultural, with Drax Power Station as a significant area of infrastructure to the west of the Proposed Development in the SDC site boundary. Drax village is the largest settlement, however there are several properties located between the main village and the area known as Long Drax to the north. Pockets of woodland blocks are present within the area, mainly adjacent to Drax Power Station.

4.2.2 From review of 1:250,000 Agricultural Land Classification (ALC) maps, agricultural land within this area is Grade 1 and Grade 2, classified as Best and Most Versatile (BMV) land.

Physical Environment

4.2.3 The River Ouse extends along the boundary between ERYC and SDC. Between the River Ouse and Drax Power Station, there are various small unnamed drains that align to field boundaries that feed back to the River Ouse. This area is low-lying and subject to risk of flooding (Flood Zone 3; 1 in 100 or greater annual probability of flooding) from the River Ouse, however it benefits from embankments along the river as flood defences.

4.2.4 There are no Allocated Sites or Safeguarded Sites for the extraction of minerals or deposition of waste, as identified in the North Yorkshire Minerals and Waste Joint Plan[1] that would be impacted by the Proposed Development in SDC. To the immediate west of Drax Power Station is the Barlow Ash Disposal site.

Nature Reserves and Designated Areas

4.2.5 There is a Locally Important Nature Conservation Site (LINCS) located along the dismantled railway south of Long Drax to Redhouse Lane/ Carr Lane, extending for approximately 1 km.

4.2.6 Beyond the boundary of the Proposed Development in SDC, to the north, is the River Derwent Special Area of Conservation (SAC) and SSSI, which extends north of Barmby on the Marsh. The river is designated for its support of River Lamprey *Lampetra fluviatilis* and as an example of a classic riverine system supporting a broad diversity of flora and fauna. Approximately 5 km downstream, the River Ouse (Humber Estuary) is designated as a Ramsar, Special Protection Area (SPA), SAC and SSSI.

Settlement & Population

4.2.7 There is a low population density within the area, with the main settlement of Drax located to the south of the Proposed Development in SDC. Further to the north is the smaller village of Long Drax, located on the southern bank of the River Ouse. Various individual properties and farmsteads are present in the wider area, namely along the local road network including Carr Lane, Redhouse Lane and Rusholme Lane.

Landscape

4.2.8 The Proposed Development in SDC is located within the Ouse Valley (LCA5) and Camblesforth Farmland (LCA15), Character Areas as identified within the Selby Landscape Character Assessment (November 2019). The Proposed Development in SDC is within close proximity to Derwent Valley (LCA6) and Aire Valley (LCA7) Character Areas.

4.2.9 The Ouse Valley is characterised by the large scale flat open, rural landscape, of which the River Ouse is a key landscape feature. This landscape is intensively farmed for arable and pasture purposes, though locally important water bodies, grasslands and woodlands are located throughout. The ruralness of the landscape is noted to be broken around Selby and Drax Power Station where there is greater build development, and the power stations of Drax and Eggborough are prominent on the horizon of the landscape.

4.2.10 The Camblesforth Farmland is characterised by an intensively farmed landscape. The Drax Power Station cooling towers are the key landmark features of the area, with Barlow Mound ash disposal providing foreground in some views. Views towards the west, south, and away from the power station are generally less developed, with wide views available from the upper parts of Barlow Mound. Within the area, particularly close to Drax Power Station and around Drax village, are blocks of woodland, and large hedgerows and trees line most of the local road network. These vegetation blocks screen broad views across the open landscape.

4.2.11 The Proposed Development in SDC is located within Humberhead Levels National Character Area (NCA39)[3], described as:

> *"a flat, low-lying and large scale agricultural landscape bounded to the west by the low ridge of the Southern Magnesian Limestone and to the east by the Yorkshire Wolds (north of the Humber) and the Northern Lincolnshire Edge with Coversands (south of the Humber). To the north it merges into the slightly undulating landscape of the Vale of York, at the line of the Escrick Moraine, and in the south it merges in to the Trent and Belvoir Vales and Sherwood."*

Cultural Heritage

4.2.12 There are three scheduled monuments around the village of Drax – Drax Augustinian Priory (north), Scruff Hall (southeast), and Castle Hill (south of Drax village). Each of the assets relate to Medieval period, with the Scruff Hall and Castle Hill sites offering examples of moated development; and the Drax Augustinian Priory formerly utilised by canons (priests) of the order of St Augustine.

4.2.13 A single Grade II Listed Building is also located at St Peter's church in Drax village – associated with a shaft in the churchyard. There is the potential for further unknown cultural heritage and archaeological features to be present within the area.

4.3 Site Selection

4.3.1 The first step in developing SEGL2 the Project was to undertake a Strategic Options Appraisal with the objective of identifying the Strategic Proposal, that is the preferred point within NGET's licence area that would best meet the need case by providing additional network capability when it is required and while also taking account of NGET's statutory and licence obligations.

4.3.2 The Strategic Options Appraisal identified a number of alternative 'end' points at substations on the network in NGET's licence area from Blyth Substation in Northumberland to as far south as Spalding North Substation in Lincolnshire.

4.3.3 Drax was identified as the preferred 'Strategic Proposal' because it could deliver similar amounts of additional network capability as other options Fen when it required while avoiding crossing a number of the additional environmentally protected sites offshore and onshore which would be required for alternative options. This process is summarised in **Section 2.5 of Chapter 2: Project Alternatives of the ES**.

4.3.4 Following identification of Drax as the point of connection to the NETS a route and site selection study was undertaken firstly considering alternative landfall and converter station

[3] file:///C:/Users/KingC4/Downloads/NCA%2039%20Humberhead%20Levels%20MW.pdf

sites and secondly underground cable routes between them. The objective of this step was to identify preferred landfall and converter station sites and an underground cable route taking account of NGET's statutory duties which would form the basis of the English Onshore Scheme. This step comprised environmental and engineering studies as well as consultation with key statutory consultees including East Riding of Yorkshire and Selby District Councils, Natural England, the Environment Agency and Historic England. It concluded with the identification of a preferred Scheme which was then subject to public consultation.

Landfall Site Selection

4.3.5 The landfall is where the subsea cables connect to onshore cables at a buried transition joint pit. Six potential landfall sites between Bridlington to Hornsea were identified and assessed. This considered a range of environmental and engineering constraints including proximity to settlements, landfall accessibility, coastal erosion rates, designated sites including Flamborough Head Special Area of Conservation (SAC) and Holderness Marine Conservation Zone (MCZ), scattered military remains, as well as other infrastructure such as offshore wind farm export cables which come ashore in the area.

4.3.6 Based on an initial review, landfalls south of Barmston Sands and at Skipsea were discounted. While both are technically feasible, they would have greater potential for environmental impacts due to crossing the Holderness Inshore MCZ and/or the Greater Wash SPA. A more detailed appraisal was undertaken of four landfalls.

4.3.7 Given the objective to avoid environmental designations, settlements, and other major infrastructure the site north of Fraisthorpe was identified as the preferred landfall site. It is located on open agricultural land, outside of areas at risk of coastal erosion with good access from the A165 and provides a technically feasible landfall with fewer engineering challenges.

4.3.8 **Chapter 2: Project Alternatives** of the **ES** provides a full overview of the six sites considered and the outcomes of the assessment.

Converter Station Site Selection

4.3.9 Converter stations are the key components of HVDC links. They enable electricity to be converted from AC to DC or vice versa depending on the direction of operation. Converter stations contain specialist electrical equipment, some which must be located indoors in buildings potentially up to 30 m tall, while some could be located outdoors or in smaller buildings. For the purposes of the converter station site selection an approximate footprint of 6 hectares (ha) was used.

4.3.10 A shortlist of eight potential converter station sites within 5 km of the existing Drax Substation were identified and assessed. The assessment considered environmental and engineering for each option including potential impacts on landscape, visual amenity, ecology and cultural heritage as well as routeing to/from the site and access from the road network.

4.3.11 Given the presence of Drax Power Station and the need to install AC cables from the converter station to the substation it is preferable to be located as close as possible to Drax. While larger sites which provide more flexibility were identified further away from Drax these would introduce industrial-type development into more characteristically rural areas and have potentially greater environmental impacts. Sites closer to Drax may be smaller but by locating it closer to Drax the proposed converter station is more effectively integrated into its surroundings as a result of other industrial-type developments and it also reduces the length of underground cable required to connect to Drax Substation.

4.3.12 **Chapter 2: Project Alternatives** of the **ES** provides a full overview of the eight sites considered and the outcomes of the assessment.

Cable Route Selection

4.3.13 **Chapter 2: Project Alternatives** of the **ES** provides an overview of the process that was undertaken to identify the route of the proposed below ground HVDC and HVAC cables.

4.3.14 This sets out that routeing was undertaken in a two-step process, firstly identification of broad route corridors and secondly identification of potential route alignments within those

corridors. This took account of the alternative landfall and converter stations which were being considered as well as key constraints within the wider area such as towns and villages, sites designated/protected for ecological, heritage and landscape reasons, land use and other natural and built features such as woodland, rivers and roads as well as engineering constraints for example crossings, topography and ground conditions. The objective of routeing was to identify a preferred route which was technically feasible whilst on balance causing the least impact on the environment and people.

4.3.15 A broad north east to south west route corridor was identified as illustrated in Figure 2-5 of Chapter 2 of the ES. This provided a direct route corridor between potential landfall and converter station sites. Where possible the identification of the route corridors sought to avoid sensitive areas such as sites designated for environmental reasons and settlements. In some instances, some constraints for example the River Hull Headwaters Site of Special Scientific Interest (SSSI) or the Yorkshire Wolds Important Landscape Area (ILA), were unavoidable due to their scale or nature. In other instances, where avoidance of constraints did not result in significant route deviations then alternative corridor sections were identified, for example alternative routes around settlements such as Skerne and Hutton Cranswick or areas where existing land use would preclude routes such as at Gransmoor Quarry.

4.3.16 Following on from the identification of broad route corridors, consideration was given to preliminary route alignments within them. This focused on the development of a more detailed route alignment considering construction requirements and more localised engineering and environmental constraints such as accessibility and local wildlife sites. The result of this was an approximate 67 km long preliminary route alignment following as direct a route as possible mainly through agricultural land from the preferred landfall site north of Fraisthorpe to the preferred converter station site at Drax.

4.3.17 In addition to careful routing of the proposed HVDC and HVAC cables, the ES also sets out that design measures such as the use of non-open cut installation methods (e.g. Horizontal Directional Drilling (HDD)) to install the cable underneath sensitive features are proposed.

5. Summary of Environmental Assessment

5.1 Introduction

5.1.1 This section describes the structure and main conclusions of the Environmental Statement (ES) that accompanies the Planning Application. The ES reports the findings of an Environmental Impact Assessment (EIA). This section also outlines the EIA Screening process by which the need for an EIA and ES was identified, and the EIA Scoping process in which the scope of the EIA and ES was agreed.

5.2 EIA Screening

5.2.1 The Applicant submitted a request for an Environmental Impact Assessment (EIA) Screening Opinion for the English Onshore Scheme to SDC and ERYC on the 10th February 2021 respectively (the Screening Request). Both SDC, on the 19th March 2021, and ERYC, on the 8th April 2021 issued their Screening Opinions confirming that the English Onshore Scheme is considered to be 'EIA Development'.

5.3 EIA Scoping

5.3.1 Following confirmation from the Local Planning Authorities that Proposed Development constitutes 'EIA Development' the Applicant submitted Scoping Opinion Requests for the English Onshore Scheme to SDC and ERYC in April 2021 respectively (the Scoping Opinion). Both SDC, on the 7th June 2021, and ERYC, on the 21st June 2021 issued their Scoping Opinions.

5.3.2 Both Scoping Opinions provided detailed advice on a range of themes allowing for the structure of the Environmental Statement (ES) to be produced, providing information about the English Onshore Schemes likely significant environmental impacts.

5.4 Environment Statement Structure

5.4.1 A single ES supports the two planning applications. For the purposes of the EIA and ES, the English Onshore Scheme has been divided into four Route Sections. Route Sections 1-3 cover the Proposed Development in ERYC and Route Section 4 covers the Proposed Development in SDC.

5.4.2 The ES comprises three volumes:

- Volume 1: ES Non-Technical Summary. This is intended to be readily accessible to the general public. It is concise and written in non-technical language providing a description of the EOS, a summary of the assessment of likely significant environmental effects and proposed mitigation measures.
- Volume 2: Main ES Report. This comprises the main text including a description of the English Onshore Scheme (including the alternatives considered), the baseline conditions, an assessment of the likely significant environmental effects resulting from the scheme, and proposed measures to mitigate those effects. The ES is split into 19 Chapters as follows
  - CH1 Introduction
  - CH2 Project Development and Alternatives
  - CH3 Description of the English Onshore Scheme
  - CH4 Planning Policy Context
  - CH5 Approach to Environmental Assessment
  - CH6 Stakeholder Engagement
  - CH7 Ecology and Nature Conservation
  - CH8 Landscape and Visual Amenity

- CH9 Archaeology and Cultural Heritage
- CH10 Geology and Hydrogeology
- CH11 Hydrology and Land Drainage
- CH12 Agriculture and Soils
- CH13 Noise and Vibration
- CH14 Traffic and Transportation
- CH15 Socio-Economics, Recreation and Tourism
- CH16 Waste and Minerals Management
- CH17 Cumulative and In-Combination Effects
- CH18 Outline Construction Environmental Management Plan
- CH19 Summary and Conclusions

- Volume 3: ES Appendices. This comprises the supporting technical information which are cross referenced throughout Volume 2.

5.5 Conclusions of the Environmental Statement

Ecology and Nature Conservation

5.5.1 ES Chapter 7: Ecology and Nature Conservation assesses the impact of the English Onshore Scheme on ecology and conservation. It explains that the Proposed Development has been routed and designed to avoid direct impacts on designated ecology sites and concludes that the Proposed Development would not result in significant effects on protected species or their habitats.

Landscape and Visual Amenity

5.5.2 ES Chapter 8: Landscape and Visual Amenity assesses the impact of the English Onshore Scheme on landscape and visual amenity. It concludes that in Route Sections 1, 2, and 3, which are located within ERYC, no significant effects on landscape character or visual impact will result during either construction or operation, with any impacts being either minor or negligible.

5.5.3 The ES also concludes that the construction of and operation of the Converter Station (in SDC) would have only a negligible or minor impact on landscape character, which is not significant. This is because the Converter Station would sit in the context of adjacent larger scale power infrastructure associated with the Drax Power Station complex which results in greater influence on landscape character than the Converter Station would.

5.5.4 In terms of visual impact of the Converter Station (in SDC), the ES identifies significant effects would result during construction and operation at Representative Viewpoint 10: PRoW (NYCC Ref: 35.26/5/1) near Wren Hall, and at Viewpoint 11: PRoW (NYCC Ref: 35.26/4/1) north of Drax Village. At these PRoW viewpoints, the Converter Station would appear in foreground and midground views, respectively, although would be seen in the context of the Drax Power Station complex, which will remain the focus within the composition of the views and provides a substantial industrial backcloth and context to the view. Mitigation planting is proposed in both locations, which would strengthen the screening function of the existing vegetation in both locations once it has established. No other significant visual effects are identified.

Archaeology and Cultural Heritage

5.5.5 Chapter 9: Archaeology and Cultural Heritage, presents an assessment of the impact of the English Onshore Scheme on designated and non-designated heritage assets, and on buried archaeological remains. The assessment concludes that given the setting of the Converter Station (in SDC) amongst the buildings of the Drax Power Station complex, it will not have any significant effect on the setting of designated or non-designated heritage assets. The other elements of the Proposed Development in ERYC and the Proposed Development in

SDC comprise below ground cables, so would not impact the setting of heritage assets following completion of construction. Some significant effects on the setting of designated heritage assets during the construction period would result, although these would be temporary and reversed on completion of construction in the vicinity of the asset.

5.5.6 In terms of buried archaeology, the ES Chapter identifies the potential for significant effects from direct disturbance of potential assets. However, it sets out that mitigation measures have been embedded into the Proposed Development in order to minimise potential impacts on archaeology. These include limiting land take and the development of a detailed archaeological mitigation strategy prior to construction.

Geology and Hydrogeology

5.5.7 ES Chapter 10: Geology and Hydrogeology, sets out an assessment of the potential effects of the English Onshore Scheme on the geology and hydrogeology within the study area. The potential for effects of ground and groundwater contamination materials on human health has also been considered.

5.5.8 It concludes that with the application of good practice and standard mitigation measures outlined in the CEMP, the construction or operation of the Proposed Development will result in no more than a negligible or minor impact, which is not significant, on geology or ground water, including consideration of human health.

Hydrology and Land Drainage

5.5.9 Chapter 11; Hydrology and Land Drainage, of the ES sets out an assessment of the impact of the Proposed Development on the water environment. A Flood Risk Assessment (FRA) has also been undertaken and is included as Appendix 11B to the ES.

5.5.10 The ES Chapter describes mitigation measures will be implemented in order to keep the Proposed Development safe from flooding (including the floor level of the Converter Station being above modelled flood levels for a 1% +CC AEP event), and avoiding increasing flood risk elsewhere.

5.5.11 With the incorporation of mitigation measures, the ES concludes that the Proposed Development would result in no more than a minor or negligible effect on hydrology, which is not significant.

Agriculture and Soils

5.5.12 Chapter 12: Agriculture and Soils, of the ES identifies that the majority (87.1%) of agricultural land within Route Sections 1, 2 and 3 in ERYC, and the HVDC and HVAC cable route in Route Section 4 in SDC, is likely to be classified as best and most versatile agricultural (BMV) land, within Agricultural Land Classification (ALC) Grades 1, 2, or 3a.

5.5.13 The ES identifies that this means that the English Onshore Scheme will result in the temporary loss of 292.2 ha of agricultural land (including 254.5 ha of BMV agricultural land) at some point during the construction period, although this would be returned to agriculture following completion of construction in any location. It also identifies that a small area of BMV agricultural land would be permanently lost within the Converter Station Site. It assesses these temporary and permanent impacts on BMV agricultural land to be negligible or minor and not significant.

5.5.14 Chapter 12: Agriculture and Soils, of the ES also explains that a detailed soil survey of the field within which the converter station would be located has been undertaken. The survey identifies that of the 14 hectare field, the majority (11 ha, 78.6%) is classed as ALC Grade 3b, which is not BMV. The remaining 3 ha (21.4%) is classed as BMV agricultural land within ALC Grade 2. The proposed footprint of the Converter Station would be approximately 5.9 ha. This is illustrated by ES Figure 12-3, the Converter Station would likely lead to a permanent loss of approximately 1.7 ha of BMV agricultural land. The ES sets out that this permanent loss of agricultural land is not significant.

5.5.15 Regarding protection of, and impact on, soils Chapter 12: Agriculture and Soils, of the ES goes on to explain that industry standard guidance/current best working practice would be implemented for the handling of soils in order to minimise the impact of disturbance to soil resources and loss of soil resources. These measures would be secured by a detailed soil management plan (SMP) which would be prepared by the contractor as part of the

Construction and Environmental Management Plan (CEMP), and would accord with the outline Soil Management Plan. With mitigation measures in place the ES concludes that the overall impact on soils would be minor and not significant.

Noise and Vibration

5.5.16 ES Chapter 13: Noise and Vibration identifies that during operation the English Onshore Scheme would result in only minor or negligible noise impact, which is not significant. These would be as a result of Converter Station noise emissions, in SDC. The HVDC cable in ERYC would have no noise impact during operation.

5.5.17 During construction, the ES Chapter identifies a moderate noise effects on one receptor (Rec 23) in Route Section 2 (within ERYC) and a moderate noise effect at two receptors (Rec 60 & 62) in Route Section 4 (in SDC) as a result of construction. These temporary construction impacts are classed as significant. Section 13.7 of the ES Chapter sets out mitigation measures that will be put in place to mitigate and control noise impacts, including measures to control or restrict activities during evenings/night-time so as not to exceed the Significant Observed Adverse Effect Level (SOAEL), which is the level above which significant adverse effects on health and quality of life occur.

Traffic and Transportation

5.5.18 Chapter 14: Traffic and Transport, of the ES presents an assessment of the Proposed Development on traffic and transportation. Traffic levels have been surveyed to determine the baseline highway conditions on the surrounding network to quantify the magnitude of impact from the construction traffic, and collision data for the most recent five year period has been reviewed. The ES concludes that during construction the Proposed Development would not result in any more than a minor or negligible impact on severance to motorists or pedestrians; journey times; pedestrian delay, intimidation or loss of amenity; road accidents and safety; air quality; or dust and dirt, which is not significant.

5.5.19 During operation, the ES sets out that any traffic impact associated with operational activities will likely be negligible and not significant.

Socio-Economics, Recreation and Tourism

5.5.20 Chapter 15: Socio-economics, Recreation and Tourism, of the ES assesses the impact of the English Onshore Scheme on employment, community severance, private assets, development land, and PRoW. It concludes that a minor beneficial impact on employment will result during construction. All other impacts are identified as being either minor adverse or negligible, and are not significant.

Waste and Minerals Management

5.5.21 ES Chapter 16: Waste and Minerals Management, assesses the impact of the Proposed Development on the use of material resources and the generation and management of waste. It sets out that sufficient quantities of aggregate for construction of the Proposed Development are available within the North Yorkshire region and that the Proposed Development would have a minor adverse effect on material resource use, which is not significant.

5.5.22 With the implementation of the waste hierarchy throughout the construction to minimise disposal and maximise re-use and recycling of waste arisings and with the management of soils in accordance with a Site Waste Management Plan to be prepared by the Contractor, the ES concludes that the Scheme would have no more than a minor impact, which is not significant, on the generation and management of waste.

Cumulative Effects

5.5.23 Chapter 17: Cumulative Effects, of the ES draws upon the results of the other ES assessment chapter to consider the potential for cumulative intra-project effects (combinations of impacts from the Proposed Development upon a single receptor) and cumulative inter-project effects (impacts from the Proposed Development in combination with other relevant developments upon a single receptor). It concludes that no effect would be of greater magnitude than the respective developments in isolation.

6. Legislative and Policy Context

6.1 Main relevant legislation and policy

Climate Change Act 2008

6.1.1 The UK is legally bound through the Climate Change Act (2008) (CCA2008) to reduce carbon emissions. The CCA2008 is underpinned by further legislation and policy measures which have developed in the last 13 years. This has been based on an increased need and urgency for decarbonisation in order to meet the UK's obligations under the Paris Agreement (2015).

6.1.2 The CCA 2008 establishes a legally binding target to reduce the UK's greenhouse gas emissions by at least 80% in 2050 from 1990 levels. The CCA2008 also provides a framework for building the UK's ability to adapt to the changing climate.

6.1.3 In October 2018, following the adoption by the UN Framework Convention on Climate Change of the Paris Agreement, the Intergovernmental Panel on Climate Change (IPCC) published a Special Report on the impacts of global warming of 1.5°C above pre-industrial levels. This report concluded that human-induced warming had already reached approximately 1ºC above pre-industrial levels, and that without a significant and rapid decline in emissions across all sectors, global warming would not be likely to be contained, and more urgent international action is required.

6.1.4 The Climate Change Committee[4] (CCC) states that with *"rapid global action to cut greenhouse gas emissions, we can still reduce the likelihood of global temperatures increasing by more than 1.5 – 2°C" but that if no action is taken "global temperatures could increase by 4°C or more by the end of the century"*.

6.1.5 The targets for carbon emissions reduction have tightened more so in the last three years, including a legally binding commitment for the UK to reach net zero carbon emissions by 2050. The Government's Energy White Paper: Powering our Net Zero Future published in 2020 identifies the Government's aim for a fully decarbonised, reliable and low-cost power system by 2050.

The Climate Change Act 2008 (2050 Target Amendment) Order 2019

6.1.6 The targets for carbon emissions reduction have tightened more so since the CCA2008, including a legally binding commitment for the UK to reach net zero carbon emissions by 2050. In June 2019, parliament passed legislation requiring the government to reduce the UK's net emissions of greenhouse gases by 100% relative to 1990 levels by 2050. Doing so would make the UK a 'net zero' emitter. Prior to this, the UK was committed to reducing net greenhouse gas emissions by at least 80% of their 1990 levels, also by 2050 (the CCA2008).

The Committee on Climate Change: The Sixth Carbon Budget (December 2020)

6.1.7 The main recommendations are set out in The UKs Path to Net Zero report, which sets out a recommended pathway requiring a 78% reduction in UK territorial emissions between 1990 and 2035, bringing forward the UK's previous 80% target by nearly 15 years. These recommendations are a clear indication of the increased ambition implied by the Government's net zero target.

6.1.8 The 78% reduction in emissions from 1990 to 2035 recommendation was then introduced by the Government in April 2021.

National Infrastructure Delivery Plan 2016 – 2021 (March 2016)

[4] The Climate Change Committee (CCC) is an independent, statutory body established under the Climate Change Act 2008 - https://www.theccc.org.uk/

6.1.9 Prepared by the infrastructure and Projects Authority, the plan explains requirements and funding for national infrastructure. In the current Parliament and beyond, it recognises that network companies face an unprecedented investment challenge to maintain a reliable, secure network, and deal with changes in demand and generation that will occur in a low carbon future.

Committee on Climate Change Net Zero Publications (May 2019) - Net Zero – The UK's Contribution to Stopping Global Warming (May 2019)

6.1.10 In May 2019 the Committee on Climate Change published Net Zero – The UK's Contribution to Stopping Global Warming. The report recommended a new target of net zero greenhouse gas emissions by 2050. This was passed into law in June 2019.

6.1.11 The report recognises that transmission network capacity will need to keep pace with developments on generation (e.g., large-scale offshore wind) and interconnections, and recognises the need for enhanced system flexibility.

Energy White Paper 2020

6.1.12 The Energy White Paper published in December 2020 is one of the more recent Government policies setting out how the UK will reach net zero emissions by 2050.

6.1.13 The Paper explains that it is likely that overall demand for electricity will double by 2050 due to the electrification of other sectors such as transport and heating. On page 42, it states that meeting this demand by 2050 would require *"a four-fold increase in clean electricity generation with the decarbonisation of electricity increasingly underpinning the delivery of our net zero target"*.

6.1.14 It identifies the Government's aim for a fully decarbonised, reliable and low-cost power system by 2050, including 40 gigawatts (GW) of wind generation capacity by 2030, which is enough to power every home in the UK.

6.1.15 At Page 76, the Energy White Paper explains the importance of electricity network infrastructure in enabling the successful delivery of this objective. It states:

> *"The transformation of our energy system will require growing investment in physical infrastructure, to extend or reinforce the networks of pipes and wires which connect energy assets to the system and maintain essential resilience and reliability."*

Ten Point Plan for a Green Industrial Revolution (November 2020)

6.1.16 The Government set out a 10-point plan to lay the foundations to meet its legal obligation to reach net zero greenhouse emissions by 2050 and encourage a Green Industrial Revolution. The Ten Point Plan recognises that in order to integrate clean technologies like offshore wind, we must transform our energy system, building more network infrastructure.

Net Zero Strategy: Build Back Greener, 2021

6.1.17 The Net Zero Strategy Policy Paper sits alongside the Energy White Paper, 2020 and sets out the governments vision of using the necessary action to tackle climate change as an economic opportunity to crate prosperity. Part 3i (Power) sets out key commitments to deliver a decarbonised power system by 2035. These include:

- Subject to supply, all electricity will come from low carbon sources by 2035;
- Delivery of 40GW of offshore wind by 2030;
- Investing in supply chains, infrastructure and early-coordination of offshore transmission networks for the offshore wind sector;
- Ensuring the planning system can support the deployment of low carbon energy infrastructure.

British Energy Security Strategy, 2022

6.1.18 The British Energy Security Strategy sets out the Government's aims to reduce reliance on coal and gas and to generate and store more renewable and nuclear energy in the UK.

6.1.19 The Government recognise the importance of the transmission network within this strategy, and that accelerating our domestic supply of clean and affordable electricity also requires accelerating the connecting network infrastructure to support it. One of the Government's objectives is to dramatically reduce timelines for delivering strategic onshore transmission network infrastructure by around three years.

Planning Policy

6.1.20 The planning system seeks to aid the delivery of the Government's strategy and objectives through national policy such as the National Planning Policy Framework (NPPF), the adopted and draft National Policy Statements for Energy (NPS), and through Local Plans. Section 5 of this statement describes the national and local planning policy context that supports the delivery of the SEGL2 Project, the English Onshore Scheme, the Proposed Development in SDC and the Proposed Development in ERYC.

6.2 Climate Change and the Energy Sector's Response

Climate Change

6.2.1 Climate Change presents arguably the biggest environmental, economic and social challenge of the 21st century. The UK Climate Change Risk Assessment 2017 Evidence Report[5] identifies the six priorities risks and opportunities associated with Climate Change:

1. Flooding and coastal change risks to communities, businesses and Infrastructure
2. Risks to health, well-being and productivity from high temperatures
3. Risks of shortages in the public water supply, and for agriculture, energy generation and industry, with impacts on freshwater ecology
4. Risks to natural capital, including terrestrial, coastal, marine and freshwater ecosystems, soils and biodiversity
5. Risks to domestic and international food production and trade
6. New and emerging pests and diseases, and invasive non-native species, affecting people, plants and animals

6.2.2 The social and economic impact of these environmental impacts will have an impact at all levels, and it is not unreasonable to say that Climate Change could have severe impacts on the world's poorest and most vulnerable populations.

6.2.3 Climate Change and global warming can be attributed to numerous socioeconomic and environmental factors, with the UK government[6] identifying that burning of fossil fuels for energy as a main cause. All sectors are seeking ways to reduce emissions and over the past decade and a half, the government has set the energy sector ambitious targets to reduce our reliance on fossil fuels and in turn becoming a cleaner and more sustainable nation in the fight against climate change.

6.2.4 Most recently this position is reflected in the Energy White Paper (EWS) which sets out how the UK will clean up its energy system and reach net zero emissions by 2050; and that by 2030 the Government has set a target of 40 GW of offshore wind to be delivered - enough to power every home in the UK[7]. This equates to four times what is currently being produced and to meet the 2050 zero emissions target, the CCC estimates that 75 GW will be required. The British Energy Security Strategy has recently increased this target to 50GW of offshore wind by 2030.

[5] https://www.theccc.org.uk/uk-climate-change-risk-assessment-2017/
[6] https://www.gov.uk/guidance/climate-change-explained#causes-of-climate-change
[7] Net Zero Strategy: Build Back Greener (2021)

Energy Sectors' Response

6.2.5 In 2009 the Department of Energy & Climate Change (now the Department for Business, Energy & Industrial Strategy (BEIS)) published a suite of National Policy Statements (NPS) with respect to the energy industry. EN-1 is the 'Overarching NPS for Energy' and was produced pursuant to Section 5(9) of the Planning Act 2008. It has effect, in combination with the relevant technology-specific NPS's, (in this case EN-5: Electricity Network Infrastructure) on the decisions by the Infrastructure Planning Commission (IPC) on applications for energy developments that fall within the scope of the NPS's.

6.2.6 Energy is vital to economic prosperity and social well-being and so it is important to ensure that the UK has secure and affordable energy. Paragraph 3.2.1 of the NPS EN-1 states that:

> *"Energy underpins almost every aspect of our way of life. It enables us to heat and light our homes; to produce and transport food; to travel to work, around the country and the world. Our businesses and jobs rely on the use of energy. Energy is essential for the critical services we rely on – from hospitals to traffic lights and cash machines."*

6.2.7 EN-1 is very clear when it states that without investment in energy infrastructure energy, the objectives of climate change policies will not be met.

6.2.8 The NPS's were informed by the work undertaken by the Electricity Networks Strategy Group[8] (ENSG) 2020 Vision report in 2009 (later updated in 2012).

6.2.9 The ENSG originally identified the Eastern Link project[9] however this was paused until it was given the go ahead again in through the 2015/16 Network Options Appraisal (NOA). The need for the Eastern Link project has continued to strengthen as the forecast generation has continued to build up since then, as evidenced by 'proceed' signals in every subsequent NOA publication including the most recent NOA 2020/21[10] publication.

6.2.10 Both onshore and offshore wind are increasingly economic sources of generation when compared to traditional fossil fuelled generation plants. A significant amount of electric generation by these sources is geographically located in the north, however much of the demand is further south. As a result, the transfer requirements, particularly at winter peak, across the northern NGET[11] boundaries in the transmission network are seen to increase year on year.

6.2.11 Wind generated electricity is expected to increase and north-south power flows are forecast to increase due to this increased generation capacity connecting to the electricity network at all levels, transmission, and distribution. There is particular growth forecast in offshore wind and interconnection capacity in Scotland and the North of England and this will put pressure on the existing network in and during periods of high wind generation and interconnection imports, which may result in constraint action being taken to restrict power flows to ensure equipment capabilities are not exceeded. The cost of these constraint actions is ultimately passed on to consumers and, without sufficient network reinforcement, will result in sub-optimal operation of the network in the long-term.

6.2.12 In the market-based GB system, electricity network companies are regulated monopolies which must respond to demand from generators and consumers of electricity by developing and maintaining economical and efficient networks whilst having regard to various non-financial considerations[12].

6.2.13 To meet the increasingly greater system, need (and to avoid costly constraint action), NGET has proposed a range of transmission network reinforcements in northern England and are progressing as recommended in the Network Options Assessment (NOA) publication. The Eastern Link as it was known comprised the Scotland England Green Link 1[13] (SEGL1) and

[8] https://www.gov.uk/government/groups/electricity-networks-strategy-group
[9] https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/48274/4263-ensgFull.pdf
[10] https://www.nationalgrideso.com/document/233081/download
[11] National Grid Electricity Transmission (NGET) is the electricity transmission licensee that owns and maintains the onshore electricity transmission assets in England and Wales
[12] On the market-based system in general and the regulatory position of the transmission and distribution monopolies, see Chapter 2 of Electricity Market reform: Consultation Document at http://www.decc.gov.uk/assets/decc/Consultations/emr/1041-electricity-market-reformcondoc.pdf
[13] High Voltage Direct Current (HVDC) electrical 'superhighways' from the Torness area in East Lothian, to Hawthorn Pit, between Murton and South Hetton, in County Durham

Scotland England Green Link 2[14] (SEGL2). The English Onshore Scheme element of SEGL2 is the subject of this planning application. Combined, SEGL1 and SEGL2 have the capacity to deliver 4 GW of electricity to England with the potential to power approximately 2.9 million (10%) UK homes.

[14] High Voltage Direct Current (HVDC) electrical 'superhighways' from Peterhead in Aberdeenshire to Drax in North Yorkshire

7. Planning Policy Summary

7.1 Introduction

7.1.1 The Planning Applications fall to be determined by ERYC and SDC in accordance with Section 38(6) of the Planning and Compulsory Purchase Act 2004. This requires ERYC and SDC to determine the planning applications in accordance with the Development Plan unless other material considerations, including national planning policy, indicate otherwise.

7.1.2 This section sets out a summary of the planning policy context relevant to the Proposed Development within ERYC and the Proposed Development in SDC. This includes the Development Plan for ERYC and the Development Plan for SDC, plus relevant policies of the emerging Development Plans and other national and local polices that are material considerations in determination of the planning applications (notably the adopted and draft energy national policy statements, the NPPF and national energy policy).

7.2 East Riding of Yorkshire Council Development Plan

7.2.1 The Development plan for the Site that lies within East Riding of Yorkshire Council comprises the following documents:

- East Riding Local Plan Strategy Document 2012-2029 (2016)
- East Riding Local Plan Allocations Document 2012-2029 (2016)
- Policies Map 2016

East Riding Local Plan 2012-2029 (2016)

7.2.2 The East Riding Local Plan was adopted in 2016 (the ERLP) and sets out the long-term strategy that will help to guide new development across the East Riding over the period to 2029. The relevant Policies within the ERLP are discussed as follows:

7.2.3 **Policy S2 (Addressing climate change)** states that development decisions *"…will support a reduction in greenhouse gas emissions and adaption to the expected impacts of climate change…"*.

7.2.4 **Policy S4 (Supporting development in Villages and the Countryside)** states that proposals for development in the countryside will be supported where it does not involve a significant loss of best and most versatile agricultural land. In addition, SP4(C) sets out a number of forms of development that will be supported on the provision *"they respect the intrinsic character of their surroundings, including:*

8 New and enhanced infrastructure;

9 Energy development and associated infrastructure".

7.2.5 **Policy EC5 (Supporting the energy sector)** identifies that support will be given to energy sector development (excluding wind energy) providing adverse impacts are satisfactorily addressed and they can wider benefits outweigh the harm. For such proposals to be successful they will need to meet a range of tests that focuses on cumulative impact (of energy sector development), impact on landscapes and 'Important Landscape Areas'; and other wider matters relating to amenity, environment, pollution, heritage, communications, and transport.

7.2.6 **Policy EC6 (Protecting mineral resources)** is closely aligned to the 'Minerals Safeguarding Areas' identified on the Policies Map; seeking to ensure that non-mineral development does not have an adverse effect. Policy EC6 states that Non-mineral development *"will only be supported where it can be demonstrated that the:*

1. Underlying or adjacent mineral is of limited economic value;

2. Need for the development outweighs the need to safeguard the mineral deposit;

3. Non-mineral development can take place without preventing the mineral resource from being extracted in the future;

4. *Non-mineral development is temporary in nature; or*
5. *Underlying or adjacent mineral deposit can be extracted prior to the non-mineral development proceeding, or prior extraction of the deposit is not possible".*

7.2.7 **Policy ENV1 (Integrating high quality design**) sets out two general (paragraph A), overarching principles relating to design, expecting that *"all development proposals will*

1. *Contribute to safeguarding and respecting the diverse character and appearance of the area through their design, layout, construction and use; and*
2. *Seek to reduce carbon emissions and make prudent and efficient use of natural resources, particularly land, energy and water."*

7.2.8 **Policy ENV2 (Promoting a high-quality landscape)** is in place to protect the existing landscape of East Riding of Yorkshire and look for opportunities to enhance characteristics and features. To ensure the policy delivers this ambition a range of tests have been created which development proposals will need to consider, including settlement pattern and physical separation; greenspaces; hedgerows and trees; woodland management; views across valued landscape features and undeveloped coast.

7.2.9 **Policy ENV3 (Valuing our heritage)** sets out the approach the Council will take when considering the impact of new development on all heritage assets within East Riding of Yorkshire and includes, but not limited to, Listed Buildings, Conservation Areas, Archaeological Sites, Historic Landscapes, and Historic Parks and Gardens. Policy ENV3 is very clear when in stating that *"development that is likely to cause harm to the significance of a heritage asset will only be granted permission where the public benefits of the proposal outweigh the potential harm"*; but that *"proposals which would preserve or better reveal the significance of the asset should be treated favourably"*.

7.2.10 **Policy ENV4 (Conserving and enhancing biodiversity and geodiversity)** requires development to recognise important national and local sites within East Riding of Yorkshire, and where it can't, development will be refused in the absence of adequate mitigation. Development will need to consider the East Riding of Yorkshire Biodiversity Action Plan, Nature Improvement Areas and other landscape scale biodiversity initiatives. Seeking biodiversity net gain will be encouraged, and development should look at a range of measures to safeguard, conserve, enhance, protect, and create priority habitats, species, and networks.

7.2.11 **Policy ENV5 (Strengthening green infrastructure)** requires development to consider green infrastructure measures within the design of the scheme, and where possible create links in accordance with Table 10 of the Local Plan. More generally, *"proposals within, or in close proximity to, a green infrastructure corridor should enhance the functionality and connectivity of the corridor".*

7.2.12 **Policy ENV6 (Managing environmental hazards)** seeks to ensure that developments adequately consider flood risk, coastal change and ground water contamination so that development does not result in unacceptable consequences to its users, the wider community, and the environment.

7.2.13 When considering Flood Risk, ENV6 sets out a range of tests that will need to be met, highlighting in the first instance the need to adequately justifying development in the highest risk areas and satisfy the Exception Test.

7.2.14 The policy sets out the relevant considerations for development that is likely to be affected by coastal change, stating that it *"will be proactively managed by designating a Coastal Change Management Area (CCMA) on the Policies Map"*. In conjunction with Table 11 of the Local Plan, a range of criteria for consideration.

7.2.15 Finally, the policy states that, amongst a number of measures*, "the risk of groundwater pollution will be managed by…avoiding development that will increase the risk of pollution in Source Protection Zones (SPZ) and where this is not possible, ensuring that appropriate mitigation measures are employed*".

The East Riding Local Plan: Allocations Document 2016

7.2.16 The East Riding Local Plan Allocations Document was adopted in 2016 and forms part of the Development Plan for East Riding of Yorkshire. It provides the basis for decisions on spatial planning within the County and contains policies that guide the development of specific sites and should be read alongside the Strategy Document (2016) and Policies Map. The document allocates sufficient sites (alongside existing commitments) to meet the development needs of the County up until 2029.

7.2.17 During the early stages of the routeing process the project team to paid close attention to ensure sites set out in the Allocations Document were avoided to prevent unnecessary conflict. However, given the nature of the Proposed Development in ERYC and the varied environmental characteristics of East Riding of Yorkshire important landscape area, mineral safeguarding area, and flood zones do come into consideration.

East Riding of Yorkshire and Kingston upon Hull: Joint Minerals Local Plan 2016 – 2033

7.2.18 The Joint Minerals Local Plan (the JMLP) was adopted on 21 November 2019 and replaces the previous plan that was adopted in January 2004. The JLMP provides minerals planning policies for Hull and the East Riding of Yorkshire and is the starting point for determining mineral and other relevant planning applications. This document shall be read in conjunction with Policy EC6 (Protecting mineral resources) of the East Riding Local Plan.

Joint Waste Local Plan: For Kingston Upon Hull and the East Riding of Yorkshire (2004)

7.2.19 The Joint Waste Local Plan was adopted in 2004 with its production being led by Hull City Council. Further consultations took place in 2008 and 2012. This document provides the planning framework needed to make decisions on waste related planning applications.

Bridlington Town Centre Area Action Plan

7.2.20 The Bridlington Town Centre Area Action Plan (AAP) was adopted in 2013 and provides specific policies to guide development and contribute to the urban renaissance of Bridlington Town Centre. The Proposed Development makes landfall south of Bridlington however it does not fall within the AAP boundary. As such the AAP is not relevant when considering and determining the Proposed Development.

Neighbourhood Planning

7.2.21 Since 2013 the Council has approved 13 neighbourhood areas, two of which are now Made Neighbourhood Plans (NP) as set out below.

- Allerthorpe - designated February 2014
- Cottingham - designated June 2013

However, the Proposed Development in ERYC does not pass through either of the Neighbourhood Plan boundaries.

7.3 The Emerging Development Plan: Draft East Riding Local Plan Update 2020 – 2039

7.3.1 In line with the NPPF the East Riding Local Plan is in the process of being reviewed. A consultation ran between Friday 28 May to Friday 6 August 2021 and presented the first full draft of the emerging East Riding Local Plan Update 2020 – 2039, which comprises:

- Draft Local Plan Strategy Document Update May 2021
- Draft Local Plan Allocations Document Update May 2021
- Draft Local Plan Policies Map Update May 2021

7.3.2 This consultation was the second stage in updating the Local Plan, following an Options Document consultation and call for sites in 2018. The LPA acknowledges that it is a draft update of the Local Plan and therefore a number of policies and site allocations remain unchanged.

7.3.3 The East Riding Local Plan (2012 – 2029) Local Development Scheme (LDS) sets out the timetable for the Local Plan Review. This initially expected the Local Plan Review to be submitted Late 2021 in advance of it being examined and subsequently adopted in 2022. A review of the LDS is currently being produced and will be published in due course setting out an updated timeframe.

7.3.4 Given the early stages of development of the emerging East Riding Local Plan and Allocations Document, the draft policies will have limited weight – at this stage - as a material consideration in determining the planning application in accordance with paragraph 48 of the NPPF. They will however be considered by the SEGL2 Project through continued development and implementation of the Proposed Development in ERYC, through any further consenting regimes such as, but not limited to, Condition Discharge Applications.

7.4 Selby District Council Development Plan

7.4.1 The Development Plan for Selby District Council comprises the following documents:

- Selby District Core Strategy Local Plan (2013)
- Saved Policies from the Selby District Local Plan (2005)
- Saved Policies from the North Yorkshire Minerals Local Plan (1997)
- Saved Polices from the North Yorkshire Waste Local Plan (2006)
- Saved Policy E8 of the North Yorkshire Structure Plan
- The Appleton Roebuck and Acaster Selby Neighbourhood Development Plan (ARASNP)
- East Inshore and Offshore Marine Plan

Selby District Core Strategy Local Plan (2013)

7.4.2 The Selby District Core Strategy Local Plan was adopted in 2013 (the SDCS). The main relevant SDCS policies have been identified and are outlined below.

7.4.3 **Policy SP2 (Spatial Development Strategy)** sets out the Councils spatial strategy for delivering development, providing the hierarchy of settlements and the criteria that will need to be met for development outside of settlement boundaries on unallocated sites to be looked upon favourably; noting that 'special circumstances' will be considered.

7.4.4 **Policy SP15 (Sustainable Development and Climate Change)** sets out the strategy for achieving sustainable development to respond to climate change through design, focusing on energy efficiency and low carbon design measures, flood resilience, habitat creation and enhancement including tree planting, and incorporating decentralised, renewable and low-carbon forms of energy generation.

7.4.5 Focusing specifically on flood risk, this policy seeks to the *"ensure that development in areas of flood risk is avoided wherever possible through the application of the sequential test and exception test; and ensure that where development must be located within areas of flood risk that it can be made safe without increasing flood risk elsewhere"*.

7.4.6 **Policy SP17 (Low-Carbon and Renewable Energy)** wants to create a situation where energy is decarbonised both now and in the future. Paragraph A for example states that *"in future Local Plan documents, the Council will… seek to identify opportunities where development can draw its energy from renewable, low carbon or decentralised energy supply systems"* and there consideration should be given to *"identifying 'suitable areas' for renewable and low carbon energy sources and supporting infrastructure*." The policy sets out criteria by which energy development will be tested against, as well as identifying potentially acceptable technologies including improvements at existing fossil fuel energy plants. The policy states that:

"All development proposals for new sources of renewable energy and low-carbon energy generation and supporting infrastructure must meet the following criteria:

i. are designed and located to protect the environment and local amenity or

ii. can demonstrate that the wider environmental, economic and social benefits outweigh any harm caused to the environment and local amenity, and

iii. impacts on local communities are minimised"

7.4.7 **Policy SP18 (Protecting and Enhancing the Environment)** sets out the requirements of new development to ensure that SDCs high quality and locally distant natural and man-made environment is sustained. The policy seeks to safeguard and enhance the historic and natural environment, including landscape character; conserve the features and assets that contribute to the distinct character of SDC and safeguard the environment from pollution. Development will need to respond to biodiversity action plans to achieve net gain, reduce its reliance on resources and should be located in areas of least environmental and agricultural quality.

7.4.8 **Policy SP19 (Design Quality)** seeks to deliver high quality development that integrates with its surroundings from visual perspective and has regard to the character and function of its location. Development should ensure it takes account of environmental factors to reduce its impact, protect amenity and be designed to have resilience to climate change.

Saved Policies: Selby Local Plan 2005

7.4.9 As already noted the SDCS relies on several saved policies from the former SDLP. The relevant saved policies are discussed further as follows.

7.4.10 **Policy ENV1 (Control of Development)** sets out a range of tests that development proposals will need to meet in order to gain approval, and includes matters such as design, character and context, neighbouring amenity, environmental factors, heritage and access. The development will be appraised accordingly against the requirements set out in ENV1 as well as other such policy requirements.

7.4.11 **Policy ENV2 (Environmental Pollution and Contaminated Land)** seeks to ensure development does not result in unacceptable health and/or environmental impacts resulting from noise, nuisance, contamination or other forms of pollutions. Proposals will need to set out how they manage/mitigate potential environmental impacts before development commences.

7.4.12 **Polices ENV9 (Sites of Importance for Nature Conservation); ENV11 (Ancient Woodland)** and **ENV12 (River and Stream Corridors)** follow the same theme, holding the natural and physical environment in high regard, clearly setting out that development that has an adverse impact on such resources will not be permitted unless the importance of the development outweighs these interests. In all cases appropriate compensatory measures will need to be put forward to balance any impacts, perceived or otherwise.

7.4.13 **Policy ENV15 (Conservation and Enhancement of Locally Important Landscape Areas)** seeks to ensure that landscape character areas in the District are not impacted and the Council will resist schemes that are perceived as harmful in terms of character and scenic quality.

7.4.14 **Policy EMP10** sets out that additional industrial/business development at or close to Drax Power Station may be permitted provided that it is directly related to the process of generating electricity (either by making use of by-products from the power station or utilising a direct source of electricity) and that traffic, environmental, visual, archaeological and amenity impacts would be acceptable.

The Appleton Roebuck and Acaster Selby Neighborhood Development Plan

7.4.15 Following a positive outcome of the referendum held on 23 November 2013, the Appleton Roebuck and Acaster Selby Neighbourhood Development Plan (ARASNDP) was formally Made. As such, it forms part of the statutory Development Plan for the parish of Appleton Roebuck and Acaster Selby.

7.4.16 However, the ARASNDP is some distance from the Site and as such is not relevant in the consideration or determination of this Planning Application.

Policy E8: North Yorkshire Structure Plan 1995

7.4.17 The North Yorkshire Country Structure provided the policy basis for guiding and controlling development in the England's Largest County. Policy E8 is a saved policy and identifies the North Yorkshire Green Belts.

7.4.18 However, and having studied the Polices Map, saved Policy E8 is not relevant in the consideration or determination of this Planning Application as the Site is not within the Green Belt.

The Minerals and Waste Joint Plan 2015-2030

7.4.19 North Yorkshire County Council, the City of York Council and North York Moors National Park Authority adopted the Minerals and Waste Joint Plan 2015 – 2030 (MWJP) in February 2022. This replaces the saved polices within the Minerals Local Plan (December 1997) and Waste Local Plan (October 2006) and now forms part of the SDC Development Plan.

7.4.20 The MWJP is supported by the following Appendices and Documents:

- Appendix 1 - Allocated Sites and Areas of Search
  - None identified
- Appendix 2 - Safeguarded sites
  - Barlow Ash Disposal, Drax: Landfill (restricted/specialist) (pg.176)
  - Drax Power Station: Infrastructure - Rail (pg.228)
  - River Ouse, nr Drax: Infrastructure - Wharf (pg.238)
  - Drax Power Station: Block Making (pg.270)
- Appendix 3 – Monitoring
- Appendix 4 - Saved Policies to published policies
- Sustainability Appraisal Post Adoption statement
- Policies Map

7.4.21 The following policies address the safeguarding of minerals and waste sites and the identification of associated buffer zones:

- Policy S04 – Waste management facility safeguarding and associated buffer zone;
- Policy S06 - Minerals ancillary infrastructure safeguarding and associated buffer zone

7.5 Emerging Selby District Council Local Plan (2021)

7.5.1 SDC is producing a new Local Plan with the aim of providing a long-term strategy for the whole District. The Local Plan will replace the Core Strategy which was adopted in 2013 and the 'saved' policies from the 2005 Local Plan.

7.5.2 Throughout 2021, SDC undertook consultation on its Evidence Base Documents (3 September until 15 October 2021), Additional Sites Document (2 August to 13 September 2021), Preferred Options Selby District Local Plan (2021) (29th January 2021 until 12th March 2021). Consultation responses are now being reviewed by the LPA. This suite of documents sets out and supports the preferred approach to development within the District up to 2040.

7.5.3 SDCs Local Development Scheme (LDS) for the period 2022 to 2024 came into effect on 24 February 2022 and sets out the timetable for the new Local Plan:

- 2022 - Preparation of Publication Version of Local Plan (Regulation 19);

- 2023 - Formal Submission to Secretary of State (Regulation 22);
- 2024 - Adoption of new Local Plan (Regulation 26).

7.5.4 Given the early stages of development of the emerging Selby Local Plan, the draft policies will – at this stage - have limited (if any) weight as a material consideration in determining the planning application in accordance with paragraph 48 of the NPPF. They will however be considered by the SEGL2 Project through continued development and implementation of the Proposed Development in SDC, through any further consenting regimes such as, but not limited to, Reserved Matters and Condition Discharge Applications.

7.6 Other Selby District Council Policy

Selby Landscape Character Assessment 2019

7.6.1 The 2019 Landscape Character Assessment (LCA) supersedes the 1999 LCA. The process involves mapping, classifying and describing the patterns and variations which contribute to the character of a landscape. The Proposed Development within SDC is located within Character Areas 5 and 15:

- Character Area 5: Ouse Valley
- Character Area 15: Camblesforth Farmland

7.6.2 Neighbouring LCAs are identified as follows and considered relevant in terms of setting due to their proximity:

- Character Area 6: Derwent Valley
- Character Area 7: Aire Valley
- Character Area 10: East Selby Farmland

7.7 National Planning Policy

The National Planning Policy Framework 2021

7.7.1 The NPPF was revised on 20th July 2021 and sets out the national policies for England that guide plan-making and decision taking at local level. At its heart is a *"presumption in favour of sustainable development"* (Paragraph 10) that is necessary to allow sustainable development to be pursued in a positive way. Paragraph 11 explains 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."*

7.7.2 'Meeting the challenge of climate change, flooding and coastal change' is the theme of Section 14. This sets out that *"the planning system should support the transition to a low carbon future in a changing climate"*, and *"support renewable and low carbon energy and associated infrastructure"* (Paragraph 152).

7.7.3 Paragraph 12 sets out that planning authorities also may take decisions that depart from an up-to-date Development Plan if material considerations indicate that the plan should not be followed. Paragraph 38 expands on this, stating that that *"planning authorities should approach decisions on proposed development in a positive and creative way"* and *"should seek to approve applications for sustainable development where possible"*.

7.7.4 Paragraph 20(b) explains that strategic policies of Development Plans should set out an overall strategy that makes sufficient provision for infrastructure, including energy infrastructure.

7.7.5 Sections 5 to 17 of the NPPF set out how planning policies and decisions should contribute to achieving particular thematic objectives.

7.7.6 Paragraph 130 sets out that planning decisions should ensure that, amongst other things, developments are sympathetic to local character, landscape and history, whilst not preventing or discouraging appropriate innovation or change.

7.7.7 Regarding flood risk, Paragraph 159 sets out that inappropriate development in areas at risk of flooding should be avoided. It also states that any development in development in flood risk areas should not increase flood risk elsewhere and should be safe for its lifetime.

7.7.8 In determining planning applications for development in areas at risk of flooding, Paragraph 167 sets out that the sequential and exception tests should be applied, and that:

- within the site, the most vulnerable development to flooding is located in the areas of lowest flood risk;
- the development is appropriately flood resistant and resilient;
- sustainable drainage systems are incorporated;
- any residual risk can be safely managed; and
- safe access and escape routes are available and included in an emergency plan.

7.7.9 The Sequential Test is described, and provides that *"development should not be allocated or permitted if there are reasonably available sites appropriate for the proposed development in areas with a lower risk of flooding"* (Paragraph 162).

7.7.10 Paragraph 164 explains the exception test, stating that:

"For the exception test to be passed it should be demonstrated that:

a) the development would provide wider sustainability benefits to the community that outweigh the flood risk; and

b) the development will be safe for its lifetime taking account of the vulnerability of its users, without increasing flood risk elsewhere, and, where possible, will reduce flood risk overall."

7.7.11 Section 15 considers the theme of 'conserving and enhancing the natural environment. This sets out at Paragraph 174 that planning decisions should:

- protect and enhance valued landscapes, sites of biodiversity value and soils in a manner commensurate with their statutory status;
- recognise the value of the countryside, including best and most versatile agricultural land, trees and woodland;
- maintain the character of undeveloped coast;
- minimise impacts on biodiversity and provide net gains, including by establishing ecological networks;
- prevent new development from contributing to unacceptable levels of soil, air, water or noise pollution; and
- remediate and mitigate despoiled, degraded, contaminated and unstable land, where appropriate.

7.7.12 Paragraph 175 explains that planning should distinguish between the hierarchy of international, national and locally designated sites, and Paragraphs 179 to 182 address 'habitats and biodiversity'. Paragraph 179 sets out that planning authorities should apply the below principles when determining planning applications.

- Planning permission should be refused if significant harm to biodiversity cannot be avoided, adequately mitigated, or (as a last resort) compensated for;
- Development that would have an adverse effect on a Site of Special Scientific Interest (SSSI) should only normally be permitted if the benefits of the development in the location outweigh its impact on the features of the site that make it of special scientific interest; and
- Only approve development that would result in the loss or deterioration of irreplaceable habitats such as ancient woodland or veteran trees is there are wholly exceptional reasons and a suitable compensation strategy.

7.7.13 Paragraph 181 sets out that projects that would be likely to have a significant effect on habitats sites (SPAs, SACs, and Ramsar sites) should be subject to appropriate assessment. Paragraph 182 explains that the presumption in favour of sustainable development would not apply unless that assessment has concluded that the project would not adversely affect the integrity of the habitats site.

7.7.14 Section 16 of the NPPF addresses the theme of 'conserving and enhancing the historic environment'. It sets out that heritage assets should be conserved in a manner appropriate to their significance. Paragraph 202 states that where a development would lead to less than substantial harm to the significance of a designated heritage asset, the harm should be weighed against the public benefits of the development.

7.7.15 Section 17 of the NPPF addresses the theme of 'facilitating the sustainable use of minerals' and identifies that *"it is essential that there is a sufficient supply of minerals to provide the infrastructure, buildings, energy and goods that the country needs"* (Paragraph 209) and therefore *"Local planning authorities should not normally permit other development proposals in Mineral Safeguarding Areas if it might constrain potential future use for mineral working"* (Paragraph 212).

7.7.16 The NPPF includes three Annexes; with Annex 1 and 3 being considered relevant to the Proposed Development:

7.7.17 Annex 1 (Implementation) sets out how the polices within the NPPF are to be applied in both decision and plan making. In both cases, policies within the NPPF material considerations which should be taken into account in dealing with applications from the day of its publication. Annex 1 also describes that due weight should be given to them Local Plan policies, according to their degree of consistency with this NPPF.

7.7.18 Annex 3 (Flood Risk Vulnerability Classification) sets out 5 different 'risk' classifications. As noted, the entirety of the Site is within Flood Zone 3a that benefits from flood defences Site however the nature of the Proposed Development is considered to fall under the following classification:

"Essential Infrastructure - Essential utility infrastructure which has to be located in a flood risk area for operational reasons, including infrastructure for electricity supply including generation, storage and distribution systems; and water treatment works that need to remain operational in times of flood."

Energy National Policy Statements (NPS)

Overarching National Policy Statement for Energy (EN-1)

7.7.19 The 'Overarching National Policy Statement for Energy (EN-1)' (NPS EN-1) sets out national policy for energy infrastructure developments that meet the Planning Act 2008 definition of 'Nationally Significant Infrastructure Projects' (NSIPs). Applications for NSIP developments are determined by the Secretary of State in accordance with the Planning Act 2008. Although Proposed Development as part of the SEGL2 Project will have the ability to transfer a significant amount of electricity between England and Scotland, the Proposed

Development does not meet the definition of an NSIP, as the NSIP regime does not cover underground HVDC cabling or Converter Stations. The Proposed Development therefore remains subject to the need for Planning Permission under the Town and Country Planning Act 1990, with the Application determined by the Local Planning Authority. However, Paragraph 5 of the NPPF states that *"National policy statements form part of the overall framework of national planning policy and may be a material consideration in preparing plans and making decisions on planning applications."*

7.7.20 Section 1.2.1 of NPS EN-1 makes it clear that this NPS is likely to be a material consideration in decision making on applications that fall under the Town and Country Planning Act 1990 (as amended). This is an important material consideration where the development comprises 2GW of transmission capacity.

7.7.21 In NPS EN-1, the Government sets out that energy is essential to our wellbeing, stating that *"it is difficult to overestimate the extent to which our quality of life is dependent on adequate energy supplies"* (Paragraph 3.2.1). It also explains that the way in which we use energy is being transformed as we seek to become less dependent on fossil fuels, including by embracing new and innovative low carbon technologies. Whilst becoming less reliant on some forms of energy, it says we will *also "become more dependent on others – for example, demand for electricity will increase if we electrify large parts of transport, heating and industry"*.

7.7.22 In Paragraph 3.2.3 the Government sets out that *"without significant amounts of new large-scale energy infrastructure, the objectives of its energy and climate change policy cannot be fulfilled"*. It therefore considers that *"the need for such infrastructure will often be urgent"* and acknowledges that *"it will not be possible to develop the necessary amounts of such infrastructure without some significant residual adverse impacts"*.

7.7.23 Section 3.7 focuses on the need for new electricity network infrastructure, building in better distribution to where energy is needed adding network resilience to meet growth and demand. Paragraph 3.7.3 sets out this position, advising that *"new electricity network infrastructure projects, which will add to the reliability of the national energy supply, provide crucial national benefits, which are shared by all users of the system"*.

7.7.24 Paragraph 3.7.4 of NPS EN-1 sets out that the ENSG, an industry group jointly chaired by Government and Ofgem, was tasked with:

> *"developing electricity generation and demand scenarios consistent with the EU target for 15% of the UK's energy to be produced from renewable sources by 2020; and*
>
> *identifying and evaluating a range of possible electricity transmission networks solutions that would be required to accommodate these scenarios."*

7.7.25 The ENSG's report looked at a range of scenarios to overcome the issues identified. Paragraph 3.7.5 of NPS EN-1 highlights that *"in particular, the scenarios examined the potential new transmission infrastructure needed to connect the large volumes of onshore and offshore wind generation required to meet the 2020 renewables target"*.

7.7.26 The report identifies a number of scenarios to change the direction of net electricity flows, including from Scotland but that in order to do so significant investment would be need in transmission infrastructure as the *"kinds of flows of power cannot be accommodated by the existing network"* (paragraph 3.7.7 of NPS EN-1).

7.7.27 Paragraph 3.7.8 states that *"the Government believes that the ENSG work represents the best available overview of where the electricity networks will need to be reinforced and augmented in order to achieve the UK's renewable energy and security of supply targets and will therefore be relevant to the IPC's consideration of electricity network proposals"*. Whilst other solutions may present themselves, such as new generating stations, these come with barriers. As such, and as noted in paragraph 3.7.10, *"…there is an urgent need for new electricity transmission and distribution infrastructure (and in particular for new lines of 132 kV and above) to be provided"*.

7.7.28 Section 4 of the NPS sets out a suite of assessment principles for which Energy NSIPs will be tested against, however the overarching position is a presumption in favour of granting consent. Section 5 sets out the generic impacts by which relevant development will need to consider and respond to accordingly.

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

7.7.29 The 'National Policy Statement for Electricity Networks Infrastructure (EN-5)' (NPS EN-5) provides the primary basis for decisions taken on Development Consent Order (DCO) applications for Energy NSIPs. Whilst the English Onshore Scheme does not comprise an NSIP, NPS EN-5 can be a material consideration in deciding the application for planning permission. Section 1.8 of NPS EN-5 sets out the types of electricity network infrastructure covered by the NPS EN-5, and includes transmission and distribution systems, and associated infrastructure including converter stations to convert DC power to AC power (and vice versa).

7.7.30 Section 1.2.1 of NPS EN-5 makes it clear that this NPS is likely to be a material consideration in decision making on applications that fall under the Town and Country Planning Act 1990 (as amended). This is an important material consideration where the development comprises 2GW of transmission capacity.

7.7.31 NPS EN-5 is considered helpful when considering energy infrastructure under the Town and Country Planning Act 1990, with Part 2 focusing on 'Assessment and Technology-Specific Information'. Section 2.2 discuss site selection, with paragraph 2.2.2 stating:

"The general location of electricity network projects is often determined by the location, or anticipated location, of a particular generating station and the existing network infrastructure taking electricity to centres of energy use. This gives a locationally specific beginning and end to a line. On other occasions the requirement for a line may not be directly associated with a specific power station but rather the result of the need for more strategic reinforcement of the network. In neither circumstance is it necessarily the case that the connection between the beginning and end points should be via the most direct route (indeed this may be practically impossible), as the applicant will need to take a number of factors, including engineering and environmental aspects, into account."

7.7.32 Whilst NPS EN-5 sets out its own policies, it makes regular reference to the generic policies in EN-1 so it should be read in conjunction.

Draft National Policy Statements for Energy

7.7.33 The Government is currently reviewing and updating the Energy NPSs. It is doing this to reflect its policies and strategic approach for the energy system that is set out in the Energy White Paper (December 2020), and to ensure that the planning policy framework enables the delivery of the infrastructure required for the country's transition to net zero carbon emissions. As part of the Energy NPS review process, the Government published a suite of Draft Energy NPSs for consultation on 6 September 2021. These include Draft Overarching National Policy Statement for Energy (draft NPS EN-1) and Draft National Policy Statement for Electricity Networks Infrastructure (draft NPS EN-5).

7.7.34 Section 1.6.3 of Draft NPS EN-1 makes it clear that any emerging draft NPSs are capable of being important and relevant considerations in the decision-making process. These are an important material consideration where the development comprises 2GW of transmission capacity.

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

7.7.35 Section 1.2.1 of Draft NPS EN-1 makes it clear that this NPS is likely to be a material consideration in decision making on applications that fall under the Town and Country Planning Act 1990 (as amended).

7.7.36 In its revised overarching policy statement, the government acknowledged that much of its plans to decarbonise the UK's economy involves electrification, such as in the areas of transport, heat and industry, and that this in itself would likely result in more than half of the UK's energy demand being met by electricity by 2050, up from just 17% in 2019.

7.7.37 The draft policy also sets out the need to ensure that there is security of energy supply in the UK and that the cost of energy is affordable for end-users. It states the government considers that in order to meet its objectives for the energy system, the need for new large-scale energy infrastructure is urgent.

7.7.38 The draft EN-1 also acknowledges that different types of electricity infrastructure will be needed and includes an explanation of the need for new generation, network, storage and interconnection infrastructure, alongside energy efficiency and demand-side response measures.

7.7.39 Paragraphs 3.3.46 to 3.3.58 set out the need for new and enhanced electricity network infrastructure in particular. At Paragraph 3.3.46, draft NPS EN-1 states that:

> *"electricity networks are needed to connect the output of other types of electricity infrastructure with consumers and with each other. Therefore, as new generation, storage and interconnection facilities are built, we will also need electricity networks that connect these sources of electricity with each other, and with centres of consumer demand."*

7.7.40 Paragraph 3.3.47 sets out that new electricity network infrastructure will be needed not only to connect to new sources of electricity generation, but to protect against the risk of large scale supply interruptions as the electricity system grows in scale, dispersion, variety, and complexity. In particular it identifies that new high voltage electricity lines are needed, concluding that:

> *"While existing transmission and distribution networks must adapt and evolve to cope with this reality, development of new transmission lines of 132kV and above will be necessary to preserve and guarantee the robust and reliable operation of the whole electricity system."*

7.7.41 Paragraph 3.3.48 goes on to state that reinforcements are required over the next decade specifically to enable energy generated from wind in Scotland to be transferred to where it is needed:

> *"…National Grid ESO forecasts that over the next decade the onshore transmission network will require: a doubling of north-south power transfer capacity due to increased wind generation in Scotland; substantial reinforcement in the Midlands to accommodate increased power flows from Scotland and the North of England; substantial reinforcement in London and the South of England to allow for Europe-bound export of excess wind generation from Scotland and the North of England…"*

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

7.7.42 Section 1.2.1 of Draft NPS EN-5 makes it clear that this NPS is likely to be a material consideration in decision making on applications that fall under the Town and Country Planning Act 1990 (as amended).

7.7.43 Draft NPS EN-5 reflects the importance of building electricity network infrastructure that not only connects new generation with centres of demand, but also guarantees system robustness and security of supply even as the energy system grows increasingly complex. It has been revised from the 2011 NPS EN-5 to reflect the current policy and regulatory landscape.

National Energy Policy

7.7.44 The national legislative and policy identified in section 6 of this Planning Statement are important material considerations in the determination of the Planning Applications which carry substantial weight in favour of the Proposed Development.

8. Planning Appraisal

8.1 Introduction

8.1.1 Following the review of the Development Plans and other main planning policy material considerations, along with the need, benefits and impacts of the Proposed Development, the following main policy themes have been identified. These relate to either the overall SEGL2 Project, the Proposed Development in ERYC, or the Proposed Development in SDC, as identified by the sub-headings in the following sections.

- Theme 1: The urgent need for electricity network reinforcement
- Theme 2: Development in the Countryside / Outside a Settlement Boundary
- Theme 3: Landscape and Visual Impact
- Theme 4: Flood Risk
- Theme 5: Ecology and Nature Conservation
- Theme 6: Agricultural Land and Soils
- Theme 7: Archaeology and Cultural Heritage
- Theme 8: Control of Construction Impacts
- Theme 9: Waste and Minerals

8.1.2 This section presents an appraisal of the Proposed Development in accordance with the above policy themes.

Theme 1: The urgent need for electricity network reinforcement

The SEGL2 Project

8.1.3 The purpose of the SEGL2 Project are in direct accordance with national and local planning policy and other national policy and legislation which sets out a clear need for new electricity generation and transmission infrastructure in order to support delivery of objectives and commitments for the energy system and climate change. In particular the SEGL2 Project will directly address the specific need for new high voltage transmission lines to enable the transfer of renewable electricity that is generated in Scotland to demand centres in England, as set out by paragraphs 3.3.46, 3.3.47 and 3.3.48 of draft NPS EN-1. The NPSs and draft NPS are material considerations in the determination of Planning Applications. Therefore the contribution that the SEGL2 Project would make to meeting this need, which paragraph 3.7.10 of NPS EN-1 sets out to be urgent, is considered to be a material consideration that weighs heavily in favour of planning permission being granted for the Proposed Development.

8.1.4 Other national and local planning policy is aligned with the urgent need for new electricity transmission infrastructure that is set out by the NPS EN-1 and draft NPS EN-1. This includes paragraph 152 of the NPPF which states that the planning system should support the transition to a low carbon future, including by supporting the development of infrastructure that supports low carbon energy. By being an essential element of NETS that is needed to transport renewable energy from where it is generated to where it is needed, the SEGL2 Project is an important part of the infrastructure that paragraph 152 of the NPPF supports in principle.

8.1.5 At a local level, both the ERYC and SDC Development Plan express support for developments that will help to address the causes of climate change, as set out below.

The Proposed Development in ERYC

8.1.6 ERLP Policy S2 sets out that development decisions should seek to support a reduction in greenhouse gas emissions and ERLP Policy EC5 which states that support will be given to energy development providing adverse impacts are satisfactorily addressed and that the wider benefits outweigh the harm. As the remainder of Section 8 of this Planning Statement demonstrates, the Proposed Development in ERYC which comprises the below ground

HVDC cable, has been designed to appropriately address and minimise harmful impacts, which would be outweighed by the benefits of the Proposed Development in ERYC, and therefore accords with ELRP Policies EC5 and S2.

8.1.7 Proposed Development in ERYC is also an essential component of the SEGL2 Project, and would make an important contribution to enabling objectives and commitments for the energy system and climate change to be achieved. These objectives are supported by the ERYC Development Plan and weigh in favour of planning permission for the Proposed Development in ERYC being granted.

The Proposed Development in SDC

8.1.8 In SDC, Policy SP15 of the SDCS promotes a low carbon future to ensure the District is resilient to climate change. Policy SP17 of the SDCS is consistent with national objectives for the development of energy infrastructure that supports addressing the causes of climate change, with which the SEGL2 Project and the Proposed Development in SDC is aligned. The remainder of Section 8 of this Planning Statement demonstrates that the Proposed Development in SDC accords with the SDCS Policy 17 requirements that new energy development: is designed and located to protect amenity and the environment; would bring wider environmental, economic and social benefits that outweigh any environmental and amenity harm; and that impacts on local communities have been minimised.

8.1.9 Paragraph 6.31 of the SDCS sets out that the energy sector will continue to be important to Selby District, in particular at Drax Power Station. The Converter Station would be located in close proximity to Drax power station and Section 4.3 of this Planning Statement identifies why this location was chosen. SDLP Policy EMP10 supports industrial developments at or near Drax power station where the developments are linked to energy generation either by making use of by-products from the power station or utilising a direct source of electricity. Whilst the primary purpose of the Proposed Development is not to directly use power generated at the Drax, it does have the potential to transfer power generated at or near the Drax Power Station complex, and Policy EMP10 is considered to support the principle of developing energy infrastructure, such as the Proposed Development, at or near to Drax Power Station.

8.1.10 Proposed Development in SDC is also an essential component of the SEGL2 Project, and would make an important contribution to enabling objectives and commitments for the energy system and climate change to be achieved. These objectives are supported by the SDC Development Plan and weigh in favour of planning permission for the Proposed Development in SDC being granted. In addition, the location of the Converter Station in close proximity to Drax power station is considered to be in accordance with the principles of the Development Plan.

Conclusion

8.1.11 The Proposed Development is in accordance with the development plan in both ERYC and SDC and other material considerations weigh heavily in favour of the grant of planning permission for the Proposed Development.

Theme 2: Development in the Countryside / Outside a Settlement Boundary

The Proposed Development in ERYC

8.1.12 The Proposed Development in ERYC comprises a below ground HVDC cable. This is required to link the Converter Station to the landfall of the Marine Scheme. As such, locating the Proposed Development in the countryside cannot be avoided. As energy infrastructure, the Proposed Development in ERYC is a type of development that Policy S4 of the ERLP states will be supported in a countryside location provided that it respects the intrinsic character of its surroundings. The Proposed Development in ERYC will respect the intrinsic character of its surroundings, as required by Policy S4 of the ERLP, through the control of construction impacts in accordance with the CEMP, and by designing the HVDC cable to be below ground. The Proposed Development in ERYC is therefore in accordance with Policy S4 of the ERLP and the development plan.

The Proposed Development in SDC

8.1.13 Whilst outside of a settlement boundary, the Converter Station Site has been selected to be close to the point of connection to the NETS at Drax substation. This close proximity has technical benefits and will also mean that the Converter Station will effectively integrate into its surroundings, which are heavily influenced by the Drax Power Station complex. As explained at Section 4.3 of this Planning Statement, alternative sites would have been further away from Drax these would introduce industrial-type development into more characteristically rural areas and have potentially greater environmental impacts. The need for the Proposed Development in SDC as an essential part of the SEGL2 Project, along with the operational and environmental benefits of locating the Converter Station in close proximity to Drax Substation, as also illustrated by SDLP Policy EMP10, are considered to be 'special circumstances' that justify the siting of the Proposed Development outside of a settlement boundary, in accordance with SCDS Policy SP2. The Proposed Development in SDC is therefore in accordance with Policy SP2 of the SDLP and the development plan.

Theme 3: Landscape and Visual Impact

The Proposed Development in ERYC

8.1.14 The Proposed Development in ERYC comprises the HVDC cable. To minimise landscape and visual impacts of the HVDC cable the Applicant took the design decision that the HVDC cable would be below ground, rather than strung between pylons to create overhead lines. As set out at Section 5.5 of this Planning Statement, ES Chapter 8: Landscape and Visual Amenity concludes that Route Section 1, 2, and 3, which are located in ERYC, would result in only minor or negligible effects (which are not significant) on landscape character or visual amenity. As such, the Proposed Development in ERYC accords with the objectives of ERLP Policy ENV1 and NPPF paragraphs 130 and 174 for development to safeguard and respect valued landscapes and the diverse character and appearance of the area in which they are located.

8.1.15 Whilst some sections of hedgerow will require removal in order to construct the HVDC cable, Section 3.3.3.8 of ES Chapter 3, Project Description, sets out that these will be replanted with an objective to enhance the boundary features where possible. The replanting would consist of a variety of native species, typical of those found within the local area. In addition, landscape planting is also proposed as part of the Proposed Development. ES Figure 3-10 presents the proposed planting which has been developed as part of the ecological and landscape and visual impact assessment to seek opportunities to enhance biodiversity and mitigate any visual impacts and align with the surrounding landscape. Through these approaches, the Proposed Development in ERYC accords with the objective of ERLP Policy ENV2 to seek opportunities to enhance characteristics and features of the landscape. The Proposed Development in ERYC is therefore in accordance with Policy ENV1 and ENV2 of the ERLP and the development plan.

The Proposed Development in SDC

8.1.16 The Proposed Development in SDC comprises below ground cables and the Converter Station. The design decision to select below ground cables rather than overhead lines minimises the landscape and visual impact of those elements of the Proposed Development in SDC. Whilst the detailed design of the Converter Station is yet to be undertaken, and will be subject to a reserved matters planning application, the location of the Converter Station at the existing Drax Power Station will ensure that it sits within the context of other similar and larger scale energy infrastructure. The ES has assessed the landscape impact of the Proposed Development in SDC, taking account of the Selby 2019 LCA. Given the design decisions and the landscape context in which the Converter Station will sit, the ES concludes that the construction of and operation of the Converter Station (in SDC) would have only a negligible or minor impact on landscape character, which is not significant.

8.1.17 In terms of visual impact, the only significant effects identified by the ES are from viewpoints from nearby PRoW near Wren Hall north of Drax Village where the Converter Station would be visible in foreground and midground views. In these locations, the Converter Station would be seen in the context of the Drax Power Station complex, which will remain the focus within the composition of views. To help mitigate this impact, woodland planting is proposed on the eastern boundary of the Converter Station Site along Wren Hall Lane, as illustrated

by Figure 3-10 of the ES. This will enhance this existing green corridor and soften views of the Converter Station. Given the necessary scale of the Converter Station, it is considered that the complete avoidance of significant visual effects from nearby footpath receptors would not be feasible, and that the design, siting and landscape planting decisions of the Proposed Development in SDC are effective in minimising its impact.

8.1.18 In light of the above, the Proposed Development in SDC accords with SDCS Policies SP18, SP19, SDLP Policies ENV1 and ENV15 and NPPF paragraphs 130 and 174 which set out that developments should integrate with their surroundings and safeguard landscape character and functions. The Proposed Development in SDC is therefore in accordance with the relevant policies and the development plan.

Theme 4: Flood Risk

The Proposed Development in ERYC and the Proposed Development in SDC

8.1.19 The ES splits the EOS into 4 Route Sections (Figure 1-3). Route Sections 1, 2 and 3 cover the Proposed Development in ERYC which comprises the HVDC; whilst Route Section 4 covers the Proposed Development in SDC which comprises below ground cables and the Converter Station.

8.1.20 Parts of Route Section 1 of the EOS are located within areas of high surface water risk, parts of Route Section 2 and 3 within areas of medium surface water risk and parts of Section 4 within areas of low surface water risk.

8.1.21 Parts of Route Sections 1, 3 and 4 of EOS are within areas of Flood Zone 2 and 3, the overall flood risk from groundwater, residual sources, historic risk and sewers to the English Onshore Scheme is low.

8.1.22 Chapter 11 of the ES assess Hydrology and Land Drainage and is accompanied by Flood Risk Assessment (FRA). The FRA reviews the risk associated with the EOS in ERYC and in SDC. It assesses all sources of flood risk to the EOS and the impact of the Proposed Development on flood risk elsewhere.

8.1.23 In line with local and national policy and guidance a Sequential Test has been undertaken and is described in the FRA. The purpose of a sequential test is to seek to steer development to areas with the lowest risk of flooding. As described throughout the ES and this PS, the EOS is a large linear infrastructure project connecting specific start and end points. The selection of the start and end points is explained and justified in Chapter 2: Project Development and Alternatives, of the ES. It has been demonstrated in Chapter 11 of the ES and the supporting documents that a sequential approach has been applied to corridor mapping to avoid flood risk where possible and reduce temporary and permanent infrastructure within the Flood Zones where possible. No other suitable or viable alternative route options have been identified as being suitable or available that would result in lower flood risk than the option promoted (the EOS). The Proposed Development is therefore considered to pass the Sequential Test in accordance with paragraph 162 of the NPPF and is considered consistent with the requirements the EROY Flood Risk Sequential and Exception Test SPD. Where it is not possible for development to be steered to areas of lower flood risk, the Exception Test will need to be applied depending on the vulnerability of the development and the level of flood risk.

8.1.24 Given the nature of the EOS it is considered to align closely with the vulnerability classification of ‘Essential Infrastructure’ land use (based on Table 2 of the PPG Technical Guidance).

8.1.25 Essential Infrastructure includes:

> *“Essential utility infrastructure which has to be located in a flood risk area for operational reasons, including infrastructure for electricity supply including generation, storage and distribution systems…”*

8.1.26 In accordance with Paragraph 159 of the NPPF, Table 3: Flood Risk Vulnerability and Flood Zone Compatibility in PPG, states that the EOS, as a land use, is appropriate in Flood Zone 1 and 2, and subject to the Exception Test in Flood Zone 3a and 3b.

8.1.27 The Proposed Development in ERYC and the Proposed Development in SDC (which forms the EOS) are either in whole or in part Flood Zone 3 and for the Exception Test to be passed it must be demonstrated that;

- The development would provide sustainability benefits to the community that outweigh flood risk and;
- The development will be safe for its lifetime, taking account of the vulnerability of its users, without increasing flood risk elsewhere and where possible will reduce flood risk overall.

8.1.28 The need for the Proposed Developments is set out in Section 1.5 and in Theme 1 of this PS. It concludes that the EOS, as part of the SEGL2 Project, is important energy infrastructure that is urgently needed in order for the government's objectives and commitments for the energy system, including net zero, to be met. Paragraph 152 of the NPPF and both the EROY and SDC Development Plans express support for developments that will help to address the causes of climate change. The sustainability benefits of the Proposed Development, as per the first bullet point above, are therefore considered to be substantial and outweigh the flood risk associated with the Proposed Development (which is discussed below).

8.1.29 The FRA identifies that flood risk to the EOS from various sources is between low and medium risk. It sets out that Fluvial sources present the greatest risk to all Sections of the EOS, with groundwater and artificial sources (including residual risk and historic flooding) providing overall the least amount of risk.

8.1.30 Several temporary elements of the EOS, namely the construction compounds, HDD pits and bridge crossings are shown to be vulnerable to flooding during the construction phase. These will be managed during construction. As temporary works, these will not have an enduring risk of flooding following completion.

8.1.31 The Converter Station, within Route Section 4, is deemed at risk of fluvial flooding in both the construction and operational phase. To address this the Converter Station has been designed to be flood resilient with the area to be raised above the 0.1% annual exceedance probability (AEP) +39% allowance for climate change event modelled flood event level, including freeboard. This exceeds the Environment Agency requirement for the development to be higher than the modelled flood levels of the 1% AEP event. The Proposed Development is therefore considered to be safe from flooding for its lifetime.

8.1.32 Appendix 11-C: Hydraulic Modelling of the ES shows that the proposed converter station site land raising would have only a negligible impact on flood rick. As a result of this no floodplain compensation is considered to be necessary in order to avoid increasing the risk of flooding elsewhere, and none is proposed.

8.1.33 A drainage strategy will be developed for the cable works and Converter Station which will conform to principles of capturing additional runoff and ensuring that runoff rates and discharge to the surrounding environment are maintained at the current greenfield runoff rate, ensuring that the Proposed Development does not increase flood risk elsewhere as a result of increases to the run-off rate. The Proposed Development is therefore considered to meet the requirements of the Exception Test as set out by paragraph 164 of the NPPF.

8.1.34 With the incorporation of embedded design mitigation and operational specific mitigation for flood risk, as the Proposed Development would have only a minor to negligible impact on surface water, which is not significant. It would not represent inappropriate development in its flood zone, would pass the Sequential and Exception tests, would be safe from flooding for its lifetime and would not increase the risk of flooding elsewhere. As such, the EOS accords with ERLP Policy ENV6; SDCS Policy SP15, and paragraphs 159, 162, 164 and 167 of the NPPF. The Proposed Development in SDC is in accordance with the relevant policies in the SDLP and the development plan, and the Proposed Development is in accordance with the relevant policies in the ERLP and the development plan.

Theme 5: Ecology and Nature Conservation

The Proposed Development in ERYC and the Proposed Development in SDC

8.1.35 Chapter 7: Ecology and Nature Conservation undertakes an assessment of the impacts of the EOS on ecology and nature conservation for the EOS, taking account of statutory and non-statutory designations and habitats. The ES splits the EOS into 4 Route Sections (Figure 1-3). Route Sections 1, 2 and 3 cover the Proposed Development in ERYC which comprises the HVDC; whilst Route Section 4 covers the Proposed Development in SDC which comprises below ground cables and the Converter Station.

8.1.36 Through careful siting of the landfall site and implementation of non-open cut HDD methods to connect the cable to the Marine Scheme in Route Section 1 (ERYC) the EOS avoids direct impacts on internationally designated biodiversity sites.

8.1.37 The HVDC cable has been routed to avoid direct impacts on several SSSIs including Kiplingcotes Chalk Pit SSSI and Barn Hill Meadows SSSI in ERYC. Whilst it has not been possible to entirely avoid crossing the River Hull Headwaters SSSI, measures to minimise potential direct and indirect effects of the EOS will be adopted including the installation of the cable using non open cut methods at both the River Hull and Kelk Beck crossing locations as outlined in Chapter 7 which therefore concludes that there will be no significant effect upon SSSIs.

8.1.38 The EOS also avoids direct impacts upon several Local Wildlife Sites within ERYC, which were taken into account at an early stage of the design following completion of the ecological desk study.

8.1.39 The ecological effects of the construction of the Converter Station (Route Section 4) within an arable field east of Drax power station and New Road has been assessed. The habitats permanently lost equating to a total of approximately 8.5 ha are of low value (arable and species poor hedgerow) and were therefore scoped out of the Ecological Impact Assessment (EcIA). Indirect effects of the construction of the Converter Station upon adjacent habitats (drains, hedgerows, trees and woodland) and species (including breeding and wintering birds, bats and water vole) have been subject to assessment. With the adoption of embedded design, construction mitigation or additional project specific measures significant effects of the construction of the Converter Station upon retained and protected neighbouring habitats and protected species are avoided.

8.1.40 The EOS as a whole will result in no significant residual effects on habitats including several areas of UK priority habitats. The EOS crosses predominantly agricultural land comprising mainly of intensively farmed arable fields, interspersed with smaller permanent grassland paddocks (used for horse and livestock grazing), which are species poor and of low ecological value. When considered in combination with the habitat enhancements proposed at the converter and along the cable route including reinstatement of species poor hedgerow to species rich native hedgerows, it is concluded that the long-term residual effect of the construction phase of the EOS on habitats will therefore be negligible.

8.1.41 The ES outlines that no significant effects on protected species have been identified by the EcIA. Appropriate precautionary mitigation to ensure legislative compliance will be employed prior to the commencement of site establishment and clearance works including where required pre construction surveys. Measures to specifically address potential effects of temporary disturbance to habitats and protected species they support are also proposed.

8.1.42 Mitigation for nesting birds and to reduce effects of disturbance to bird at sensitive locations such as at River Hull will also be employed site-wide during the construction phase. Habitats will be fully reinstated post-construction, and therefore there will be no significant effects on local populations.

8.1.43 A biodiversity net gain (BNG) assessment has been undertaken for the English Onshore Scheme in accordance with the published Natural England Biodiversity Metric 3.0, with a target of 10% net gain in biodiversity to be delivered to meet emerging planning policy, and to meet National Grid's corporate BNG commitment to the delivery of at least 10% BNG on all construction projects.

8.1.44 The ES provides a summary of the habitat reinstatement and enhancement measures that are committed to and are embedded into the BNG metric assessment. The BNG Strategy Report which accompanies the planning application sets out BNG commitments and opportunities which when taken together will deliver at least 10% net gain.

8.1.45 On the basis that the impacts of the EOS on ecology and nature conservation is not significant and in some aspects negligible, and that the Applicant is seeking to deliver 10% BNG, the Proposed Development in ERYC accords with ERLP Policies ENV4 and ENV5 and Paragraphs 174, 175 and 181 of the NPPF; and the Proposed Development in SDC accords with SCDS Policy SP19; SDLP Policies ENV1, ENV9 and ENV12 and Paragraphs 174, 175 and 181 of the NPPF in relation to ecology and nature conservation.

8.1.46 The Proposed Development in SDC is in accordance with the relevant policies in the SDLP and the development plan, and the Proposed Development is in accordance with the relevant policies in the ERLP and the development plan.

Theme 6: Agricultural Land and Soils

The Proposed Development in ERYC and the Proposed Development in SDC

8.1.47 The majority of agricultural land within Route Sections 1, 2 and 3 in ERYC, and the HVDC and HVAC cable route in Route Section 4 in SDC, is likely to be classified as best and most versatile agricultural (BMV) land, within Agricultural Land Classification (ALC) Grades 1, 2, or 3a. This land will be temporarily removed from agriculture whilst construction of the cable routes takes place and will be restored to agriculture after completion of construction. It will therefore not be permanently lost to agriculture. ES Chapter 12: Agriculture and Soils concludes that with embedded mitigation in place, the temporary loss of agricultural land during construction would equate to a negligible or minor impact, which is not significant.

8.1.48 Table 12-22and Figure 12-3 of ES Chapter 12: Agriculture and Soils identify that 11 ha of the Converter Station Site is classified as Grade 3b agricultural land, which is not classed as BMV. The remainder is classified as Grade 2, which is BMV, totalling 3 Ha. The proposed footprint of the Converter Station would be approximately 5.71 ha and would likely lead to a permanent loss of approximately 1.6 ha of BMV agricultural land. Table 12-28 of ES Chapter 12: Agriculture and Soils concludes that the permanent loss of a small area of BMV agricultural land within the footprint of the Converter Station would not be significant.

8.1.49 The Proposed Development therefore accords with the ERLP Policy S4 objective of avoiding significant loss of BMV agricultural land, and that the value of BMV agricultural land has been recognised in Proposed Development, as per the Paragraph 174 of the NPPF.

8.1.50 In addition to assessment of the impact of the Proposed Development on agricultural land, Chapter 12: Agriculture and Soils of the ES also considers the impact on soil. This sets out that soils will be protected during construction in accordance with a soil handling management plan which would be prepared by the contractor as part of the CEMP, and would accord with the outline Soil Management Plan. With the proposed mitigation in place, the ES concludes that the Proposed Development would not result in a significant effect on soils. It is therefore considered that impacts on soils will be minimised and would be substantially outweighed by the benefits of the Proposed Development as part of the SEGL2 Project.

8.1.51 The Proposed Development in SDC is in accordance with the relevant policies in the SDLP and the development plan, and the Proposed Development is in accordance with the relevant policies in the ERLP and the development plan

Theme 7: Archaeology and Cultural Heritage

The Proposed Development in ERYC

8.1.52 Chapter 9: Archaeology and Cultural Heritage of the ES, presents an assessment of the impact of the Proposed Development in ERYC on designated assets. It concludes that due to the HVDC cable being below ground, the Proposed Development in ERYC would not impact the setting of heritage assets following completion of construction. Whilst some significant effects on the setting of designated heritage assets during the construction period

would result, these would amount to 'less than substantial harm' be temporary and reversed on completion of construction in the vicinity of the asset, and would be outweighed by the public benefits of the Proposed Development and the SEGL2 Project. The Proposed Development in ERYC is therefore in accordance with ELRP Policy ENV3 and Paragraph 202 of the NPPF in relation to designated heritage assets.

8.1.53 Regarding buried archaeology, Chapter 9 of the ES sets out that mitigation measures have been embedded into the Proposed Development in order to minimise potential impacts on archaeology, which could be significant with the proposed mitigation. These mitigation measures include limiting land take and the development of a detailed archaeological mitigation strategy prior to construction. With the application of this mitigation the ES Chapter concludes at Section 9.8 that no significant residual effects have been identified in relation to buried archaeological remains. The Proposed Development in ERYC is therefore in accordance with ELRP Policy ENV3 and Paragraph 202 of the NPPF in relation to designated heritage assets and is in accordance with the development plan.

Proposed Development in SDC

8.1.54 ES Chapter 9 also concludes that given the setting of the Converter Station amongst the buildings of the Drax Power Station complex, it will not have any significant effect on the setting of designated or non-designated heritage assets. The other elements of the Proposed Development in SDC comprise below ground cables, so would not impact the setting of heritage assets following completion of construction. The Proposed Development in SDC is therefore in accordance with SDLP Policy ENV1 and NPPF Paragraph 202 in relation to designated heritage assets.

8.1.55 Regarding buried archaeology, Chapter 9 of the ES sets out that mitigation measures have been embedded into the Proposed Development in order to minimise potential impacts on archaeology. These include limiting land take and the development of a detailed archaeological mitigation strategy prior to construction. This would enable the preservation of remains in situ where practicable and justified and make adequate provision for recording where it is not. The Proposed Development in ERYC is therefore in accordance with ELRP Policy ENV3 and Paragraph 202 of the NPPF in relation to designated heritage assets and is in accordance with the development plan.

Theme 8: Noise

The Proposed Development in ERYC and the Proposed Development in SDC

8.1.56 ES Chapter 15: Noise and Vibration identifies that during operation the English Onshore Scheme would result in only minor or negligible noise impact, which is not significant. These would be as a result of Converter Station noise emissions, in SDC. The HVDC cable in ERYC would have no noise impact during operation. The operational phases of the Proposed Development are therefore in accordance with SDLP Policy ENV2 and NPPF Paragraph 174 in respect of noise.

8.1.57 During construction, the ES Chapter identifies a moderate noise effect on one receptor (Rec 23) in Route Section 2 (within ERYC) and a moderate noise effect at two receptors (Rec 60 & 62) in Route Section 4 (in SDC) as a result of construction. These temporary construction impacts are classed as significant. The ES Chapter explains at Section 13.6.3.1 that noise thresholds that are identified are due to the noise sensitive receptors located in close proximity to construction activities. It goes on to note that the noise predictions set out cover a worst-case scenario where high noise generating activities are taking place in close proximity to receptors. Consequently, there will be variation in noise levels during construction works depending on the location of works. However, mitigation measures would be adopted to minimise exceedances as far as reasonably practicable. This will include measures to control or restrict activities during evenings/night-time so as not to exceed the SOAEL, thereby avoiding significant adverse effects on health and quality of life.

8.1.58 Chapter 18: Outline Construction Environmental Management Plan has been prepared establishes a framework within which the construction contractor will plan, implement and deliver environmental management, mitigation and monitoring requirements during the

construction phase of the Proposed Development and seek to ensure that adverse effects of construction on the environment and local communities are minimised.

8.1.59 At Section 13.7 it sets out that measures to mitigate noise will be implemented during the construction phase of the EOS in order to minimise impacts at local noise sensitive receptors (NSRs) and ecological receptors, particularly with respect to any activities which may be required to take place outside of normal working hours.

8.1.60 Whilst the potential for adverse effects on health and quality of life as a result of noise during the construction period cannot be ruled out at this stage, the Applicant has provided details of the predicted worst case impacts in Chapter 15 of the ES and has set out how these would be minimised, managed and controlled in the Outline CEMP that is submitted as Chapter 18 of the ES. These include measures to control or restrict activities during evenings/night-time so as to avoid significant adverse effects on health and quality of life occur. Rather than specifying noise levels that should not be exceeded, or that significant noise effects should be avoided, SDLP Policy ENV2 and Paragraph 174 of the NPPF set out that 'unacceptable' noise impacts should be avoided. Giving appropriate consideration to the assessed potential temporary construction noise impacts and measures to control them to avoid significant adverse effects on health and quality of life, and taking account of the need for the Proposed Development and the SEGL2 Project, is considered that the noise impacts are, on balance, not unacceptable and therefore accord with SDLP Policy ENV2 and Paragraph 174 of the NPPF. Therefore, the Proposed Development in SDC is in accordance with the relevant policies in the SDLP and the development plan, and the Proposed Development is in accordance with the relevant policies in the ERLP and the development plan

Theme 9: Waste and Minerals

The Proposed Development in ERYC and the Proposed Development in SDC

8.1.1 The Proposed Development has taken account of mineral resources in its design and routing. This includes the careful avoidance of consented reserve at Gransmoor Quarry (in ERYC), with the HVDC cable planned to cross the access track to the quarry via a directional drilling method in order to minimise potential impacts on the quarry's operation.

8.1.2 The Planning Application boundary of the Proposed Development in ERYC also crosses Mineral Safeguarding areas. Given the need to link the start and end points of the EOS and the other routing requirements and objectives described in Section 4.3 of this Planning Statement and in Chapter 2 of the ES, routing the HVDC through some mineral safeguarding areas could not practically be avoided. However, the majority of the HVDC cable would be buried at approximately 1.5 m depth and would not therefore interfere with safeguarded mineral, leaving it in situ with the potential for future extraction should the HVDC cable be able to be protected during excavation. In accordance with criterion 2 of ERLP Policy EC6, it is considered that the substantial need and benefits of the Proposed Development outweigh the impact on safeguarded mineral and the Scheme therefore accords with Policy EC6 of the ERLP, Policies S04 and S06 of the MWJP, or NPPS Paragraph 212.

8.1.3 ES Chapter 16: Waste and Minerals Management, assesses the impact of the Proposed Development on the use of material resources. It concludes that sufficient quantities of aggregate for construction of the Proposed Development are available within the North Yorkshire region and that the Proposed Development would have a minor adverse effect on material resource use, which is not significant. The Proposed Development therefore accords with Paragraph 209 of the NPPF, which seeks to ensure sufficient provision of mineral resources.

8.1.4 Therefore, the Proposed Development in SDC is in accordance with the relevant policies in the SDLP and the development plan, and the Proposed Development is in accordance with the relevant policies in the ERLP and the development plan

9. Conclusion and Planning Balance

9.1.1 The Proposed Development will comprise an essential part of the SEGL2 Project, which is a major reinforcement to the National Electricity Transmission System (NETS) linking England and Scotland. It is needed to enable the transmission of electricity, including that generated from renewable sources such as onshore and offshore wind, from where it is generated to where it is used. As such, the Proposed Development as part of the SEGL2 Project represents enhanced electricity infrastructure that national planning policy sets out is urgently needed in order for the government's objectives and commitments for a secure and low carbon energy system to be achieved. The requirement to meet this urgent national need weighs heavily in favour of planning permission being granted.

9.1.2 Local planning policies also support the delivery of electricity infrastructure and also support the principles of siting infrastructure near to Drax Power Station, where the Converter Station is proposed, subject to the effects not being unacceptable.

9.1.3 The location of the end point adjacent to Drax Substation has been carefully selected to provide the transmission benefits that arise from the Converter Station and Substation being located close to the point of connection to the NETS, whilst balancing the environmental and financial implications of its delivery.

9.1.4 The scale of the Converter Station in SDC is necessary for it to operate effectively and has been kept to the appropriate envelope that is needed to accommodate the Proposed Development and the benefits that will result can be delivered. Approval of the design of Proposed Development will be sought via a reserved matters planning application, and the detailed design process will seek to further minimise the effects of the Proposed Development.

9.1.5 The routing of the HVAC Cable in SDC and the HVDC Cable in SDC and ERYC has been carefully designed to avoid areas where impacts on amenity, the environment and land use may be greatest, taking account for the need to minimise the total length of the cables required. Section 4 of this Statement and the accompanying ES explain how due consideration of alternatives that has taken place. Full Planning Permission for the proposed cable routes, with the limits of deviation set out in this planning application is sought.

9.1.6 This Statement and the supporting ES describe the approach taken by the Applicant that has mitigated many of the identified impacts of the Proposed Development. The ES identifies that significant effects on views from two PRoW near to the Converter Station will result during the operational phase. It identifies that temporary and reversible significant effects as a result of noise during the construction period may affect three sensitive receptors, and the construction phase may also affect the setting of some designated heritage assets. However, these significant effects do not result in non-compliance with the Development Plan. Even if it was deemed that these did result in Development Plan non compliances, the material consideration of the urgent need for the Proposed Development would outweigh such non compliances and identify that they should not prevent planning permission being granted. This is in addition to other material considerations including the delivery of the Proposed Development before 2030, which would enable it to contribute to the achievement of national targets and commitments for the energy system, and the commitment and mapping of opportunities to deliver at least 10% biodiversity net gain.

9.1.7 The policy appraisal in Section 8 demonstrates compliance with the Development Plan. The overarching need and benefits of the Proposed Development are clear and should be afforded significant weight in the determination of the planning application. In light of the national need and compliance with the Development Plan, planning permission should be granted in accordance with Section 38(6) of the Planning and Compulsory Purchase Act 2004.