

# DOGGER BANK D WIND FARM

## Preliminary Environmental Information Report

Volume 1

Chapter 27 Landscape and Visual Impacts

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Glossary

Term	Definition
Additional Mitigation	<p>Measures identified through the EIA process that are required as further action to avoid, prevent, reduce or, if possible, offset likely significant adverse effects to acceptable levels (also known as secondary (foreseeable) mitigation).</p> <p>All additional mitigation measures adopted by the Project are provided in the Commitments Register.</p>
Birkhill Wood Substation	<p>The onshore grid connection point for DBD identified through the Holistic Network Design process. Birkhill Wood Substation which is being developed by National Grid Electricity Transmission and does not form part of the Project.</p>
Commitment	<p>Refers to any embedded mitigation and additional mitigation, enhancement or monitoring measures identified through the EIA process and those identified outside the EIA process such as through stakeholder engagement and design evolution.</p> <p>All commitments adopted by the Project are provided in the Commitments Register.</p>
Design	<p>All of the decisions that shape a development throughout its design and pre-construction, construction / commissioning, operation and, where relevant, decommissioning phases.</p>
Development Consent Order (DCO)	<p>A consent required under Section 37 of the Planning Act 2008 to authorise the development of a Nationally Significant Infrastructure Project, which is granted by the relevant Secretary of State following an application to the Planning Inspectorate.</p>
Effect	<p>An effect is the consequence of an impact when considered in combination with the receptor’s sensitivity / value / importance, defined in terms of significance.</p>
Embedded Mitigation	<p>Embedded mitigation includes:</p> <ul style="list-style-type: none"><li>Measures that form an inherent part of the project design evolution such as modifications to the location or design of the development made during the pre-application phase (also known as primary (inherent) mitigation); and</li><li>Measures that will occur regardless of the EIA process as they are imposed by other existing legislative requirements or are considered as standard or best practice to manage commonly occurring environmental impacts (also known as tertiary (inexorable) mitigation).</li></ul> <p>All embedded mitigation measures adopted by the Project are provided in the Commitments Register.</p>
Energy Storage and Balancing Infrastructure (ESBI)	<p>A range of technologies such as battery banks to be co-located with the Onshore Converter Station, which provide valuable services to the electrical grid such as storing energy to meet periods of peak demand and improving overall reliability.</p>

Term	Definition
Enhancement	<p>Measures committed to by the Project to create or enhance positive benefits to the environment or communities, as a result of the Project.</p> <p>All enhancement measures adopted by the Project are provided in the Commitments Register.</p>
Environmental Impact Assessment (EIA)	<p>A process by which certain planned projects must be assessed before a formal decision to proceed can be made. It involves the collection and consideration of environmental information and includes the publication of an Environmental Statement.</p>
Environmental Statement (ES)	<p>A document reporting the findings of the EIA which describes the measures proposed to mitigate any likely significant effects.</p>
Evidence Plan Process (EPP)	<p>A voluntary consultation process with technical stakeholders which includes a Steering Group and Expert Topic Group (ETG) meetings to encourage upfront agreement on the nature, volume and range of supporting evidence required to inform the EIA and HRA process.</p>
Expert Topic Group (ETG)	<p>A forum for targeted technical engagement with relevant stakeholders through the EPP.</p>
Grid Connection	<p>The offshore and onshore electricity transmission network connection to Birkhill Wood Substation.</p>
Haul Roads	<p>Temporary tracks set aside to facilitate transport access during onshore construction works.</p>
Impact	<p>A change resulting from an activity associated with the Project, defined in terms of magnitude.</p>
Jointing Bays	<p>Underground structures constructed at regular intervals along the onshore export cable corridor to facilitate the joining of discrete lengths of the installation of cables.</p>
Landfall	<p>The area on the coastline, south-east of Skipsea, at which the offshore export cables are brought ashore, connecting to the onshore export cables at the transition joint bay above Mean High Water Springs.</p>
Link Boxes	<p>Structures housing electrical equipment located alongside the jointing bays in the onshore export cable corridor and the transition joint bay at the landfall, which could be located above or below ground.</p>



Term	Definition
Mitigation	<p>Any action or process designed to avoid, prevent, reduce or, if possible, offset potentially significant adverse effects of a development.</p> <p>All mitigation measures adopted by the Project are provided in the Commitments Register.</p>
Monitoring	<p>Measures to ensure the systematic and ongoing collection, analysis and evaluation of data related to the implementation and performance of a development. Monitoring can be undertaken to monitor conditions in the future to verify any environmental effects identified by the EIA, the effectiveness of mitigation or enhancement measures or ensure remedial action are taken should adverse effects above a set threshold occur.</p> <p>All monitoring measures adopted by the Project are provided in the Commitments Register.</p>
Onshore Converter Station (OCS)	A compound containing electrical equipment required to stabilise and convert electricity generated by the wind turbines and transmitted by the export cables into a more suitable voltage for grid connection into Birkhill Wood Substation.
Onshore Converter Station (OCS) Zone	The area within which the Onshore Converter Station and Energy Storage and Balancing Infrastructure will be located in vicinity of Birkhill Wood Substation.
Onshore Development Area	The area in which all onshore infrastructure associated with the Project will be located, including any temporary works area required during construction and permanent land required for mitigation and enhancement areas, which extends landward of Mean Low Water Springs. There is an overlap with the Offshore Development Area in the intertidal zone.
Onshore Export Cable Corridor (ECC)	The area within which the onshore export cables will be located, extending from the landfall to the Onshore Converter Station zone and onwards to Birkhill Wood Substation.
Project Design Envelope	<p>A range of design parameters defined where appropriate to enable the identification and assessment of likely significant effects arising from a project’s worst-case scenario.</p> <p>The Project Design Envelope incorporates flexibility and addresses uncertainty in the DCO application and will be further refined during the EIA process.</p>
Scoping Opinion	<p>A written opinion issued by the Planning Inspectorate on behalf of the Secretary of State regarding the scope and level of detail of the information to be provided in the Applicant’s Environmental Statement.</p> <p>The Scoping Opinion for the Project was adopted by the Secretary of State on 02 August 2024.</p>
Scoping Report	<p>A request by the Applicant made to the Planning Inspectorate for a Scoping Opinion on behalf of the Secretary of State.</p> <p>The Scoping Report for the Project was submitted to the Secretary of State on 24 June 2024.</p>

Term	Definition
Temporary Construction Compounds	Areas set aside to facilitate the construction works for the onshore infrastructure, which include the landfall construction compound, main and intermediate construction compounds for onshore export cable works and OCS and ESBI construction compounds.
The Applicant	SSE Renewables and Equinor acting through 'Doggerbank Offshore Wind Farm Project 4 Projco Limited'.
The Project	Dogger Bank D (DBD) Offshore Wind Farm Project, also referred to as DBD in this PEIR.
Transition Joint Bay (TJB)	An underground structure at the landfall that houses the joints between the offshore and onshore export cables.
Trenching	Open cut method for cable or duct installation.
Trenchless Techniques	<p>Trenchless cable or duct installation methods used to bring offshore export cables ashore at landfall, facilitate crossing major onshore obstacles such as roads, railways and watercourses and where trenching may not be suitable.</p> <p>Trenchless techniques included in the Project Design Envelope include Horizontal Directional Drilling (HDD), auger boring, micro-tunnelling, pipe jacking / ramming and Direct Pipe.</p>

# 27 Landscape and Visual Impacts

## 27.1 Introduction

1. This chapter of the Preliminary Environmental Information Report (PEIR) presents the preliminary results of the Environmental Impact Assessment (EIA) of the Dogger Bank D Offshore Wind Farm Project (hereafter ‘the Project’ or ‘DBD’) on landscape and visual receptors.
2. **Chapter 4 Project Description** provides a description of the key infrastructure components which form part of the Project and the associated construction, operation and maintenance (O&M) and decommissioning activities.
3. The primary purpose of the PEIR is to support the statutory consultation activities required for a Development Consent Order (DCO) application under the Planning Act 2008. The information presented in this PEIR chapter is based on the baseline characterisation and assessment work undertaken to date. The feedback from the statutory consultation will be used to inform the design where appropriate and presented in an Environmental Statement (ES), which will be submitted with the DCO application.
4. This PEIR chapter:
  - Describes the baseline environment relating to landscape and visual impact;
  - Presents an assessment of the likely significant effects on landscape and visual receptors during the construction, O&M, and decommissioning phases of the Project;
  - Identifies any assumptions and limitations encountered in compiling the environmental information; and
  - Sets out proposed mitigation measures to avoid, prevent, reduce or, if possible, offset potential significant adverse environmental effects identified during the EIA process and, where relevant, monitoring measures or enhancement measures to create or enhance positive effects.
5. This chapter should be read in conjunction with the following related chapters. Inter-relationships are discussed further in **Section 27.9.1**:
  - **Chapter 22 Soils and Land Use;**
  - **Chapter 23 Onshore Ecology and Ornithology;**
  - **Chapter 24 Onshore Archaeology and Cultural Heritage;** and
  - **Chapter 30 Socio-Economics, Tourism and Recreation.**

6. Additional information to support the Landscape and Visual Impact Assessment (LVIA) includes:
  - **Volume 2, Appendix 27.1 Consultation Responses for Landscape and Visual Impacts;** and
  - **Volume 2, Appendix 27.2 Landscape and Visual Impact Assessment Visualisations.**

## 27.2 Policy and Legislation

7. Relevant legislation is described in **Chapter 3 Policy and Legislative Context**. There is no specific legislation relating to assessment of landscape and visual effects.

### 27.2.1 National Policy Statements

8. Planning policy on energy Nationally Significant Infrastructure Projects (NSIP) is set out in the National Policy Statements (NPS). The following NPS are relevant to the landscape and visual impact assessment:
  - Overarching NPS for Energy (EN-1) (DESNZ, 2023a);
  - NPS for Renewable Energy Infrastructure (EN-3) (DESNZ, 2023b); and
  - NPS for Electricity Networks Infrastructure (EN-5) (DESNZ, 2023c).
9. The landscape and visual impact chapter has been prepared with reference to specific requirements in the above NPS. The relevant parts of the NPS are summarised in **Table 27-1**, along with how and where they have been considered in this PEIR chapter.

Table 27-1 Summary of Relevant National Policy Statement Requirements for Landscape and Visual Impacts

NPS Reference and Requirement	How and Where Considered in the PEIR
<b>Overarching NPS for Energy (EN-1)</b>	
<p>Paragraph 4.7.1:</p> <p>“Section 4.7 sets out criteria for good design for energy infrastructure. It notes that the visual appearance of energy infrastructure and how it relates to the landscape is often considered to be the most importance factor in good design.”</p>	<p>Landscape character and visual amenity has been considered in the preliminary design of the Project. Site selection is discussed in <b>Chapter 5 Site Selection and Consideration of Alternatives. Section 27.4.3</b> of this chapter sets out the relevant embedded design mitigation for the Project.</p> <p>Design principles are set out in the <b>Design Vision</b> (document reference 7.4) provided alongside the PEIR and which will be developed further at ES stage.</p>
<p>Paragraph 4.7.5 – 4.7.8:</p> <p>“To ensure good design is embedded within the project development, a project board level design champion could be appointed, and a representative design panel used to maximise the value provided by the infrastructure. Design principles should be established from the outset of the project to guide the development from conception to operation. Applicants should consider how their design principles can be applied post-consent.</p> <p>Whilst the applicant may not have any or very limited choice in the physical appearance of some energy infrastructure, there may be opportunities for the applicant to demonstrate good design in terms of siting relative to existing landscape character, land form and vegetation. Furthermore, the design and sensitive use of materials in any associated development such as electricity substations will assist in ensuring that such development contributes to the quality of the area. Applicants should also, so far as is possible, seek to embed opportunities for nature inclusive design within the design process.</p> <p>Applicants must demonstrate in their application documents how the design process was conducted and how the proposed design evolved. Where a number of different designs were considered, applicants should set out the reasons why the favoured choice has been selected.</p> <p>Applicants should consider taking independent professional advice on the design aspects of a proposal. In particular, the Design Council can be asked to provide design review for nationally significant infrastructure projects and applicants are encouraged to use this service. Applicants should also consider any design guidance developed by the local planning authority.”</p>	<p>Design principles are set out in the <b>Design Vision (document reference 7.4)</b>, which is provided alongside the PEIR and will be developed further at ES stage. The Design Vision sets out that a Design Champion will be appointed to retain over-arching responsibility for design quality throughout the Project.</p>
<p>Paragraph 5.10.12:</p> <p>“Outside nationally designated areas, there are local landscapes that may be highly valued locally. Where a local development document in England has policies based on landscape or waterscape character assessment, these should be paid particular attention. However, locally valued landscapes should not be used in themselves to refuse consent, as this may unduly restrict acceptable development.”</p>	<p>Local landscape designations are introduced at <b>Section 27.6.1.2</b> and are considered in the assessment of effects in <b>Section 27.7</b>.</p>
<p>Paragraph 5.10.16:</p> <p>“The applicant should carry out a LVIA and report it in the ES, including cumulative effects.”</p>	<p>Cumulative effects arising from the Project have been included in the assessment in <b>Section 27.8</b>.</p>
<p>Paragraph 5.10.17:</p> <p>“The landscape and visual assessment should include reference to any Landscape Character assessment and associated studies as a means of assessing landscape impacts relevant to the proposed project. The applicant’s assessment should also take account of any relevant policies based on these assessments in local development documents in England.”</p>	<p>Landscape character impacts are considered in <b>Section 27.7</b>, making reference to the landscape character assessment for the East Riding of Yorkshire.</p> <p>Local Development Plan policies relating to landscape designation are discussed in <b>Section 27.2.2.2</b>.</p>

## CHAPTER 27 LANDSCAPE AND VISUAL IMPACTS

NPS Reference and Requirement	How and Where Considered in the PEIR
<p>Paragraph 5.10.18:</p> <p>“For seascapes, applicants should consult the Seascape Character Assessment and the Marine Plan Seascape Character Assessments, and any successors to them.”</p>	<p>Effects on seascape character arising from the Offshore Development Area were scoped out of the assessment in line with the Scoping Opinion (see <b>Volume 2, Appendix 27.1 Consultation Responses for Landscape and Visual Impacts</b>).</p> <p>The operational effects of the Array Area have been scoped out, in agreement with the Planning Inspectorate, due to the low susceptibility of offshore receptors, including seascape. The same low susceptibility applies during construction. It is not considered likely that any significant effects would arise from construction activities taking place within the Offshore Development Area, and these were scoped out.</p>
<p>Paragraph 5.10.19:</p> <p>“The Applicants should consider landscape and visual matters in the early stages of siting and design, where site choices and design principles are being established.</p> <p>This would allow the Applicants to demonstrate in the ES how negative effects have been minimised and opportunities for creating positive benefits or enhancement have been recognised and incorporated into the design, delivery and operation of the scheme.”</p>	<p>Landscape and visual matters have been considered throughout the design of the Project and been used to inform mitigation requirements (see <b>Section 27.4.3</b>) to minimise adverse effects and provide landscape enhancements. This will further progress into the ES stage of the Project and the development of the <b>Design Vision (document reference 7.4)</b>.</p>
<p>Paragraph 5.10.20:</p> <p>“The assessment should include the effects on landscape components and character during construction and operation.”</p>	<p>Potential effects that are considered in this LVIA are set out in <b>Section 27.7</b>.</p> <p>Effects on landscape components and landscape character, during construction and operation, are assessed in <b>Sections 27.7.1</b> and <b>27.7.3</b> respectively.</p>
<p>Paragraph 5.10.21:</p> <p>“The assessment should include the visibility and conspicuousness of the project during construction and of the presence and operation of the project and potential impacts on views and visual amenity. This should include light pollution effects, including on dark skies, local amenity, and nature conservation.”</p>	<p>Effects on visual amenity and views during construction and operation are assessed in <b>Sections 27.1.1</b> and <b>27.7.4</b> respectively. This includes consideration of the effects of lighting on visual amenity.</p> <p>Effects of lighting on nature conservation interests are considered in <b>Chapter 23 Onshore Ecology and Ornithology</b>.</p> <p>Dark skies have not been identified as a particular quality of the Landscape and Visual Study Area, as discussed further in the baseline description in <b>Section 27.6</b>.</p>
<p>Paragraph 5.10.22:</p> <p>“The assessment should also address the landscape and visual effects of noise and light pollution, and other emissions, from construction and operational activities on residential amenity and on sensitive locations, receptors and views, how these would be minimised.”</p>	<p>Effects on visual amenity and views as a result of lighting during the construction and O&amp;M phases are assessed in <b>Sections 27.1.1</b> and <b>27.7.4</b> respectively.</p>
<p>Paragraph 5.10.24:</p> <p>“Applicants should consider how landscapes can be enhanced using landscape management plans, as this would help to enhance environmental assets where they contribute to landscape and townscape quality.”</p>	<p>An Outline Landscape Management Plan (LMP) will be produced at the ES stage once there is a better understanding of the location and design of the OCS and ESBI (see <b>Table 27-5</b>, Commitment ID CO65). Opportunities for mitigation and enhancement have been identified where appropriate in the assessment in <b>Section 27.7</b> and are summarised in <b>Section 27.4.3</b>.</p>
<p>Paragraph 5.10.26:</p> <p>“The Secretary of State should consider the benefits of the landscape and visual mitigation against the functionality of the project.”</p>	<p>Proposed mitigation measures for the Project in relation to LVIA are set out in relation to the commitments made in <b>Section 27.4.3 (Table 27-5 and Table 27-6)</b>.</p> <p>Key elements of embedded mitigation for the Project are set out in <b>Section 27.4.3</b>.</p>
<p>Paragraph 5.10.27:</p> <p>“Adverse landscape and visual effects may be minimised through appropriate siting of infrastructure within its development site and wider setting. The careful consideration of colours and materials would support the delivery of a well-designed scheme, as would sympathetic landscaping and management of its immediate surroundings.”</p>	<p>Proposed embedded mitigation measures for the Project in relation to LVIA are set out in relation to the commitments made in <b>Section 27.4.3 (Table 27-5 and Table 27-6)</b>.</p>

NPS Reference and Requirement	How and Where Considered in the PEIR
Paragraph 5.10.28: “Depending on the topography of the surrounding terrain and areas of population it may be appropriate to undertake landscaping off site.”	Consideration will be given to off-site mitigation at the ES stage when there is a better understanding of the design of the Onshore Converter Station (OCS) and Energy Storage and Balancing Infrastructure (ESBI), and what off-site mitigation is likely to be required.
Paragraphs 5.10.32 and 5.10.33: “Provide advice in relation to applications affecting nationally designated landscapes (National Parks and Areas of Outstanding Natural Beauty).”	There are no nationally designated landscapes within the Landscape and Visual Study Area, as set out in <b>Section 27.6.1.2</b> .
<b>NPS for Renewable Energy Infrastructure (EN-3)</b>	
Paragraph 2.5.2: “Proposals for renewable energy infrastructure should demonstrate good design, particularly in respect of landscape and visual amenity...”	Landscape character and visual amenity has been considered in the preliminary design of the Project. Site selection is discussed in <b>Chapter 5 Site Selection and Consideration of Alternatives. Section 27.4.3</b> of this chapter sets out the relevant embedded design mitigation for the Project.  Design principles are set out in the <b>Design Vision</b> (document reference 7.4) provided alongside the PEIR and will be developed further at ES stage.
Paragraph 2.8.69 – 2.8.70: “Where the applicant does not know the precise location of the offshore transmission cables and any associated infrastructure, a corridor should be identified within which the specific infrastructure is proposed to be located.  The ES for the proposed project should assess the effects of including this infrastructure within that corridor.”	The landscape and visual effects of the onshore ECC, including any above ground link boxes, during construction and operation are assessed in <b>Sections 27.1.1.1, 27.7.2.2, 27.7.3.1 and 27.7.4.1</b> .
Paragraph 2.8.204 – 2.8.208: “Applicants should address impact on seascape in addition to the landscape and visual effects discussed in Section 5.10 of EN-1.  Seascape is an additional issue for consideration given that it is an important environmental, cultural and economic asset...  Applicants should follow relevant guidance including, but not limited to seascape and landscape character assessments, landscape sensitivity assessments, and marine plan seascape character assessments (e.g., NRW Marine Character Areas (with associated guidance) England’s marine plans).  Where a proposed offshore wind farm will be visible from the shore and would be within the setting of a nationally designated landscape with potential effects on the area’s statutory purpose, a seascape, landscape and visual impact assessment (SLVIA) should be undertaken in accordance with the relevant offshore wind farm EIA policy and the latest Offshore Energy SEA, including the White 2020 report. The SLVIA should be proportionate to the scale of the potential impacts. This will always be the case where a coastal National Park, the Broads or AONB, or a Heritage Coast or their setting is potentially affected.”	Effects on seascape character arising from the Offshore Development Area were scoped out of the assessment in line with the Scoping Opinion (see <b>Volume 2, Appendix 27.1 Consultation Responses for Landscape and Visual Impacts</b> ).  The operational effects of the Array Area have been scoped out, in agreement with the Planning Inspectorate, due to the low susceptibility of offshore receptors, including seascape. The same low susceptibility applies during construction. It is not considered likely that any significant effects would arise from construction activities taking place within the Offshore Development Area, and these were scoped out.
<b>NPS for Electricity Networks Infrastructure (EN-5)</b>	
Paragraph 2.2.8: “There will usually be a degree of flexibility in the location of the development’s associated substations, and applicants should consider carefully their placement in the local landscape, as well as their design”	Site selection is discussed in <b>Chapter 5 Site Selection and Consideration of Alternatives</b> .



NPS Reference and Requirement	How and Where Considered in the PEIR
<p>Paragraph 2.2.9 and 2.2.10:</p> <p>“The applicant should consider such characteristics as the local topography, the possibilities for screening of the infrastructure and/or other options to mitigate any impacts.”</p> <p>“Applicants must take into account Schedule 9 to the Electricity Act 1989, which places a duty on all transmission and distribution licence holders, in formulating proposals for new electricity networks infrastructure, to “have regard to the desirability of preserving natural beauty, of conserving flora, fauna and geological or physiographical features of special interest and of protecting sites, buildings and objects of architectural, historic or archaeological interest; and ...do what [they] reasonably can to mitigate any effect which the proposals would have on the natural beauty of the countryside or on any such flora, fauna, features, sites, buildings or objects.”</p>	<p>An Outline Landscape Management Plan (LMP) will be produced at the ES stage once there is a better understanding of the location and design of the OCS and ESBI (see <b>Table 27-5</b>, Commitment ID CO65). Opportunities for mitigations and enhancement have been identified where appropriate in the assessment in <b>Section 27.7</b>, and are summarised in <b>Section 27.4.3</b>.</p>
<p>Paragraph 2.9.9:</p> <p>“New substations, sealing end compounds (including terminal towers), and other above-ground installations that serve as connection, switching, and voltage transformation points on the electricity network may also give rise to adverse landscape and visual impacts.”</p>	<p>The landscape and visual effects of the OCS, ESBI and other onshore above ground infrastructure (i.e. link boxes) are assessed in <b>Section 27.7</b>.</p>
<p>Paragraph 2.9.10:</p> <p>“Cumulative adverse landscape, seascape and visual impacts may arise where new overhead lines are required along with other related developments such as substations, wind farms, and / or other new sources of generation.”</p>	<p>There are no overhead lines as part of this Project. Cumulative landscape and visual effects of the OCS, ESBI and other onshore above ground infrastructure are assessed in <b>Section 27.8</b>.</p>
<p>Paragraph 2.9.18 and 2.9.19:</p> <p>“The Horlock Rules – guidelines for the design and siting of substations – were established by National Grid in 2009 in pursuance of its duties under Schedule 9 to the Electricity Act 1989. These principles should be embodied in applicants’ proposals for the infrastructure associated with new overhead lines</p> <p>In brief, the Horlock Rules state that applicants should:</p> <ul style="list-style-type: none"><li>○ consider environmental issues from the earliest stage to balance the technical benefits and capital cost.. against the consequential environmental effects...</li><li>○ seek to avoid altogether internationally and nationally designated areas of highest amenity...</li><li>○ protect as far as reasonably practicable areas of local amenity value, important existing habitats and landscape features including ancient woodland, historic hedgerows...</li><li>○ take advantage of the screening provided by land form and existing features and the potential use of site layout and levels to keep intrusion into surrounding areas to a reasonably practicable minimum.”</li></ul>	<p>Site selection has been informed by the Horlock Rules and is discussed in <b>Chapter 5 Site Selection and Consideration of Alternatives</b>.</p>
<p>Paragraph 2.9.23:</p> <p>“Cases will arise where – though no part of the proposed development crosses a designated landscape – a high potential for widespread adverse landscape and/or visual impacts along certain sections of its route may result in recommendations to use undergrounding for relevant segments of the line or alternatively consideration of using a route including subsea cabling.”</p>	<p>The onshore ECC does not pass through any designated landscapes, and the majority of onshore export cable infrastructure (with the exception of above-ground link boxes where required) would be underground to minimise landscape and visual effects (see <b>Table 27-5</b>, Commitment ID CO61). The landscape and visual effects of the onshore ECC, including any above ground link boxes, during construction and operation are assessed in <b>Sections 27.1.1.1, 27.7.2.2, 27.7.3.1 and 27.7.4.1</b>.</p>

27.2.2 Other Policy

10. Other policy relevant to the LVIA is summarised in the following sections.

27.2.2.1 National

11. The National Planning Policy Framework (NPPF, Ministry of Housing, Communities and Local Government, 2024) states, in Paragraph 135 that “*planning policies and decisions should ensure that developments... are visually attractive as a result of good architecture, layout and appropriate and effective landscaping...[and] are sympathetic to local character and history, including the surrounding built environment and landscape setting*”. Paragraph 187 goes on to state that “*Planning policies and decisions should contribute to and enhance the natural and local environment*” by, amongst other things, “*protecting and enhancing valued landscapes [...] (in a manner commensurate with their statutory status or identified quality in the development plan)*”. Landscape value is discussed in **Section 27.5.3**.

27.2.2.2 Local

12. The adopted East Riding of Yorkshire Local Plan Update 2025-2039 (East Riding of Yorkshire Council (ERYC), 2025) sets out the overall strategic direction for the Local Plan and provides strategic policies to guide decisions on planning applications. The policy relevant to this chapter is Policy ENV2: Promoting a high quality landscape, which is summarised in **Table 27-2**.

Table 27-2 Summary of Relevant Local Planning Policy Requirements for Landscape and Visual Impacts as set out in the East Riding of Yorkshire Local Plan Update 2025-2039

Summary of ERYC Policy ENV2 Provisions	How and Where Considered in the PEIR
<p>“Development proposals should be sensitively integrated into the existing landscape, demonstrate an understanding of the intrinsic qualities of the landscape setting and, where possible, seek to make the most of the opportunities to protect and enhance landscape characteristics and features. To achieve this, development should [inter alia]:</p> <ul style="list-style-type: none"><li>protect and enhance views across valued landscape features, including flood meadows, chalk grassland, lowland heath, mudflats and salt marsh, sand dunes and chalk cliffs</li><li>protect and enhance the undeveloped coast.</li></ul>	<p>The existing character of the local landscape is discussed in <b>Section 27.6.1.3</b>.</p> <p>The value and capacity of the local landscape to accommodate change is considered in <b>Section 27.7</b>.</p> <p>Effects on landscape character are assessed in <b>Section 27.7</b> with reference to the susceptibility of the landscape to the change proposed, and the value placed on the landscape, in accordance with good practice guidance set out in the Guidelines on LVIA Third Edition (Landscape Institute and Institute of Environmental Management and Assessment, 2013).</p> <p>The presence of the Yorkshire Wolds ILA designation is taken into account in the assessments presented in <b>Section 27.7</b>.</p>

Summary of ERYC Policy ENV2 Provisions	How and Where Considered in the PEIR
<p><i>Proposals should protect and enhance the existing landscape character as described in the East Riding Landscape Character Assessment, in particular within the following Important Landscape Areas (ILA) as shown on the Policies Map Update</i></p> <p><i>I. The Yorkshire Wolds.</i></p> <p><i>II. The Heritage Coast designations at Flamborough and Spurn Head.</i></p> <p><i>III. The River Derwent Corridor and Lower Derwent Valley.</i></p> <p><i>IV. The Thorne, Crowle and Goole Moors.”</i></p>	

27.3 Consultation

13. Topic-specific consultation in relation to landscape and visual impact has been undertaken in line with the process set out in **Chapter 7 Consultation**. A Scoping Opinion from the Planning Inspectorate was received on 2<sup>nd</sup> August 2024, which has informed the scope of the assessment presented within this chapter (as outlined in **Section 27.4.2**).
14. Feedback received through the ongoing Evidence Plan Process (EPP) in relation to Expert Topic Group (ETG) meetings and wider technical consultation meetings with relevant stakeholders has also been considered in the preparation of this chapter. Details of technical consultation undertaken to date on landscape and visual impact are provided in **Table 27-3**.

Table 27-3 Technical Consultation Undertaken to Date on Landscape and Visual Impact

Meeting	Stakeholder(s)	Date(s) of Meeting / Frequency	Purpose of Meeting
<b>ETG Meetings</b>			
ETG9 (Landscape and Visual Impacts) Meeting No. 01	ERYC, Hull City Council and Historic England	10 <sup>th</sup> September 2024	To agree the scope of the PEIR LVIA, including the viewpoint locations to be included within the assessment.

15. **Volume 2, Appendix 27.1 Consultation Responses for Landscape and Visual Impacts** summarises how consultation responses received to date are addressed in this chapter.

16. This chapter will be updated based on refinements made to the Project Design Envelope and to consider, where appropriate, stakeholder feedback on the PEIR. The updated chapter will form part of the ES to be submitted with the DCO application.

## 27.4 Basis of the Assessment

17. The following sections establish the basis of the assessment of likely significant effects, which is defined by the Study Area(s), assessment scope, realistic worst-case scenarios and development scenarios.
18. This section should be read in conjunction with **Volume 2, Appendix 1.2 Guide to PEIR, Volume 2, Appendix 6.2 Impacts Register** and **Volume 2, Appendix 6.3 Commitments Register**.

### 27.4.1 Study Area

19. The Landscape and Visual Study Area has been defined on the basis of the likely influence of the Project's onshore elements on landscape character and visual amenity. Due to the different characteristics of the Project's elements, sections of the Landscape and Visual Study Area have been defined for:
- Landfall and onshore ECC, including above ground link boxes located adjacent to jointing bay locations; and
  - OCS zones, including the OCS and ESBI.
20. The extent of the Landscape and Visual Study Area was informed by field surveys, baseline analysis, and examination of Zone of Theoretical Visibility (ZTV) maps, to determine the maximum extent of likely significant effects.

#### 27.4.1.1 Landfall and Onshore Export Cable Corridor

21. Temporary construction works would take place at the landfall and along the length of the onshore ECC. Due to the largely flat nature of the landscape, and the prevalence of trees and hedges, these works are unlikely to be widely visible. In the longer term, the majority of onshore export cable infrastructure (i.e. onshore export cables, jointing bays and the majority of link boxes) would be installed underground and would not be visible. Similarly, all landfall infrastructure (i.e. transition joint bay (TJB) and associated link box) will be underground.
22. At this stage, it is assumed that at approximately 20 link box locations for the High Voltage Direct Current (HVDC) export cables would be located above ground along the onshore ECC between the landfall and OCS zone. All link box locations for the High Voltage Alternating Current (HVAC) export cables between the OCS zone and the grid connection at Birkhill Wood Substation would be above ground. Although these link boxes would be visible above ground, they are not of a large scale (assumed

approximately 1.2 to 2m in height). Link boxes will be typically marked / protected by bollards, fences or similar of approximately 1.2 to 2m in height (where required and agreed with the relevant landowners).

23. In addition to the bollards, fencing or similar equipment around the link boxes, small marker posts of approximately 1m to 1.2m height will be installed along the operational easement to demark the location of the installed onshore export cables. Marker posts will, at a minimum, be required at field boundaries, on either side of obstacle crossings such as roads and watercourses and where there are significant directional changes in the cable route.
24. It is therefore appropriate to limit the Landscape and Visual Study Area for these elements to a 1km buffer around the landfall and the onshore ECC. This is shown on **Figure 27-1**. Stakeholders attending the first meeting of ETG9 held on 10<sup>th</sup> September 2024 were in agreement that the proposed Study Area for the landfall and onshore ECC is suitable (see **Volume 2, Appendix 27.1 Consultation Responses for Landscape and Visual Impacts**).

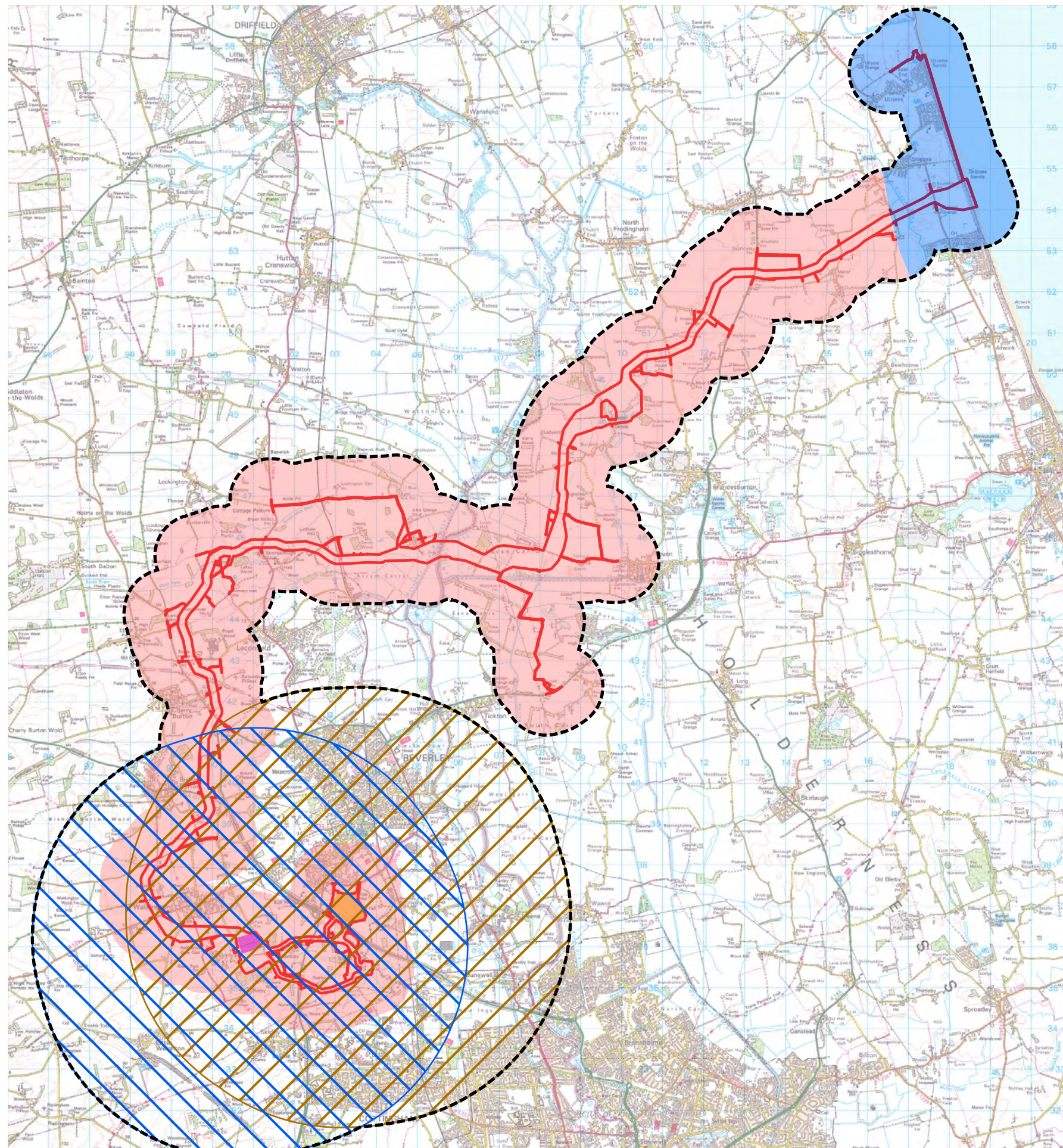
#### 27.4.1.2 Onshore Converter Station Zone

25. Two OCS zones are currently under consideration, although only one would be developed. This LVIA considers the effects of development in either zone to ensure that effects of OCS and ESBI in either location are fully assessed.
26. Development at the OCS zone (including OCS and ESBI) would involve the construction and operation of large permanent buildings (such as the OCS valve hall and switch house buildings for the ESBI (further details provided in **Chapter 4 Project Description**)). A series of ZTV has been generated based on the worst-case height parameters (i.e. maximum building height of 25m of the OCS) to illustrate potential maximum visibility of buildings and infrastructure within each OCS zone. The maximum parameters are defined in **Section 27.4.4**. Based on the analysis of the ZTV (shown on **Figure 27-2** and **Figure 27-3**), field work, and the findings of the LVIA for the Dogger Bank Creyke Beck (now known as Dogger Bank A & B), Hornsea Project Four and Dogger Bank South Offshore Wind Farms (Forewind, 2013; Ørsted, 2021; RWE, 2024), it is considered that likely significant effects would not occur at distances greater than 5km from the OCS zone. The Landscape and Visual Study Area for the OCS zone is therefore defined as a 5km radius around each of the potential OCS zones, which would host the OCS and ESBI. This is shown on **Figure 27-1**.
27. Stakeholders attending the first meeting of ETG9 held on 10<sup>th</sup> September 2024 were in agreement that the proposed Study Area for the OCS zone is suitable (see **Volume 2, Appendix 27.1 Consultation Responses for Landscape and Visual Impacts**).

### 27.4.1.3 Sub-Areas of the Landscape and Visual Study Area

28. For the purposes of the LVIA, the Landscape and Visual Study Area has been divided into four sub-areas, shown on **Figure 27-1**, based on underlying Landscape Character Types (LCT, see **Section 27.6.1**), and project elements, as follows:
- Sub-area 1: Landfall – the landscape between the coastal edge and 2km inland, the boundary of which is defined by that of Landscape Character Type (LCT 20C (Coastal Farmland – Bridlington to Hornsea Coast), just south of Skipsea.
  - Sub-area 2: Onshore ECC – comprising the onshore ECC between the landfall and OCS zone and onwards to Birkhill Wood Substation. It is a landscape of flat open farmland which includes the vast floodplains of the River Hull and gradually ascends towards the elevated, rolling farmland of the Yorkshire Wolds. The landscape to the west and south of Beverley is defined by historic common grazing land, estate parkland, and urban development;
  - Sub-area 3: OCS Zone 4 – comprising OCS Zone 4 and the 5km buffer around the OCS zone, centred on the low-lying landscape south of Beverley; and
  - Sub-area 4: OCS Zone 8 – comprising OCS Zone 8 and the 5km buffer around the OCS zone, centred on the more rolling landscape in the eastern edge of the Yorkshire Wolds.
29. Sub-areas 1 and 2 extend 1km around the Landfall and onshore ECC, while Sub-areas 3 and 4 extend 5km around each of the potential OCS zones. As a result, Sub-areas 2, 3 and 4 overlap. The sub-areas are shown on **Figure 27-1** and are further described in **Section 27.6.1.3**.













0 1 2 4 Kilometres

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Legend:

-  Onshore Development Area
-  Landscape and Visual Study Area
-  Sub-area 1
-  Sub-area 2
-  Sub-area 3
-  Sub-area 4
-  Onshore Converter Station Zone 4
-  Onshore Converter Station Zone 8

Project:

Dogger Bank D  
Offshore Wind Farm

**DOGER BANK**  
**WIND FARM**

Title:

Landscape and Visual Study Area

Figure: 27-1

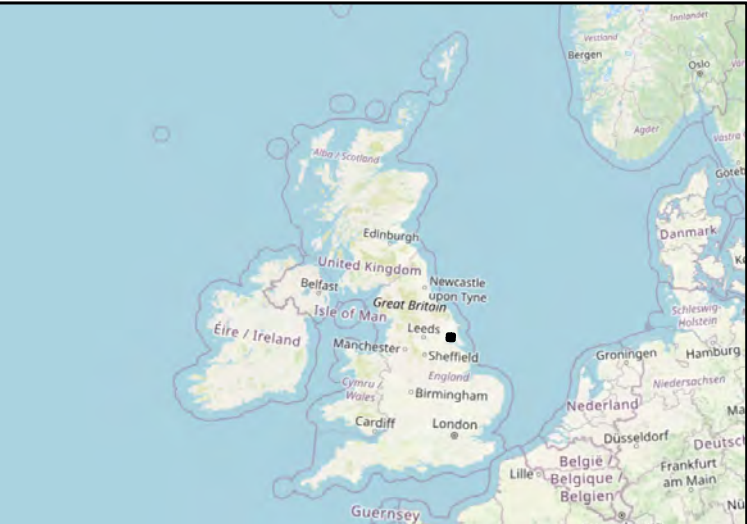
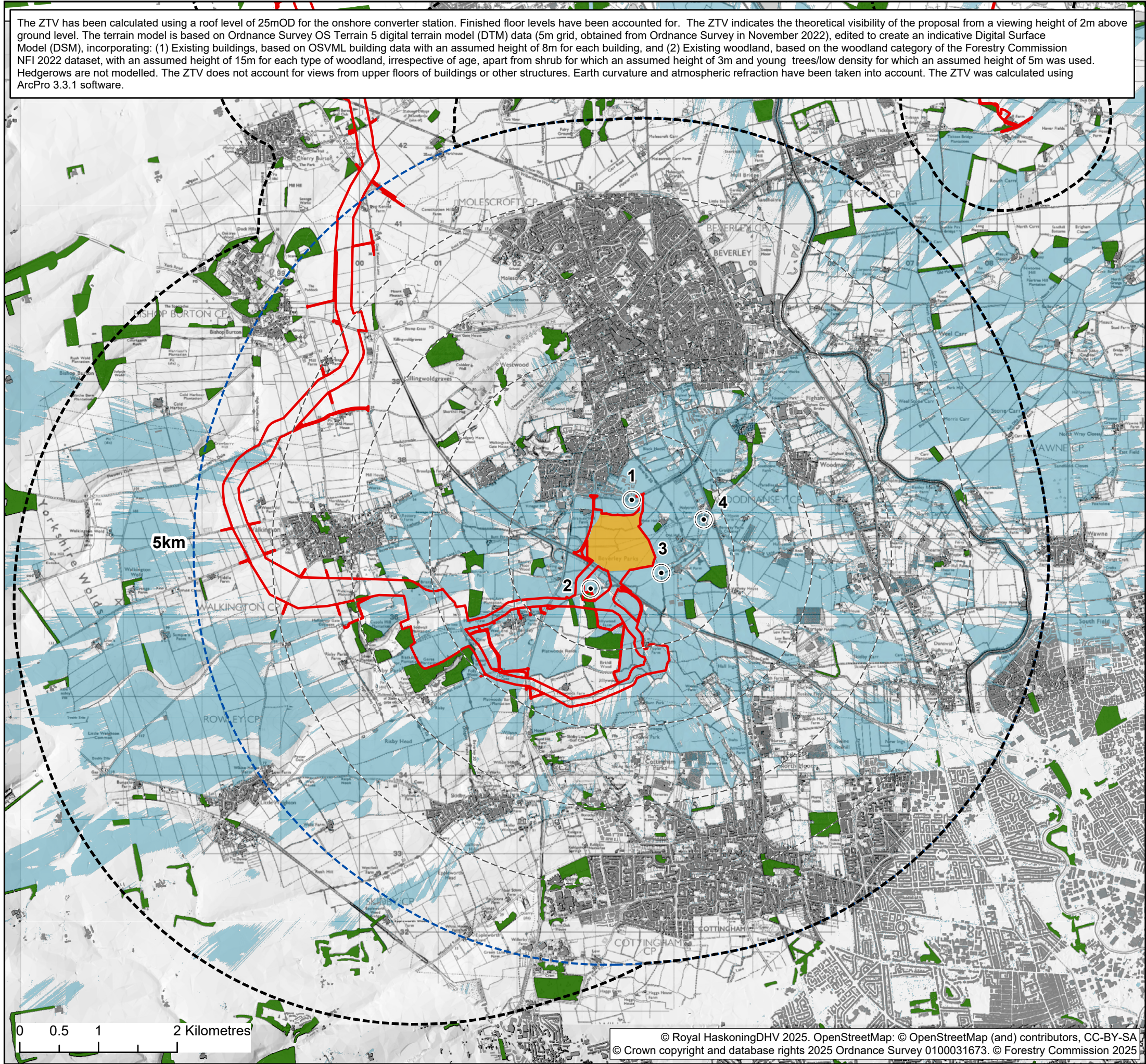
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Revision:	Date:	Drawn:	Checked:	Size:	Scale:
03	03/04/2025	JS	TH	A3	1:110,000
04	28/04/2025	MS	TH	A3	1:110,000

Co-ordinate system: British National Grid







Legend:

- Onshore Development Area
- Landscape and Visual Study Area
- Onshore Converter Station (OCS) Zone 4 Indicative Area for Siting OCS Infrastructure
- 5km buffer from OCS Zone 4
- 1km interval
- Viewpoint location
- 1. Shepherd Lane
- 2. Beverley 20 near Jillywood Farm
- 3. Beverley Parks
- 4. Long Lane
- Existing woodland screening
- Existing building screening
- Proposed OCS Zone 4 theoretically visible

Project:

Dogger Bank D  
Offshore Wind Farm

**DOGGER BANK**  
**WIND FARM**

Title:

Onshore Converter Station Zone of Theoretical Visibility:  
OCS Zone 4

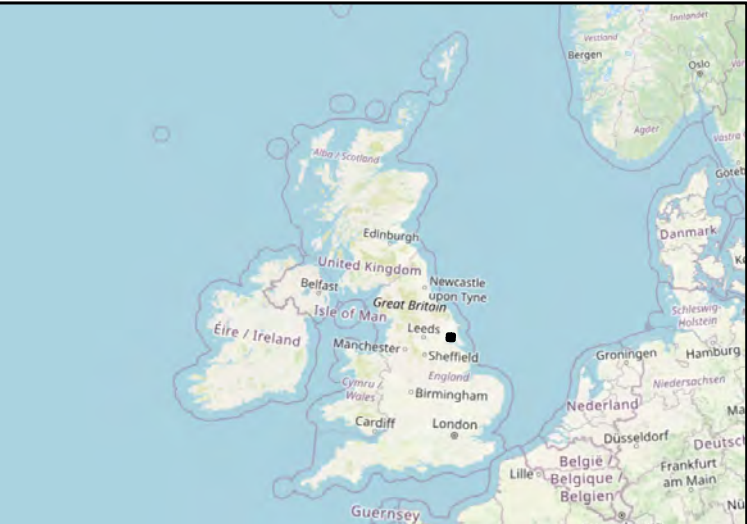
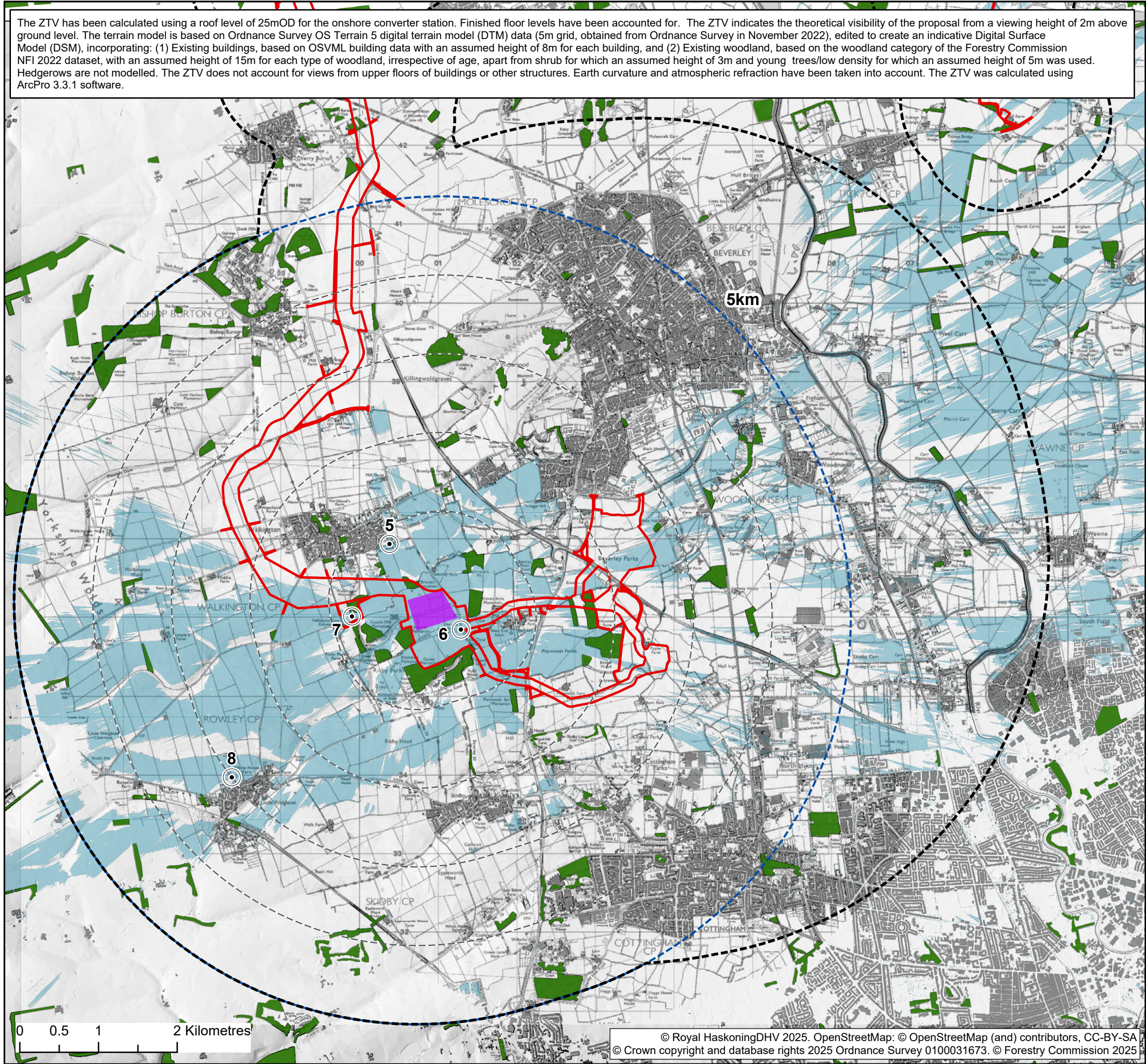
Figure:	27-2	Drawing No:	PC3991-RHD-LUC-ON-ZZ-DR-27-2			
Revision:	Date:	Drawn:	Checked:	Size:	Scale:	
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05	29/05/2025	JS	TH	A3	1:50,000	

Co-ordinate system: British National Grid

sse  
Renewables

equinor





Legend:

- Onshore Development Area
- Landscape and Visual Study Area
- Onshore Converter Station (OCS) Zone 8 Indicative Area for Siting OCS Infrastructure
- 5km buffer from OCS Zone 8
- 1km interval
- Viewpoint location
- 5. Footpath, Walkington
- 6. Core path near Bentley
- 7. Risby Park
- 8. Little Weighton
- Existing woodland screening
- Existing building screening
- Proposed OCS Zone 8 theoretically visible

Project:

Dogger Bank D  
Offshore Wind Farm

**DOGGER BANK**  
**WIND FARM**

Title:

Onshore Converter Station Zone of Theoretical Visibility:  
OCS Zone 8

Figure:	27-3	Drawing No:	PC3991-RHD-LUC-ON-ZZ-DR-27-3			
Revision:	Date:	Drawn:	Checked:	Size:	Scale:	
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Co-ordinate system: British National Grid





## 27.4.2 Scope of the Assessment

33. A number of impacts have been scoped out of the landscape and visual impact assessment. These impacts are outlined in **Volume 2, Appendix 6.2 Impacts Register**, along with supporting justification, and accord with the Scoping Opinion (discussed in **Section 27.3**) and the project description outlined in **Chapter 4 Project Description**.
34. Impacts scoped into the assessment relating to landscape and visual impacts are outlined in **Table 27-4**.
35. A full list of impacts scoped in / out of the LVIA is summarised in **Volume 2, Appendix 6.2 Impacts Register**. A description of how the Impacts Register should be used alongside the PEIR chapter is provided in **Volume 2, Appendix 1.2 Guide to PEIR** and **Chapter 6 Environmental Impact Assessment Methodology**.

*Table 27-4 Landscape and Visual Impacts – Impacts Scoped into the Assessment*

Impact ID	Impact and Project Activity	Rationale
<b>Construction</b>		
LV-C-01	Impacts on landscape character and designated landscapes - resulting from construction activities at the landfall and along the onshore ECC	Construction of the landfall and onshore ECC has potential to impact landscape character and is considered in the LVIA.
LV-C-02	Impacts on landscape character and designated landscapes - resulting from construction activities at the OCS zone including infrastructure within the OCS zone	Construction of above ground infrastructure within the OCS zone (i.e. OCS and ESBI) has potential to impact landscape character and / or landscape designations and is considered in the LVIA.
LV-C-03	Impacts on visual receptors - resulting from construction activities at the landfall and along the onshore ECC	Construction of the landfall and onshore ECC potential to impact visual receptors and is considered in the LVIA.
LV-C-04	Impacts on visual receptors - resulting from construction activities at the OCS zone including infrastructure within the OCS zone	Construction of above ground infrastructure within the OCS zone (i.e. OCS and ESBI) has potential to impact landscape character and / or landscape designations and is considered in the LVIA.

Impact ID	Impact and Project Activity	Rationale
<b>Operation and Maintenance</b>		
LV-O-01	Impacts on landscape character and designated landscapes - resulting from the presence of above-ground infrastructure at landfall and onshore ECC (e.g. above-ground link boxes, bollards, marker posts etc.)	Operation of the onshore ECC has potential to impact landscape character and / or landscape designations due to removal of hedgerow and presence of above ground link boxes and is considered in the LVIA.  There will be no permanent above-ground infrastructure at the landfall, and no significant effects are expected.
LV-O-02	Impacts on landscape character and designated landscapes - resulting from the presence of above-ground infrastructure within the OCS zone	Operation of the above ground infrastructure within the OCS zone (i.e. OCS and ESBI) has potential to impact landscape character and / or landscape designations and is considered in the LVIA.
LV-O-03	Impacts on visual receptors - resulting from the presence of above-ground infrastructure at landfall and onshore ECC (e.g. above-ground link boxes, bollards, marker posts etc.)	The LVIA includes consideration of operational effects of changes resulting from any planting restrictions over installed onshore export cables and at above ground link boxes.  There will be no permanent above-ground infrastructure at the landfall, and no significant effects are expected.
LV-O-04	Impacts on visual receptors - resulting from the presence of above-ground infrastructure within the OCS zone	Operation of the above ground infrastructure within the OCS zone (i.e. OCS and ESBI) has potential to impact visual receptors and is considered in the LVIA.
<b>Decommissioning</b>		
LV-D-02	Impacts on landscape character and designated landscapes - decommissioning activities not yet defined	Decommissioning impacts are scoped in; however, details of onshore decommissioning activities are not known at this stage. As discussed in <b>Section 27.7.5</b> , decommissioning impacts will be assessed in detail through the Onshore Decommissioning Plan (see <b>Table 27-5</b> , Commitment ID CO56) where relevant, which will be developed prior to the commencement of onshore decommissioning works.
LV-D-04	Impacts on visual receptors - decommissioning activities not yet defined	In this assessment, it is assumed that most decommissioning activities would be the reverse of their construction counterparts, and that their impacts would be of similar nature to, and no worse than, those identified during the construction phase.

### 27.4.3 Embedded Mitigation Measures

36. The Project has made several commitments to avoid, prevent, reduce or, if possible, offset potential adverse environmental effects through mitigation measures embedded into the evolution of the Project Design Envelope. These embedded mitigation measures include actions that will be undertaken to meet other existing legislative requirements and those considered to be standard or best practice to manage commonly occurring environmental effects.
37. The assessment of likely significant effects has therefore been undertaken on the assumption that these measures are adopted during the construction, O&M and decommissioning phases. **Table 27-5** identifies proposed embedded mitigation measures that are relevant to the landscape and visual impact assessment.
38. Full details of all commitments made by the Project are provided within the Commitments Register in **Volume 2, Appendix 6.3 Commitments Register**. A description of how the Commitments Register should be used alongside the PEIR chapter is provided in **Volume 2, Appendix 1.2 Guide to PEIR** and **Chapter 6 Environmental Impact Assessment Methodology**. In addition, a list of draft outline management plans which are submitted with the PEIR for consultation is provided in **Section 1.10 of Chapter 1 Introduction**. These documents will be further refined and submitted along with the DCO application. **See Volume 2, Appendix 1.2 Guide to PEIR** for a list of all PEIR documents.
39. The Commitments Register is provided at PEIR stage to provide stakeholders with an early opportunity to review and comment on the proposed commitments. Proposed commitments may evolve during the pre-application phase as the EIA progresses and in response to refinements to the Project Design Envelope and stakeholder feedback. The final commitments will be confirmed in the Commitments Register submitted along with the DCO application.

Table 27-5 Embedded Mitigation Measures Relevant to Landscape and Visual Impacts

Commitment ID	Proposed Embedded Mitigation	How the Embedded Mitigation Will be Secured	Relevance to Landscape and Visual Impact Assessment	Relevance to Impact ID
CO23	At the landfall, trenchless installation techniques will be implemented and exit pits will be located below Mean Low Water Springs (MLWS). Installation will be at a suitable depth below the base of the cliff to avoid potential impacts to the Withow Gap Site of Special Scientific Interest (SSSI).	DCO Works DCO Requirement - Code of Construction Practice	Reduces longer term impact on landscape and visual receptors arising from construction.	LV-C-01 LV-C-03
CO39	A Code of Construction Practice (CoCP) will be provided in accordance with the Outline CoCP. The CoCP will enable effective planning, monitoring and management of onshore construction works to mitigate potential impacts on the environment and communities and ensure compliance with the latest relevant regulatory requirements and best practice.	DCO Requirement – Code of Construction Practice	Reduces longer term impact on landscape and visual receptors arising from construction.	LV-C-01 LV-C-02 LV-C-03 LV-C-04
CO46	A Soil Management Plan (SMP) will be provided as part of the Code of Construction Practice (CoCP). The SMP will be developed in accordance with the Outline CoCP and will detail the soil stripping, excavation, storage, reinstatement, cropping and aftercare measures to safeguard soil resources and drainage during the construction works. The SMP will be informed by Agricultural Land Classification (ALC) and soil condition surveys which will be undertaken post-consent and prior to construction.	DCO Requirement – Code of Construction Practice	Reduces longer term impact on landscape receptors arising from construction.	LV-C-01 LV-C-02
CO47	Made ground, topsoil and subsoil will be stored in separate stockpiles, and any suspected or confirmed contaminated soils will be appropriately separated, contained and tested before removal (if required). The stockpile area will be cordoned off, if required, with secure fencing to prevent any disturbance or contamination by other construction activities. The stockpiled material will be sealed to prevent water ingress and erosion / wash out of the material into the surrounding environment. Where the soil is to be stockpiled for more than six months, the surface of the stockpiles will be seeded with grass / clover mix or covered to minimise erosion. This will be done in accordance with the Soil Management Plan (SMP).	DCO Requirement – Code of Construction Practice	Reduces longer term impact on landscape and visual receptors arising from construction.	LV-C-01 LV-C-02 LV-C-03 LV-C-04
CO56	An Onshore Decommissioning Plan will be developed prior to commencement of onshore decommissioning works based on the relevant available guidance and legislative requirements. The scope and methodology of onshore decommissioning works and appropriate mitigation measures will be detailed in the plan.	DCO Requirement - Onshore Decommissioning Plan	Reduces impact on landscape and visual receptors during decommissioning.	LV-D-02 LV-D-04



# CHAPTER 27 LANDSCAPE AND VISUAL IMPACTS

Commitment ID	Proposed Embedded Mitigation	How the Embedded Mitigation Will be Secured	Relevance to Landscape and Visual Impact Assessment	Relevance to Impact ID
CO59	<p>Where possible, hedgerows and trees will be retained through micro-siting and the use of trenchless installation techniques. Where hedgerows and / or trees require removal, this will be undertaken prior to topsoil removal, and removal of hedgerow sections will be kept to a minimum as required for the construction works. Protection of veteran or ancient trees and ancient woodlands will be prioritised to avoid the losses of irreplaceable habitats through micro-siting and use of trenchless installation techniques where reasonably practicable.</p> <p>Trees identified to be retained will be fenced off, and root protection zones established according to the latest relevant best practice. Where trees require removal, they will be replanted or replaced if replanting is not practicable. Replanting / planting of replacement trees will be undertaken in a suitable location within the Onshore Development Area but not directly over the onshore export cables.</p> <p>Replacement planting of sections of hedgerows and trees removed for construction works will be undertaken during reinstatement post-construction using more diverse and locally appropriate native species. The specification of mitigation / replacement planting will ensure reinstated habitats can be effectively established.</p>	<p>DCO Requirement - Landscape Management Plan</p> <p>DCO Requirement - Ecological Management Plan</p>	Reduces impact on landscape and visual receptors during construction.	<p>LV-C-01</p> <p>LV-C-02</p> <p>LV-C-03</p> <p>LV-C-04</p> <p>LV-O-01</p> <p>LV-O-02</p> <p>LV-O-03</p> <p>LV-O-04</p>
CO60	All onshore export cables will be buried underground for the entire length of the cable corridor. No overhead pylons will be installed as part of the consented works.	DCO Works	Reduces impact on landscape and visual receptors during operation.	<p>LV-O-01</p> <p>LV-O-03</p>
CO61	Joining bays along the onshore export cable corridor and the transition joint bay (TJB) at landfall will be buried underground, with the land above reinstated, except where access will be required to underground link boxes via manhole cover at ground level and where link boxes in proximity to joining bays are installed above-ground.	DCO Requirement - Detailed Design (Onshore)	Reduces impact on landscape and visual receptors during operation.	<p>LV-O-01</p> <p>LV-O-03</p>
CO63	Detailed design of infrastructure in the Onshore Converter Station (OCS) zone will be developed in accordance with the Design Vision. The Design Vision submitted as part of the application for development consent will set out design principles to ensure good design with respect to aesthetic, functionality and sustainability considerations.	DCO Requirement - Detailed Design (Onshore)	Reduces impact on landscape and visual receptors during operation.	<p>LV-O-02</p> <p>LV-O-04</p>
CO64	The Onshore Converter Station (OCS) and Energy Storage and Balancing Infrastructure (ESBI) will be designed to minimise the overall height and massing of associated structures and buildings and integrate them into the surrounding landscape as far as reasonably practicable. The footprint of the permanent above-ground infrastructure will be minimised as far as reasonably practicable whilst ensuring safe and effective operations.	DCO Requirement - Detailed Design (Onshore)		
CO65	<p>A Landscape Management Plan (LMP) will be developed in accordance with the Outline LMP. The LMP will detail:</p> <ul style="list-style-type: none"> <li>○ The reinstatement strategy for areas temporarily disturbed and mitigation planting for landscape elements removed during construction.</li> <li>○ Measures to provide screening to facilitate the integration of built infrastructure in the Onshore Converter Station (OCS) zone into the existing landscape. Landscape mitigation planting will be established as early as reasonably practicable during the construction phase.</li> <li>○ Requirement for aftercare of mitigation and replacement planting which will be undertaken during the establishment period (five years) in which all planting will be monitored and maintained to ensure good establishment of trees, hedgerows and other planting.</li> <li>○ Activities, timeframes and roles and responsibilities during the establishment period.</li> </ul>	DCO Requirement - Landscape Management Plan	Reduces impact on landscape and visual receptors during operation.	<p>LV-C-01</p> <p>LV-C-02</p> <p>LV-C-03</p> <p>LV-C-04</p> <p>LV-O-01</p> <p>LV-O-02</p> <p>LV-O-03</p> <p>LV-O-04</p>

# CHAPTER 27 LANDSCAPE AND VISUAL IMPACTS

Commitment ID	Proposed Embedded Mitigation	How the Embedded Mitigation Will be Secured	Relevance to Landscape and Visual Impact Assessment	Relevance to Impact ID
CO66	Operational lighting (with the exception of low-level, motion-sensor security lighting) at the Onshore Converter Station (OCS) zone will only operate when required for operation and maintenance (O&M) activities during low light conditions. Any operational lighting will be designed in accordance with the latest relevant guidance and legislation and to minimise light spill. Details of the location, height, design and luminance of operational lighting to be used will be provided as part of the detailed design.	DCO Requirement - Detailed Design (Onshore)	Reduces impact on landscape and visual receptors during operation.	LV-O-02 LV-O-04
CO83	To avoid direct impacts to Local Wildlife Sites (LWS) from the installation of cable ducts during construction, micro-siting or trenchless installation techniques will be used where reasonably practicable. Where direct impacts cannot be avoided, bespoke mitigation will be agreed with the relevant authorities where required.	DCO Requirement - Ecological Management Plan DCO Requirement - Code of Construction Practice	Reduces impact on landscape receptors following construction.	LV-C-01 LV-C-03 LV-O-01 LV-O-03
CO85	Construction site lighting will only operate when required and will be positioned and directed to avoid unnecessary illumination and minimise glare to surrounding residential properties, sensitive ecological receptors, Public Rights of Way (PRoW) users and users of adjoining public highways. Details of the location, height, design and luminance of construction site lighting to be used will be provided in the Code of Construction Practice (CoCP).	DCO Requirement - Code of Construction Practice	Reduces impact on landscape and visual receptors during construction.	LV-C-01 LV-C-02 LV-C-03 LV-C-04
CO100	All areas of land temporarily disturbed during construction in the Onshore Development Area, including any temporary construction compounds and haul roads, will be reinstated to pre-existing conditions as far as reasonably practicable. Reinstatement will commence as soon as practicable following completion of the relevant works in the area. In areas of agricultural cropland where temporary loss or disturbance is required, soils will be reinstated within no more than 24 months, wherever practicable and unless otherwise requested by the relevant landowners.	DCO Requirement - Landscape Management Plan DCO Requirement - Ecological Management Plan DCO Requirement - Code of Construction Practice	Reduces impact on landscape and visual receptors during and after construction.	LV-C-01 LV-C-02 LV-C-03 LV-C-04 LV-O-01 LV-O-02 LV-O-03 LV-O-04
CO101	Reinstatement of cable trenches, haul roads and other land temporarily disturbed within the onshore export cable corridor will commence as soon as reasonably practicable following the completion of duct installation works in each section. Where access is required to be retained for cable pull-in, jointing and commissioning works, land will be reinstated following the completion of all onshore export cable construction activities.	DCO Requirement - Landscape Management Plan DCO Requirement - Ecological Management Plan DCO Requirement - Code of Construction Practice	Reduces impact on landscape and visual receptors during and after construction.	LV-C-01 LV-C-03

40. An Outline LMP will be developed at ES stage and submitted with the DCO application, which will detail measures to mitigate landscape and visual impacts and inform the LMP developed post-consent. Indicative embedded mitigation measures which are proposed to be included in the Outline LMP are set out in **Table 27-6**.

*Table 27-6 Indicative Embedded Mitigation Measures to be Included in the Outline Landscape Management Plan*

Outline LMP: Embedded Mitigation Measures for Landscape and Visual Amenity (to be developed at ES stage)
<ul style="list-style-type: none"><li>• There will be measures requiring the retention of existing trees and vegetation within the landfall, onshore ECC and OCS zone wherever practicable.</li><li>• Measures committing to restoring / reinstating landscape features as soon as practicable after construction.</li><li>• Measures committing to the implementation of advance planting / early establishment around the OCS zone.</li><li>• Measures ensuring hedges which are removed along the onshore ECC would be replaced with a more diverse and locally native species composition than those removed.</li><li>• An indicative list of suitable species for hedgerows, shrubs and woodland will be provided.</li><li>• Measures will seek to maximise Biodiversity Net Gain (BNG) through any proposed landscape mitigation planting.</li><li>• Landscape mitigation planting around the OCS zone would include woodland and hedge planting to help screen / filter views and better integrate the OCS and ESBI into the landscape.</li></ul>

27.4.4 Realistic Worst-Case Scenarios

41. To provide a precautionary, but robust, assessment at this stage of the Project’s development process, a realistic worst-case scenario has been defined in **Table 27-7** for each impact scoped into the assessment (as outlined in **Section 27.4.2**). The realistic worst-case scenarios are derived from the range of parameters included in the Project Design Envelope. They ensure that the assessment of likely significant effects is based on the maximum potential impact on the environment. Should an alternative development scenario be taken forward in the final design of the Project, the resulting effects would not be greater in effect significance. Further details on the Project Design Envelope approach are provided in **Chapter 6 Environmental Impact Assessment Methodology**.
42. Following the PEIR publication, further design refinements will be made based on ongoing engineering studies and considerations of the EIA and stakeholder feedback. Therefore, realistic worst-case scenarios presented in the PEIR may be updated in the ES. The Project Design Envelope will be refined where possible to retain design flexibility only where it is needed.

27.4.5 Development Scenarios

43. Consideration is also given to the different development scenarios with respect to the Onshore Converter Station (OCS) zones. At this stage, two OCS zone options remain in the Project Design Envelope (see **Chapter 4 Project Description** for further details) noting that only one option will be developed. The two development scenarios are:
- Infrastructure located in OCS Zone 4; or
  - Infrastructure located in OCS Zone 8.
44. With respect to the landscape and visual impact assessment, there is potential for the assessment of likely significant effects for the OCS zone infrastructure to differ between the two development scenarios. Where relevant, the assessment outcomes presented in **Section 27.7** are reported separately. Where realistic worst-case scenarios are likely to differ, these have also been set out separately in **Table 27-7**.

Table 27-7 Realistic Worst-Case Scenarios for Impacts on Landscape and Visual Impacts

Impact ID	Impact and Project Activity	Realistic Worst-Case Scenario	Rationale
<b>Construction</b>			
LV-C-01	Impacts on landscape character and designated landscapes - resulting from construction activities at the landfall and along the onshore ECC	<b>Landfall</b> <ul style="list-style-type: none"> <li>Maximum number of Transition Joint Bay (TJB) at landfall: 1</li> <li>Maximum number of underground link box at landfall: 1</li> <li>Indicative temporary landfall construction compound area: 12,500m<sup>2</sup> (including construction footprint of TJB and underground link box)</li> <li>Indicative haul road width at landfall: 7m</li> <li>Anticipated duration of landfall construction works: approximately three years (including one year of trenchless installation works)</li> <li>Maximum TJB and underground link box burial depth: 3m</li> </ul>	Construction of the landfall has potential to impact landscape character and visual receptors. Parameters provide the worst-case in terms of construction activity dimensions and timescale.
LV-C-03	Impacts on visual receptors - resulting from construction activities at the landfall and along the onshore ECC		
LV-C-01	Impacts on landscape character and designated landscapes - resulting from construction activities at the landfall and along the onshore ECC	<b>Onshore ECC</b> <ul style="list-style-type: none"> <li>Indicative temporary construction corridor width for HVDC onshore export cables: 32m (50m at trenchless crossing locations)</li> <li>Indicative temporary construction corridor width for HVAC onshore export cables: 55m (60m at trenchless crossing locations)</li> <li>Indicative haul road width within temporary construction corridor: 6m (up to 8.5m where passing places are required)</li> <li>Maximum length of HVDC export cable corridor: 50km</li> <li>Maximum length of HVAC export cable corridor: 5km</li> <li>Maximum number of trenches of HVDC onshore export cables: 2</li> <li>Maximum number of trenches of HVAC onshore export cables: 4</li> <li>Target minimum cable burial depth using open cut trenching: 1.2m</li> <li>Target maximum cable burial depth using trenchless installation techniques: 20m</li> <li>Maximum land area temporarily disturbed during construction: 1,700,000m<sup>2</sup></li> <li>Indicative number of jointing bay locations along onshore ECC: 62</li> <li>Indicative number of link box locations along onshore ECC: 56 (for the purposes of the PEIR assessment, it is assumed that at approximately 20 link box locations for the HVDC export cables and all link box locations for the HVAC export cables will involve the use of above-ground link boxes)</li> <li>Maximum jointing bay and link box temporary construction area for HVDC export cables: 660m<sup>2</sup> (per location)</li> <li>Maximum jointing bay and link box temporary construction area for HVAC export cables: 1,040m<sup>2</sup> (per location)</li> <li>Maximum jointing bay burial depth: 2.5m</li> <li>Maximum underground link box burial depth / above-ground link box height: 2m</li> <li>Temporary construction compound footprints: <ul style="list-style-type: none"> <li>Indicative main construction compound area: 20,000m<sup>2</sup> (per compound)</li> </ul> </li> </ul>	Construction of the onshore ECC has potential to impact landscape character and visual receptors. Parameters provide the worst-case in terms of construction activity dimensions and timescale.
LV-C-03	Impacts on visual receptors - resulting from construction activities at the landfall and along the onshore ECC		

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Impact ID	Impact and Project Activity	Realistic Worst-Case Scenario	Rationale
		<ul style="list-style-type: none"><li>○ Indicative intermediate construction compound area: 5,625m<sup>2</sup> (per compound)</li><li>○ Indicative trenchless installation compound area for HVDC export cables: 300m2 (5,625m<sup>2</sup> for non-HDD techniques) (per compound)</li><li>○ Indicative trenchless installation compound dimensions for HVAC export cables: 800m<sup>2</sup> (5,625m<sup>2</sup> for non-HDD techniques) (per compound))</li><li>○ Indicative number of main construction compounds for onshore export cable works: 4</li><li>○ Indicative number of intermediate construction compounds for onshore export cable works: 8</li><li>○ Indicative number of trenchless crossing locations: 70</li></ul> <ul style="list-style-type: none"><li>● Trenchless installation techniques under consideration include HDD, auger boring, micro-tunnelling, pipe jacking / ramming and Direct Pipe</li><li>● Anticipated duration of onshore export cable construction works: approximately four years</li></ul>	
LV-C-02	Impacts on landscape character and designated landscapes - resulting from construction activities at the OCS zone including infrastructure within the OCS zone	<b>OCS Zone (OCS and ESBI)</b> <ul style="list-style-type: none"><li>● Indicative access road width (including site access road from the public highway and internal tracks within the site): 7.3m</li><li>● Maximum developable area for OCS and ESBI: 25ha (including but not limited to platform footprint, landscaping, access, drainage and attenuation but exclude areas for ecological mitigation / enhancement)</li><li>● Total permanent area: 20.5ha (including but not limited to platform footprint, landscaping, access, drainage and attenuation but exclude areas for ecological mitigation / enhancement)</li><li>● Maximum combined OCS platform and ESBI platform footprint: 14ha</li><li>● Total temporary area: 4.5ha (including 2 temporary construction compounds for the OCS and ESBI)</li><li>● Indicative quantity of topsoil excavated within OCS zone: 100,000m<sup>3</sup> (assumed 50% of topsoil to be removed off-site – 50,000m<sup>3</sup>)</li><li>● Anticipated duration of OCS and ESBI construction works: approximately five years</li><li>● It is assumed that the OCS and ESBI would be co-located, and it is assumed the construction of the platform(s) would require cut and fill earthworks, the extent of which will depend on design and topography.</li></ul>	Construction of the OCS and ESBI within the OCS zone has potential to impact landscape character and visual receptors. Parameters provide the worst-case in terms of construction activity dimensions and timescale.
LV-C-04	Impacts on visual receptors - resulting from construction activities at the OCS zone including infrastructure within the OCS zone		
Operation and Maintenance			
LV-O-01	Impacts on landscape character and designated landscapes - resulting from the presence of above-ground infrastructure at landfall and onshore ECC (e.g. above-ground link boxes, bollards, marker posts etc.)	Anticipated duration of O&M phase: approximately 35 years <b>Landfall</b> <ul style="list-style-type: none"><li>● Maximum number of Transition Joint Bay (TJB) at landfall: 1</li><li>● Maximum permanent TJB area: 30m<sup>2</sup></li><li>● Maximum permanent underground link box area: 10m<sup>2</sup></li><li>● Maximum TJB and underground link box burial depth: 3m</li><li>● Underground link box will be installed with a manhole cover for O&amp;M access at ground level and typically marked / protected by bollards, fences or similar of approximately 1.2m to 2m in height (where required and agreed with the relevant landowners).</li></ul>	Operational activities at the landfall are not expected to impact landscape character and visual receptors.
LV-O-03	Impacts on visual receptors - resulting from the presence of above-ground infrastructure at landfall and onshore ECC (e.g. above-ground link boxes, bollards, marker posts etc.)		



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Impact ID	Impact and Project Activity	Realistic Worst-Case Scenario	Rationale
LV-O-01	Impacts on landscape character and designated landscapes - resulting from the presence of above-ground infrastructure at landfall and onshore ECC (e.g. above-ground link boxes, bollards, marker posts etc.)	<ul style="list-style-type: none"> <li>Anticipated duration of O&amp;M phase: approximately 35 years</li> </ul> <b>Onshore ECC</b> <ul style="list-style-type: none"> <li>Indicative width of operational easement for HVDC export cables: 20m</li> <li>Indicative width of operational easement for HVAC export cables: 25m</li> <li>Maximum length of HVDC export cable corridor: 50km</li> <li>Maximum length of HVAC export cable corridor: 5km</li> <li>Indicative number of jointing bay locations along onshore ECC: 62</li> </ul>	Operational activities along the onshore ECC may potentially impact landscape character and visual receptors due to the presence of above ground link boxes and gaps in hedgerows above the installed onshore export cables. Parameters provide the worst-case in terms of infrastructure dimensions.
LV-O-03	Impacts on visual receptors - resulting from the presence of above-ground infrastructure at landfall and onshore ECC (e.g. above-ground link boxes, bollards, marker posts etc.)	<ul style="list-style-type: none"> <li>Indicative number of link box locations along onshore ECC: 56 (for the purposes of the PEIR assessment, it is assumed that at approximately 20 link box locations for the HVDC export cables and all link box locations for the HVAC export cables will involve the use of above-ground link boxes)</li> <li>Maximum permanent jointing bay area: 30m<sup>2</sup> (per jointing bay)</li> <li>Maximum jointing bay burial depth: 2.5m</li> <li>Maximum permanent underground link box area: 4m<sup>2</sup> (per link box)</li> <li>Maximum permanent above-ground link box area: 3m<sup>2</sup> (per link box)</li> <li>Underground link boxes will be installed with a manhole cover for O&amp;M access at ground level. Above-ground link boxes will be installed as kiosks on concrete pads. Link boxes are typically marked / protected by bollards, fences or similar of approximately 1.2m to 2m in height (where required and agreed with the relevant landowners).</li> <li>Small marker posts of approximately 1m to 1.2m height will be installed along the operational easement to demark the location of the installed onshore export cables. Marker posts will, at a minimum, be required at field boundaries, on either side of obstacle crossings such as roads and watercourses and where there are significant directional changes in the cable route.</li> </ul>	
LV-O-02	Impacts on landscape character and designated landscapes - resulting from the presence of above-ground infrastructure within the OCS zone	Anticipated duration of O&M phase: approximately 35 years  <b>OCS Zone (OCS and ESBI)</b> <ul style="list-style-type: none"> <li>Total permanent area: 20.5ha (including but not limited to platform footprint, landscaping, access, drainage and attenuation but exclude areas for ecological mitigation / enhancement)</li> </ul>	Operational activities at the OCS zone may potentially impact landscape character and visual receptors due to the presence of the OCS and ESBI. Parameters provide the worst-case in terms of infrastructure dimensions.
LV-O-04	Impacts on visual receptors - resulting from the presence of above-ground infrastructure within the OCS zone	<ul style="list-style-type: none"> <li>Maximum combined OCS platform and ESBI platform footprint: 14ha</li> <li>Indicative number of OCS buildings: 3 (excluding smaller shed structures)</li> <li>Indicative number of ESBI buildings: 6 (excluding smaller shed structures)</li> <li>Maximum OCS building height: 25m</li> <li>Maximum ESBI building height: 20m</li> <li>Maximum OCS outdoor electrical equipment height: 30m</li> <li>Maximum ESBI outdoor electrical equipment height: 25m</li> <li>OCS and ESBI assumed to be unmanned assets with no permanent on-site personnel presence. Operational lighting (with the exception of low-level, motion-sensor security lighting) at the OCS zone will only operate when required for operation and maintenance activities during low light conditions.</li> </ul>	

Impact ID	Impact and Project Activity	Realistic Worst-Case Scenario	Rationale
		<ul style="list-style-type: none"><li>It is assumed that the OCS and ESBI would be co-located, and it is assumed the construction of the platform(s) would require cut and fill earthworks, the extent of which will depend on design and topography.</li></ul>	
Decommissioning			
LV-D-02	Impacts on landscape character and designated landscapes - decommissioning activities not yet defined	<p>The final decommissioning strategy of the Project's onshore infrastructure has not yet been decided. For a description of potential onshore decommissioning works, refer to <b>Chapter 4 Project Description</b>.</p> <p>It is recognised that regulatory requirements and industry best practice change over time. Therefore, the details and scope of onshore decommissioning works will be determined by the relevant regulations and guidance at the time of decommissioning. Specific arrangements will be detailed in an Onshore Decommissioning Plan (see <b>Table 27-5</b>, Commitment ID CO56), which will be submitted and agreed with the relevant authorities prior to the commencement of onshore decommissioning works.</p> <p>For this assessment, it is assumed that decommissioning is likely to operate within the parameters identified for construction (i.e. any activities are likely to occur within the temporary construction working areas and require no greater amount or duration of activity than assessed for construction). The decommissioning sequence will generally be the reverse of the construction sequence. It is therefore assumed that decommissioning impacts would likely be of similar nature to, and no worse than, those identified during the construction phase.</p>	
LV-D-04	Impacts on visual receptors - decommissioning activities not yet defined		

27.5 Assessment Methodology

27.5.1 Guidance Documents

45. The following guidance documents have been used to inform the baseline characterisation, assessment methodology and mitigation design for landscape and visual impact:
- Landscape Institute and Institute of Environmental Management and Assessment (2013) Guidelines for LVIA (‘GLVIA3’);
  - Landscape Institute Technical Guidance Note 06 / 19: Visual Representation of Development Proposals; and
  - Landscape Institute Technical Guidance Note 02 / 21: Assessing Landscape Value Outside National Designations.

27.5.2 Data and Information Sources

27.5.2.1 Desk Study

46. A desk study has been undertaken to compile baseline information in the previously defined Study Area (see **Section 27.4.1**) using the sources of information set out in **Table 27-8**.

Table 27-8 Desk-Based Sources for Landscape and Visual Impacts Data

Data Source	Spatial Coverage	Year(s)	Summary of Data Contents
Heritage Coast	England	2010	Identifies extent of Heritage Coast designation at Flamborough Head
National Character Areas	England	2014	National classification of Landscape Character to inform baseline assessment
East Riding of Yorkshire Landscape Character Assessment	East Riding of Yorkshire	2018	Local level classification of Landscape Character
National Landscapes	England	2024	Identifies extent of the candidate boundary for the Yorkshire Wolds National Landscape
Important Landscape Areas	East Riding of Yorkshire	2016	Identifies extent of ILA within the Landscape and Visual Study Area

Data Source	Spatial Coverage	Year(s)	Summary of Data Contents
Ordnance Survey (OS) Mapping, aerial photography	Landscape and Visual Study Area	2024	Provides general information about the landscape of the Landscape and Visual Study Area and the locations of visual receptors
OS Digital Terrain Mapping	Landscape and Visual Study Area	2024	Used for generation of ZTV and visualisations
Dogger Bank Creyke Beck Environmental Statement (Forewind, 2013)	Parts of the Landscape and Visual Study Area	2013	Cross-check of landscape and visual receptors which have previously been examined as part of a consented project in a similar area.
Hornsea Project Four Environmental Statement (Ørsted, 2021)	Parts of the Landscape and Visual Study Area	2021	Cross-check of landscape and visual receptors which have previously been examined as part of a consented project in a similar area.
Dogger Bank South Environmental Statement (RWE, 2024)	Parts of the Landscape and Visual Study Area	2024	Cross-check of landscape and visual receptors which have previously been examined as part of a proposed project in a similar area.

27.5.2.2 Site-Specific Surveys

47. In addition to desk-based sources, site-specific surveys were undertaken to provide detailed baseline information on landscape and visual impacts. **Table 27-9** summarises surveys that have been completed which are relevant to the landscape and visual impact baseline characterisation.

Table 27-9 Site-Specific Survey Data for Landscape and Visual Impacts

Survey	Spatial Coverage	Year(s)	Summary of Survey Data
Landscape and visual site survey	The area surrounding the OCS zones (5km Study Area)	2024	Photography for use in visualisations was captured during site visits in October 2024 and November 2024. Site surveys helped provide an up-to-date understanding of the existing landscape and visual baseline to inform the assessment.

27.5.3 Impact Assessment Methodology

48. **Chapter 6 Environmental Impact Assessment Methodology** sets out the overarching approach to the impact assessment methodology. The topic-specific methodology for the LVIA is described further in this section. Stakeholders attending the first meeting of ETG9 held on 10<sup>th</sup> September 2024 were in agreement that the proposed assessment methodology is suitable (see **Volume 2, Appendix 27.1 Consultation Responses for Landscape and Visual Impacts**)).

27.5.3.1 Impact Assessment Criteria

27.5.3.1.1 Sensitivity of Landscape Receptors

49. GLVIA3 states that the sensitivity of landscape receptors should be assessed in terms of the susceptibility of the receptor to the type of change proposed and the value attached to the landscape resource.
50. The susceptibility of a landscape receptor is a measure of its ability to accommodate the proposed development “*without undue consequences for the maintenance of the baseline situation*” (Paragraph 5.40, GLVIA3). As recommended in GLVIA3, judgements on the susceptibility of landscape receptors are recorded as high, medium or low according to **Table 27-10**.

Table 27-10 Susceptibility of Landscape Receptors

Susceptibility	Definition
High	The landscape receptor is less able to accommodate the type of development proposed without undue negative consequences to the baseline situation. Attributes that make up the character of the landscape offer limited opportunities for accommodating the change without key characteristics being fundamentally altered, leading to a different landscape character.
Medium	The landscape receptor is partly able to accommodate the proposed development without undue negative consequences to the baseline situation. Attributes that make up the character of the landscape offer some opportunities for accommodating the change without key characteristics being fundamentally altered.
Low	The landscape receptor is more able to accommodate the proposed development without undue negative consequences to the baseline situation. Attributes that make up the character of the landscape are resilient to being changed by the type of development proposed.

51. As per guidance set out in GLVIA3, value of the landscape resource is determined in line with **Table 27-11**, with reference to:
- A review of designations and the level of policy importance that they signify (such as landscapes designated at international, national, or local level); and
  - Application of criteria that indicate value (such as landscape quality, scenic quality, rarity, representativeness, conservation interests, recreation value, perceptual aspects, associations e.g. with artists or writers).

Table 27-11 Value of Landscape Receptors

Value	Definition
High	<ul style="list-style-type: none"><li>• Areas or features designated at a national level e.g. National Parks or National Landscapes (formerly AONB), or key features of these with national policy level protection; and /or</li><li>• Landscapes with high scenic quality, and / or conservation interest, and / or recreational value, and / or cultural associations, which are valued at a national level (based on a review of nationally designated sites and features).</li></ul>
Medium	<ul style="list-style-type: none"><li>• Areas or features designated at a county or local level e.g. local authority designated landscapes or key features of designated landscapes; and / or</li><li>• Landscapes with some scenic quality, and / or some recreational value, or important cultural associations which are valued at a district level.</li></ul>
Low	<ul style="list-style-type: none"><li>• Areas or features that are not formally designated but may be valued at a community level; and / or</li><li>• Landscape of lower aesthetic qualities than the landscapes described above e.g. character that is widespread.</li></ul>

52. The sensitivity of a landscape receptor to change is defined as high, medium or low and is based on weighing up professional judgements regarding susceptibility and value, as set out in **Table 27-12**.

Table 27-12 Sensitivity of Landscape Receptors

Sensitivity	Definition
High	Landscapes which by nature of their character would be less able to accommodate development without change in character, due to their relatively higher susceptibility to the type of change proposed, and / or the higher value placed upon them by society.
Medium	Landscapes which by nature of their character would be able to accommodate development, subject to careful siting and design, due to their more moderate susceptibility to the type of change proposed, and / or relatively moderate value placed upon them by society.

Sensitivity	Definition
Low	Landscapes which by nature of their character would be more able to accommodate development without substantive change in character, due to their relatively lower susceptibility to the type of change proposed, and / or lower value placed upon them by society.

27.5.3.1.2 Sensitivity of Visual Receptors

53. GLVIA3 states that the nature of visual receptors should be assessed in terms of the susceptibility of the receptor to change in views / visual amenity and the value attached to particular views.
54. The susceptibility of visual receptors to changes in views / visual amenity is a function of the occupation or activity of people experiencing the view, and the extent to which their attention is focussed on views (GLVIA3, Paragraph 6.32). This is recorded as high, medium or low according to **Table 27-13**.

Table 27-13 Susceptibility of Visual Receptors

Susceptibility	Definition
High	Communities where views contribute to the landscape setting enjoyed by residents; people engaged in outdoor recreation (including users of public rights of way whose interest is likely to be focussed on the landscape); visitors to heritage assets or other attractions where views of surroundings are an important contributor to experience.
Medium	Travellers on road, rail or other transport routes.
Low	People engaged in outdoor sport or recreation which does not involve or depend upon appreciation of views of the landscape; people at their place of work whose attention is not on their surroundings.

55. Recognition of the value of a view is determined in accordance with **Table 27-14**, with reference to:
- Planning designations specific to views;
  - Whether a view is recorded as important in relation to the special qualities of a designated landscape;
  - Whether it is recorded as important in relation to heritage assets (such as designed views recorded in citations of Registered Parks and Gardens, or views recorded as of importance in Conservation Area Appraisals); and / or
  - The value attached to views by visitors, for example through appearances in guidebooks or on tourist maps, provision of facilities for their enjoyment and references to them in literature and art.

Table 27-14 Value of Visual Receptors

Value	Definition
High	Views recorded in World Heritage Site Management Plans or associated with nationally designated landscapes (i.e. identified in management plans), designed views recorded in citations for historic parks and gardens/scheduled monuments or a view regularly used in guidebooks for that part of the country.
Medium	Views associated with local authority designated landscapes or recorded as of importance in Conservation Area Appraisals or experienced by a visitor to an area as well as the local community.
Low	Views valued at a community level and likely to be experienced mostly by the local community.

56. The sensitivity of a visual receptor to change is defined as high, medium or low and is based on weighing up professional judgements regarding susceptibility and value, as set out in **Table 27-15**, and in accordance with the guidance set out in GLVIA3.

Table 27-15 Sensitivity of Visual Receptors

Sensitivity	Definition
High	Larger numbers of viewers and / or those with proprietary interest and prolonged viewing opportunities such as residents and users of attractive and well-used recreational facilities. The quality of the existing view, as likely to be perceived by the viewer, is considered to be high.
Medium	Small numbers of residents or moderate numbers of recreational viewers, with an interest in their environment. Larger numbers of recreational road users. The quality of the existing view, as likely to be perceived by the viewer, is considered to be medium.
Low	Small numbers of recreational viewers with interest in their surroundings. Viewers with a passing interest not specifically focussed on the landscape e.g. workers, commuters. The quality of the existing view, as likely to be perceived by the viewer, is considered to be low.

27.5.3.1.3 Magnitude of Landscape Impact

57. As per guidance set out in GLVIA3, the magnitude of the impact on each landscape receptor is reported in terms of its scale, geographical extent, duration and reversibility.



58. For landscape receptors, the scale of change depends on the degree to which the character of the landscape is changed through removal of existing landscape components or addition of new ones. Of particular concern is how the changes affect the key characteristics of the landscape. In this assessment scale is described as being imperceptible, small, medium or large, with reference to the definitions set out in **Table 27-16**.

Table 27-16 Scale of Landscape Change

Scale	Definition
Large	Extensive loss or modification of landscape elements or addition of new elements and features which alter the key characteristics and perceptual character of the landscape to a large extent.
Medium	Loss of landscape elements and features or addition of new ones which result in discernible and distinct changes to landscape characteristics and character.
Small	A perceptible but small change to landscape characteristics and character as a result of the loss of landscape elements and features or addition of new ones.
Barely Perceptible	A barely perceptible / imperceptible change to landscape character and characteristics.

59. The geographical extent over which the landscape effect will be felt is described on a continuum between ‘localised’, i.e. restricted to the site and immediate surroundings, and ‘widespread’, across a whole landscape. This is set in the context of the landscape and visual Study Area, so that a ‘widespread’ effect would be one affecting all or most of the relevant Study Area. The geographical extent is generally described by defining an area over which the effect will occur, with reference to identifiable landscape features.

60. GLVIA3 states that “*duration can usually be simply judged on a scale such as short term, medium term or long term.*” For the purposes of this assessment, duration has been determined in relation to the phases of the development, as follows:

- ‘Short-term’ effects are those that occur during construction, and may extend into the early part of the O&M phase, e.g. construction activities;
- ‘Medium-term’ effects are those that occur during part of the O&M phase, e.g. relating to mitigation planting, where effects may cease or reduce on maturation of planting; and
- ‘Long-term’ effects are those which occur throughout the O&M phase, e.g. presence of the OCS and ESBI, or are permanent effects which continue after the O&M phase.

61. Reversibility is reported as reversible, partially reversible or not reversible (permanent), and is related to whether the change can be reversed. For example, effects arising from presence of construction traffic will cease at the end of construction, and are therefore reversible. Effects arising from presence of new built development are not readily reversible so would be considered permanent. In some cases, effects can be considered partially reversible if mitigation (e.g. landscape planting) helps reverse some of the effects. The duration across which any effect could be reversed, or partially reversed, would be considered as noted in the preceding paragraph.

62. The magnitude of impact is derived by combining professional judgements on scale, geographical extent, duration and reversibility as set out in **Table 27-17**.

Table 27-17 Magnitude of Landscape Impact

Magnitude	Definition
High	A clearly evident and frequent / continuous change in landscape features and characteristic affecting an extensive area (relative to Landscape and Visual Study Area), or the characteristics, and / or notable widespread alteration to the special or key qualities of designated areas.
Medium	A moderate change in landscape features and character, frequent or continuous, and over a wide area, or a clearly evident change either over a restricted area, and / or with some alteration to the special or key qualities of designated areas.
Low	A small change in landscape features and character over a wide area or a moderate change over a more restricted area, and / or barely altering the special of key qualities of designated areas.
Negligible	An imperceptible, barely or rarely perceptible change in landscape features and character, and / or not altering the special or key qualities of designated areas.

27.5.3.1.4 Magnitude of Visual Impact

63. As per guidance set out in GLVIA3, the magnitude of the impact on visual receptors is reported in terms of its scale, geographical extent, duration and reversibility.

64. For visual receptors, the scale of change depends on:

- The scale of the change in view with respect to the loss or addition of features in the view and changes in its composition, including the proportion of the view occupied by the proposed development;
- The degree of contrast or integration of any new features or changes in the landscape with the existing or remaining landscape elements and characteristics in terms of form, scale and mass, line, height, colour and texture; and / or

- The nature of the view of the proposed development, in terms of whether views will be full, partial or glimpses.

65. The assessment assumes winter conditions with minimal screening by deciduous vegetation and trees. In this assessment, scale is described as being imperceptible, small, medium or large, with reference to the definitions set out in **Table 27-18**.

Table 27-18 Scale of Visual Change

Scale	Definition
Large	Large change in view, perhaps where the development is in close proximity in a direct line of vision, or affecting a substantial part of the view, or providing contrast with the existing view.
Medium	Clearly perceptible change in view, perhaps where the development is relatively close but at an oblique angle or further away in the direct line of vision, creating a distinct new element in the view.
Small	Small change in view, perhaps where the development is at a distance or oblique angle, or where the scale of the landscape absorbs the development well.
Negligible	Change in view which is barely perceptible.

66. The geographical extent records the area over which the changes would be visible, e.g. whether there is only one point from where the development can be glimpsed, or whether similar views can be gained from large areas. It can also relate to the number of people affected with a larger geographical extent applying where larger numbers of people will be affected. The geographical extent is generally described in terms of a defined area.
67. Reversibility is reported as reversible, partially reversible or not reversible (permanent), and is related to whether the change can be reversed. For example, effects arising from the presence of construction traffic will cease at the end of construction and are therefore reversible. Effects arising from the presence of new built development are not readily reversible so would be considered permanent. In some cases, effects can be considered partially reversible if mitigation (e.g. landscape planting) helps reverse some of the effects. The duration across which any effect could be reversed, or partially reversed, would be considered as noted in the preceding paragraph.
68. The magnitude of impact is derived by combining professional judgements on scale, geographical extent, duration and reversibility as set out in **Table 27-19**.

Table 27-19 Magnitude of Visual Impact

Magnitude	Definition
High	Major changes in view at close distances, affecting a substantial part of the view, continuously visible over the long term, or obstructing a substantial part or important elements of the view.
Medium	Clearly perceptible changes in views at intermediate distances, resulting in either a distinct new element in a significant part of the view, or a more wide-ranging, less concentrated change across a wider area.
Low	Minor changes in views, at long distances, or visible over the short term, perhaps at an oblique angle, or which blends to an extent with the existing view.
Negligible	A change which is barely visible, perhaps at very long distances or at an oblique angle, and / or visible over the short term, and which generally blends with the existing view.

27.5.3.1.5 Effect Significance

69. The assessment of significance of an effect is informed by the sensitivity of the receptor and the magnitude of the impact as described above, and in accordance with the guidance set out in GLVIA3. The determination of significance requires the application of professional judgement and experience to take on board the many different variables which need to be considered (see **Plate 27-1**), and which are given different weight according to site-specific and location-specific considerations in each instance. Judgements are made on a case-by-case basis, guided by the considerations set out in **Section 27.5.3.1**. Definitions of each level of effect significance are provided in **Table 27-20**. For the purposes of this assessment, any effect that is of major or moderate significance is considered to be significant in EIA terms, whether this be adverse or beneficial. Any effect that has a significance of minor or negligible is not significant.
70. The direction of effect (positive / beneficial, negative / adverse, or neutral) is determined in relation to the degree to which the proposal fits with landscape character and the contribution to the landscape that the development makes. In this assessment, taking a precautionary stance, all effects are considered to be adverse unless specifically stated otherwise in the assessment.

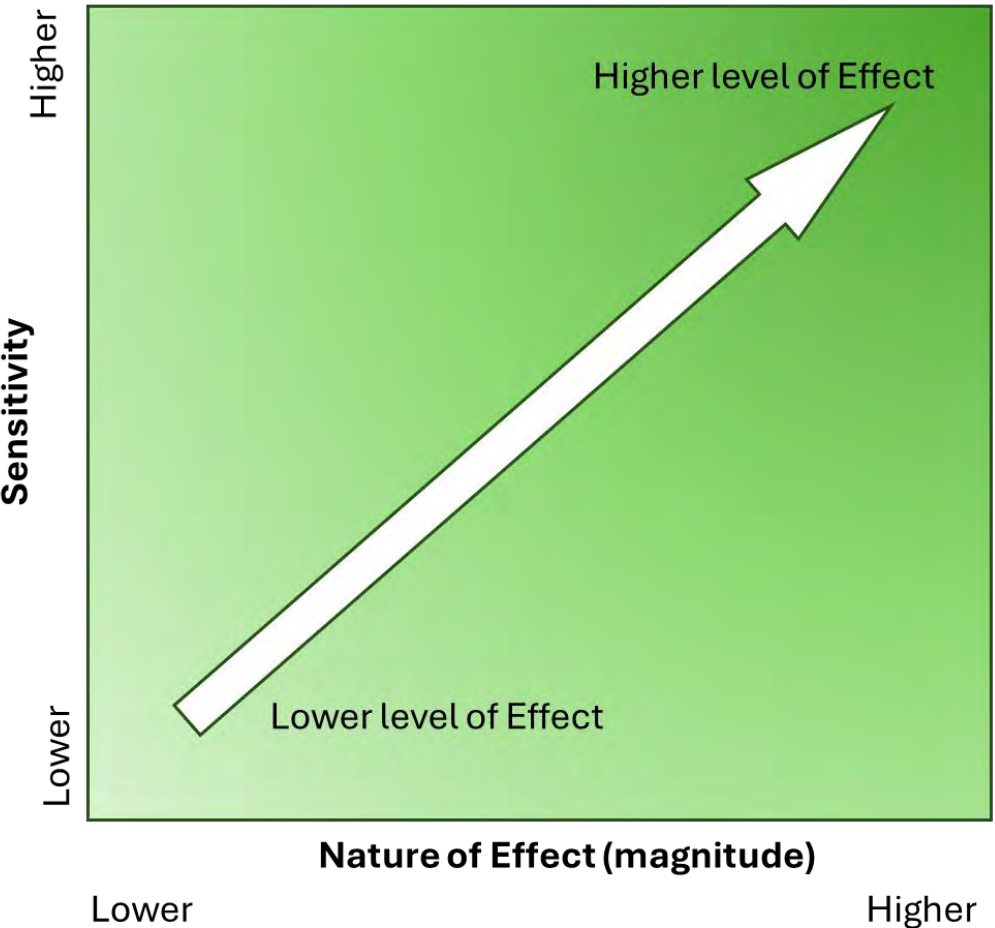


Plate 27-1 Diagram Guiding the Assessment of Significance for Landscape and Visual Effects

Table 27-20 Definition of Effect Significance

Significance	Definition
Major	Very large or large change in the landscape or the view, which is likely to be an important consideration at a regional or district level.
Moderate	Intermediate change in the landscape or the view, which is likely to be an important consideration at a local level.
Minor	Small change in the landscape or the view, which may be raised as a local issue but is unlikely to be important in the decision making process.
Negligible	Very limited discernible change in the landscape or the view, unlikely to be a concern even at the local level.
No change	No impact, therefore no change in the landscape or the view.

27.5.4 Cumulative Effects Assessment Methodology

71. The cumulative effect assessment (CEA) considers other plans and projects that may act collectively with the Project to give rise to cumulative effects on landscape and visual impact receptors. The general approach to the CEA for landscape and visual impact involves screening for potential cumulative effects, identifying a short list of plans and projects for consideration and evaluating the significance of cumulative effects. **Chapter 6 Environmental Impact Assessment Methodology** and **Volume 2, Appendix 6.4 Cumulative Effects Screening Report – Onshore** provide further details on the general framework and approach to the CEA.

27.5.5 Assumptions and Limitations

72. This chapter provides a preliminary assessment of the likely significant effects of the Project in relation to landscape and visual impacts using information available at the time of drafting as described in **Chapter 6 Environmental Impact Assessment Methodology**. This assessment will be refined where relevant and presented in the ES to be submitted with the DCO application.
73. The early design assumptions form the basis of the worst-case scenario, and as such the basis for assessment is likely to over-estimate the level of development at the OCS zones. For the purposes of the LVIA, it is assumed that the OCS and ESBI would be situated on flat platform(s). It is further assumed the construction of the platform(s) would require cut and fill earthworks, and that a greater level of cut and fill will be required in OCS Zone 8 due to the nature of the topography.
74. The visualisations do not illustrate the proposed layout or scale of the OCS or ESBI, given there is a high level of uncertainty surrounding the layout of the OCS zone. Instead, the visualisations illustrate the full extents of the siting area within each OCS zone, using worst-case height parameters (i.e. maximum building height of 25m associated with the OCS). The siting area for OCS Zone 4 is the whole of the OCS zone. The siting area for OCS Zone 8 is a smaller area identified on **Figure 27-3**. The assessment is based on the assumption that the proposed OCS and ESBI, described in **Section 27.4.4**, could be anywhere within the siting area. The assessment therefore considers a worst case, but is limited by the lack of detail around the appearance of the OCS and ESBI.
75. It is assumed that infrastructure within the OCS zone would not be continuously lit, with lighting only required for O&M activities during low light conditions and low-level, motion sensor security lighting (see **Table 27-5**, Commitment ID CO66).

76. At the landfall, the TJB and associated link box would be buried underground. In relation to the onshore ECC, all onshore export cables (HVDC) and associated jointing bays would be buried underground (see **Table 27-5**, Commitment IDs CO60 and CO61). It is assumed that any above ground link boxes (where required) located adjacent to jointing bay locations would be approximately 1.2 to 2m in height. It is expected that all link box locations for the HVAC export cables would be above ground between the OCS zone and the grid connection at Birkhill Wood Substation, and that approximately 20 link box locations for the HVDC export cables would be above ground between landfall and the OCS zone.
77. No further overarching assumptions or limitations have been identified that apply to the LVIA. Where routine assumptions have been made in the course of undertaking the assessment, these are noted throughout.

## 27.6 Baseline Environment

### 27.6.1 Existing Landscape Baseline

#### 27.6.1.1 Landscape Character

78. At a national level, Natural England divided England into distinct landscapes called National Character Areas (NCA). Each NCA is defined by a unique combination of landscape, biodiversity, geodiversity, history, and cultural and economic activity.
79. Most of the Landscape and Visual Study Area lies within NCA 40: Holderness (Natural England, 2013). Natural England describe this NCA as a rural, low-lying, undulating plain that centres around the River Hull that flows north to south in a broad shallow valley towards Hull before it joins the Humber Estuary and drains into the North Sea.
80. The eastern extents of the Holderness NCA comprise a coastline of soft boulder clay cliffs that rapidly erode into the North Sea, providing an important process of sediment transfer southwards to the beaches of the Humber, Lincolnshire coast and The Wash. The southern extents of the NCA descend into the Humber Estuary, while the north and west extents are bounded by the dip slope of the Yorkshire Wolds.
81. Holderness and the Yorkshire Wolds share an underlying chalk aquifer, and the River Hull is formed by springs and streams that flow from the Wolds – these are most northerly chalk streams in the UK. Draining from the River Hull are an extensive network of canals, rivers, becks and dykes. The flood plain supports high-quality agricultural land comprising large-scale fields bounded by drainage ditches. On higher ground, the fields are bounded by hedgerows. Natural vegetation is highly fragmented and comprises remnants of semi natural vegetation such as wet grassland, swamp, and carr woodland.
82. The settlement throughout this NCA is relatively dispersed with small, traditional villages and hamlets scattered throughout the area and connected by a network of winding minor roads and lanes. Village churches are distinctive landmarks. There are some large caravan sites along the coast and the largest inland settlement is Beverley.
83. Long views are afforded by the flat, open landscape and sparse woodland cover. Views to the north and west are enclosed by the Wolds while the clay cliffs provide long views out to sea and the chalk headland of Flamborough in the north.
84. The south-western extents of the Landscape and Visual Study Area lies within NCA 27: Yorkshire Wolds (Natural England, 2012). This NCA is made up of high, gently rolling ground formed by a prominent chalk escarpment and plateau that sweep from the Humber Estuary west of Hull to Flamborough Head. The landscape is large in scale, expansive, and rolling. Deeply incised into the chalk are valleys which are sheltered and offer a contrast to the escarpment and plateau.
85. Most of the Yorkshire Wolds NCA is agricultural land, with a low proportion being urban and woodland, the latter being generally limited and restricted to higher land, steeper slopes within valleys, and farmstead shelterbelts. More significant woodland areas are associated with large estates and designed parklands, e.g. at Risby Park.
86. While there is some livestock rearing, much of the agricultural land is arable to take advantage of the good quality soils. The fields are large and regular except when in close proximity to the valleys when they must conform to more sinuous lines. The settlement is generally sparse and determined by the landform: scattered farmsteads on higher ground, small villages within valleys, and small market towns found on fringes.
87. The views afforded by the landscape are expansive, long, and open. The sparse population along with the agriculture and open views “*instils a sense of openness, escapism and tranquillity*” (Natural England, 2013).
88. A small portion of the south-eastern extents of the Landscape and Visual Study Area lies within NCA 41: Humber Estuary. The Humber Estuary NCA is an estuarine landscape comprising the expansive waters of the Humber as it flows into the North Sea and its adjacent land. The land on either side of the Humber is low-lying with extensive stretches of intertidal habitat, such as mudflats, reed bed, salt marsh, wetlands, and coastal dunes. The area of this NCA within the Landscape and Visual Study Area forms part of the built-up landscape of Hull.



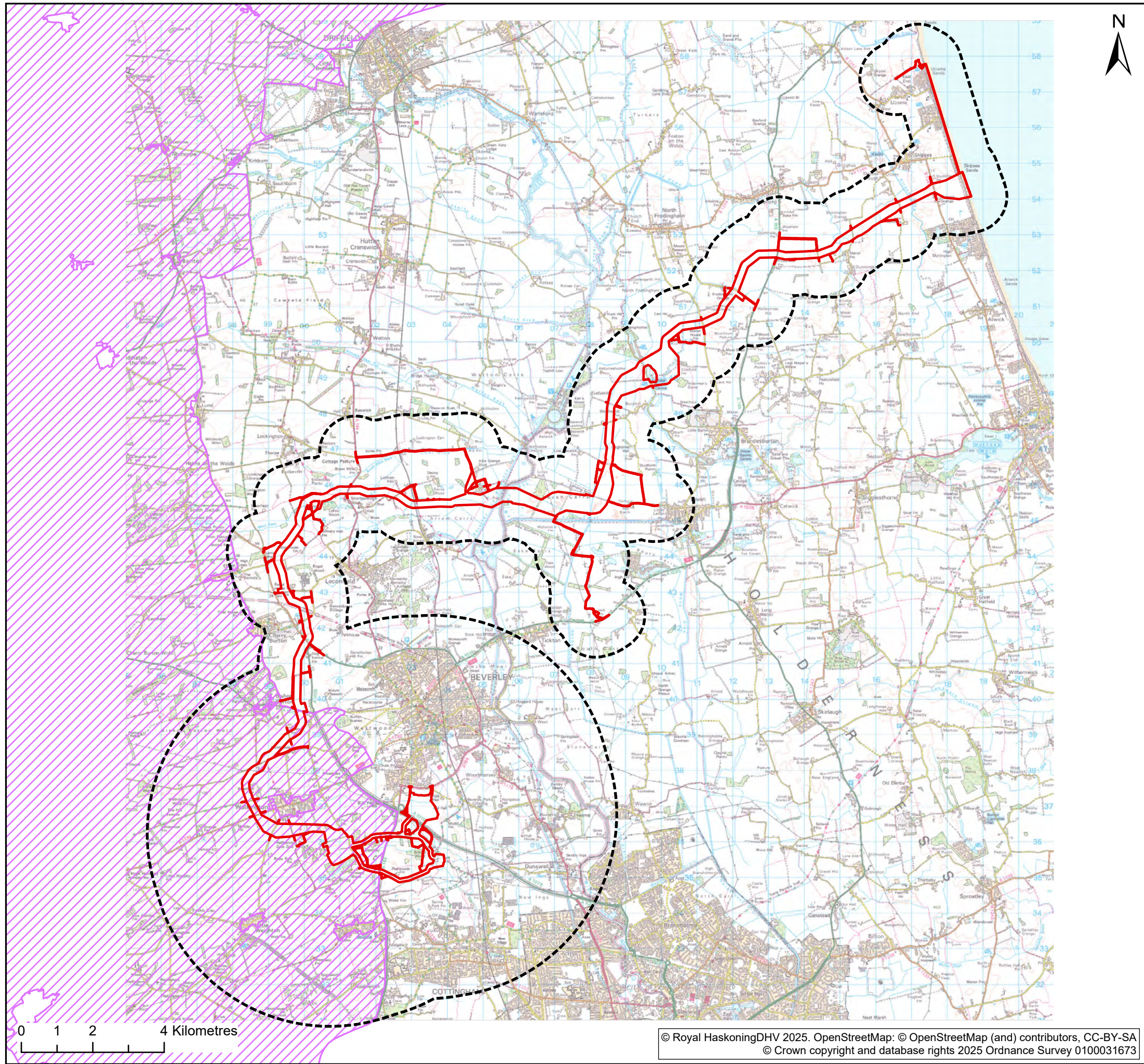
89. At night, the landscape is characterised by lighting around Beverley and Cottingham, and along the main roads leading out of these settlements. The Campaign to Protect Rural England has published ‘England’s Light Pollution and Dark Skies’, an interactive map which can be found on their website. This shows that much of the onshore ECC is within areas of low night light. Closer to Beverley the level of night light increases, with moderate levels of night light around OCS Zone 4 and relatively low levels of night light around OCS Zone 8. There are no recognised dark sky locations within the Landscape and Visual Study Area. Dark sky qualities are not listed in the key characteristics for the relevant landscape character types from the East Riding of Yorkshire Landscape Character Assessment.

- b. *Diversity of the landscape;*
- c. *Distinctive features and views;*
- d. *Field patterns;*
- e. *Villages and their distinctive character and setting;*
- f. *The historic importance of the Great Wolds Valley;*
- g. *and signs of past human activity.” (ERYC, 2025, p. 133).*

27.6.1.2 Landscape Designations

90. There are no statutory landscape designations (National Parks or National Landscapes (formerly AONB)) within the Landscape and Visual Study Area. The candidate area for the proposed Yorkshire Wolds National Landscape is located 6km north-west from both the Study Area for the onshore ECC (Sub-area 2) and OCS Zone 8 (Sub-area 4). The candidate area for the Yorkshire Wolds National Landscape is located approximately 7.6km to the north-west of OCS Zone 4. The ZTVs indicate limited theoretical visibility within 5km of the OCS zones due to the presence of buildings and woodland which provides some screening (see **Figure 27-2** and **Figure 27-3**). At greater distances, theoretical visibility would be reduced. Given the intervening distance and presence of intervening vegetation, potential effects on the candidate Yorkshire Wolds National Landscape are unlikely to be significant.
91. Much of the southern extents of the Landscape and Visual Study Area, including part of the onshore ECC and OCS Zone 8, is located within the southern extents of the Yorkshire Wolds ILA (see **Figure 27-4**) as defined by Policy ENV2 of the East Riding of Yorkshire Local Plan Update 2025-2039 (ERYC, 2025, p. 130).
92. Policy ENV2 of the Local Plan, *Promoting a High Quality Landscape*, states that development “*proposals should protect and enhance existing landscape character as described in the East Riding Landscape Character Assessment*” (see ERYC, 2018) and “*are of an appropriately high quality and will not adversely affect the historic and special character, appearance or natural conservation value*” of the ILA (ERYC, 2025, p. 130).
93. Despite the entire area of the Yorkshire Wolds being mapped as an ILA, the Local Plan states that only parts of the Yorkshire Wolds are of high quality, namely the western scarp slope around Sledmere (over 20km from the Landscape and Visual Study Area). The Local Plan states that “*development should seek to retain the varied landform including but not limited to:*
- a. *The contrasting and varying levels of enclosure and exposure, isolation, and tranquillity;*





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- Legend:
- Onshore Development Area
  - Landscape and Visual Study Area
  - Important Landscape Area (Yorkshire Wolds)

Important Landscape Area source: East Riding of Yorkshire Council

Project:

Dogger Bank D  
Offshore Wind Farm

**DOGER BANK**  
**WIND FARM**

Title:

Landscape Designations

Figure: 27-4 Drawing No: PC3991-RHD-LUC-ON-ZZ-DR-27-4

Revision:	Date:	Drawn:	Checked:	Size:	Scale:
03	03/04/2025	JS	TH	A3	1:110,000
04	21/05/2025	JS	TH	A3	1:110,000

Co-ordinate system: British National Grid





### 27.6.1.3 Landscape Description

#### 27.6.1.3.1 Sub-Area 1: Landfall

94. Sub-area 1 is a relatively short stretch of coastline extending from the village of Barmston in the north to south of Skipsea, an important historic settlement. The coastline is made up of sandy beaches and cliffs that erode at a significant rate. Less than 2km from the coastline is a low ridge that runs parallel to the sea, this ridge restricts views of the sea from the west. Much of Sub-area 1 is comprised of recreation and tourism facilities amongst large arable fields. This landscape is exposed, open, and gently undulating, gradually descending eastwards providing views to the North Sea. There are few trees, with only a small area of woodland planting located at Far Grange Holiday Park located on the southern perimeter of Sub-area 1. Much of the agriculture is made up of large fields with lost or fragmented hedgerow boundaries although there are some smaller, historic field systems with intact hedgerows and trees marking field boundaries.
95. Human activity and development are easily perceivable within this landscape. The contrast of character between recreation and tourism facilities, arable farmland, and the historic settlement of Skipsea can be seen as contributing to a fragmented character within this area (ERYC, 2018).

#### 27.6.1.3.2 Sub-Area 2: Onshore Export Cable Corridor

96. Sub-area 2 comprises an irregular band of land that follows the route of the onshore ECC. It starts to the south-west of Skipsea on the coast and continues south-west towards Leven. Near Leven the onshore ECC routes westwards passing to the north of Leconfield, before routeing south towards Bentley and Beverley. It covers a total length of approximately 39km. The Study Area extends 1km from the boundary of the onshore ECC, with Sub-area 2 of the Study Area varying in width from approximately 2.2km to 3.6km. Much of the land that Sub-area 2 passes through is dominated by intensive, large-scale agriculture, which is generally flat in nature, but becomes more elevated and rolling in the south-west near Walkington.
97. By the coast, the landscape is large scale and open with a gently undulating topography. The sky dominates in panoramic views to the east coast and the Wolds to the north-west. There is very little woodland here and the land is comprised of intense arable agriculture. In the northern extent of Sub-area 2, closer to the coast, the field pattern is more irregular with more sinuous boundaries. Further south-west the field pattern becomes more regular, made up of large rectangular fields with hedgerows and tracks bordering them. The settlements are widely scattered, mostly consisting of farmsteads.

98. As Sub-area 2 is traced south-west, the landscape gradually descends into the low lying drained farmland of the River Hull flood plain. This landscape is a flat, low-lying floodplain with much of the land being in Flood Zone Three. Drainage systems have allowed for intensive agriculture, but the farmland is prone to flooding and poor drainage. On the east bank of the River Hull, where the Leven Canal meets the river, a pocket of marsh is all that remains of the once widespread wetland landscape. The field pattern here is regular and bounded by drains and some hedgerows. Trees are limited to occasional boundary trees and small woodland blocks.
99. Towards Brandesburton, the landscape becomes more distinctive for its series of man-made lakes that were created following mineral extraction. The lakes provide marginal habitat and are now used for recreation, there are a couple of campsites in the area. The field pattern here is more irregular to accommodate the lakes.
100. The parts of Sub-area 2 that surround access roads from Routh and Leven comprise farmland where there are some shelter belts and woodland blocks. The village of Leven is located here, with the Leven Canal extending westwards from the village. Also in the area are scattered farmsteads, a length of the A1035, and a wind farm at Hall Farm.
101. West of the River Hull, Sub-area 2 passes through an area of sloping farmland that ascends gently westwards towards the Wolds. This area is slightly raised, gently undulating and free draining. Like much of Sub-area 2, the land is dominated by intensive agriculture. The field pattern is irregular with medium sized fields bounded by hedgerows that are continuous in most places and broken in others. There are scattered blocks of woodland including two instances of ancient woodland: Leman Wood and Bygot Wood east of Leconfield. There are also some remnants of wetland habitats. The settlement is made up of scattered farmsteads, hamlets, and villages. The Hull to Scarborough Railway Line crosses the area from north to south. In this area there are many Public Right of Way (PRoW) and long distance walking routes, notably the Wilberforce Way and Minster Way.
102. The south-western extents of Sub-area 2 pass through open, higher rolling farmland, part of the east facing dip slope of the Wolds. Part of the sub-area passes through the parkland of Bishop Burton Agricultural College. The wooded character of this area is distinctive from the rest of Sub-area 2 due to the parkland of the college. Around the college are large, rectangular fields that become smaller on approach to the village of Bishop Burton south of the college.

103. South of Bishop Burton, the most south-westerly extents of Sub-area 2 pass through rolling farmland of the southern dip slope of the Wolds. Like much of Sub-area 2, this area is dominated by agriculture. The fields are rectilinear and become more irregular further south. Settlement is made up of dispersed farmsteads and the village of Walkington. There is limited tree cover with only occasional shelter belts. South of Walkington is Risby Park, which contains the remains of a 17<sup>th</sup> century woodland garden landscape, which is a Registered Park and Garden (RPG). Risby Park is high value for its opportunities for recreation and important historic and landscape character.
104. The final reaches of Sub-area 2 are located between Beverley in the north and Hull in the south. This area is still arable farmland with scattered farmsteads, but the area is more densely populated than rural East Riding. Man-made and natural watercourses across the farmland allow it to be well drained. The field pattern is irregular and there are woodland blocks, including ancient woodland at Birkhill Wood. East of Birkhill Wood is a wind turbine by Poplar Farm. Further south is Cottingham Parks Golf Club. The land between Beverley and Hull is crossed by the A164 and A1079, the latter being a prominent feature as it is on an embankment in places. Running south to north is the Hull to Scarborough railway line.
105. The most south-easterly extents of Sub-area 2 contain the Creyke Beck National Grid Substation and the Dogger Bank A and B Offshore Wind Farms' converter stations (under construction). Numerous large-scale overhead power lines carried by pylons converge here and together form a large and prominent feature that strongly influences the character of the open landscape at a local scale. Beverley Minster is an important landmark and is widely visible across this area.
- 27.6.1.3.3 Sub-Area 3: Onshore Converter Station Zone 4
106. Sub-area 3 comprises a circular area with a radius of 5km centring on the OCS Zone 4. Sub-area 3 comprises much of the same landscape as Sub-area 4, although Sub-area 3 is located more north-east and so its eastern extents descend eastwards down into the River Hull Corridor before gradually inclining towards the open farmland that makes up a large part of Holderness.
107. OCS Zone 4 is located within LCA 16F Beverley Parks Farmland (Sloping Farmland LCT) (see **Figure 27-5**). Other LCA within this sub-area, which corresponds to the 5km radius around this OCS zone, are:
- 13B Bishop Burton Estate Farmland and 13C South Wolds Rolling Farmland (Open High Rolling Farmland LCT);
  - 16C Beverley Westwood and 16E Lund Sloping Farmland (Sloping Farmland LCT);
  - 17B North Cottingham Farmland and 17C South Cottingham Farmland (Farmed Urban Fringe LCT); and
  - 18A River Hull Corridor and 18F Figham and Swine Moor Common (Low Lying Drained Farmland LCT) (see **Figure 27-5**).
108. OCS Zone 4 is bounded by several transport routes. The A1079 forms part of the southern boundary whilst the A164 runs to the north and west of the OCS zone. A section of the A164 between Skidby and Beverley is undergoing a major road improvement scheme, the works are scheduled to finish by the end of 2026. Minor roads, including Shepherd Lane and Long Lane, enclose the OCS zone to the north-east. In addition, the Hull to Scarborough railway line runs to the east of OCS Zone 4. The area within and surrounding OCS Zone 4 is almost flat and comprises medium-to-large scale fields which are intensively farmed. They are bounded by a mixture of hedgerows of varying quality, drainage ditches and post and wire fencing. Generally, tree cover is limited to occasional woodland blocks, shelter belts and hedgerow trees.
109. The area is heavily influenced by man-made infrastructure, including the Creyke Beck National Grid Substation, the Dogger Bank A and B Offshore Wind Farms' converter stations (under construction), and the overhead lines which converge at Creyke Beck National Grid Substation. In addition, there are several wind turbines in the area. These features, alongside the busy transport route of the A1079, strongly influence the character of the landscape. The settlement edge of Beverley is close by, with new housing areas recently built up on the north side of the A164 Minster Way. There are large horticultural buildings across the area between Beverley and Cottingham, and along the A1174 to the east. The settlements of Cottingham and Hull lie within the south part of Sub-area 3.
110. Further in the west, beyond the A164 and A1079, and to the south-west around Skidby, the flat landscape transitions to rolling farmland as it ascends towards the Yorkshire Wolds. This area is heavily farmed but contains more woodland, notably around Risby Park. East of Beverley the landform slopes very gently eastwards, merging into the floodplain of the River Hull, which is around 3km from the OCS zone. There are few PRoW in this area, though the long-distance Wilberforce Way broadly follows the river.
111. The farmland close to the river is intensively managed with a regular field pattern bounded by drains and occasional hedgerows. There are few trees besides occasional woodland blocks and shelter belts. Small pockets of wet grassland and marsh appear beside drains, remains of the once widespread wetland habitat. Also near the River Hull are two areas of common land immediately east and south-east of Beverley called Swine Moor and Figham respectively. Both commons have been pastures since the middle ages. Both are surrounded by man-made influence. Through Swine Moor runs the Beverley and Barmston Drain and associated PRoW (Beverley Footpath No.16). Compared to its context further north, the section of the River Hull between Beverley and Hull is more urban in character, with views of high rise buildings of Hull and industrial horticultural buildings between Figham Common and Hull.

112. The area around OCS Zone 4 has several PRoW which typically follow field boundaries. Of particular note is the Beverley 20 long distance walking route which forms part of the wider Yorkshire Wolds Way National Trail. This route follows Woodmansey Bridleway No.6 and Woodmansey Footpath No.40, running north-south along the east edge of the OCS zone. Also partly following this route, and partly on minor roads, is the National Cycle Network (NCN) Route 1. Recreational routes are shown on **Figure 27-6**.

#### 27.6.1.3.4 Sub-Area 4: Onshore Converter Station Zone 8

113. Sub-area 4 comprises a circular area with a radius of 5km centring on OCS Zone 8. OCS Zone 8 is located within LCA 13C South Wolds Rolling Farmland (Open High Rolling Farmland LCT) (see **Figure 27-5**). Other LCA within this sub-area correspond with those within Sub-area 3, with the exception of 18A River Hull Corridor which is beyond the eastern edge of Sub-area 4. Over half of Sub-area 4 is within 13C South Wolds Rolling Farmland.

114. Sub-area 4 is largely made up of rolling farmland that covers the eastern dip slope of the Wolds. The farmland slopes down from an elevation of around 128m west of Little Weighton, to around 50m at the OCS zone. The slope is dissected by dry valleys running east-west, dividing the slope into a series of low ridges, and this pattern of landform extends across the OCS zone. The farmland is made up of fields of a regular pattern, which becomes more irregular around Risby Park. Most fields are bounded by hedgerows. There is little woodland and tree cover apart from occasional shelter belts around farmsteads, and small pockets of ancient woodland (Little Wood, Burton Bushes and Birkhill Wood). The former wooded estate of Risby Park (a designated RPG) is located to the south of Walkington. Occupying an area of particularly intricate topography, the wooded estate abuts OCS Zone 8 to the south and west. Settlement within the more rural western part of the sub-area comprises the villages of Skidby, Little Weighton and Walkington, surrounded by a small number of farms and linked by minor roads.

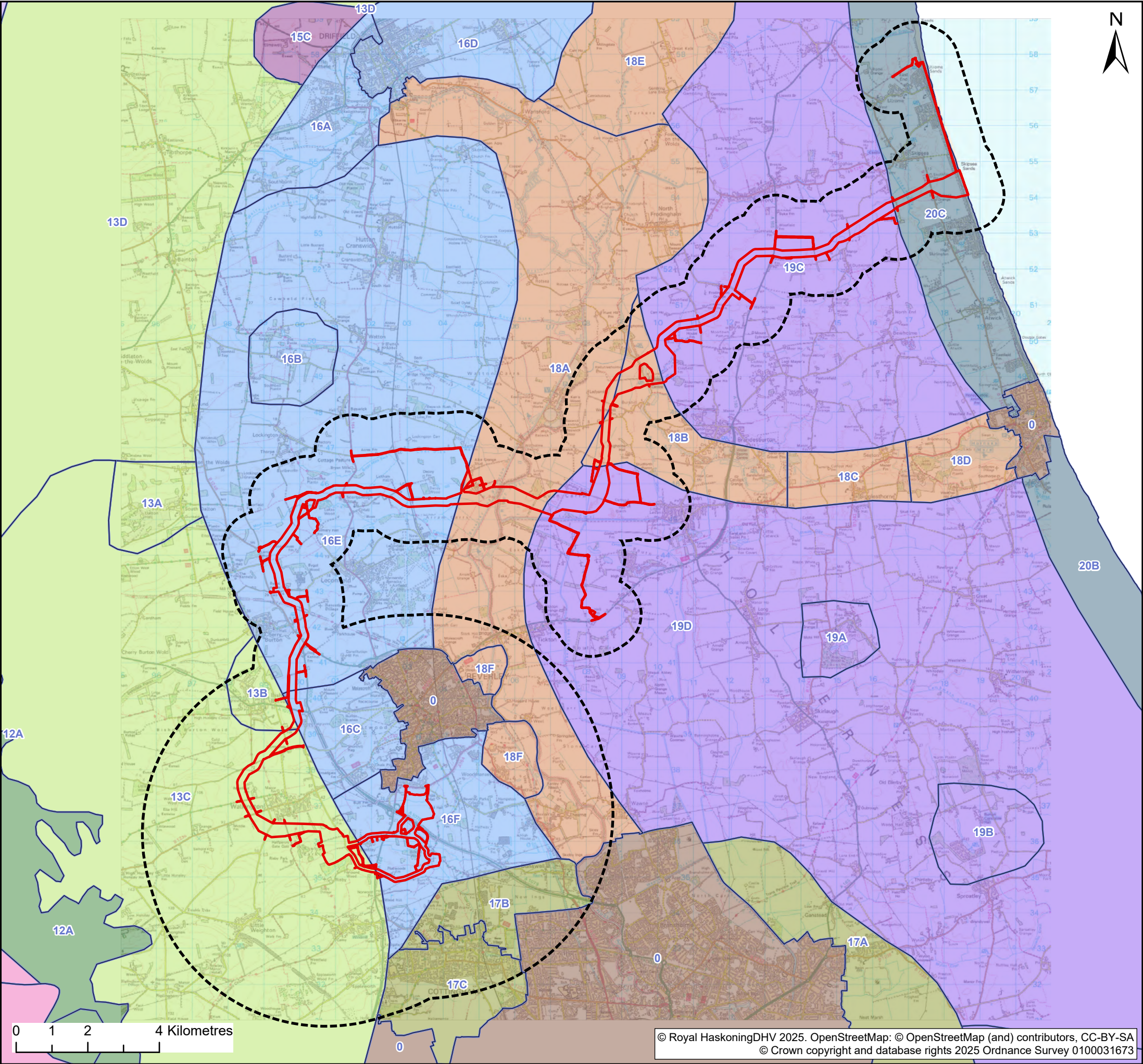
115. In the north of Sub-area 4 is Bishop Burton, which is within the same rolling edge of the Yorkshire Wolds as the OCS zone. To the north-east, beyond the A1079, human influence becomes much more apparent, including much of Beverley. To the immediate west of the settlement, around 2km from the OCS zone, is Beverley Westwood, a historic area of common grazing land. The character of Beverley Westwood is that of a parkland due to the presence of mature trees dotted throughout the landscape. Beverley Westwood is popular for recreation and contains Beverley Race Course.

116. To the east and south-east, the area is made up of low-lying farmland between Cottingham and Beverley. Again, the influence of development is more apparent east of the A164. The topography is flat and the field pattern is quite irregular, the field boundaries are sinuous and made up of hedgerows in various states of repair, drainage ditches, post and wire fencing, and some hedgerow trees. There are a few woodland blocks.

117. This eastern part of the sub-area is influenced by the A164 (currently undergoing a major upgrade), A1079, and the Hull to Scarborough railway line, as well as the settlement edge of Beverley to the north. Movement along these transport corridors contributes towards the human influence of the area. North of Cottingham there are large horticultural glasshouses and industrial buildings. The presence of the Creyke Beck National Grid Substation, Dogger Bank A and B Offshore Wind Farms' converter stations (under construction) and the many large-scale overhead lines which converge at Creyke Beck National Grid Substation contribute further to this, and create a landscape character that is modified and complex.

118. The area around OCS Zone 8 is valued for its recreational uses. The area has several PRoW which form circular or linear routes linking Walkington, Skidby and Risby Park. There are playing fields along the south side of Walkington and a fishing lake and café at Risby Park, with informal walking routes around the wooded parkland. Rowley Footpath No.9 crosses the OCS zone. The Beverley 20 long distance walking route, which forms part of the wider Yorkshire Wolds Way National Trail, links Walkington and Skidby to the immediate west of the OCS zone, and returns eastward to the north of the OCS zone.





Legend:

Onshore Development Area

Landscape and Visual Study Area

**East Riding of Yorkshire Landscape Character Type**

0: Urban

11: Jurassic Hills Farmland

12: Sloping Wooded Farmland

13: Open High Rolling Farmland

14: Central Dissected Plateau

15: Wolds Valley Farmland

16: Sloping Farmland (Edge of Wolds)

17: Farmed Urban Fringe

18: Low Lying Drained Farmland

19: Open Farmland

20: Coastal Farmland

Landscape Character Areas source: East Riding of Yorkshire Council

Project:

Dogger Bank D Offshore Wind Farm

Title:

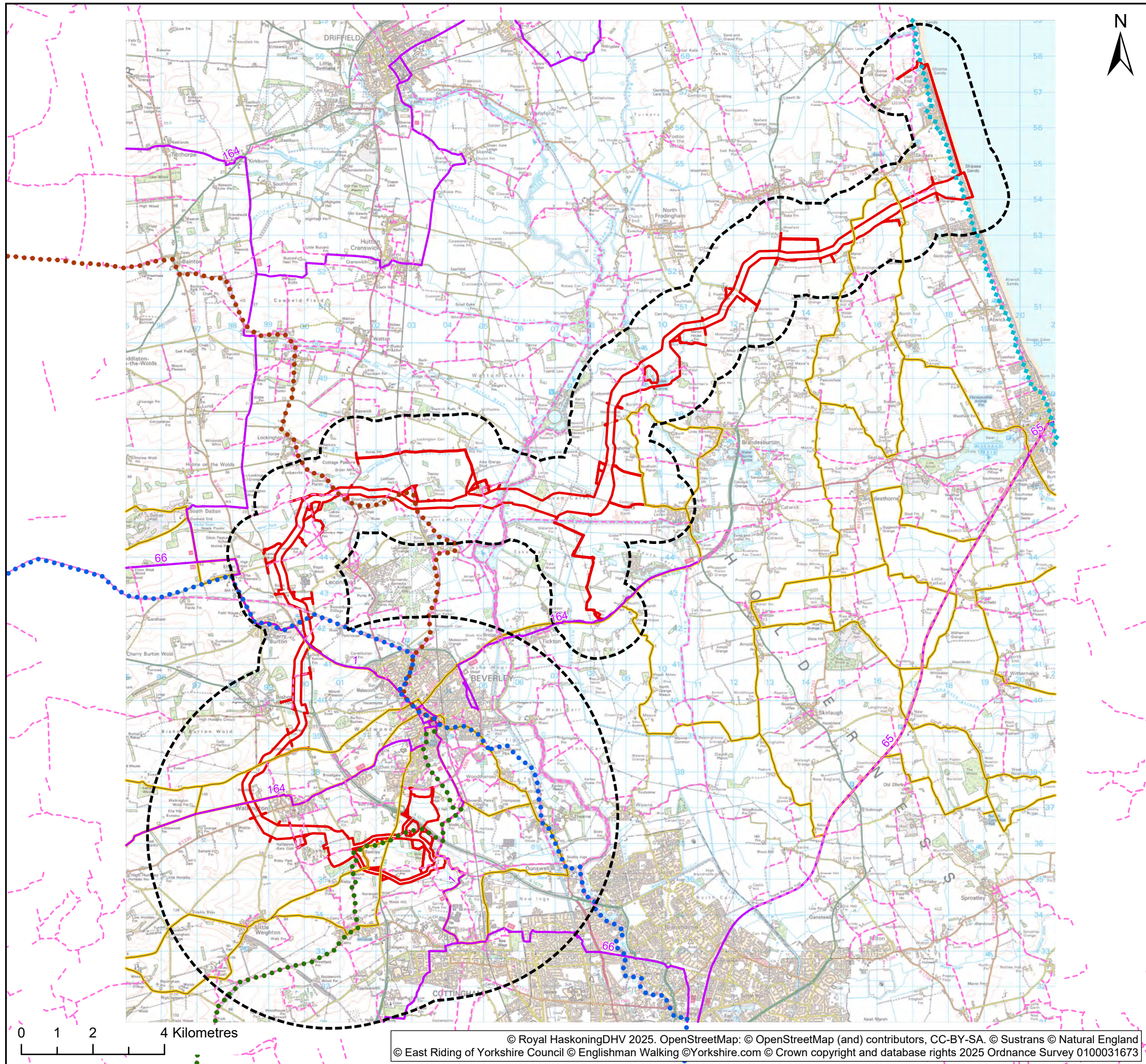
Landscape Character

Figure:	27-5	Drawing No:	PC3991-RHD-LUC-ON-ZZ-DR-27-5			
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04	21/05/2025	MS	TH	A3	1:110,000	

Co-ordinate system: British National Grid







Legend:

- Onshore Development Area
- Landscape and Visual Study Area
- ◆◆◆◆ King Charles III England Coast Path
- - - - Public Right of Way (indicative)
- National Cycle Network (Sustrans)
- Holderness and Beverley cycle routes

**Long distance trails (indicative)**

- Beverley 20
- Minster Way
- Wilberforce Way

Project:

Dogger Bank D  
Offshore Wind Farm

**DOGGER BANK**  
**WIND FARM**

Title:

Recreation

Figure:	27-6	Drawing No:	PC3991-RHD-LUC-ON-ZZ-DR-27-6			
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Co-ordinate system: British National Grid



## 27.6.2 Existing Visual Baseline

### 27.6.2.1 Key Visual Receptors

119. This section sets out the people (visual receptors) that have the potential to be affected by the landfall, onshore ECC and OCS zone infrastructure. These are set out by the sub-areas defined in **Section 27.4.1.3**. The locations of recreational routes noted are shown in **Figure 27-6**.

120. Given the nature of the landscape, it is assumed that all receptors within the Landscape and Visual Study Area would have potential visibility of the onshore export cable and landfall construction works.

#### 27.6.2.1.1 Sub-Area 1: Landfall

121. Residential and community receptors include:

- The villages of Ulrome to the north and Skipsea to the south; and
- Farms and houses along the B1242 road.

122. Recreational receptors include:

- Users of local PRoW close to the landfall location;
- Visitors to Ulrome Sands, Skipsea Sands, Moos Beach and Driffeld Beach;
- Visitors to Seaside Caravan Park to the north, Skipsea Sands Holiday Park, Top View Caravan Park, Mill Farm Country Park, Samara Caravan Park Skipsea and Centre Meadows Holiday Park; and
- Visitors to Skipsea Castle.

123. Transport receptors include those using:

- Those travelling along the B1242 and B1249 to the west; and
- The wider local road network beyond these routes.

#### 27.6.2.1.2 Sub-Area 2: Onshore Export Cable Corridor

124. Residential and community receptors include:

- Dunnington, Burshell, West and north of Leven, Routh, north Leconfield, Scarborough, east Etton, east Cherry Burton, Bishop Burton, Walkington and south Beverley; and
- Farms and houses along and off minor roads and off the A1305, A165, A164, A1079 B1248, and B1230.

125. Recreational receptors include:

- Users of local PRoW close to the onshore ECC;

- Users of the National Cycle Network (NCN 164, 66 and 1); and
- Recreational users around Risby Park, and people fishing at Risby Park Fishing Ponds.

126. Transport receptors include those using:

- The A165, A1035, A164, A1079, B1248 and B1230; and
- The wider local road network beyond these routes.

#### 27.6.2.1.3 Sub-Area 3: Onshore Converter Station Zone 4

127. Residential and community receptors include:

- The villages / towns of Hull Bridge, Weel, Beverley, Woodmansey, Bishop Burton, Walkington, Little Weighton, Skidby, Cottingham, Bishopton and Dunswell; and
- Farms and houses along the A1079, A164 and A1035, and other minor roads.

128. Recreational receptors include:

- Users of local PRoW close to the OCS zone;
- Users of campsites and watersports facilities;
- Users of the NCN 164, 66 and 1; and
- Recreational users around Risby Park, and people fishing at Risby Park Fishing Ponds.

129. Transport receptors include those using:

- The A1079, A164, A1305, A1174, B1230; and
- The wider local road networks beyond these routes.

#### 27.6.2.1.4 Sub-Area 4: Onshore Converter Station Zone 8

130. Residential and community receptors include:

- The villages / towns of Beverley, Bishop Burton, Walkington, Little Weighton, Skidby, Cottingham, Bishopton and Willerby; and
- Farms and houses along the A1079, A164, A1035, B1230 and other minor roads.

131. Recreational receptors include:

- Users of local PRoW close to the OCS zone;
- Users of the NCN (164, 66 and 1); and
- Recreational users around Risby Park, and people fishing at Risby Park Fishing Ponds.

132. Transport receptors include those using:

- The A1079, A164, A1035, and B1230; and
- The wider local road network beyond these routes.

27.6.2.1.5 Representative Viewpoints

133. Representative viewpoints have been identified to inform the detailed assessment of the OCS zones only. This section sets out the viewpoints selected to represent views from publicly accessible areas, for the receptors within sub-areas 3 and 4, with relation to the OCS zones. A total of eight viewpoints (four for each OCS zone) were selected and agreed with stakeholders following the first ETG9 meeting held on 10<sup>th</sup> September 2024 as set out in **Table 27-3**. Details of the viewpoints are provided in **Table 27-21**, and their locations are shown on **Figure 27-2** and **Figure 27-3**.



Table 27-21 Representative Viewpoints and Baseline Description of Views

Viewpoint Location	Grid Reference	Description of View
OCS Zone 4		
VP1: Shepherd Lane	503459, 437489	<p>Views from Shepherd Lane look over agricultural fields that are bounded by hedgerows and scattered trees in the middle distance.</p> <p>To the south, shelterbelts and trees partially screen views. A wind turbine can be seen on the horizon. Overhead powerlines cross the skyline in the vicinity of Dogger Bank A &amp; B converter stations.</p> <p>To the north, the A164 Beverley bypass can be seen. The presence of this creates noise and movement. Motorists on the A164 are likely to experience similar views to the Shepherd Lane viewpoint, however, views of the Project would be fleeting due to the transitory nature of the view. A bridleway runs adjacent to the south of the A164 by Long Lane. The Deira Park housing estate can be seen in further views north.</p>
VP2: Beverley 20 near Jillywood Farm	502936, 436361	<p>This viewpoint is located on the Beverley 20 long distance walking route, near Jillywood Farm. Views north-east consist of slightly undulating fields with dense hedgerow trees and shelter belt in the middle distance. These largely screen longer ranging views and visibility of the A1079. In the foreground of the view is a large pylon and overhead line which runs broadly adjacent to the A1079 before converging with other overhead lines at Creyke Beck National Grid Substation in the south-east.</p> <p>In views north-east, Beverley Minster forms a prominent landmark and other more distant overhead lines are visible against the skyline. Dense vegetation in the middle-distance screens longer ranging views to the north and south-east, however the overhead lines remain prominent in views. A wind turbine is also visible on the horizon in the south-east. Improvement works for the A164 and replacement of the Jock's Lodge junction, can be seen under construction to the north-east of the viewpoint.</p> <p>Views to the south-west are screened by an area of woodland adjacent to the viewpoint. To the south, Jillywood Farm and ancillary buildings can be seen at the end of the track.</p>
VP3: Beverley Parks	503834, 436560	<p>This viewpoint is located along Park Lane, around 170m to the west of Model Farm. Views west, towards OCS Zone 4, focus on medium scale fields. Shelterbelts and hedgerows screen views over the A1079. This vegetation screens longer ranging views, although localised gaps allow for some greater visibility, with the settlement edge of Beverley and Beverley Minster visible looking north-west.</p>

Viewpoint Location	Grid Reference	Description of View
		<p>Trees and shelterbelts partially screen north-eastern views of the Model Farm building and associated outhouses. An overhead power line is visible against the skyline.</p> <p>Medium scale agricultural fields are present in the foreground of the view, intersected by Park Lane. The fields are bounded by wooden pole and wire fencing and by irregular patterns of hedgerows. One wind turbine, wooden poles, pylons and overhead lines can be seen crossing the skyline.</p> <p>Dogger Bank A &amp; B converter stations can be seen in views to the south-east.</p>
VP4: Long Lane	504373, 437239	<p>This viewpoint is located on Long Lane, to the east of OCS Zone 4. Views west look across medium-large scale fields bounded by hedgerows and shelterbelts. White Hall Farm and Old Hall Farm, including their adjacent buildings, can be seen in the middle-distance, with White Hall Farm surrounded by mature trees to the north and east. Larger steel lattice pylons and overhead lines can be seen in the distance, alongside several smaller wood pole overhead lines.</p> <p>Views south-west look towards Beverley Parks Nature Reserve and towards Old Hall Farm and adjacent buildings. Hedgerows and trees partially screen views further south, and Long Lane is visible running to the south-east of the viewpoint before bending out of view.</p> <p>A small existing substation occupies the foreground of the view to the east. A steel lattice pylon connects to the substation. The substation and the mature planting beyond it screen views further west.</p> <p>Views north look down Long Lane towards Beverley, however, visibility is largely limited by the presence of mature vegetation along the road and surrounding the properties located adjacent to the road. One property is partly visible amongst the trees, beyond the northern extents of the substation. A wooden pole overhead line crosses Long Lane to the substation on the eastern side of the road.</p>

Viewpoint Location	Grid Reference	Description of View
<b>OCS Zone 8</b>		
VP5: Footpath, Walkington	500380, 436928	<p>This viewpoint is located on a footpath at the south-eastern corner of the settlement of Walkington. This viewpoint offers views across slightly undulating agricultural land towards OCS Zone 8 in the south. Due to the slightly elevated nature of the land to the south of the viewpoint, and the presence of mature hedgerows and woodland blocks, longer ranging views across the landscape are limited. Briarpit Plantation partially filters views towards OCS Zone 8 in the south. The tops of trees in Eleven Acre Plantation are visible beyond the low ridge and Briarpit Plantation in the middle distance. Where more open views are experienced, an overhead line can be seen in the distance.</p> <p>Views to the south and west are limited due to nearby vegetation, including the mature hedgerow running south from the viewpoint, and trees around the settlement of Walkington. Views north are limited by hedgerows and scrub.</p>
VP6: Core Path near Bentley	501287, 435841	<p>This viewpoint is located just off the public footpath to the west of the settlement of Bentley. The viewpoint is located just around the sharp bend in Coppleflat Lane. Views west look out across undulating medium-scale agricultural fields which are well defined by mature hedgerows.</p> <p>Views to the north offer elevated views down Coppleflat Lane towards Walkington. Views north-west are focused on the rolling agricultural land which drops down to a low point in OCS Zone 8 before rising up towards Walkington. The settlement edge of Walkington is partly visible amongst trees in the north. An overhead line is visible on the elevated horizon.</p> <p>Views east are partially screened by a mature hedgerow which runs along the eastern side of Coppleflat Lane and forms the boundary to neighbouring fields. Eleven Acre Plantation to the north-east partially screens views across the horizon. Views south are largely restricted by the dense hedgerow immediately adjacent to the footpath.</p>
VP7: Risby Park	499905, 436007	<p>This viewpoint is located on the Beverley 20 walking route, to the west of Risby Park Wood and south of Walkington, near Halfpenny Gate Cottage. Views east towards OCS Zone 8 are open, and extend across a medium scale, undulating field which rises up to form an elevated horizon which largely screens longer distance views. The fields are bounded by mature hedgerows and several hedgerow trees.</p>

Viewpoint Location	Grid Reference	Description of View
		<p>Views north towards Walkington are screened by intervening landform, and a woodland block immediately north-east of the viewpoint which restricts views. Similarly, woodland to the south of the viewpoint limits views in this direction.</p> <p>Views west looking towards Risby Lane are screened by undulating landform of medium scale agricultural fields. Field boundary vegetation (hedgerow and hedgerow trees) in the foreground of the view partially screen views in this direction.</p>
VP8: Little Weighton	498376, 433963	<p>This elevated viewpoint is located at the end of a public footpath at the recreational ground in the north of Little Weighton. Due to the elevated nature of this viewpoint, views to the north-east towards OCS Zone 8 are long ranging, extending across lower-lying agricultural land and boundary vegetation including hedgerows and shelterbelts. Pylons, overhead power lines and wind turbines can be seen on the skyline in the distance.</p> <p>Views to the north and north-west look across undulating large scale agricultural fields bordered by irregular sequences of hedgerows. A large-scale farm building and single turbine are visible on the skyline to the north.</p> <p>Views south look towards multiple residential properties on the settlement edge of Little Weighton. Some screening is provided by hedgerows and trees found along the boundaries of agricultural fields. Views south-west are largely screened by hedgerows and shelterbelts.</p>

### 27.6.3 Predicted Future Baseline

134. In the event that the Project is not developed, a review of likely future conditions for landscape character and visual amenity has been carried out and is described in this section.
135. In the absence of the Project, much of the land use of the Landscape and Visual Study Area is likely to remain as farming and the appearance of much of the farmed landscape is likely to be relatively constant. Existing trees will mature while others may die or be felled. Others of particular species may succumb to diseases that may become more prevalent. The condition of many hedgerows is currently poor and so the likelihood that gaps will be replanted is low, in which case increasing sections of gaps may appear over time or the hedgerows may disappear altogether. The open water left behind from sand and gravel extraction near Brandesburton is currently developing into marginal habitats potentially valuable for wildlife and this trend may continue over time if the habitat is protected and enhanced. Longer term, climate change may lead to longer growing seasons, affecting the management and types of crops that are grown. Sea levels are predicted to rise by mid-century, in which case the relatively rapid coastal erosion of the Holderness coast may be accelerated. Similarly, many areas of the River Hull floodplain are below 10m above ordnance datum (AOD) and the southern part is within the tidal floodplain of the River Humber. As such the land surrounding the river will become increasingly vulnerable to flooding.
136. Built development is likely to continue. In the areas closer to Beverley and Hull, pressure for residential and commercial development is likely to continue. The current landscape of Sub-area 3 and Sub-area 4 features existing energy and electricity transmission infrastructure such as Creyke Beck National Grid Substation and Dogger Bank A & B Offshore Wind Farms. In the future, more infrastructure is likely to be constructed around the Creyke Beck National Grid Substation, such as the consented Creyke Beck Solar Farm and Hornsea Project Four Offshore Wind Farm's onshore substation. All of these developments would be located within Sub-area 3 and Sub-area 4. Planned and future generation projects within these sub-areas, such as the proposed Dogger Bank South Offshore Wind Farms' onshore converter stations and National Grid Birkhill Wood and Wanlass Beck Substations, will require additional electrical infrastructure to accommodate these developments. Further electricity infrastructure (notably the North Humber to High Marnham Grid Upgrade) and changes to transport corridors (road and rail) may influence the landscape character. There is also corresponding pressure for community use, including the need to access the open countryside for recreation. Away from major settlements, changes in the built environment are expected to be more limited within the smaller villages and hamlets.

## 27.7 Assessment of Effects

137. The likely significant effects to landscape and visual impact receptors that may occur during construction, operation and decommissioning of the Project are assessed in the following sections. The assessment follows the methodology set out in **Section 27.1** and is based on the realistic worst-case scenarios defined in **Section 27.4.4**, with consideration of embedded mitigation measures identified in **Section 27.4.3**.
138. As noted in **Section 27.4.5**, there is potential for the assessment of likely significant effects for the OCS zone infrastructure to differ between the two development scenarios. Where the assessment outcomes are likely to differ, these have been reported separately below.

### 27.7.1 Potential Landscape Effects during Construction

#### 27.7.1.1 Impacts on Landscape Character and Designated Landscapes – Sub-Area 1: Landfall (LV-C-01)

##### 27.7.1.1.1 Receptor Sensitivity

139. The landscape of Sub-area 1 is described in **Section 27.6.1.3.1**.
140. Most of the landscape features of Sub-area 1, such as intensive farmland, have low vulnerability to the proposed temporary works. Features such as hedges and trees, and the boulder clay cliffs, have greater susceptibility, however the cliffs would not be directly affected due to the use of trenchless installation techniques at the landfall (see Commitment ID CO23). The low ridge that runs parallel to the coastline, located less than 2km from the coast, provides some screening to views from the west and ensures changes would be localised. The receptor is deemed to be of medium susceptibility to the proposed changes.
141. Although there are no landscape designations in Sub-area 1, the coastal landscape has some landscape value in terms of recreation and tourism. Overall, the receptor is deemed to be of medium value.
142. Taking account of the judgements of susceptibility and value, the sensitivity of landscape receptors in Sub-area 1 is judged to be **medium**.



## 27.7.1.1.2 Impact Magnitude

143. The construction at the landfall (within Sub-area 1) would lead to disturbance and increased activity, including excavation works for the TJB and link box and landfall trenchless installation entry pits, presence of the landfall construction compound, temporary fencing, haul road and storage bunds. The tranquillity of the area would be reduced due to the increased noise, activity, and vehicle movements. Where the landfall construction compound (which includes the footprint of the TJB and link box construction works) is sited, the landscape character would be changed from open farmland to a construction site, likewise, for the 32m to 50m working width of the onshore ECC connecting to the landfall. Within the intertidal zone and inshore area, vessels and nearshore works may be visible out at sea. During winter months, works may extend into the hours of darkness resulting in uncharacteristic lighting from the construction works, both onshore and offshore.
144. The location of the landfall and route of the onshore ECC have been chosen to avoid trees and woodlands where practicable (see **Chapter 5 Site Selection and Consideration of Alternatives**), and so vegetation clearance would be limited. However, occasional field trees and sections of hedgerows may need to be removed to allow the installation of onshore export cables and other infrastructure within the corridor.
145. Within the landfall and along the onshore ECC section near the landfall, the local landscape would be temporarily affected by the construction works. Given the flat nature of the landform and the low height of the works, the geographical extent would be quite narrow and limited to a maximum distance of 1km from the Onshore Development Area. Although, this distance may be much shorter where screening is provided by built development, hedgerows, and trees. The construction works at Sub-area 1 are expected to take approximately three years, with periods of active construction likely to be much less than this (i.e. approximately one year of landfall trenchless installation works with a gap in construction activities for the pull-in of offshore export cables and jointing with the onshore export cables at the TJB). As such, the duration is considered to be short term. Following construction, Sub-area 1 would be restored to its original state. Therefore, effects of construction are reversible.
146. The impact of the landscape effects during construction is predicted to be of large scale, local geographical extent, short term, and reversible. Consequently, the magnitude of impact is considered to be **medium**.

## 27.7.1.1.3 Effect Significance

147. The sensitivity of the receptor in Sub-area 1 is **medium** and the magnitude of impact is **medium**. The effect at year 1 is therefore of **moderate adverse** significance, which is **significant** in EIA terms, and would be localised to the fields in which construction activity is taking place (extending no more than 1km from the landfall). Significant effects would be short term and temporary. From the beach and cliffs, and inland beyond circa. 1km, the impact on the landscape would not be significant.
148. Embedded mitigation measures relating to the construction phase will be set out as part of the Outline CoCP (see **Table 27-5**, Commitment IDs CO39, CO46, CO47, CO60 and CO85), which will be further developed at ES stage. Upon completion of the landfall construction works, any construction disturbance will be reinstated to pre-existing conditions as far as practicable in accordance with the Outline CoCP and Outline LMP (see **Table 27-5**, Commitment IDs CO59, CO65, CO83, CO100 and CO101) which will be developed at ES stage. The Outline LMP will ensure the restoration and, where practicable, the enhancement of the post-construction landscape. Post-consent, a LMP will be developed in accordance with the Outline LMP. This is expected to reduce the long term magnitude of impact as reinstated landscape features mature over time (e.g. by Year 15).
149. On completion of all construction works, landscape effects during construction will be superseded by the operational effects which are considered in **Section 27.7.3.1**.

## 27.7.1.1.4 Additional Mitigation and Residual Effect

150. No additional mitigation has been identified at PEIR stage for Sub-area 1. Therefore, the residual effect during construction remains as described above. Any requirements for additional mitigation, and the resulting residual effect, will be determined at ES stage, once the design of the Project has progressed.

### 27.7.1.2 Impacts on Landscape Character and Designated Landscapes – Sub-Area 2: Onshore Export Cable Corridor (LV-C-01)

#### 27.7.1.2.1 Receptor Sensitivity

151. The landscape of Sub-area 2 is described in **Section 27.6.1.3.2**.
152. Throughout Sub-area 2, there are few features which are vulnerable to the proposed works apart from hedgerows and trees. Besides the flat, low-lying floodplain of the River Hull corridor, much of the landform is very gently undulating in the east and rolling in the west, hence in the west the landform may provide some screening, with changes likely to be localised in most instances. Hedges, trees, and watercourses have greater susceptibility, especially the River Hull and the Beverley and Barmston Drain. Likewise, remnants of marshland and wetland landscape have greater susceptibility due to their rarity. Closer to Beverley, the presence of large-scale electricity infrastructure reduces susceptibility. The receptor is deemed to be of medium susceptibility.
153. There are many PRoW and long distance walking routes throughout much of Sub-area 2. The distinctive landscape of man-made lakes near Brandesburton offers recreational opportunities. Much of the south-western extents of Sub-area 2 are within the Yorkshire Wolds ILA. The receptor is deemed to be of medium value.
154. Taking account of the judgements of susceptibility and value, the sensitivity of landscape receptors in Sub-area 2 is judged to be **medium**.

#### 27.7.1.2.2 Impact Magnitude

155. Construction of the onshore ECC would lead to disturbance and increased activity, including excavation works for the cable trenches, trenchless crossing entry pits, jointing bays and link boxes and presence of temporary construction compounds, haul road, fencing, storage bunds, lighting and other temporary infrastructure such as culverts and bridges. Tranquillity would be reduced while works are ongoing. During the winter months, works may extend into hours of darkness and construction lighting may be visible and uncharacteristic. Along the narrow working width of the onshore ECC (approximately 32m for the HVDC export cables and 55m for the HVAC export cables) and associated temporary construction compounds, the landscape would have a large change in character from open farmland to a construction site. Trenchless techniques will be required in order to bypass several landscape features, which will increase the working width of the corridor to approximately 50m for the HVDC export cables and 60m for the HVAC export cables locally, though will reduce direct impacts to features such as watercourses.

156. In general, the clearance of vegetation would be limited as the routeing of the onshore ECC has been designed to avoid trees and woodland as much as possible (see **Chapter 5 Site Selection and Consideration of Alternatives**). However, sections of hedgerows and occasional field trees may need to be removed in order to install the onshore export cables and other infrastructure within the corridor. Trees which may be lost include those that belong to woodland blocks by Manor Farm south-west of Beeford, Clayfield Farm north-west of Brandesburton, High Farm south-west of Leven, Jillywood Farm south of Beverley Parks, Walkington Plantation and Briarpit Plantation south of Walkington, and the woodland of Risby Park by Low Daw Hill. Where practicable, woodland areas and trees will be avoided through micro-siting or the use of trenchless installation techniques (see **Table 27-5**, Commitment ID CO59), which will be confirmed in the Onshore Crossing Schedule prepared at ES stage.

157. The changes would affect the local landscape along the onshore ECC. In the north-eastern area of Sub-area 2, the landscape is flat, becoming more undulating further south-west. The height of the works is low, and so the geographical extent would be quite narrow – up to 1km from the Onshore Development Area. However, this extent would be much less where containment is afforded by hedgerows, trees, and built development. The construction works of the onshore ECC are expected to take approximately four years in total, although the duration of active works in any one location is likely to be much less. Different sections will be completed at various times during this period, so the effects experienced will vary depending on the construction phasing. Therefore, the duration at any location is considered to be short term. On completion of construction, Sub-area 2 will be restored to its original state, therefore the effects are considered to be reversible.

158. The impact of construction works in Sub-area 2 is predicted to be large scale, of local geographical extent, short term, and reversible. The magnitude is therefore considered to be **low**.

#### 27.7.1.2.3 Effect Significance

159. Overall, it is predicted that sensitivity of the receptor is **medium**, and the magnitude of impact is **low**. The effect at Year 1 is therefore of **minor adverse** significance, which is **not significant** in EIA terms.
160. Embedded mitigation measures relating to the construction phase will be set out as part of the Outline CoCP (see **Table 27-5**, Commitment IDs CO39, CO46, CO47, CO60 and CO85), which will be further developed at ES stage. It is not expected that specific landscape and visual mitigation will be implemented during construction, meaning the residual effect will remain as described above.

161. Upon completion of the onshore ECC construction works, any construction disturbance will be reinstated to pre-existing conditions as far as practicable in accordance with the Outline CoCP and Outline LMP (see **Table 27-5**, Commitment IDs CO65, CO59, CO83, CO100 and CO101) which will be developed at ES stage. The Outline LMP will ensure the restoration and, where practicable, the enhancement of the post-construction landscape. Post-consent, a LMP will be developed in accordance with the Outline LMP. This is expected to reduce the long term magnitude of impact as reinstated landscape features mature over time (e.g. by Year 15).

162. On completion of all construction works, landscape effects during construction will be superseded by the operational effects, which are assessed in **Section 27.7.3.1**.

#### 27.7.1.2.4 Additional Mitigation and Residual Effect

163. No additional mitigation has been identified at PEIR stage. Therefore, the residual effect during construction remains as described above. Any requirements for additional mitigation, and the resulting residual effect, will be determined at ES stage, once the design of the Project has progressed.

### 27.7.1.3 Impacts on Landscape Character and Designated Landscapes – Sub-Area 3: Onshore Converter Station Zone 4 (LV-C-02)

#### 27.7.1.3.1 Receptor Sensitivity

164. The landscape of Sub-area 3 is described in **Section 27.6.1.3.3**.

165. Sub-area 3 contains some landscape features that are vulnerable to the proposed works. Features with greater susceptibility are hedgerows, trees, watercourses and drains, and pockets of wet grassland and marsh. Busy transport corridors and some infrastructure indicate reduced susceptibility. The landform is slightly undulating, more so in the west, which provides some screening. Vegetation and the horticultural industry, and dense development between Cottingham and Beverley, provide some screening and generally restricts the views of changes to short distances. Overall, the susceptibility of Sub-area 3 to the proposed works is deemed to be **medium**.

166. A large area of the western extents of Sub-area 3 is in the Yorkshire Wolds ILA, though this is separate from OCS Zone 4 and does not contribute to local landscape value. There is some local recreational value due to the presence of PRoW, the Beverley 20 long distance walking route, and the NCN Route 1. The Beverley Parks area also has recreational value. More generally, the landscape around the OCS zone has limited visual diversity or scenic quality. The value of the receptor is deemed to be **low**.

167. Taking account of the judgements of susceptibility and value, the sensitivity of landscape receptors in Sub-area 3 is judged to be **medium**.

#### 27.7.1.3.2 Impact Magnitude

168. Construction of the OCS and ESBI infrastructure would lead to disturbance and increased activity, including excavation works for foundations and the presence of structures and buildings under construction and temporary construction compounds, haul roads, storage bunds, fencing, lighting and other temporary infrastructure. It is assumed that the OCS and ESBI infrastructure would be situated on level platform(s) within the OCS zone. Given the existing landform across the OCS zone is relatively flat, it is unlikely that a substantial amount of cut and fill would be required. The maximum developable area (for both temporary construction areas and permanent infrastructure) within the OCS zone would amount to 25ha. In the winter months, works may extend into hours of darkness when construction lighting may be visible and uncharacteristic.

169. In general, the clearance of vegetation will be limited as OCS Zone 4 has been sited to avoid woodland and trees as much as possible (see **Chapter 5 Site Selection and Consideration of Alternatives**). However, sections of hedgerows and some trees may need to be removed to allow for construction works and access. Overall, there would be a large change from semi-rural farmland to an extensive construction site.

170. The changes would affect the local landscape within Sub-area 3. Given the flat landscape and height of the works, the works could be evident at up to 2km from OCS Zone 4, but often less where containment and screening is provided by hedgerows, trees and built development. Construction would be screened locally from the south-west by the embanked A1079 and to some extent from the south-east by the woodland block in the vicinity of Model Farm, as would hedgerows along field boundaries and PRoW. Views of construction from the A1079 will generally be glimpsed due to consistent roadside vegetation. Views from the north-east are more open.

171. Construction works for the OCS and ESBI are expected to take approximately five years, though the intensity of works will vary over time. As such, effects would change with construction phasing and would not be spread evenly across the area for the whole period. Areas affected by temporary construction compounds and haul roads would be reinstated to their original condition, meaning construction effects are partly reversible.

172. The impact of the construction works in Sub-area 3 is predicted to be of large scale and medium geographical extent. It would be short term and partly reversible. The magnitude is therefore considered to be **medium**.

#### 27.7.1.3.3 Effect Significance

173. Overall, it is assessed that the sensitivity of the receptor in Sub-area 3 is **medium**, and the magnitude is **medium**. The effect at Year 1 is of **moderate adverse** significance, which is **significant** in EIA terms. Beyond the immediate geographical extent of the OCS zone, the impact on the landscape would be **not significant**. The extent of the area where significant effects are assessed is defined by:



- Minster Way and the edge of Beverley to the north;
- Long Lane and Model Farm to the east;
- Birkhill Wood and the A1079 to the south; and
- The upgraded A164 to the west.

174. Embedded mitigation measures relating to the construction phase will be set out as part of the Outline CoCP (see **Table 27-5**, Commitment IDs CO39, CO46, CO47, CO60 and CO85), which will be further developed at ES stage. It is not expected that specific landscape and visual mitigation will be implemented during construction, meaning the residual effect will remain as described above.

175. Upon completion of the OCS and ESBI construction works, any construction disturbance will be reinstated to pre-existing conditions in accordance with the Outline CoCP and Outline LMP (see **Table 27-5**, Commitment IDs CO65, CO59, CO100 and CO101) which will be developed at ES stage. The Outline LMP will ensure the restoration and, where practicable, the enhancement of the post-construction landscape. Post-consent, a LMP will be developed in accordance with the Outline LMP. This is expected to reduce the long term magnitude of impact as reinstated landscape features mature over time (e.g. by Year 15).

176. On completion of all construction works, landscape effects during construction will be superseded by the operational effects, which are assessed in **Section 27.7.3.2**.

#### 27.7.1.3.4 Additional Mitigation and Residual Effect

177. No additional mitigation has been identified at PEIR stage. Any requirements for additional mitigation, and the resulting residual effect, will be determined at ES stage, once the design of the Project has progressed.

### 27.7.1.4 Impacts on Landscape Character and Designated Landscapes – Sub-Area 4: Onshore Converter Station Zone 8 (LV-C-02)

#### 27.7.1.4.1 Receptor Sensitivity

178. The landscape of Sub-area 4 is described in **Section 27.6.1.3.4**.

179. Sub-area 4 contains landscape features that are vulnerable to the proposed works. Features with greater susceptibility to the proposed works are hedgerows and trees and, in particular, the rolling landform within which OCS Zone 8 is situated. The area in which OCS Zone 8 is situated is a relatively small depression closely enclosed by this rolling landform. It is a small scale and intimate landscape with greater susceptibility to change.

180. In the wider context of Sub-area 4, there are some indicators of reduced susceptibility, but these are beyond the immediate context of the OCS zone. Between Cottingham and Beverley, the horticultural industry and dense development generally restricts views to short distances, allowing for some screening. The area of land around Risby Park RPG has greater susceptibility as it is made up of sensitive landscape features such as the remains of Jacobean gardens and medieval settlement. The receptor is deemed to be of high susceptibility to the proposed changes.

181. The area surrounding OCS Zone 8 is of high recreational value as it is close to a number of PRow that link Walkington, Skidby and Risby Park, which pass through the scenic and diverse landscape to the south and west of the OCS zone. Risby Park also has high value for its historic landscape character. This character, in combination with the distance of OCS Zone 8 from the major transport corridors to the north and east, contributes to a sense of tranquillity at the local level. Approximately half of Sub-area 4, including OCS Zone 8, is within the Yorkshire Wolds ILA indicating value placed on the landscape at a local level. There are many PRow – including one approximately 115m south-east of OCS Zone 8 – and long distance walking routes throughout the sub-area. Overall, the value of the receptor is deemed to be **high**.

182. Taking account of the judgements of susceptibility and value, the sensitivity of landscape receptors in Sub-area 4 is judged to be **high**.

#### 27.7.1.4.2 Impact Magnitude

183. Construction of the OCS and ESBI infrastructure would lead to disturbance and increased activity. There would be excavation works for foundations and the presence of structures and buildings under construction and temporary construction compounds, haul roads, storage bunds, fencing, lighting and other temporary infrastructure. It is assumed that the OCS and ESBI infrastructure would be situated on level platform(s) within the OCS zone. Given the undulating nature of the landform within which OCS Zone 8 is situated, extensive earthworks are expected to be required to accommodate the large platform(s) needed for the OCS and ESBI infrastructure (up to 14ha in total). This is expected to require large-scale cut and fill across the OCS zone, including filling in part of the dipped landform in the centre of the OCS zone and cutting into the slopes to the north and south which rise from the low point within the OCS zone. This disturbance during construction will alter the distinctive undulating landform of the area. The maximum developable area (for both temporary construction areas and permanent infrastructure) within the OCS zone would amount to 25ha. In the winter months, works may extend into hours of darkness when construction lighting may be visible and uncharacteristic. There would be perceptual changes to the landscape of Risby Park RPG, affecting its historic and landscape character (refer to **Chapter 24 Onshore Archaeology and Cultural Heritage** for consideration of impact on heritage value of the RPG). The presence of a construction site in the immediate vicinity would reduce the tranquillity of this area.

184. In general, the clearance of vegetation will be limited as the OCS zone has been sited to avoid woodland and trees as much as possible (see **Chapter 5 Site Selection and Consideration of Alternatives**). However, sections of hedgerows would be removed to allow for construction works and access. Overall, there would be a large change from rural farmland to extensive construction sites.
185. The changes would affect the local landscape within Sub-area 4. Given the rolling nature of the landform, the likely cut and fill required, the height of the works, and the presence of woodland surrounding OCS Zone 8, the construction works would be most evident within 1km of OCS Zone 8 as screening is afforded by hedgerows and trees.
186. Construction works for the OCS and ESBI are expected to take approximately five years, although the intensity of works would vary over time. As such, effects would change with construction phasing and would not be spread evenly across the area for the whole period. Areas affected by temporary construction compounds and haul roads will be reinstated to their original condition, as such construction effects are partly reversible. Changes to the landform and clearance of hedges are not reversible.
187. The impact of the construction works in Sub-area 4 is predicted to be of large scale and medium geographical extent. It would be short term and partly reversible. The magnitude is therefore considered to be **high**.

#### 27.7.1.4.3 Effect Significance

188. It is assessed that the sensitivity of the receptor in Sub-area 4 is **high**, and the magnitude is **high**. The effect at Year 1 is of **major adverse** significance, which is **significant** in EIA terms. Beyond the immediate geographical extent of the OCS zone, the impact on the landscape would be **not significant**. The extent of the area where significant effects are assessed is defined by:
- Risby Park woodlands to the south and west;
  - Walkington village to the north; and
  - Johnson's Pit Wood, Eleven Acre Wood and Bentley village to the east.
189. Embedded mitigation measures relating to the construction phase will be set out as part of the Outline CoCP (see **Table 27-5**, Commitment IDs CO39, CO46, CO47, CO60 and CO85), which will be further developed at ES stage. It is not expected that specific landscape and visual mitigation will be implemented during construction, meaning the residual effect will remain as described above.

190. Upon completion of the OCS and ESBI construction works, any construction disturbance will be reinstated to pre-existing conditions in accordance with the Outline CoCP and Outline LMP (see **Table 27-5**, Commitment IDs CO65, CO59, CO100, and CO101) which will be developed at ES stage. The Outline LMP will ensure the restoration and, where practicable, the enhancement of the post-construction landscape. Post-consent, a LMP will be developed in accordance with the Outline LMP. This is expected to reduce the long term magnitude of impact as reinstated landscape features mature over time (e.g. by Year 15).
191. On completion of all construction works, landscape effects during construction will be superseded by the operational effects, which are assessed in **Section 27.7.3.3**.

#### 27.7.1.4.4 Additional Mitigation and Residual Effect

192. No additional mitigation has been identified at PEIR stage. Any requirements for additional mitigation, and the resulting residual effect, will be determined at ES stage, once the design of the Project has progressed.

## 27.7.2 Potential Visual Effects during Construction

### 27.7.2.1 Impacts on Visual Receptors – Sub-Area 1: Landfall (LV-C-03)

#### 27.7.2.1.1 Receptor Sensitivity

193. The visual receptors are described in **Section 27.6.2.1.1**.
194. Receptors in this area who are considered to be of high susceptibility include local residents in Ulrome, Skipsea and Skirlington, recreational users of the beaches and users of PRoW around the landfall. Other high susceptibility visual receptors include visitors to the caravan and holiday parks and to golf courses. Lower susceptibility visual receptors include road users on the B1242, B1429, the wider road network and agricultural workers.
195. Although there are no formal landscape designations for which views are noted, the area has scenic views along the coastline and out towards the North Sea. As a visitor destination with a number of holiday parks and tourist facilities, coastal views from the area are likely to be valued. Views are deemed to be of medium value.
196. The sensitivity of the visual receptors for Sub-area 1 is therefore considered to be **medium**. This is due to the value of the coastal view (despite not being a formal landscape designation) and the higher susceptibility of recreational and residential receptors.

#### 27.7.2.1.2 Impact Magnitude

197. Construction of the landfall would cause disturbance and visible activity that can be observed by visual receptors. Features including excavation works for the TJB and link box and landfall trenchless installation entry pits, the landfall construction compound, temporary fencing, haul road and storage bunds, which are not characteristic of the area, would be locally prominent within the open and exposed landscape, with close views experienced by residents of the villages of Ulrome and Skipsea, visitors to the caravan parks, visitors to the Far Grange Golf Club, PRoW, and from nearby beaches.
198. PRoW are likely to be temporarily stopped or diverted around the landfall construction compound, so these receptors therefore will have close range views of the construction activities.

199. Closer range views may be available from properties at the western extent of Ulrome, scattered properties such as Ulrome Grange, Mill Farm, Smiddy's Farm, Skipsea Hill Farm, The Grange and Low Bonwick. Closer range views may also be available for visitors to the Seaside Caravan Park to the north and Skipsea Sands Holiday Park to the south-east. The degree of visibility would be variable due to boundary trees and vegetation. The geographical extent of the effect is localised due to the combination of flat or gently undulating landform and boundary trees and vegetation. In views from the beach, the low boulder clay cliffs would likely screen views of the landfall construction compound and associated works, though works at the inshore and intertidal area may be visible. There would be an increased presence of construction traffic using the local road network.
200. The construction works of the landfall are expected to take approximately three years, though work at any one location is likely to be less than this, therefore the duration is of short term.
201. The impact of the landfall construction works on views in Sub-area 1 is predicted to be of medium scale and medium geographical extent. Impact would be short term, and reversible. The magnitude of impact is therefore considered to be **medium**.

#### 27.7.2.1.3 Effect Significance

202. Overall, it is assessed that the sensitivity of the receptor is **medium**, and the magnitude is **medium**. The effect at Year 1 is of **moderate adverse** significance, which is **significant** in EIA terms.
203. Embedded mitigation measures relating to the construction phase will be set out as part of the Outline CoCP (see **Table 27-5**, Commitment IDs CO23, CO39, CO47, CO60 and CO85), which will be further developed at ES stage. It is not expected that specific additional landscape and visual mitigation will be undertaken during construction, so that the residual effect will be as described above.
204. Upon completion of the landfall construction works, any construction disturbance will be reinstated to pre-existing conditions as far as practicable in accordance with the Outline CoCP and Outline LMP which will be developed at ES stage (see **Table 27-5**, Commitment IDs CO59, CO65, CO83, CO100 and CO101). The Outline LMP will ensure the restoration and, where practicable, the enhancement of the post-construction landscape. This will reduce the long term magnitude of impact on visual receptors as reinstated landscape features mature over time. Post-consent, a LMP will be developed in accordance with the Outline LMP. This is expected to reduce the long term magnitude of impact as reinstated landscape features mature over time (e.g. by Year 15).
205. On completion of all construction works, visual effects during construction will be superseded by the operational effects, which are considered in **Section 27.7.4.1**.



#### 27.7.2.1.4 Additional Mitigation and Residual Effect

206. No additional mitigation has been identified at PEIR stage. Therefore, the residual effect during construction remains as described above. Any requirements for additional mitigation, and the resulting residual effect, will be determined at ES stage, once the design of the Project has progressed.

#### 27.7.2.2 Impacts on Visual Receptors – Sub-Area 2: Onshore Export Cable Corridor (LV-C-03)

##### 27.7.2.2.1 Receptor Sensitivity

207. The visual receptors are described in **Section 27.6.2.1.1**.
208. Receptors in this area who are considered to be of high susceptibility to changes in the view include recreational receptors closest to the Study Area at Leven, Routh, Cherry Burton, Bishop Burton, Walkington and residential receptors at scattered farms and houses along the onshore ECC. Other high susceptibility recreational receptors include visitors to Risby Park, users of campsites and watersports facilities, and users of the NCN 164, 66 and 1. Lower susceptibility visual receptors include road users on the B1242 and B1249, the wider road network and agricultural workers.
209. Within this area, there are no statutory landscape designations, however the western most extents fall within the Yorkshire Wolds ILA. The sub-area has views which are valued by local residents, including views across open farmland from villages, panoramic coastal views and outlooks towards historic features in the landscape (Beverley Minster and Risby Park). Overall, views are considered to be of medium value.
210. The sensitivity of the visual receptors for Sub-area 2 is therefore considered to be **medium**.

##### 27.7.2.2.2 Impact Magnitude

211. Construction of the onshore ECC will lead to disturbance and activity as seen by visual receptors. Features include excavation works for the cable trenches, trenchless crossing entry pits, jointing bays and link boxes, temporary construction compounds, haul road, fencing, storage bunds, lighting and other temporary infrastructure such as culverts and bridges, which are not characteristic of the area. There will be a loss of hedgerows during construction of the onshore ECC. The scale of landscape change is therefore considered to be **medium**.
212. PRow are likely to be temporarily stopped or diverted around the construction works. These receptors will have close range views of the construction activities.

213. Closer range views may be available from properties and / or settlements closest to the onshore ECC. These works will be extensively visible from the northern extents of the Study Area due to the flat and exposed nature of the landscape. In the southern / south-western extent of the Study Area, there may be opportunity for screening by rolling landform. The degree of visibility will be variable due to boundary trees and vegetation. The geographical extent is therefore relatively localised, however more expansive views may be experienced in more open areas in the north.

214. The construction works of the onshore ECC are expected to take approximately four years in total, although the duration of active works in any one location is likely to be much shorter. Different sections will be completed at various times during this period, so the effects experienced will vary depending on the construction phasing. Therefore, the duration at any location is considered to be short term. On completion of construction, Sub-area 2 will be restored to its original state, therefore the effects are considered to be reversible.

215. The impact of the construction works for the onshore ECC are predicted to be of medium scale and small geographical extent. The magnitude of impact is therefore considered to be **low**.

##### 27.7.2.2.3 Effect Significance

216. Overall, it is assessed that the sensitivity of the receptor is **medium** and the magnitude is **low**. The effect at Year 1 is of **minor adverse** significance, which is **not significant** in EIA terms.
217. Embedded mitigation measures relating to the construction phase will be set out as part of the Outline CoCP (see **Table 27-5**, Commitment IDs CO39, CO47, CO60 and CO85), which will be further developed at ES stage. It is not expected that specific additional landscape and visual mitigation will be undertaken during construction, so that the residual effect will be as described above.
218. Upon completion of the onshore ECC construction works, any construction disturbance will be reinstated to pre-existing conditions as far as practicable in accordance with the Outline CoCP and Outline LMP which will be developed at ES stage (see **Table 27-5**, Commitment IDs CO65, CO59, CO83, CO100 and CO101). The Outline LMP will ensure the restoration and, where practicable, the enhancement of the post-construction landscape. This will reduce the long term magnitude of impact on visual receptors as reinstated landscape features mature over time. Post-consent, a LMP will be developed in accordance with the Outline LMP. This is expected to reduce the long term magnitude of impact as reinstated landscape features mature over time (e.g. by Year 15).
219. On completion of all construction works, visual effects during construction will be superseded by the operational effects, which are assessed in **Section 27.7.3.1**.

#### 27.7.2.2.4 Additional Mitigation and Residual Effect

220. No additional mitigation has been identified at PEIR stage. Therefore, the residual effect during construction remains as described above. Any requirements for additional mitigation, and the resulting residual effect, will be determined at ES stage, once the design of the Project has progressed.

#### 27.7.2.3 Impacts on Visual Receptors – Sub-Area 3: Onshore Converter Station Zone 4 (LV-C-04)

##### 27.7.2.3.1 Viewpoint 1: Shepherd Lane

###### 27.7.2.3.1.1. Receptor Sensitivity

221. The viewpoint is described in **Table 27-21**. The viewpoint represents views experienced by recreational receptors and road users travelling along PRow and Shepherd Lane to the south of Beverley and those driving along the A164. The viewpoint also represents views experienced by residential receptors along the southern edge of Beverley.
222. Residential receptors and recreational receptors, whose attention is focused on their surroundings, are considered to be of high susceptibility to changes in the view. Road users are considered to be of lower susceptibility.
223. The viewpoint is not located within a landscape designation, nor is it a promoted viewpoint or stopping location. The viewpoint has some semi-rural qualities, however, existing infrastructure including overhead lines, Dogger Bank A and B Offshore Wind Farms' converter stations and wind turbines can be seen from the viewpoint. The value of the view is considered to be low.
224. Overall, taking account of the judgements of susceptibility and value, overall sensitivity of receptors at this viewpoint is judged to be **medium**.

###### 27.7.2.3.1.2. Impact Magnitude

225. The construction of the OCS and ESBI in OCS Zone 4 would be seen at a minimum distance of approximately 0.2km from the viewpoint in views to south, depending on the finalised location of the OCS and ESBI buildings within the OCS zone. Direct views of construction activity, including the presence of tall machinery (e.g. cranes), earthworks, vehicle movements, temporary construction compounds, fencing and lighting at night would potentially be visible from this viewpoint. Intervening vegetation in the middle distance may help to screen some lower level construction activity within the OCS zone, if the infrastructure is located beyond this row of vegetation. However, taller elements such as cranes and other large equipment would still be visible beyond the vegetation, as would the buildings and structures as they get built.

226. Construction works for the OCS and ESBI are expected to last approximately five years, though different elements would be carried out at different times within this period, so the effects experienced will vary depending on the construction phase. The duration of this is short term. Construction effects are partly reversible in areas affected by temporary construction compounds and haul roads, which would be restored to their pre-existing condition.

227. The ZTV (**Figure 27-2**) indicates that views of construction activity would be similar from much of the surrounding area, including along Shepherd Lane and the A164 in the north, and from PRow that traverse the agricultural land to the north-east of the viewpoint (including the Beverley 20 walking route and NCN 1). Actual visibility may vary somewhat due to screening from hedgerows and roadside vegetation.

228. The overall impact of the OCS and ESBI construction works on visual receptors at Viewpoint 1 is predicted to be of medium scale and medium geographical extent. The impact would be short term, and reversible. The magnitude of impact is therefore considered to be **medium**.

###### 27.7.2.3.1.3. Effect Significance

229. Overall, it is assessed that the sensitivity of the receptor is **medium**, and the magnitude is **medium**. The effect is of **moderate adverse** significance, which is **significant** in EIA terms. This assessment assumes that infrastructure within the OCS zone (and its construction area) is to be located in closer proximity to the viewpoint. If the construction area is located further from the viewpoint (i.e. set further back within the OCS zone), the level of effect may reduce. This will be assessed at ES stage when more detail on the layout of the OCS and ESBI is known.
230. Embedded mitigation measures relating to the construction phase will be set out as part of the Outline CoCP (see **Table 27-5**, Commitment IDs CO39, CO47, CO60 and CO85), which will be further developed at ES stage. It is not expected that specific additional landscape and visual mitigation will be undertaken during construction, so that the residual effect will be as described above.
231. Upon completion of the OCS and ESBI construction works, any construction disturbance will be reinstated to pre-existing conditions in accordance with the Outline CoCP and Outline LMP which will be developed at ES stage (see **Table 27-5**, Commitment IDs CO65, CO59, CO100 and CO101). The Outline LMP will ensure the restoration and, where practicable, the enhancement of the post-construction landscape. This will reduce the long term magnitude of impact on visual receptors as reinstated landscape features mature over time. Post-consent, a LMP will be developed in accordance with the Outline LMP. This is expected to reduce the long term magnitude of impact as reinstated landscape features mature over time (e.g. by Year 15).

232. On completion of all construction works, visual effects during construction will be superseded by the operational effects, which are assessed in **Section 27.7.4.2**.

*27.7.2.3.1.4. Additional Mitigation and Residual Effect*

233. No additional mitigation has been identified at PEIR stage. Therefore, the residual effect during construction remains as described above. Any requirements for additional mitigation, and the resulting residual effect, will be determined at ES stage, once the design of the Project has progressed.

*27.7.2.3.2 Viewpoint 2: Beverley 20 near Jillywood Farm*

*27.7.2.3.2.1. Receptor Sensitivity*

234. This viewpoint is described in **Table 27-21**. The viewpoint represents views experienced by recreational receptors on the PRow and Beverley 20 walking route (as illustrated on OS mapping) west of the A1079 and nearby residential receptors in scattered properties, including Jillywood Farm and Mouse Hill.
235. Recreational and residential receptors are considered to be of higher susceptibility to changes in the view, as they tend to be more focussed on their surroundings.
236. The viewpoint is not located within a designated landscape, however, is located along the Beverley 20 walking route (as illustrated on OS mapping). The viewpoint has some semi-rural qualities, however, existing infrastructure including main roads, pylons, overhead lines, and wind turbines can be seen from the viewpoint. The value of the view is considered therefore considered to be low.
237. Overall, taking account of the judgements of susceptibility and value, the sensitivity of receptors at this viewpoint is judged to be **medium**.

*27.7.2.3.2.2. Impact Magnitude*

238. Construction of the OCS and ESBI in OCS Zone 4 would be seen at a minimum distance of 0.3km from the viewpoint in views to the north-east, depending on the finalised location of the OCS and ESBI within the OCS zone. Direct views of construction activity, including the presence of tall machinery (e.g. cranes), earthworks, vehicle movements, temporary construction compounds, fencing and lighting at night would potentially be visible from this viewpoint. Intervening vegetation along the A1079 would help screen some lower level construction activity within the OCS zone, however, taller elements such as cranes would be visible, as would the half built buildings and structures.

239. Construction works for the OCS and ESBI are expected to last approximately five years, though different elements would be carried out at different times within this period, so the effects experienced will vary depending on the construction phase. The duration of this is short term. Construction effects are partly reversible in areas affected by temporary construction compounds and haul roads, which would be restored to their pre-existing condition.

240. The ZTV (**Figure 27-2**) indicates that views of construction activity would be similar from much of the surrounding area, including along extensive sections of the Beverley 20 walking route. However, actual visibility is likely to be much less due to mature boundary vegetation, particularly along the section of the route by the A1079.

241. The overall impact of the OCS and ESBI construction works on visual receptors at viewpoint two is predicted to be of medium scale and medium geographical extent. The impact would be short term, and reversible. The magnitude of impact is therefore considered to be **medium**.

*27.7.2.3.2.3. Effect Significance*

242. Overall, it is assessed that the sensitivity of the receptor is **medium**, and the magnitude is **medium**. The effect is of **moderate adverse** significance, which is **significant** in EIA terms. This assessment assumes that infrastructure within the OCS zone (and its construction area) is to be located in closer proximity to the viewpoint. If the construction area is located further from the viewpoint within the OCS zone, the level of effect during construction may reduce. This will be assessed at ES stage when more detail on the layout of the OCS and ESBI is known.
243. Embedded mitigation measures relating to the construction phase will be set out as part of the Outline CoCP (see **Table 27-5**, Commitment IDs CO39, CO47, CO60 and CO85), which will be further developed at ES stage. It is not expected that specific additional landscape and visual mitigation will be undertaken during construction, so that the residual effect will be as described above.
244. Upon completion of the OCS and ESBI construction works, any construction disturbance will be reinstated to pre-existing conditions in accordance with the Outline CoCP and Outline LMP which will be developed at ES stage (see **Table 27-5**, Commitment IDs CO65, CO59, CO100 and CO101). The Outline LMP will ensure the restoration and, where practicable, the enhancement of the post-construction landscape. This will reduce the long term magnitude of impact on visual receptors as reinstated landscape features mature over time. Post-consent, a LMP will be developed in accordance with the Outline LMP. This is expected to reduce the long term magnitude of impact as reinstated landscape features mature over time (e.g. by Year 15).
245. On completion of all construction works, visual effects during construction will be superseded by the operational effects, which are assessed in **Section 27.7.4.2.2**.



#### 27.7.2.3.2.4. Additional Mitigation and Residual Effect

246. No additional mitigation has been identified at PEIR stage. Therefore, the residual effect during construction remains as described above. Any requirements for additional mitigation, and the resulting residual effect, will be determined at ES stage, once the design of the Project has progressed.

#### 27.7.2.3.3 Viewpoint 3: Beverley Parks

##### 27.7.2.3.3.1. Receptor Sensitivity

247. The viewpoint is described in **Table 27-21**. The viewpoint represents residential views experienced by receptors at isolated nearby properties including Model Farm and Old Hall, as well as views experienced by recreational receptors using a PRoW that forms a section of the Beverley 20 as illustrated on OS mapping.
248. Residential and recreational receptors, whose attention is focused on their surroundings, are considered to be of high susceptibility to changes in the view.
249. The viewpoint is not located within a designated landscape and it is not a promoted view or recognised stopping point. The viewpoint possesses rural qualities due to surrounding fields, shelterbelts, and hedgerows. However, the viewpoint is also influenced by surrounding development including the A1079 and overhead lines carried by large pylons which are visible against the skyline in views to the east, south-west, west, and north-west, although most of the pylons are partially hidden by vegetation. The Dogger Bank A and B Offshore Wind Farms' converter stations under construction form a prominent feature in views to the south-east. The value of the view is considered to be low.
250. Overall, taking account of the judgements of susceptibility and value, the sensitivity of receptors at this viewpoint is judged to be **medium**.

##### 27.7.2.3.3.2. Impact Magnitude

251. The construction of the OCS and ESBI in OCS Zone 4 would be seen at a minimum distance of 140m from the viewpoint in views to the north-west. Construction activity associated of the OCS and ESBI would be highly visible, given the limited screening available. Construction activity would include works such as presence of tall machinery (e.g. cranes), earthworks, vehicle movements, temporary construction compounds, fencing and lighting at night. The construction activity would be perceived within the context of lower and higher voltage overhead line in the background as well as the A1079 in the west.

252. Construction works for the OCS and ESBI are expected to last approximately five years. Although, different elements would be carried out at different times within this period, so the effects experienced will vary depending on the construction phase. Construction effects are partly reversible in areas affected by temporary construction compounds and haul roads, which would be restored to their pre-existing condition.

253. The ZTV (**Figure 27-2**) indicates that views of construction activity would be similar from much of the surrounding area, including along sections of the Beverley 20 near Model Farm and other nearby PRoW to the north. However, actual visibility may vary somewhat due to screening from hedgerows and farm buildings.

254. Due to the close proximity of works and associated structures, the overall impact of the construction works in OCS Zone 4 on this viewpoint is predicted to be of large scale and of a medium geographical extent. The impact would be medium-term and reversible. The magnitude is therefore considered to be **high**.

##### 27.7.2.3.3.3. Effect Significance

255. Overall, it is assessed that the sensitivity of the receptor is **medium** and the magnitude is **high**. The effect is of **major adverse** significance, which is **significant** in EIA terms. This assessment assumes that infrastructure within the OCS zone (and its construction area) is to be located in closer proximity to the viewpoint. If the construction area is located further from the viewpoint within the OCS zone, the level of effect during construction may reduce. This will be assessed at ES stage when more detail on the layout of the OCS and ESBI is known.
256. Embedded mitigation measures relating to the construction phase will be set out as part of the Outline CoCP (see **Table 27-5**, Commitment IDs CO39, CO47, CO60 and CO85), which will be further developed at ES stage. It is not expected that specific additional landscape and visual mitigation will be undertaken during construction, so that the residual effect will be as described above.
257. Upon completion of the OCS and ESBI construction works, any construction disturbance will be reinstated to pre-existing conditions in accordance with the Outline CoCP and Outline LMP which will be developed at ES stage (see **Table 27-5**, Commitment IDs CO65, CO59, CO100 and CO101). The Outline LMP will ensure the restoration and, where practicable, the enhancement of the post-construction landscape. This will reduce the long term magnitude of impact on visual receptors as reinstated landscape features mature over time. Post-consent, a LMP will be developed in accordance with the Outline LMP. This is expected to reduce the long term magnitude of impact as reinstated landscape features mature over time (e.g. by Year 15).
258. On completion of all construction works, visual effects during construction will be superseded by the operational effects, which are assessed in **Section 27.7.4.2.3**.

#### 27.7.2.3.3.4. Additional Mitigation and Residual Effect

259. No additional mitigation has been identified at PEIR stage. Therefore, the residual effect during construction remains as described above. Any requirements for additional mitigation, and the resulting residual effect, will be determined at ES stage, once the design of the Project has progressed.

#### 27.7.2.3.4 Viewpoint 4: Long Lane

##### 27.7.2.3.4.1. Receptor Sensitivity

260. The viewpoint is described in **Table 27-21**. The viewpoint represents roadside receptors along Long Lane and those travelling along NCN Route 1, in addition to nearby isolated residential properties along the road.
261. Residential receptors, whose attention is focused on their surroundings, are considered to be of high susceptibility to changes in the view. Roadside receptors, whose attention is focused on the road ahead, are considered to be of low susceptibility to changes in the view.
262. The viewpoint is not located within any designated landscapes and is not a promoted view or recognised stopping point. Existing contemporary development in the view towards the OCS zone, including properties in the middle-distance, large steel lattice pylons and overhead lines in the distance, along with smaller wooden pole pylons in the close to medium distance. Additionally, there is a substation directly east of the viewpoint, seen in the immediate distance along with a steel lattice tower. Therefore, the overall value of the view is considered low.
263. Taking account of the judgements of susceptibility and value, the sensitivity of receptors at this viewpoint is judged to be **medium**.

##### 27.7.2.3.4.2. Impact Magnitude

264. Construction of the OCS and ESBI in OCS Zone 4 would potentially be seen at a minimum distance of 0.75km from the viewpoint in views to the west. Direct views of construction activity, including presence of tall machinery (e.g. cranes), earthworks, vehicle movements, temporary construction compounds, fencing and lighting at night would be visible from this viewpoint.
265. Construction activity associated with the OCS and ESBI buildings would be potentially visible across a wide angle of the horizontal view in the middle to far distance. Properties along Shepherd Lane may partially obscure views towards construction activity.

266. Construction works for the OCS and ESBI are expected to last approximately five years. Although, different elements would be carried out at different times within this, so the effects experienced will vary depending on the construction phase. Construction effects are partly reversible in areas affected by temporary construction compounds and haul roads, which would be restored to their pre-existing condition.

267. The ZTV (see **Figure 27-2**) indicates that similar views would be experienced from along Long Lane. Indicative visibility is intermittent, with construction associated with the OCS and ESBI potentially visible in glimpsed middle to far distance views through deciduous roadside vegetation.

268. Overall, the impact of the OCS and ESBI construction works on this viewpoint is predicted to be of medium scale and of medium geographical extent. The impact would be short term and reversible. The magnitude of change is therefore considered to be **medium**.

##### 27.7.2.3.4.3. Effect Significance

269. Overall, it is assessed that the sensitivity of the receptor is **medium** and the magnitude of change is **medium**. The effect is of **moderate adverse** significance, which is **significant** in EIA terms. This assessment assumes that infrastructure within the OCS zone (and its construction area) is to be located in closer proximity to the viewpoint. If the construction area is located further from the viewpoint within the OCS zone, the level of effect during construction may reduce. This will be assessed at ES stage when more detail on the layout of the OCS and ESBI is known.
270. Embedded mitigation measures relating to the construction phase will be set out as part of the Outline CoCP (see **Table 27-5**, Commitment IDs CO39, CO47 and CO60), which will be further developed at ES stage. It is not expected that specific additional landscape and visual mitigation will be undertaken during construction, so that the residual effect will be as described above.
271. Upon completion of the OCS and ESBI construction works, any construction disturbance will be reinstated to pre-existing conditions in accordance with the Outline CoCP and Outline LMP which will be developed at ES stage (see **Table 27-5**, Commitment IDs CO65, CO59, CO100 and CO101). The Outline LMP will ensure the restoration and, where practicable, the enhancement of the post-construction landscape. This will reduce the long term magnitude of impact on visual receptors as reinstated landscape features mature over time. Post-consent, a LMP will be developed in accordance with the Outline LMP. This is expected to reduce the long term magnitude of impact as reinstated landscape features mature over time (e.g. by Year 15).
272. On completion of all construction works, visual effects during construction will be superseded by the operational effects, which are assessed in **Section 27.7.4.2.4**.

#### 27.7.2.3.4.4. Additional Mitigation and Residual Effect

273. No additional mitigation has been identified at PEIR stage. Therefore, the residual effect during construction remains as described above. Any requirements for additional mitigation, and the resulting residual effect, will be determined at ES stage, once the design of the Project has progressed.

#### 27.7.2.3.5 Summary of Visual Effects Sub-Area 3: Onshore Converter Station Zone 4 (LV-C-04)

274. Significant adverse visual effects are expected during construction in all directions around OCS Zone 4. **Moderate (significant adverse)** effects are expected for recreational receptors travelling along the PRow network, including users of the Beverley 20 footpath near Jillywood in the south-west and those travelling along Shepherd Lane to the north. Users of NCN Route 1 along Long Lane are also expected to experience **moderate (significant adverse)**. These locations also all represent views for residential receptors, either in scattered properties and farmsteads, or from the southern settlement edge of Beverley. Major (significant adverse) effects are expected from the Beverley 20 footpath near Model Farm and Beverley Parks, due to its close proximity and open views towards the Project. This location is representative of views experienced by scattered residential receptors at Model Farm.

#### 27.7.2.4 Impacts on Visual Receptors – Sub-Area 4: Onshore Converter Station Zone 8 (LV-C-04)

##### 27.7.2.4.1 Viewpoint 5: Footpath, Walkington

##### 27.7.2.4.1.1. Receptor Sensitivity

275. The viewpoint is described in **Table 27-21**. The viewpoint represents views experienced by recreational receptors travelling along the Beverley 20 near Walkington.
276. Recreational receptors, whose attention is focused on their surroundings, are considered to be of high susceptibility to changes in the view.
277. The viewpoint is located along the Beverley 20 long distance walking route, and is located within the Yorkshire Wolds ILA. The viewpoint possesses some rural qualities as a result of the arable fields and woodland blocks around it. It is also influenced by distant overhead lines to the south-east, and palisade fencing along the eastern and southern settlement edge of Walkington. The value of the view is considered to be medium.
278. Overall, taking account of the judgements of susceptibility and value, overall sensitivity of receptors at this viewpoint is judged to be **high**.

#### 27.7.2.4.1.2. Impact Magnitude

279. Construction of the OCS and ESBI in OCS Zone 8 would potentially be seen at a minimum distance of approximately 700m from the viewpoint in views to the south. Given the screening provided by landform and woodland (Briarpit Plantation), lower level construction activity, including temporary construction compounds, earthworks and haul roads would not be visible. Construction of some of the taller elements of the OCS and ESBI would likely be visible, notably the presence of cranes, the part built buildings and structures, and lighting at night.
280. Construction works for the OCS and ESBI are expected to last approximately five years. Although, different elements would be carried out at different times within this period, so the effects experienced will vary depending on the construction phase. Construction effects are partly reversible in areas affected by temporary construction compounds and haul roads, which would be restored to their pre-existing condition.
281. The ZTV (see **Figure 27-3**) indicates that theoretical visibility would be experienced from much of the surrounding agricultural area and from along sections of Beverley 20 between Walkington and Moor Lane. However, actual views of construction activity would be variable and quite limited in places due to the presence of woodland blocks and boundary vegetation.
282. The overall impact of OCS and ESBI construction works on this viewpoint is predicted to be of small scale and of a small geographical extent. The impact would be short term and reversible. The magnitude is therefore considered to be **low**.

#### 27.7.2.4.1.3. Effect Significance

283. Overall, it is assessed that the sensitivity of the receptor is **high**, and the magnitude is **low**. The effect is of **minor adverse** significance, which is **not significant** in EIA terms.
284. Embedded mitigation measures relating to the construction phase will be set out as part of the Outline CoCP (see **Table 27-5**, Commitment IDs CO39, CO47, CO60 and CO85), which will be further developed at ES stage. It is not expected that specific additional landscape and visual mitigation will be undertaken during construction, so that the residual effect will be as described above.



285. Upon completion of the OCS and ESBI construction works, any construction disturbance will be reinstated to pre-existing conditions in accordance with the Outline CoCP and Outline LMP which will be developed at ES stage (see **Table 27-5**, Commitment IDs CO65, CO59, CO100 and CO101). The Outline LMP will ensure the restoration and, where practicable, the enhancement of the post-construction landscape. This will reduce the long term magnitude of impact on visual receptors as reinstated landscape features mature over time. Post-consent, a LMP will be developed in accordance with the Outline LMP. This is expected to reduce the long term magnitude of impact as reinstated landscape features mature over time (e.g. by Year 15).

286. On completion of all construction works, visual effects during construction will be superseded by the operational effects, which are assessed in **Section 27.7.4.3.1**.

#### 27.7.2.4.1.4. Additional Mitigation and Residual Effect

287. No additional mitigation has been identified at PEIR stage. Therefore, the residual effect during construction remains as described above. Any requirements for additional mitigation, and the resulting residual effect, will be determined at ES stage, once the design of the Project has progressed.

#### 27.7.2.4.2 Viewpoint 6: Core Path near Bentley

##### 27.7.2.4.2.1. Receptor Sensitivity

288. This viewpoint is described in **Table 27-21**. This viewpoint represents views experienced by recreational receptors walking the PRoW network (Rowley Footpath No. 9), and people travelling along Coppleflat Lane.

289. Recreational receptors are considered to be of higher susceptibility to changes in views as they tend to be more focussed on their surroundings. Lower susceptibility receptors include road users travelling on Coppleflat Lane as the nature of the view is transitory.

290. The viewpoint is located within the Yorkshire Wolds ILA, but is not a promoted viewpoint or stopping place. The viewpoint is located adjacent to a PRoW, and possesses rural qualities due to surrounding rolling fields, woodlands and hedgerows. The value of the view is considered to be medium.

291. On balance, taking account of the judgements of susceptibility and value, overall sensitivity of receptors at this viewpoint is judged to be **medium**.

##### 27.7.2.4.2.2. Impact Magnitude

292. The construction of the OCS and ESBI would be seen at a minimum distance of approximately 154m from the viewpoint to the north-west and would be clearly visible in the immediate foreground of views. Given the proximity of the viewpoint to the indicative area for siting OCS infrastructure and the OCS zone boundary, construction activity would be prominent in views.

293. Construction activity would include works such as presence of tall machinery (e.g. cranes), earthworks, vehicle movements, temporary construction compounds, fencing and lighting at night.

294. Construction activity would be seen in the context of existing overhead line and 400kV pylon infrastructure visible on the skyline and smaller scale wooden pole infrastructure is backclothed by agricultural fields.

295. Construction works for the OCS and ESBI are expected to last approximately five years. Although, different elements would be carried out at different times within this period, so the effects experienced will vary depending on the construction phase. Construction effects are partly reversible in areas affected by temporary construction compounds and haul roads, which would be restored to their pre-existing condition.

296. The ZTV (**Figure 27-3**) indicates that views of construction activity would be similar from much of the surrounding area, including along sections of Coppleflat Lane. The PRoW (Rowley Footpath No. 9) which crosses the OCS zone to the south may need to be diverted during construction. There is no screening from this viewpoint, and from extensive sections of Coppleflat Lane between the viewpoint and Walkington, however views from the footpath to the south would be largely screened due to the mature hedgerow which abuts it to the north. There would be some filtering of views along Coppleflat Lane due to the presence of mature roadside vegetation as the road drops down in elevation to the north of the viewpoint.

297. Due to the close proximity of the OCS and ESBI construction works, the overall impact of the on this viewpoint is predicted to be of a large scale and would be experienced over a medium geographical extent. The impact would be medium-term and reversible. The magnitude is therefore considered to be **high**.

##### 27.7.2.4.2.3. Effect Significance

298. Overall, it is assessed that the sensitivity of the receptor is **medium**, and the magnitude is **high**. The effect is of **major adverse** significance, which is **significant** in EIA terms.

299. Embedded mitigation measures relating to the construction phase will be set out as part of the Outline CoCP (see **Table 27-5**, Commitment IDs CO39, CO47, CO60 and CO85), which will be further developed at ES stage. It is not expected that specific additional landscape and visual mitigation will be undertaken during construction, so that the residual effect will be as described above.
300. Upon completion of the OCS and ESBI construction works, any construction disturbance will be reinstated to pre-existing conditions in accordance with the Outline CoCP and Outline LMP which will be developed at ES stage (see **Table 27-5**, Commitment IDs CO65, CO59, CO100 and CO101). The Outline LMP will ensure the restoration and, where practicable, the enhancement of the post-construction landscape. This will reduce the long term magnitude of impact on visual receptors as reinstated landscape features mature over time. Post-consent, a LMP will be developed in accordance with the Outline LMP. This is expected to reduce the long term magnitude of impact as reinstated landscape features mature over time (e.g. by Year 15).
301. On completion of all construction works, visual effects during construction will be superseded by the operational effects, which are assessed in **Section 27.7.4.3.2**.

#### 27.7.2.4.2.4. Additional Mitigation and Residual Effect

302. No additional mitigation has been identified at PEIR stage. Therefore, the residual effect during construction remains as described above. Any requirements for additional mitigation, and the resulting residual effect, will be determined at ES stage, once the design of the Project has progressed.

#### 27.7.2.4.3 Viewpoint 7: Risby Park

##### 27.7.2.4.3.1. Receptor Sensitivity

303. The viewpoint is described in **Table 27-21**. The viewpoint represents views experienced by recreational receptors on a PRoW that forms a section of the Beverley 20 as illustrated on OS mapping.
304. Recreational receptors, whose attention is focused on their surroundings, are considered to be of high susceptibility to changes in the view.
305. The viewpoint is located within the Yorkshire Wolds ILA and while it is not a promoted view or recognised stopping point, it is on a section of long distance walking route, the Beverley 20. The viewpoint possesses rural qualities due to fields, hedgerows, and woodland blocks and an intimate feeling as views are restricted to short to medium distances by the rolling landform and woodland blocks. There is no visible existing infrastructure or development. The value of the view is considered to be high.
306. Overall, taking account of the judgements of susceptibility and value, the sensitivity of receptors at this viewpoint is judged to be **high**.

##### 27.7.2.4.3.2. Impact Magnitude

307. Construction of the OCS and ESBI in OCS Zone 8 would potentially be seen at a minimum distance of approximately 760m from the viewpoint in views to the east. It is likely that lower level construction activity, including temporary construction compounds, earthworks and haul roads would not be visible due to screening provided by landform. Construction of some of the taller elements of the OCS and ESBI would likely be visible, notably the presence of cranes, the part built buildings and structures, and lighting at night.
308. Construction works for the OCS and ESBI are expected to last approximately five years. Although, different elements would be carried out at different times within this, so the effects experienced will vary depending on the construction phase. Construction effects are partly reversible in areas affected by temporary construction compounds and haul roads, which would be restored to their pre-existing condition.
309. The ZTV (see **Figure 27-3**) indicates that theoretical visibility would be experienced from much of the surrounding area. However, in reality views would be quite limited due to the presence of woodland blocks and boundary vegetation, with similar views expected along the section of the PRoW between Walkington Plantation and Cupola Hill Plantation.
310. The overall impact of the OCS and ESBI construction works on this viewpoint is predicted to be of small scale and of a small geographical extent. The impact would be medium-term and reversible. The magnitude is therefore considered to be **low**.

##### 27.7.2.4.3.3. Effect Significance

311. Overall, it is assessed that the sensitivity of the receptor is **high** and the magnitude is **low**. The effect is of **minor adverse** significance, which is **not significant** in EIA terms.
312. Embedded mitigation measures relating to the construction phase will be set out as part of the Outline CoCP (see **Table 27-5**, Commitment IDs CO39, CO47, CO60 and CO85), which will be further developed at ES stage. It is not expected that specific additional landscape and visual mitigation will be undertaken during construction, so that the residual effect will be as described above.



313. Upon completion of the OCS and ESBI construction works, any construction disturbance will be reinstated to pre-existing conditions in accordance with the Outline CoCP and Outline LMP which will be developed at ES stage (see **Table 27-5**, Commitment IDs CO65, CO59, CO100 and CO101). The Outline LMP will ensure the restoration and, where practicable, the enhancement of the post-construction landscape. This will reduce the long term magnitude of impact on visual receptors as reinstated landscape features mature over time. Post-consent, a LMP will be developed in accordance with the Outline LMP. This is expected to reduce the long term magnitude of impact as reinstated landscape features mature over time (e.g. by Year 15).

314. On completion of all construction works, visual effects during construction will be superseded by the operational effects, which are assessed in **Section 27.7.4.3.3**.

#### 27.7.2.4.3.4. Additional Mitigation and Residual Effect

315. No additional mitigation has been identified at PEIR stage. Therefore, the residual effect during construction remains as described above. Any requirements for additional mitigation, and the resulting residual effect, will be determined at ES stage, once the design of the Project has progressed.

#### 27.7.2.4.4 Viewpoint 8: Little Weighton

##### 27.7.2.4.4.1. Receptor Sensitivity

316. The viewpoint is described in **Table 27-21**. The viewpoint represents recreational receptors at the recreational area to the north of Little Weighton. Recreational receptors, whose attention is focused on their surroundings, are considered to be of high susceptibility to changes in the view.

317. The viewpoint is located within the Yorkshire Wolds ILA. It is not a promoted view or recognised stopping point, however, offers elevated scenic views across the lower-lying landscape to the east. Existing human elements can be seen in the view, reducing the sensitivity, however these are seen in the distant view, with open views across agricultural fields, lined by hedgerows, towards the OCS zone. The overall value of the view is considered to be high.

318. Taking account of the judgements of susceptibility and value, the sensitivity of receptors at this viewpoint are judged to be **high**.

##### 27.7.2.4.4.2. Impact Magnitude

319. Construction of the OCS and ESBI in OCS Zone 8 would potentially be seen at a minimum distance of approximately 2.8km from the viewpoint in views north-east.

320. Construction activity associated with the OCS and ESBI may be visible across a very small angle of the horizontal view in the far distance. The presence of taller features such as cranes (and associated lighting) may be visible, however visibility of ground activity including excavation and earthworks, temporary construction compounds and haul roads, would be limited due to the screening provided by woodland in Risby Park.

321. Construction works for the OCS and ESBI are expected to last approximately five years. Although, different elements would be carried out at different times within this and as such the effects experienced would change with construction phasing. Construction effects are partly reversible in areas affected by temporary construction compounds and haul roads, which would be restored to their pre-existing condition.

322. The ZTV (see **Figure 27-3**) indicates that similar views would be experienced from the field the viewpoint is at the edge of. Intermittent theoretical visibility is indicated from further south along the footpath which the viewpoint is on, and from the playing field directly south-west. However, in reality, mature vegetation around the playing fields would screen views. There is unlikely to be visibility from the settlement of Little Weighton, due to the presence of buildings and vegetation.

323. Overall, the impact of the construction works associated with the OCS and ESBI on this viewpoint is predicted to be of small scale and of medium geographical extent. The impact would be short term and reversible. The magnitude of change is therefore considered to be **low**.

##### 27.7.2.4.4.3. Effect Significance

324. Overall, it is assessed that the sensitivity of the receptor is **high** and the magnitude of change is **low**. The effect is of **minor adverse** significance, which is **not significant** in EIA terms.

325. Embedded mitigation measures relating to the construction phase will be set out as part of the Outline CoCP (see **Table 27-5**, Commitment IDs CO39, CO47, CO60 and CO85), which will be further developed at ES stage. It is not expected that specific additional landscape and visual mitigation will be undertaken during construction, so that the residual effect will be as described above.

326. Upon completion of the OCS and ESBI construction works, any construction disturbance will be reinstated to pre-existing conditions in accordance with the Outline CoCP and Outline LMP which will be developed at ES stage (see **Table 27-5**, Commitment IDs CO65, CO59, CO100 and CO101). The Outline LMP will ensure the restoration and, where practicable, the enhancement of the post-construction landscape. This will reduce the long term magnitude of impact on visual receptors as reinstated landscape features mature over time. Post-consent, a LMP will be developed in accordance with the Outline LMP. This is expected to reduce the long term magnitude of impact as reinstated landscape features mature over time (e.g. by Year 15).

327. On completion of all construction works, visual effects during construction will be superseded by the operational effects, which are assessed in **Section 27.7.4.3.2**.

#### 27.7.2.4.4.4. *Additional Mitigation and Residual Effect*

328. No additional mitigation has been identified at PEIR stage. Therefore, the residual effect during construction remains as described above. Any requirements for additional mitigation, and the resulting residual effect, will be determined at ES stage, once the design of the Project has progressed.

#### 27.7.2.4.5 Summary of Visual Effects Sub-Area 4: Onshore Converter Station Zone 8 (LV-C-04)

329. **Significant (major adverse)** visual effects are expected during construction from recreational receptors travelling along the PRoW network in the south of the OCS zone, and road users travelling along Coppleflat Lane, due to the open views afforded across the OCS zone. Recreational receptors travelling along the PRoW network (including the Beverley 20 footpath) in Risby Park in the west, and around Walkington in the north are expected to have visual effects which are **not significant (minor adverse)** during construction, due the undulating landform and presence of vegetation providing some degree of screening. More distant recreational receptors at Little Weighton recreational ground are also expected to have **not significant (minor adverse)** visual effects due to the intervening distance and screening provided by intervening vegetation.

### 27.7.3 Potential Landscape Effects during Operation

330. Effects during the O&M phase are assessed for permanent above-ground infrastructure only. There will be some above-ground link boxes along the onshore ECC adjacent to jointing bay locations. The main above ground infrastructure will be at the OCS zone. It is not known at this stage which of the OCS zones (Zone 4 or Zone 8) will be taken forward to the DCO application and development. This section therefore considers development within each zone in turn. Above-ground infrastructure at the OCS zone will include the OCS and ESBI, as described in **Table 27-7**, although the exact location of these features is not known.
331. There will be no permanent above-ground infrastructure at the landfall, and no significant effects are expected. Given the size of the landfall and the limited loss of hedgerows expected during construction, there is unlikely to be many noticeable gaps whilst hedgerows re-establish during the O&M phase. Therefore, Sub-area 1 is therefore not considered in this section, and operational effects associated with landfall infrastructure have not been assessed in detail.

#### 27.7.3.1 Impacts on Landscape Character and Designated Landscapes – Sub-Area 2: Onshore Export Cable Corridor (LV-O-01)

##### 27.7.3.1.1 Receptor Sensitivity

332. The landscape of Sub-area 2 is judged to be of **medium** sensitivity as set out in **Section 27.7.1.3**.

##### 27.7.3.1.2 Impact Magnitude

333. Following installation of the buried onshore export cables and jointing bays along the onshore ECC, the land would be restored its pre-existing condition. However, there is potential that approximately 20 link box locations for the HVDC export cables would be located above ground along the onshore ECC between the landfall and OCS zone. All the link box locations for the HVAC export cables along the onshore ECC between the OCS zone and Birkhill Wood Substation would also be located above ground. The maximum area of the above ground link boxes will be approximately 3m<sup>2</sup> per link box, with an assumed height of 1.2 to 2m (as set out in **Table 27-7**). Link boxes will be typically marked / protected by bollards, fences or similar of approximately 1.2 to 2m in height (where required and agreed with the relevant landowners). Where link boxes are located above ground, these are not of large-scale and therefore, along with the buried onshore export cable infrastructure, are unlikely to significantly impact landscape character.
334. In addition to the bollards, fencing or similar equipment around the link boxes, small marker posts of approximately 1m to 1.2m height will be installed along the operational easement to demark the location of the installed onshore export cables. Marker posts will, at a minimum, be required at field boundaries, on either side of obstacle crossings such as roads and watercourses and where there are significant directional changes in the cable route. Given the height of these markers (1m to 1.2m) they are unlikely to form a noticeable feature in the landscape and are not expected to change the character of the landscape.
335. In addition, throughout Sub-area 2, some hedgerows would be lost in the construction phase and may take time to re-establish during the O&M phase. In areas where the existing hedgerow conditions are poor due to extensive gaps, this further loss would impact the landscape character. The magnitude is therefore considered to be **low**.

##### 27.7.3.1.3 Effect Significance

336. It is assessed that the sensitivity of the receptor is **medium** and the magnitude of impact is **locally low**. The effect at Year 1 is of **minor adverse** significance along the onshore ECC, which is **not significant** in EIA terms.



337. Mitigation measures will be embedded into the design of the Project and will be presented in the Outline LMP at ES stage (see **Table 27-5**, Commitment IDs CO59, CO65, CO83 and CO100). The Outline LMP will be developed to ensure the restoration and, where practicable, enhancement of the post-construction landscape (see **Section 27.1.1.1**). The Outline LMP will be implemented across the onshore ECC, including the re-planting of hedgerows and trees that were removed for construction. However, trees will not be replanted directly over buried onshore export cables, jointing bays and link boxes. Once matured (e.g., at Year 15), the planting set out in the Outline LMP will help to restore the landscape to its previous condition in accordance with the Outline CoCP (see **Table 27-5**, Commitment ID CO39). It is expected that no above-ground infrastructure would remain, other than the link boxes and some small marker posts and bollards, fencing or similar equipment. Indicative mitigation measures to be included in the Outline LMP are set out in **Table 27-6**.

#### 27.7.3.1.4 Additional Mitigation and Residual Effect

338. No additional mitigation has been identified at PEIR stage. Therefore, the residual effect during operation remains as described above. Any requirements for additional mitigation, and the resulting residual effect, will be determined at ES stage, once the design of the Project has progressed.

### 27.7.3.2 Impacts on Landscape Character and Designated Landscapes – Sub-Area 3: Onshore Converter Station Zone 4 (LV-O-02)

#### 27.7.3.2.1 Receptor Sensitivity

339. The landscape of Sub-area 3 is judged to be of **medium** sensitivity as set out in **Section 27.7.1.3.1**.

#### 27.7.3.2.2 Impact Magnitude

340. Within OCS Zone 4, the O&M phase would result in the permanent loss of some limited landscape features such as the arable fields contained by hedgerows forming an irregular field pattern. Such elements are noted as key landscape characteristics of Beverley Parks farmland. However, the primary impacts would relate to the ongoing visual presence of the OCS and ESBI within the landscape, which would affect key characteristics such as open views across the landscape, including views of Beverley Minster, a prominent landmark feature of the horizon.

341. Within 1km of OCS Zone 4, theoretical visibility of the OCS and ESBI is relatively extensive across Beverley Parks, as indicated by the ZTV. However, views would be more localised due to screening provided by intervening woodland blocks, hedgerows, and built development. Beyond 1km, theoretical visibility becomes more irregular but extends to the west where the land ascends towards the Wolds and also extends to the north-east where the land ascends eastwards from the River Hull floodplain. Theoretical visibility is largely contained to the north and south by Beverley and Cottingham / Hull respectively. However, visibility from all directions would vary due to woodland blocks, mature field boundary vegetation and buildings. As such, effects on landscape character would be relatively localised around OCS Zone 4.

342. Generally, the OCS and ESBI would be perceived as part of a landscape of man-made influence, which is busy and complex in nature due to the horticultural buildings, electricity infrastructure, and transport corridors, and is more densely populated than much of the East Riding.

343. The impact of the OCS and ESBI on the landscape is deemed to be of large scale locally and of small geographical extent. It would be long term (with an operational lifetime of approximately 35 years) and partly reversible. The magnitude is therefore considered to be **high** within the context of the OCS zone footprint, reducing to **medium** then **low** with greater distance.

#### 27.7.3.2.3 Effect Significance

344. Overall, it is assessed that the sensitivity of the receptor is **medium** and the magnitude of impact is **locally high**. The effect at Year 1 is of **major adverse** significance within the immediate area of the OCS zone, which **is significant** in EIA terms. The effect would reduce with distance, falling below the threshold of significance at no more than 1km from the OCS zone. The area where significant effects on landscape character may be expected is approximately bounded by the south edge of Beverley to the north and north-west, Long Lane to the east, Birkhill Wood to the south, and the A164 major road improvement works to the west.

345. The design of the OCS and ESBI has not been finalised. The design will seek to minimise the height and massing of the OCS and ESBI within the OCS zone as much as possible (see **Table 27-5**, Commitment ID CO64). A draft version of the **Design Vision** (document reference 7.4) has been developed for PEIR stage which sets out design principles for the OCS and ESBI, this will be updated for the ES stage (**Table 27-5**, Commitment ID CO63).

346. Mitigation measures will be embedded into the design of the Project and will be presented in the Outline LMP at ES stage (see **Table 27-5**, Commitment IDs CO59, CO65, and CO100). The Outline LMP will be developed to ensure the restoration and, where practicable, enhancement of the post-construction landscape (see **Section 27.7.1.3**). The landscape mitigation scheme will be implemented around the OCS and ESBI, including hedgerow and woodland planting. Once matured, this will help to integrate the OCS and ESBI into the existing landscape of arable fields and boundary trees and hedgerows. Once matured (e.g. at Year 15), the planting set out in the Outline LMP will help to restore the landscape to its previous condition in accordance with the Outline CoCP (see **Table 27-5**, Commitment ID CO39). Indicative mitigation measures to be included in the Outline LMP are set out in **Table 27-6**. As embedded mitigation (e.g., design of the OCS and ESBI, and landscape mitigation planting) has not been finalised for PEIR stage, it is not possible to determine how this will affect the magnitude of impact and significance of effect identified above.

#### 27.7.3.2.4 Additional Mitigation and Residual Effect

347. No additional mitigation has been identified at PEIR stage. Therefore, the residual effect during operation remains as described above. Any requirements for additional mitigation, and the resulting residual effect, will be determined at ES stage, once the design of the Project has progressed.

### 27.7.3.3 Impacts on Landscape Character and Designated Landscapes – Sub-Area 4: Onshore Converter Station Zone 8 (LV-O-02)

#### 27.7.3.3.1 Receptor Sensitivity

348. The landscape of Sub-area 4 is judged to be of **high** sensitivity as set out in **Section 27.7.1.4.1**.

#### 27.7.3.3.2 Impact Magnitude

349. Within OCS Zone 8, the O&M phase would result in the permanent loss of some limited landscape features such as the relatively small arable fields contained by hedgerows forming a regular field pattern. The O&M phase would also result in notable changes to the landscape character of the OCS zone. The area in which OCS Zone 8 is situated is a relatively small depression closely enclosed by the rolling landform. The OCS would add substantial earthworks and built mass to this small scale and intimate landscape, erasing the rolling nature of the landform, which is noted as a key landscape characteristic of the rolling farmland of the south Wolds. The O&M phase would cause changes to the historic character of the area around Risby Park RPG, valued for its recreation opportunities and parkland character. Impact would also arise from the ongoing presence of the OCS and ESBI that would affect key characteristics such as views across the landscape.

350. As indicated by the ZTV, the theoretical visibility within 1km of OCS Zone 8 is relatively extensive across surrounding farmland. However, plantations in the immediate vicinity as well as woodland at Risby Park would provide some local screening. Beyond 1km, theoretical visibility extends westwards covering an extensive area of open high rolling farmland that makes up the east facing dip slope of the Wolds. The theoretical visibility also extends to the east and north-east towards Woodmansey and Beverley. However, the theoretical visibility in this direction is patchier. Theoretical visibility is largely contained to the north by the settlements of Walkington and Beverley and to the south by Skidby, Cottingham, and Hull. However, visibility from all directions would vary due to woodland blocks and buildings. As such, large scale effects on landscape character would be relatively localised around OCS Zone 8, with woodland providing some level of containment in all directions around the OCS zone. Although larger areas of the more elevated Wolds may be affected by the OCS and ESBI, given the intervening distance the scale of change would be lower.

351. At the local scale, the OCS and ESBI would be perceived within the context of an important historic landscape popular for recreation. At the wider scale, the OCS and ESBI would be perceived within the context of the open, high rolling farmland of the southern dip slope of the Yorkshire Wolds ILA, which has nucleated villages throughout, and within the context of an altered landscape which has man-made influences including existing industry, electricity infrastructure, transport corridors and large settlements.

352. The impact of the OCS and ESBI on the landscape is deemed to be of large scale locally and of small geographical extent. It would be long term (with an operational lifetime of approximately 35 years) and partly reversible. The magnitude is therefore considered to be **high** within the context of the OCS zone footprint, reducing to **medium then low** with greater distance.

#### 27.7.3.3.3 Effect Significance

353. Overall, it is assessed that the sensitivity of the receptor is **high**, and the magnitude is **locally high**. The effect at Year 1 is of **major adverse** significance within the immediate area of the OCS zone, which is **significant** in EIA terms. The effect would reduce with distance, falling below the threshold of significance at no more than 1km from the OCS zone. The area where significant effects on landscape character may be expected is approximately bounded by the woodland blocks of Risby Park to the south and west, the village of Walkington to the north, and Johnson's Pit Wood, Eleven Acre Plantation and Bentley village to the east.

354. The design of the OCS and ESBI has not been finalised. The design will seek to minimise the height and massing of the OCS and ESBI within the OCS zone as much as possible (see **Table 27-5**, Commitment ID CO64). A draft version of the **Design Vision** (document reference 7.4) has been developed for PEIR stage which sets out design principles for the OCS and ESBI, this will be updated for the ES stage (**Table 27-5**, Commitment ID CO63).



355. Mitigation measures will be embedded into the design of the Project and will be presented in the Outline LMP at ES stage (see **Table 27-5**, Commitment IDs CO59, CO65, and CO100). The Outline LMP will be developed to ensure the restoration and, where practicable, enhancement of the post-construction landscape (see **Section 27.7.1.4**). The landscape mitigation scheme will be implemented around the OCS and ESBI, including hedgerow and woodland planting. Once matured, this will help to integrate the OCS and ESBI into the existing landscape of arable fields and boundary trees and hedgerows. Once matured (e.g. at Year 15), the planting set out in the Outline LMP will help to restore the landscape to its previous condition in accordance with the Outline CoCP (see **Table 27-5**, Commitment ID CO39). Indicative mitigation measures to be included in the Outline LMP are set out in **Table 27-6**. As embedded mitigation (e.g., design of the OCS and ESBI, and landscape mitigation planting) has not been finalised for PEIR stage, it is not possible to determine how this will affect the magnitude of impact and significance of effect identified above.

#### 27.7.3.3.4 Additional Mitigation and Residual Effect

356. No additional mitigation has been identified at PEIR stage. Therefore, the residual effect during operation remains as described above. Any requirements for additional mitigation, and the resulting residual effect, will be determined at ES stage, once the design of the Project has progressed.

### 27.7.4 Potential Visual Effects during Operation

357. Effects during the O&M phase are assessed for permanent above-ground infrastructure only. There will be some above-ground link boxes along the onshore ECC adjacent to jointing bay locations. The main above ground infrastructure will be at the OCS zone. It is not known at this stage which of the OCS zones (Zone 4 or Zone 8) will be taken forward to the DCO application and development. This section therefore considers development within each zone in turn.

358. Above-ground infrastructure at the OCS zone will include the OCS and ESBI, as described in **Table 27-7**, although the location of these features is not known. Visualisations have been prepared to show the maximum extent of the siting area within each OCS zone, at an indicative height of 25m (the maximum building height of the OCS). This is the worst-case extent, and the actual extent of development within the zone is expected to be much smaller. The assessment of operational effects is based on the worst-case assumption could be close to each viewpoint, and this is illustrated in the visualisations. The visualisations are presented in **Volume 2, Appendix 27.2 Landscape and Visual Impact Assessment Visualisations**.

359. There will be no permanent above-ground infrastructure at the landfall, and no significant effects are expected. Given the size of the landfall and the limited loss of hedgerows expected during construction, there is unlikely to be many noticeable gaps whilst hedgerows re-establish during the O&M phase. Therefore, Sub-area 1 is not considered in this section, and operational effects associated with landfall infrastructure have not been assessed in detail.

#### 27.7.4.1 Impacts on Visual Receptors – Sub-Area 2: Onshore Export Cable Corridor (LV-O-03)

##### 27.7.4.1.1 Receptor Sensitivity

360. The sensitivity of visual receptors in this area is judged to be **medium** as judged in **Section 27.2.2.2**.

##### 27.7.4.1.2 Impact Magnitude

361. Following installation of the buried onshore export cables and jointing bays along the onshore ECC, the land would be restored to its pre-existing condition. However, there is potential that approximately 20 link box locations for the HVDC export cables would be located above ground along the onshore ECC between the landfall and OCS zone. All the link box locations for the HVAC export cables along the onshore ECC between the OCS zone and Birkhill Wood Substation would also be located above ground. The maximum area of the above ground link boxes will be approximately 3m<sup>2</sup> per link box, with an assumed height of 1.2 to 2m (as set out in **Table 27-7**). Link boxes will be typically marked / protected by bollards, fences or similar of approximately 1.2 to 2m in height (where required and agreed with the relevant landowners). Where link boxes are located above ground, these are not of large-scale and therefore would not significantly impact visual receptors.

362. In addition to the bollards, fencing or similar equipment around the link boxes, small marker posts of approximately 1m to 1.2m height will be installed along the operational easement to demark the location of the installed onshore export cables. Marker posts will, at a minimum, be required at field boundaries, on either side of obstacle crossings such as roads and watercourses and where there are significant directional changes in the cable route. Given the height of these markers (1m to 1.2m) they are unlikely to form a noticeable feature in views.

363. The land over buried onshore export cable infrastructure would be restored back to its pre-existing condition following construction, throughout the operational life of the Project. Consequently, the buried onshore export cables, jointing bays and underground link boxes would not significantly impact visual receptors. Throughout Sub-area 2 some hedgerows would be lost in the construction phase. Whilst hedgerows would be replanted, they would take time to mature during the O&M phase. Trees would not be replanted over the buried onshore export cable infrastructure.

364. The impact of the onshore ECC is predicted to be of small scale and small geographical extent. The impact will be long-term and partly reversible. The magnitude is therefore considered to be **low**.

#### 27.7.4.1.3 Effect Significance

365. Overall, it is assessed that the sensitivity of the receptor is **medium** and the magnitude is **low**. At Year 1, the effect of the loss of hedgerows along the ECC is expected to be of **minor adverse** significance, which is **not significant** in EIA terms.
366. Mitigation measures will be embedded into the design of the Project and will be presented in the Outline LMP at ES stage (see **Table 27-5**, Commitment IDs CO59, CO65, CO83 and CO100). The Outline LMP will be developed to ensure the restoration and, where practicable, enhancement of the post-construction landscape (see **Section 27.7.2.2**). The Outline LMP will be implemented across the onshore ECC, re-planting hedgerows and trees that were removed for construction. However, trees will not be replanted directly over buried onshore export cables, jointing bays and link boxes. Once matured (e.g. at Year 15), the planting set out in the Outline LMP will help to restore the landscape to its previous condition in accordance with the Outline CoCP (see **Table 27-5**, Commitment ID CO39) and will minimise changes in the views. Indicative mitigation measures to be included in the Outline LMP are set out in **Table 27-6**.

#### 27.7.4.1.4 Additional Mitigation and Residual Effect

367. No additional mitigation has been identified at PEIR stage. Therefore, the residual effect during operation remains as described above. Any requirements for additional mitigation, and the resulting residual effect, will be determined at ES stage, once the design of the Project has progressed.

### 27.7.4.2 Impacts on Visual Receptors – Sub-Area 3: Onshore Converter Station Zone 4 (LV-O-04)

#### 27.7.4.2.1 Viewpoint 1: Shepherd Lane

##### 27.7.4.2.1.1. Receptor Sensitivity

368. Receptors at this viewpoint are judged to be of **medium** sensitivity as set out in **Section 27.7.2.3.1.1**.

##### 27.7.4.2.1.2. Impact Magnitude

369. The OCS and ESBI will potentially be seen from a minimum distance of 0.2km in views to the south. The OCS is expected to include approximately three buildings with a maximum building height of 25m, and the ESBI is expected to include approximately six buildings with a maximum building height of 20m in height within the OCS zone. Lightning protection masts up to 30m would also be visible.

370. Views towards the OCS and ESBI would be very open and would be seen above the skyline. It would likely occupy a large horizontal extent of view, depending on its location within the OCS zone. Some of the lower elements of the OCS and ESBI buildings may be afforded a small amount of screening by a shelterbelt in the middle distance, although it is likely that direct views of ground level operations would remain visible. The OCS and ESBI would be visible in the context of other electricity infrastructure, including a high voltage overhead line and the Dogger Bank A and B Offshore Wind Farms' converter stations currently under construction.

371. The ZTV (**Figure 27-2**) indicates that views would be similar from much of the surrounding area, including along Shepherd Lane and the A164 in the north, and from PRoW that traverse the agricultural land to the north-east of the viewpoint (including the Beverley 20 walking route and NCN 1). Actual visibility may vary somewhat due to screening from hedgerows and roadside vegetation. Whilst the OCS and ESBI buildings would be visible from the settlement edge of the Deira Park development in Beverley, buildings along the edge would screen views from further in the settlement.

372. The impact of OCS and ESBI on this viewpoint is predicted to be of large scale and of a medium geographical extent. The impact would be long term (with an operational lifetime of approximately 35 years) and reversible. The magnitude is therefore considered to be **high**.

#### 27.7.4.2.1.3. Effect Significance

373. Overall, it is assessed that the sensitivity of the receptor is **medium** and the magnitude is **high**. At Year 1, the effect is of **major adverse** significance, which is **significant** in EIA terms. This assessment assumes that infrastructure within the OCS zone is to be located in closer proximity to the viewpoint. If the infrastructure is located further from the viewpoint and set back within the OCS zone, the level of effect may reduce.

374. The design of the OCS and ESBI has not been finalised. The design will seek to minimise the height and massing of the OCS and ESBI within the OCS zone as much as possible (see **Table 27-5**, Commitment ID CO64). A draft version of the **Design Vision** (document reference 7.4) has been developed for PEIR stage which sets out design principles for the OCS and ESBI, this will be updated for the ES stage (**Table 27-5**, Commitment ID CO63). An Outline LMP will be produced at ES stage which will include landscape proposals to screen the OCS and ESBI during the O&M phase (see **Table 27-5**, Commitment IDs CO59, CO65 and CO100). The Outline LMP is expected to include hedgerow and woodland planting. Once matured (e.g. by Year 15), this mitigation planting will help to integrate the OCS and ESBI into the landscape of fields, hedgerows, and boundary trees, and reduce its visual prominence. As embedded mitigation (e.g., design of the OCS and ESBI, and landscape mitigation planting) has not been finalised for PEIR stage, it is not possible to determine how this will affect the magnitude of impact and significance of effect identified above.

375. While landscape screening will be designed to reduce the magnitude of impact as it matures, the significance of effect (i.e. at Year 15) can only be determined following the provision of an Outline LMP at ES stage. At Year 1, following completion of construction and planting of landscape screening, it is expected that the effect will not be reduced, but over time (e.g. by Year 15) the effect may reduce as the vegetation matures. Landscape mitigation will be designed at ES stage, specifically for the proposed OCS and ESBI design, with aims of screening the OCS and ESBI in views from sensitive receptors and reducing the significance of effect. Post-consent, a LMP will be developed in accordance with the Outline LMP (see **Table 27-5**, Commitment ID CO65). This is expected to reduce the long term significance of effect as mitigation planting matures over time (e.g. by Year 15).

#### 27.7.4.2.1.4. Additional Mitigation and Residual Effect

376. No additional mitigation has been identified at PEIR stage. Therefore, the residual effect during operation remains as described above. Any requirements for additional mitigation, and the resulting residual effect, will be determined at ES stage, once the design of the Project has progressed.

#### 27.7.4.2.2 Viewpoint 2: Beverley 20 near Jillywood Farm

##### 27.7.4.2.2.1. Receptor Sensitivity

377. Receptors at this viewpoint are judged to be of **medium** sensitivity as set out in **Section 27.7.2.3.2.1**.

##### 27.7.4.2.2.2. Impact Magnitude

378. During operation, the OCS and ESBI would be seen at a minimum distance of 0.3km in views to the north-east. The OCS is expected to include approximately three buildings with a maximum building height of 25m, and the ESBI is expected to include approximately six buildings with a maximum building height of 20m in height within the OCS zone. Lightning protection masts up to 30m would also be visible.
379. The OCS and ESBI would be seen across the skyline and would occupy a part of the horizontal extent of the view, particularly if situated to the south of the zone. Views of Beverley Minster may be blocked depending on the placement of the OCS and ESBI buildings.
380. Partial screening may be afforded by dense vegetation in the middle distance that screens views to the north and southeast. The OCS and ESBI buildings will foreground existing electrical infrastructure of overhead lines and pylons. The A1079 and moving vehicles will likely be seen in front of the OCS and ESBI.

381. The ZTV (**Figure 27-2**) indicates that views of the OCS and ESBI buildings would be similar from much of the surrounding area, including along extensive sections of the Beverley 20 walking route. Actual visibility may be lesser due to boundary vegetation, particularly along sections of the route by the A1079.

382. The impact of the OCS and ESBI on this viewpoint is predicted to be of large scale and of a medium geographical extent. The impact would be long term (with an operational lifetime of approximately 35 years) and reversible. The magnitude is therefore considered to be **high**.

#### 27.7.4.2.2.3. Effect Significance

383. Overall, it is assessed that the sensitivity of the receptor is **medium**, and the magnitude is **high**. At Year 1, the effect is of **moderate adverse** significance, which is **significant** in EIA terms. This assessment assumes that infrastructure within the OCS zone is to be located in closer proximity to the viewpoint. If the infrastructure is located further from the viewpoint and set back within the OCS zone, the level of effect may reduce.

384. The design of the OCS and ESBI has not been finalised, however the design will seek to reduce the height and massing of the OCS and ESBI within the OCS zone as much as possible (see **Table 27-5**, Commitment ID CO64). A draft version of the **Design Vision** (document reference 7.4) has been developed for PEIR stage which sets out design principles for the OCS and ESBI, this will be updated for the ES stage (see **Table 27-5**, Commitment ID CO63). An Outline LMP will be produced at ES stage which will include landscape proposals to screen the OCS and ESBI during the O&M phase (see **Table 27-5**, Commitment IDs CO59, CO65 and CO100). The Outline LMP is expected to include hedgerow and woodland planting. Once matured (e.g. by Year 15), this mitigation planting will help to integrate the OCS and ESBI into the landscape of fields, hedgerows, and boundary trees, and reduce its visual prominence. As embedded mitigation (e.g., design of the OCS and ESBI, and landscape mitigation planting) has not been finalised for PEIR stage, it is not possible to determine how this will affect the magnitude of impact and significance of effect identified above.

385. While landscape screening will be designed to reduce the magnitude of impact as it matures, the significance of effect (i.e. at Year 15) can only be determined following the provision of an Outline LMP at ES stage. At Year 1, following completion of construction and planting of landscape screening, it is expected that the effect will not be reduced, but over time (e.g. by Year 15) the effect may reduce as the vegetation matures. Landscape mitigation will be designed at ES stage, specifically for the proposed OCS and ESBI design, with aims of screening the OCS and ESBI in views from sensitive receptors and reducing the significance of effect. Post-consent, a LMP will be developed in accordance with the Outline LMP (see **Table 27-5**, Commitment ID CO65). This is expected to reduce the long term significance of effect as reinstated landscape features mature over time (e.g. by Year 15).



#### 27.7.4.2.2.4. Additional Mitigation and Residual Effect

386. No additional mitigation has been identified at PEIR stage. Therefore, the residual effect during operation remains as described above. Any requirements for additional mitigation, and the resulting residual effect, will be determined at ES stage, once the design of the Project has progressed.

#### 27.7.4.2.3 Viewpoint 3: Beverley Parks

##### 27.7.4.2.3.1. Receptor Sensitivity

387. Receptors at this viewpoint are judged to be of **medium** sensitivity as set out in **Section 27.7.2.3.3.1**.

##### 27.7.4.2.3.2. Impact Magnitude

388. The OCS and ESBI would be seen from a minimum distance of 140m in views to the north-west. The OCS and ESBI would be seen above the skyline and would occupy a medium horizontal extent of view, depending on its location within the OCS zone. The OCS is expected to include approximately three buildings with a maximum building height of 25m, and the ESBI is expected to include approximately six buildings with a maximum building height of 20m in height within the OCS zone. Lightning protection masts up to 30m would also be visible.
389. There would be minimal screening from vegetation between the viewpoint and infrastructure in the OCS zone, as there is only one hedgerow in the foreground of the view and this appears gappy. Depending on the final location of the OCS and ESBI within the OCS zone, they would be visible in the foreground, in front of the A1079 and overhead lines carried by large pylons.
390. The ZTV (**Figure 27-2**) indicates that views would be similar from much of the surrounding area, including along lengths of the Beverley 20 and other surrounding PRow. Actual visibility may vary somewhat due to screening from hedgerows.
391. The impact of the OCS and ESBI on this view is predicted to be of large scale and of a medium geographical extent. The impact would be long term (with an operational lifetime of 35 years) and reversible. The magnitude is therefore considered to be **high**.

##### 27.7.4.2.3.3. Effect Significance

392. Overall, it is assessed that the sensitivity of the receptor is **medium** and the magnitude is **high**. At Year 1, The effect is of **major adverse** significance, which is **significant** in EIA terms. This assessment assumes that infrastructure within the OCS zone is to be located in closer proximity to the viewpoint. If the infrastructure is located further from the viewpoint and set back within the OCS zone, the level of effect may reduce.

393. The design of the OCS and ESBI has not been finalised, however the design will seek to reduce the height and massing of the OCS and ESBI within the OCS zone as much as possible (see **Table 27-5**, Commitment ID CO64). A draft version of the **Design Vision** (document reference 7.4) has been developed for PEIR stage which sets out design principles for the OCS and ESBI, this will be updated for the ES stage (**Table 27-5**, Commitment ID CO63). An Outline LMP will be produced at ES stage which will include landscape proposals to screen the OCS and ESBI during the O&M phase (see **Table 27-5**, Commitment IDs CO59, CO65 and CO100). The Outline LMP is expected to include hedgerow and woodland planting. Once matured (e.g. by Year 15), this mitigation planting will help to integrate the OCS and ESBI into the landscape of fields, hedgerows, and boundary trees, and reduce its visual prominence. As embedded mitigation (e.g., design of the OCS and ESBI, and landscape mitigation planting) has not been finalised for PEIR stage, it is not possible to determine how this will affect the magnitude of impact and significance of effect identified above.

394. While landscape screening will be designed to reduce the magnitude of impact as it matures, the significance of effect (i.e. at Year 15) can only be determined following the provision of an Outline LMP at ES stage. At Year 1, following completion of construction and planting of landscape screening, it is expected that the effect will not be reduced, but over time (e.g. by Year 15) the effect may reduce as the vegetation matures. Landscape mitigation will be designed at ES stage, specifically for the proposed OCS and ESBI design, with aims of screening the OCS and ESBI in views from sensitive receptors and reducing the significance of effect. Post-consent, a LMP will be developed in accordance with the Outline LMP (see **Table 27-5**, Commitment ID CO65). This is expected to reduce the long term significance of effect as reinstated landscape features mature over time (e.g. by Year 15).

#### 27.7.4.2.3.4. Additional Mitigation and Residual Effect

395. No additional mitigation has been identified at PEIR stage. Therefore, the residual effect during operation remains as described above. Any requirements for additional mitigation, and the resulting residual effect, will be determined at ES stage, once the design of the Project has progressed.

#### 27.7.4.2.4 Viewpoint 4: Long Lane

##### 27.7.4.2.4.1. Receptor Sensitivity

396. Receptors at this viewpoint are judged to be of **medium** sensitivity as set out in **Section 27.7.2.3.4.1**.

27.7.4.2.4.2. *Impact Magnitude*

397. During operation, the OCS and ESBI would potentially be seen from a minimum distance of 0.75km in views west to south-west. Depending on its location within the OCS zone, the OCS and ESBI may potentially be seen to occupy a large angle of the horizontal view. The OCS is expected to include approximately three buildings with a maximum building height of 25m, and the ESBI is expected to include approximately six buildings with a maximum building height of 20m in height within the OCS zone. Lightning protection masts up to 30m would also be visible. The OCS and ESBI would be seen to rise slightly above, but remain broadly a similar height, to existing elements in the middle distance view, including tree lines and buildings at Old Hall and White Hall Farms. The OCS and ESBI would be seen to rise above the distant horizon.
398. Depending on the final location of the OCS and ESBI within the OCS zone, it may be afforded some screening by buildings along Shepherd Lane (Old Hall / White Hall farms) in the close to middle distance. Particularly, vegetation to the west of White Hall may screen the full height of infrastructure in the northern extents of OCS Zone 4. The southern extents of OCS Zone 4 would be partially screened by Old Hall farm, to the south-west of the viewpoint.
399. Towards other parts of the OCS zone, there is minimal screening, as the foreground of the view contains an open agricultural field, seen beyond a low lying hedgerow lining Long Lane.
400. The ZTV (**Figure 27-2**) indicates that similar views would be experienced from parts of Long Lane, the road which this viewpoint represents. Indicative visibility is intermittent, with the OCS and ESBI potentially visible in glimpsed views through deciduous roadside vegetation.
401. The impact of the OCS and ESBI on this viewpoint is predicted to be of medium scale and of medium geographical extent, The impact would be long term (with an operational lifetime of approximately 35 years) and reversible. The magnitude of change is therefore considered to be **medium**.

27.7.4.2.4.3. *Effect Significance*

402. Overall, it is assessed that the sensitivity of the receptor is **medium** and the magnitude of change is **medium**. At Year 1, the effect is of **moderate adverse** significance, which is **significant** in EIA terms. This assessment assumes that infrastructure within the OCS zone is to be located in closer proximity to the viewpoint. If the infrastructure is located further from the viewpoint and set back within the OCS zone, the level of effect may reduce.

403. The design of the OCS and ESBI has not been finalised, however the design will seek to reduce the height and massing of the OCS and ESBI within the OCS zone as much as possible (see **Table 27-5**, Commitment ID CO64). A draft version of the **Design Vision** (document reference 7.4) has been developed for PEIR stage which sets out design principles for the OCS and ESBI, this will be updated for the ES stage (**Table 27-5**, Commitment ID CO63). An Outline LMP will be produced at ES stage which will include landscape proposals to screen the OCS and ESBI during the O&M phase (see **Table 27-5**, Commitment IDs CO59, CO65 and CO100). The Outline LMP is expected to include hedgerow and woodland planting. Once matured (e.g. by Year 15), this mitigation planting will help to integrate the OCS and ESBI into the landscape of fields, hedgerows, and boundary trees, and reduce its visual prominence. As embedded mitigation (e.g., design of the OCS and ESBI, and landscape mitigation planting) has not been finalised for PEIR stage, it is not possible to determine how this will affect the magnitude of impact and significance of effect identified above.
404. While landscape screening will be designed to reduce the magnitude of impact as it matures, the significance of effect (i.e. at Year 15) can only be determined following the provision of an Outline LMP at ES stage. At Year 1, following completion of construction and planting of landscape screening, it is expected that the effect will not be reduced, but over time (e.g. by Year 15) the effect may reduce as the vegetation matures. Landscape mitigation will be designed at ES stage, specifically for the proposed OCS and ESBI design, with aims of screening the OCS and ESBI in views from sensitive receptors and reducing the significance of effect. Post-consent, a LMP will be developed in accordance with the Outline LMP (see **Table 27-5**, Commitment ID CO65). This is expected to reduce the long term significance of effect as reinstated landscape features mature over time (e.g. by Year 15).

27.7.4.2.4.4. *Additional Mitigation and Residual Effect*

405. No additional mitigation has been identified at PEIR stage. Therefore, the residual effect during operation remains as described above. Any requirements for additional mitigation, and the resulting residual effect, will be determined at ES stage, once the design of the Project has progressed.

#### 27.7.4.2.5 Summary of Visual Effects Sub-Area 3: Onshore Converter Station Zone 4 (LV-O-04)

406. Significant adverse visual effects are expected during operation in all directions around OCS Zone 4. **Major (significant adverse)** effects are expected for residential receptors located near Shepherd Lane in the north (along the southern boundary of Beverley), and from scattered farmsteads to the east and south-east, including White Hall, Old Hall and Model Farm, where views are largely open. Views from these locations would also be experienced by people travelling along the PRow network, including the Beverley 20 footpath. In addition, **moderate (significant adverse)** effects are expected for residential receptors located along Long Lane in the east, and people travelling along NCN Route 1 which follows this road. Likewise, moderate (significant) effects are expected from people travelling along the Beverley 20 near Jillywood, and scattered residents in this area. The more distant viewpoints near Jillywood and Long Lane are provided some screening by intervening buildings and/or vegetation.

#### 27.7.4.3 Impacts on Visual Receptors – Sub-Area 4: Onshore Converter Station Zone 8 (LV-O-04)

##### 27.7.4.3.1 Viewpoint 5: Footpath, Walkington

##### 27.7.4.3.1.1. Receptor Sensitivity

407. Receptors at this viewpoint are judged to be of **high** sensitivity as set out in **Section 27.7.2.4.1.1**.

##### 27.7.4.3.1.2. Impact Magnitude

408. During operation, the OCS and ESBI would potentially be seen from a distance of approximately 0.7km in views to the south. The OCS is expected to include approximately three buildings with a maximum building height of 25m, and the ESBI is expected to include approximately six buildings with a maximum building height of 20m in height within the OCS zone. Lightning protection masts up to 30m would also be visible.
409. The OCS and ESBI buildings would be seen above the intervening low landform ridge as the field in the foreground of the view rises towards Briarpit Plantation. The easterly extents of the OCS and ESBI would be seen in front of Eleven Acre Plantation, but the other sections of the OCS and ESBI buildings would be largely screened from view by the landform and woodland at Briarpit Plantation. Ground level operations at the OCS and ESBI would not be visible from this location. The visible sections of the OCS and ESBI would occupy a relatively small horizontal extent of the view towards the south-east of the viewpoint, though their scale would be clearly apparent.

410. The ZTV (see **Figure 27-3**) indicates that theoretical visibility would be experienced from much of the surrounding agricultural area and from along sections of Beverley 20 between Walkington and Moor Lane. However, actual views would be variable and quite limited in places due to the presence of would woodland blocks and boundary vegetation.

411. Overall, the impact of the OCS and ESBI on this viewpoint is predicted to be of medium scale and of a small geographical extent. The impact would be long term (with an operational lifetime of approximately 35 years) and reversible. The magnitude is therefore considered to be **medium**.

##### 27.7.4.3.1.3. Effect Significance

412. Overall, it is assessed that the sensitivity of the receptor is **high**, and the magnitude is **medium**. At Year 1, the effect is of **moderate adverse** significance, which is **significant** in EIA terms.

413. The design of the OCS and ESBI has not been finalised, however the design will seek to reduce the height and massing of the OCS and ESBI within the OCS zone as much as possible (see **Table 27-5**, Commitment ID CO64). A draft version of the **Design Vision** (document reference 7.4) has been developed for PEIR stage which sets out design principles for the OCS and ESBI, this will be updated for the ES stage (**Table 27-5**, Commitment ID CO63). An Outline LMP will be produced at ES stage which will include landscape proposals to screen the OCS and ESBI during the O&M phase (see **Table 27-5**, Commitment IDs CO59, CO65 and CO100). The Outline LMP is expected to include hedgerow and woodland planting. Once matured (e.g. by Year 15), this mitigation planting will help to integrate the OCS and ESBI into the landscape of fields, hedgerows, and boundary trees, and reduce its visual prominence. As embedded mitigation (e.g., design of the OCS and ESBI, and landscape mitigation planting) has not been finalised for PEIR stage, it is not possible to determine how this will affect the magnitude of impact and significance of effect identified above.

414. While landscape screening will be designed to reduce the magnitude of impact as it matures, the significance of effect (i.e. at Year 15) can only be determined following the provision of an Outline LMP at ES stage. At Year 1, following completion of construction and planting of landscape screening, it is expected that the effect will not be reduced, but over time (e.g. by Year 15) the effect may reduce as the vegetation matures. Landscape mitigation will be designed at ES stage, specifically for the proposed OCS and ESBI design, with aims of screening the OCS and ESBI in views from sensitive receptors and reducing the significance of effect. Post-consent, a LMP will be developed in accordance with the Outline LMP (see **Table 27-5**, Commitment ID CO65). This is expected to reduce the long term significance of effect as reinstated landscape features mature over time (e.g. by Year 15).



#### 27.7.4.3.1.4. Additional Mitigation and Residual Effect

415. No additional mitigation has been identified at PEIR stage. Therefore, the residual effect during operation remains as described above. Any requirements for additional mitigation, and the resulting residual effect, will be determined at ES stage, once the design of the Project has progressed.

#### 27.7.4.3.2 Viewpoint 6: Core Path near Bentley

##### 27.7.4.3.2.1. Receptor Sensitivity

416. Receptors at this viewpoint are judged to be of **medium** sensitivity as set out in **Section 27.7.2.4.2.1**.

##### 27.7.4.3.2.2. Impact Magnitude

417. During operation, the OCS and ESBI would be seen prominently in the foreground of this viewpoint. The OCS is expected to include approximately three buildings with a maximum building height of 25m, and the ESBI is expected to include approximately six buildings with a maximum building height of 20m in height within the OCS zone. Lightning protection masts up to 30m would also be visible. Earthworks, access roads and fencing are likely to be visible due to the relative elevation of the viewpoint.
418. The OCS and ESBI would occupy a large horizontal extent of the view, and would block any views further north. It is unlikely that any backclothing will be provided by existing shelterbelts or hedgerows.
419. Partial screening would be afforded by mature hedgerows and shelterbelts in the distance and to the east.
420. The ZTV (**Figure 27-3**) indicates that views would be visible from much of the surrounding area, including along sections of Coppleflat Lane and the PRoW that crosses the OCS zone to the south. Views would be seen extensively from the viewpoint, although some visibility may be screened from the footpath to the south due to mature hedgerows. There would be some filtering of views along Coppleflat Lane due to the presence of mature roadside vegetation as the road drops down in elevation to the north of the viewpoint.
421. The impact of the OCS and ESBI on this viewpoint is predicted to be of large scale and of a medium geographical extent. The impact would be long term (with an operational lifetime of approximately 35 years) and reversible. The magnitude is therefore considered to be **high**.

#### 27.7.4.3.2.3. Effect Significance

422. Overall, it is assessed that the sensitivity of the receptor is **high**, and the magnitude is **high**. At Year 1, the effect is of **major adverse** significance, which is **significant** in EIA terms.
423. The design of the OCS and ESBI has not been finalised, however the design will seek to reduce the height and massing of the OCS and ESBI within the OCS zone as much as possible (see **Table 27-5**, Commitment ID CO64). A draft version of the **Design Vision** (document reference 7.4) has been developed for PEIR stage which sets out design principles for the OCS and ESBI, this will be updated for the ES stage (**Table 27-5**, Commitment ID CO63). An Outline LMP will be produced at ES stage which will include landscape proposals to screen the OCS and ESBI during the O&M phase (see **Table 27-5**, Commitment IDs CO59, CO65, and CO100). The Outline LMP is expected to include hedgerow and woodland planting. Once matured (e.g. by Year 15), this mitigation planting will help to integrate the OCS and ESBI into the landscape of fields, hedgerows, and boundary trees, and reduce its visual prominence. As embedded mitigation (e.g., design of the OCS and ESBI, and landscape mitigation planting) has not been finalised for PEIR stage, it is not possible to determine how this will affect the magnitude of impact and significance of effect identified above.
424. While landscape screening will be designed to reduce the magnitude of impact as it matures, the significance of effect (i.e. at Year 15) can only be determined following the provision of an Outline LMP at ES stage. At Year 1, following completion of construction and planting of landscape screening, it is expected that the effect will not be reduced, but over time (e.g. by Year 15) the effect may reduce as the vegetation matures. Landscape mitigation will be designed at ES stage, specifically for the proposed OCS and ESBI design, with aims of screening the OCS and ESBI in views from sensitive receptors and reducing the significance of effect. Post-consent, a LMP will be developed in accordance with the Outline LMP (see **Table 27-5**, Commitment ID CO65). This is expected to reduce the long-term significance of effect as reinstated landscape features mature over time (e.g. by Year 15).

#### 27.7.4.3.2.4. Additional Mitigation and Residual Effect

425. No additional mitigation has been identified at PEIR stage. Therefore, the residual effect during operation remains as described above. Any requirements for additional mitigation, and the resulting residual effect, will be determined at ES stage, once the design of the Project has progressed.

## 27.7.4.3.3 Viewpoint 7: Risby Park

## 27.7.4.3.3.1. Receptor Sensitivity

426. Receptors at this viewpoint are judged to be of **high** sensitivity as set out in **Section 27.7.2.4**.

## 27.7.4.3.3.2. Impact Magnitude

427. The OCS and ESBI would potentially be seen from a distance of approximately 0.7km in views to the east. The OCS is expected to include approximately three buildings with a maximum building height of 25m, and the ESBI is expected to include approximately six buildings with a maximum building height of 20m in height within the OCS zone. Lightning protection masts up to 30m would also be visible.
428. The OCS and ESBI would be seen above the skyline and would occupy a small horizontal extent of view. Much of the OCS and ESBI buildings would be screened by the rolling landform between the viewpoint and the buildings as well as woodland blocks and trees. The OCS and ESBI buildings would be viewed as the only instance of infrastructure or development within the view, and would be out of character. The scale of the buildings on the skyline would be clearly apparent.
429. The ZTV (see **Figure 27-3**) indicates that theoretical visibility would be experienced from much of the surrounding area. Although views would be quite limited due to the presence of woodland blocks and boundary vegetation, similar views would be expected along the section of the PRoW between Walkington Plantation and Cupola Hill Plantation, where views would be experienced by similarly sensitive receptors.
430. The impact of the OCS and ESBI on this viewpoint is predicted to be of medium scale and of a medium geographical extent. The impact would be long term (with an operational lifetime of approximately 35 years) and reversible. The magnitude is therefore considered to be **medium**.

## 27.7.4.3.3.3. Effect Significance

431. Overall, it is assessed that the sensitivity of the receptor is **high**, and the magnitude is **medium**. At Year 1, the effect is of **moderate adverse** significance, which is **significant** in EIA terms.

432. The design of the OCS and ESBI has not been finalised, however the design will seek to reduce the height and massing of the OCS and ESBI within the OCS zone as much as possible (see **Table 27-5**, Commitment ID CO64). A draft version of the **Design Vision** (document reference 7.4) has been developed for PEIR stage which sets out design principles for the OCS and ESBI, this will be updated for the ES stage (**Table 27-5**, Commitment ID CO63). An Outline LMP will be produced at ES stage which will include landscape proposals to screen the OCS and ESBI during the O&M phase (see **Table 27-5**, Commitment IDs CO59, CO65 and CO100). The Outline LMP is expected to include hedgerow and woodland planting. Once matured (e.g. by Year 15), this mitigation planting will help to integrate the OCS and ESBI into the landscape of fields, hedgerows, and boundary trees, and reduce its visual prominence. As embedded mitigation (e.g., design of the OCS and ESBI, and landscape mitigation planting) has not been finalised for PEIR stage, it is not possible to determine how this will affect the magnitude of impact and significance of effect identified above.

433. While landscape screening will be designed to reduce the magnitude of impact as it matures, the significance of effect (i.e. at Year 15) can only be determined following the provision of an Outline LMP at ES stage. At Year 1, following completion of construction and planting of landscape screening, it is expected that the effect will not be reduced, but over time (e.g. by Year 15) the effect may reduce as the vegetation matures. Landscape mitigation will be designed at ES stage, specifically for the proposed OCS and ESBI design, with aims of screening the OCS and ESBI in views from sensitive receptors and reducing the significance of effect. Post-consent, a LMP will be developed in accordance with the Outline LMP (see **Table 27-5**, Commitment ID CO65). This is expected to reduce the long-term significance of effect as reinstated landscape features mature over time (e.g. by Year 15).

## 27.7.4.3.3.4. Additional Mitigation and Residual Effect

434. No additional mitigation has been identified at PEIR stage. Therefore, the residual effect during operation remains as described above. Any requirements for additional mitigation, and the resulting residual effect, will be determined at ES stage, once the design of the Project has progressed.

## 27.7.4.3.4 Viewpoint 8: Little Weighton

## 27.7.4.3.4.1. Receptor Sensitivity

435. Receptors at this viewpoint are judged to be of **high** sensitivity as set out in **Section 27.7.2.4.4.1**.

27.7.4.3.4.2. *Impact Magnitude*

436. The OCS and ESBI would potentially be seen from a minimum distance of approximately 2.8km in views north-east. Due to the distance, the OCS and ESBI buildings would be seen to occupy a very small angle of the horizontal view and due to the elevated nature of the viewpoint would appear to sit below the horizon. The OCS is expected to include approximately three buildings with a maximum building height of 25m, and the ESBI is expected to include approximately six buildings with a maximum building height of 20m in height within the OCS zone. At these distances, the lightning protection masts (30m) are unlikely to be perceptible in views.
437. The OCS and ESBI may be glimpsed beyond woodland in Risby Park RPG, to the south and west of the OCS zone, partially obscuring views into the OCS zone. The woodland is on slightly more elevated ground than the OCS zone, providing further screening opportunities of the OCS and ESBI buildings.
438. The ZTV (see **Figure 27-3**) indicates that similar views would be experienced from the field in which the viewpoint is at the edge of. Intermittent theoretical visibility is indicated from further south along the footpath which the viewpoint is on, and from the playing field directly south-west. However, in reality, mature vegetation around the playing fields would screen views. There is unlikely to be visibility from the settlement of Little Weighton, due to the presence of buildings and vegetation.
439. The impact of the OCS and ESBI on this viewpoint is predicted to be of small scale and of small geographical extent. The impact would be long term (with an operational lifetime of approximately 35 years) and reversible. The magnitude of change is therefore considered to be **low**.

27.7.4.3.4.3. *Effect Significance*

440. Overall, it is assessed that the sensitivity of the receptor is **high** and the magnitude of change is **low**. At Year 1, the effect is of **minor adverse** significance, which is **not significant** in EIA terms.

441. The design of the OCS and ESBI has not been finalised, however the design will seek to reduce the height and massing of the OCS and ESBI within the OCS zone as much as possible (see **Table 27-5**, Commitment ID CO64). A draft version of the **Design Vision** (document reference 7.4) has been developed for PEIR stage which sets out design principles for the OCS and ESBI, this will be updated for the ES stage (**Table 27-5**, Commitment ID CO63). An Outline LMP will be produced at ES stage which will include landscape proposals to screen the OCS and ESBI during the O&M phase (see **Table 27-5**, Commitment IDs CO59, CO65 and CO100). The Outline LMP is expected to include hedgerow and woodland planting. Once matured (e.g. by Year 15), this mitigation planting will help to integrate the OCS and ESBI into the landscape of fields, hedgerows, and boundary trees, and reduce its visual prominence. As embedded mitigation (e.g., design of the OCS and ESBI, and landscape mitigation planting) has not been finalised for PEIR stage, it is not possible to determine how this will affect the magnitude of impact and significance of effect identified above.

442. While landscape screening will be designed to reduce the magnitude of impact as it matures, the significance of effect (i.e. at Year 15) can only be determined following the provision of an Outline LMP at ES stage. At Year 1, following completion of construction and planting of landscape screening, it is expected that the effect will not be reduced, but over time (e.g. by Year 15) the effect may reduce as the vegetation matures. Landscape mitigation will be designed at ES stage, specifically for the proposed OCS and ESBI design, with aims of screening the OCS and ESBI in views from sensitive receptors and reducing the significance of effect. Post-consent, a LMP will be developed in accordance with the Outline LMP (see **Table 27-5**, Commitment ID CO65). This is expected to reduce the long term significance of effect as reinstated landscape features mature over time (e.g. by Year 15).

27.7.4.3.4.4. *Additional Mitigation and Residual Effect*

443. No additional mitigation has been identified at PEIR stage. Therefore, the residual effect during operation remains as described above. Any requirements for additional mitigation, and the resulting residual effect, will be determined at ES stage, once the design of the Project has progressed.



#### 27.7.4.3.5 Summary of Visual Effects Sub-Area 4: Onshore Converter Station Zone 8 (LV-O-04)

444. **Significant (major adverse)** visual effects are expected during operation from recreational receptors travelling along the PRow network in the south of the OCS zone, and road users travelling along Coppleflat Lane, due to the open views afforded across the OCS zone. Recreational receptors travelling along the PRow network (including the Beverley 20 footpath) in Risby Park in the west, and around Walkington in the north are expected to have visual effects which are **significant (moderate adverse)** during the operational phase. Although the undulating landform and intervening vegetation would provide some degree of screening, the buildings of the OCS and ESBI would form a notable feature above the horizon. More distant recreational receptors at Little Weighton recreational ground are expected to have **not significant (minor adverse)** visual effects due to the intervening distance and screening provided by intervening vegetation.

### 27.7.5 Potential Effects during Decommissioning

#### 27.7.5.1 Impacts on Landscape Character, Designated Landscapes and Visual Receptors (NV-D-02 and NV-D-04)

445. No decision has been made regarding the final decommissioning strategy for the onshore infrastructure, as it is recognised that regulatory requirements and industry best practice change over time.
446. Commitment ID CO56 (see **Table 27-5**) requires an Onshore Decommissioning Plan to be prepared and agreed with the relevant authorities prior to the commencement of onshore decommissioning works. This will ensure that decommissioning landscape and visual impacts will be assessed in accordance with the applicable regulations and guidance at that time of decommissioning where relevant, with appropriate mitigation implemented as necessary to avoid significant effects.
447. The detailed activities and methodology for decommissioning will be determined later within the Project's lifetime, but would be expected to include:
- Deinstallation and removal of electrical equipment, buildings and other infrastructure for the OCS and ESBI;
  - Removal of above-ground link boxes along the onshore ECC;
  - Inspection of underground infrastructure to be left in-situ along the onshore ECC and at the landfall (i.e. TJB, jointing bays, underground link boxes, onshore export cables and ducting) to ensure they are safe to remain in place. If considered unsuitable to be left in-situ at the time of decommissioning, these components will be removed; and
  - Site reinstatement and landscaping.

448. Whilst a detailed assessment of decommissioning impacts cannot be undertaken at this stage, for this assessment, it is assumed that decommissioning is likely to operate within the parameters identified for construction (i.e. any activities are likely to occur within the temporary construction working areas and require no greater amount or duration of activity than assessed for construction). The decommissioning sequence will generally be the reverse of the construction sequence. It is therefore assumed that decommissioning impacts would likely be of similar nature to, and no worse than, those identified during the construction phase.

### 27.7.6 Additional Mitigation Measures

449. No additional mitigation measures are proposed for landscape and visual impacts at PEIR stage. Requirements for additional mitigation will be determined at ES stage.

## 27.8 Cumulative Effects

450. Cumulative effects are the result of the impacts of the Project acting in combination with the impacts of other proposed and reasonably foreseeable developments on receptors. This includes plans and projects that are not inherently considered as part of the current baseline.
451. The overarching framework used to identify and assess cumulative effects is set out in **Chapter 6 Environmental Impact Assessment Methodology**. The four-stage approach is based upon the Planning Inspectorate's Nationally Significant Infrastructure Projects: Advice on Cumulative Effects Assessment (Planning Inspectorate, 2024). The fourth stage of the process is the assessment stage, which is detailed within the sections below for potential cumulative effects on landscape and visual impact receptors.

### 27.8.1 Screening for Potential Cumulative Effects

452. The first step of the CEA identifies which impacts associated with the Project alone, as assessed under **Section 27.7**, have the potential to interact with other plans and projects to give rise to cumulative effects. All potential cumulative effects to be taken forward in the CEA are detailed in **Table 27-22** with a rationale for screening in or out. Only impacts determined to have a residual effect of negligible or greater are included in the CEA. Those assessed as 'no change' are excluded, as there is no potential for them to contribute to a cumulative effect.

Table 27-22 Landscape and Visual Impacts – Potential Cumulative Effects

Impact ID	Impact and Project Activity	Potential for Cumulative Effects	Rationale
<b>Construction</b>			
LV-C-01	Impacts on landscape character and designated landscapes - resulting from construction activities at the landfall and along the onshore ECC	Yes	Construction works at landfall and along the onshore ECC will be short term and temporary. However, significant cumulative effects may occur if developments fall within the same area and the same temporal extent.
LV-C-02	Impacts on landscape character and designated landscapes - resulting from construction activities at the OCS zone including infrastructure within the OCS zone	Yes	Cumulative visual effects could occur if other developments are constructed concurrently with the construction phase of the OCS and ESBI.
LV-C-03	Impacts on visual receptors - resulting from construction activities at the landfall and along the onshore ECC	Yes	Construction works at landfall and the onshore ECC will be short term and temporary, and generally limited to ground level activity. However, significant cumulative effects may occur if developments fall within the same area and the same temporal extent.
LV-C-04	Impacts on visual receptors - resulting from construction activities at the OCS zone including infrastructure within the OCS zone	Yes	Cumulative visual effects could occur if other developments are constructed concurrently with the construction phase of the OCS and ESBI.
<b>Operation and Maintenance</b>			
LV-O-01	Impacts on landscape character and designated landscapes - resulting from the presence of above-ground infrastructure at landfall and onshore ECC (e.g. above-ground link boxes, bollards,	No	Above ground infrastructure visible along the onshore ECC during operation is limited to above ground link boxes (approximately 20 link box locations for the HVDC export cables and all link box locations for the HVAC export cables). In addition, there will be bollards, fences or similar equipment around link boxes where required and marker posts along

Impact ID	Impact and Project Activity	Potential for Cumulative Effects	Rationale
	marker posts etc.)		the operational easement to demark the location of the installed onshore export cables. Given their small scale (approximately 1.2 to 2m high), it is unlikely that there would be significant cumulative effects if other developments fall within the same area. It is noted that other nearby projects, e.g., Dogger Bank South and Hornsea Project Four are entirely underground and will not be visible, so no cumulative effects are expected during operation.
LV-O-02	Impacts on landscape character and designated landscapes - resulting from the presence of above-ground infrastructure within the OCS zone	Yes	Any other projects that alter the landscape character within the Landscape and Visual Study Area for the OCS and ESBI may have cumulative landscape effects at operation.
LV-O-03	Impacts on visual receptors - resulting from the presence of above-ground infrastructure at landfall and onshore ECC (e.g. above-ground link boxes, bollards, marker posts etc.)	No	Above ground infrastructure visible along the onshore ECC during operation is limited to above ground link boxes (approximately 20 link box locations for the HVDC export cables and all link box locations for the HVAC export cables). In addition, there will be bollards, fences or similar equipment around link boxes where required and marker posts along the operational easement to demark the location of the installed onshore export cables. Given their small scale (approximately 1.2 to 2m high), it is unlikely that there would be significant cumulative effects if other developments fall within the same area. It is noted that other nearby projects, e.g., Dogger Bank South and Hornsea Project Four are entirely underground and will not be visible, so no cumulative effects are expected during operation.
LV-O-04	Impacts on visual receptors - resulting from the presence of above-ground infrastructure	Yes	Any other projects that alter the landscape character within the Landscape and Visual Study Area for the OCS and ESBI may have cumulative

Impact ID	Impact and Project Activity	Potential for Cumulative Effects	Rationale
	within the OCS zone		visual effects at operation.
Decommissioning			
<p>There is insufficient information available on other plans and projects which could have a spatial and temporal overlap with the Project's onshore decommissioning works. The details and scope of onshore decommissioning works will be determined by the relevant regulations and guidance at the time of decommissioning and provided in the Onshore Decommissioning Plan (see <b>Table 27-5</b>, Commitment ID CO56). This will include a detailed assessment of decommissioning impacts and appropriate mitigation measures to avoid significant effects, including cumulative effects.</p> <p>For this assessment, it is assumed that cumulative decommissioning effects would be of similar nature to, and no worse than, those identified during the construction phase.</p>			

27.8.2 Screening for Other Plans / Projects

453. The second step of the CEA identifies a short-list of other plans and projects that have the potential to interact with the Project to give rise to significant cumulative effects during the construction and O&M phases. The short-list provided in **Table 27-23** has been produced specifically to assess cumulative effects on landscape and visual impact receptors. The exhaustive list of all onshore plans and projects considered in the development of the Project's CEA framework is provided in **Volume 2, Appendix 6.5 Cumulative Effects Screening Report - Onshore**.
454. Developments that were fully operational during baseline characterisation, including at the time of site-specific surveys, are considered as part of baseline conditions for the surrounding environment. It is assumed that any residual effects associated with these developments are captured within the baseline information. As such, these developments are not subject to further assessment within the CEA and excluded from the screening exercise presented in **Table 27-23**.
455. For developments that were not fully operational, including those in planning / pre-construction stages or under construction, during baseline characterisation and operational developments with potential for ongoing impacts, these are included in the screening exercise presented in **Table 27-23**.

456. The screening exercise has been undertaken based on available information on each plan or project up to and including 31<sup>st</sup> December 2024. Information has been obtained from the Planning Inspectorate's Nationally Significant Infrastructure Project (NSIP) portal and directly from other developers through data sharing arrangements with DBD. It is noted that further information regarding the identified plans and projects may become available between PEIR publication and DCO application submission or may not be available in detail prior to construction. The assessment presented here is therefore considered to be conservative at the time of PEIR publication. The list of plans and projects will be updated at ES stage to incorporate more recent information at the time of writing.
457. Plans and projects identified in **Table 27-23** have been assigned a tier based on their development status, the level of information available to inform the CEA and the degree of confidence. A three tier system based on the Nationally Significant Infrastructure Projects: Advice on Cumulative Effects Assessment has been adopted (Planning Inspectorate, 2024).
458. The zone of influence (Zol) used to identify relevant plans and projects for the landscape and visual impact CEA is 5km from each of the OCS zones.
459. Each plan or project in **Table 27-23** has been considered on a case-by-case basis. Only plans and projects with potential for significant cumulative effects with the Project are taken forward to a detailed assessment, which are screened based on the following criteria:
  - There is potential that a pathway exists whereby an impact could have a cumulative effect on a receptor;
  - The impact on a receptor from the Project and the plan or project in consideration has a spatial overlap (i.e. occurring over the same area);
  - The impact on a receptor from the Project and the plan or project in consideration has a temporal overlap (e.g. occurring at the same time);
  - There is sufficient information available on the plan or project in consideration and moderate to high data confidence to undertake a meaningful assessment; and
  - There is some likelihood that the residual effect (i.e. after accounting for mitigation measures) of the Project could result in significant cumulative effects with the plan or project in consideration.
460. The CEA for landscape and visual impact has identified a total of eight plans and projects where significant cumulative effects could arise in combination with the Project. Cumulative schemes are shown on **Figure 6-1** as part of **Volume 2, Appendix 6.5 Cumulative Effects Screening Report - Onshore**. A detailed assessment of cumulative effects is provided in the section below.



Table 27-23 Short List of Plans / Projects for the Landscape and Visual Impacts CEA

Project / Plan	Development Type	Status	Tier	Construction / Operation Period	Closest Distance to Onshore ECC (km)	Closest Distance to OCS Zone 4 (km)	Closest Distance to OCS Zone 8 (km)	Potential for Significant Cumulative Effects	Rationale
A164 And Jock's Lodge Junction Improvement Scheme Adjacent to and South of Beverley Road (20/01073/STPLF)	Road Improvement Scheme	Under Construction	1	Construction: 2024 to 2026 Operation: 2027+	0.77	0.40	1.94	Yes	Both developments will have similar operational lifetimes. Construction activity for this road improvement scheme will be completed prior to construction starting on the Project.
Birkhill Wood National Grid Substation	Electricity Transmission Infrastructure	Planning	1	Construction: 2026 to 2030 Operation: 2031+	0	1.11	2.31	Yes	Potential for overlap of construction activities. Both developments will have similar operational lifetimes.
Creyke Beck Solar Farm (21/02335/STPLF)	Solar Farm	Approved	1	Construction: Unknown Operation: Unknown	0.33	1.05	1.56	Yes	Potential for overlap of construction activities. Both developments will have similar operational lifetimes.
Dogger Bank South Offshore Wind Farms (EN010125)	Offshore Wind Farm	Examination	1	Construction: 2026 to 2033 Operation: 2034+	0	0.10	0.30	Yes	Potential for spatial and temporal overlap of construction activities. Both developments will have similar operational lifetimes.
Hornsea Project Four Offshore Wind Farm (EN010098)	Offshore Wind Farm	Under Construction	1	Construction: 2024 to 2028 Operation: 2029+	0	0.11	0.01	Yes	Both developments will have similar operational lifetimes. Construction activity for Hornsea Project Four Offshore Wind Farm will be completed prior to construction starting on the Project.
Wanlass Beck National Grid Substation (24/03819/STPLF)	Electricity Transmission Infrastructure	Pending Consideration	1	Construction: 2026 to 2030 Operation: 2031+	0.91	2.09	3.02	Yes	Potential for overlap of construction activities. Both developments will have similar operational lifetimes.
North Humber to High Marnham Grid Upgrade (EN020034)	Electricity Transmission Infrastructure	Planning	3	Construction: 2028 to 2030 Operation: 2031+	0	0.89	0.41	Yes	Potential for spatial and temporal overlap of construction activities. Both developments will have similar operational lifetimes.

### 27.8.3 Assessment of Cumulative Effects

461. Similar to the approach to LVIA noted in **Section 27.4.5**, there is potential for the CEA for the OCS zone infrastructure to differ between the two development scenarios. Where the assessment outcomes are likely to differ, these have been reported separately below. Only one OCS zone option will be taken forward to development. Therefore, the CEA does not consider a cumulative development scenario in which both OCS zones would be developed.

#### 27.8.3.1 Cumulative Construction Effects

462. Two cumulative schemes, Dogger Bank South Offshore Wind Farms and the North Humber to High Marnham Grid Upgrade, are expected to have construction programmes which overlap with the construction of the Project. In addition, the construction programmes for the proposed Wanlass Beck National Grid Substation, Creyke Beck Solar Farm, and Birkhill Wood National Grid Substation may potentially overlap with the construction of the Project, however there is a higher level of uncertainty on the timing of these schemes.
463. Construction of the A164 and Jock's Lodge Junction Improvement Scheme, and Hornsea Project Four Offshore Wind Farm is expected to be completed before the construction of the Project starts. Therefore, it is not expected that any cumulative effects would arise as a result of construction related activities of both the Project and these schemes.

#### 27.8.3.2 Cumulative Impact 1: Impacts on Landscape Character and Designated Landscapes – Sub-Areas 1 and 2: Landfall and Onshore Export Cable Corridor (LV-C-01)

##### 27.8.3.2.1 Receptor Sensitivity

464. The landscape of sub-areas 1 and 2 are judged to be of **medium** sensitivity as set out in **Sections 27.7.1.1.1 and 27.7.1.2.1**.

##### 27.8.3.2.2 Cumulative Impact Magnitude

465. The construction of Dogger Bank South Offshore Wind Farms is expected to overlap with construction of the Project during 2029 and 2030. As the landfalls for both the Project and Dogger Bank South Offshore Wind Farms are in close proximity to one another (approximately 0.5km), and both are located within the Coastal Farmland (LCT 20), there is potential for cumulative landscape effects of a direct nature on the landscape character of LCT 20. Likewise, the onshore ECC for both Dogger Bank South Offshore Wind Farms and the Project pass through the same LCT (LCT 19C, 18A, 18B, 19D, 16E and 13C) and at their closest are immediately adjacent to one another. At their furthest, the onshore ECC are approximately 6km from one another.

466. Given the proximity and similar nature of works for both the Project and Dogger Bank South Offshore Wind Farms, construction works at the landfall are likely to result in a **high** magnitude of change during times when construction stages overlap. Construction works along the onshore ECC are unlikely to interact with one another along most of the route, however when in closer proximity to one another (e.g. west of Beverley and between the A165 and the coastline near Dunnington), a **locally high** magnitude of change may arise if construction stages overlap. There would be a greater presence of construction activity in the landscape.

#### 27.8.3.2.3 Cumulative Effect Significance

467. There is potential for **locally significant** (up to **major adverse**) cumulative effects on landscape receptors during construction, during the times that construction stages overlap. **Significant (major adverse)** effects on landscape character are expected across the landscape between the Project's landfall zone and the landfall zone for Dogger Bank South Offshore Wind Farms, near Skipsea. **Significant (moderate adverse)** effects on landscape character would occur where the onshore ECC are in close proximity to one another (e.g. west of Beverley and between the A165 and the coastline near Dunnington). Beyond these localised areas, the cumulative landscape effect is expected to be **not significant**. Cumulative construction effects would be short term in nature.

#### 27.8.3.3 Cumulative Impact 2: Impacts on Visual Receptors – Sub-Areas 1 and 2: Landfall and Onshore Export Cable Corridor (LV-C-03)

##### 27.8.3.3.1 Receptor Sensitivity

468. The visual receptors within sub-areas 1 and 2 are judged to be of **medium** sensitivity as set out in the viewpoint assessments in **Sections 27.7.2.1.1 and 27.7.2.2.1**.

##### 27.8.3.3.2 Cumulative Impact Magnitude

469. The construction stage of Dogger Bank South Offshore Wind Farms is expected to overlap with construction of the Project during 2029 and 2030. Given the proximity of the landfall of the Project to the landfall of Dogger Bank South Offshore Wind Farms, and the proximity of some sections of each onshore ECC, there is potential for cumulative effects on views experienced by people in the local area, including local residents (e.g. at Skipsea, Dunnington, Bishop Burton, Beverley, Walkington and Bentley), users of the road network and recreational receptors travelling along the PRow network during construction.

470. Construction of the landfall and onshore ECC is expected to be low-lying in nature, and not widely visible in the landscape. However, visibility of construction of both Dogger Bank South Offshore Wind Farms and the Project may be experienced simultaneously from some locations. Successive and sequential views are likely to be experienced by people travelling along local roads (e.g. A1079, A164, A1035, A165 and the B1242) and the PRow network.

471. Construction works would likely result in a **medium** magnitude of change on sequential views during construction, if the construction stages overlap.

#### 27.8.3.3.3 Cumulative Effect Significance

472. There is potential for **significant (moderate adverse)** cumulative effects on visual receptors throughout the Landscape and Visual Study Area during the overlapping construction phases. **Significant (moderate adverse)** effects arising from construction interaction of the onshore ECC for the Project and Dogger Bank South Offshore Wind Farms would be experienced from the area to the west and south of Beverley, around Beeford, Dunnington, and Skipsea near the landfall. Beyond these localised areas, the cumulative visual effects are expected to be **not significant**. Cumulative construction effects would be short term in nature.

#### 27.8.3.4 Cumulative Impact 3: Impacts on Landscape Character and Designated Landscapes – Sub-Area 3: Onshore Converter Station Zone 4 (LV-C-02)

##### 27.8.3.4.1 Receptor Sensitivity

473. The landscape of Sub-area 3 is judged to be of **medium** sensitivity as set out in **Section 27.7.1.3.1**.

##### 27.8.3.4.2 Cumulative Impact Magnitude

474. The construction stages of Dogger Bank South Offshore Wind Farms and the North Humber to High Marnham Grid Upgrade are expected to overlap with construction of the Project during 2029 and 2030. It is unknown when the construction of Creyke Beck Solar Farm, Wanlass Beck National Grid Substation and Birkhill Wood National Grid Substation would take place, but there may be some overlap with the Project. As the OCS and ESBI in OCS Zone 4 and all these cumulative schemes are entirely or partially located within the Sloping Farmland (LCT 16), there is potential for cumulative landscape effects of a direct nature on the landscape character of LCT 16.

475. Given the proximity and the large scale of the Project and the Dogger Bank South Offshore Wind Farms, North Humber to High Marnham Grid Upgrade and Creyke Beck Solar Farm schemes in particular, construction works would likely result in a **high** magnitude of change at construction, during times when construction stages overlap. The Project would be more distant from Wanlass Beck Substation and Birkhill Wood Substation, and construction activities would likely result in a lower magnitude of change given the intervening distance, if the construction stages overlap.

#### 27.8.3.4.3 Cumulative Effect Significance

476. There is potential for **significant** (up to **major adverse**) cumulative effects on landscape receptors during construction, during the times that construction stages overlap. **Significant (major adverse)** cumulative effects on landscape character would occur in the area concentrated around Jock's Lodge, between OCS Zone 4, the Dogger Bank South Offshore Wind Farms substation, and Creyke Beck Solar Farm to the south. The cumulative effect would reduce to **significant (moderate adverse)** in the area around Dogger Bank South Offshore Wind Farms and Creyke Beck Solar Farm (beyond the area located between all the cumulative schemes) and would reduce to **not significant** with greater distance. Cumulative construction effects would be short term in nature.

#### 27.8.3.5 Cumulative Impact 4: Impacts on Visual Receptors – Sub-Area 3: Onshore Converter Station Zone 4 (LV-C-04)

##### 27.8.3.5.1 Receptor Sensitivity

477. The most sensitive visual receptors within Sub-area 3 are judged to be of **high** sensitivity as set out in the viewpoint assessments in **Section 27.7.2.3**.

##### 27.8.3.5.2 Cumulative Impact Magnitude

478. The construction stages of Dogger Bank South Offshore Wind Farms and the North Humber to High Marnham Grid Upgrade are expected to overlap with construction of the Project during 2029 and 2030. It is unknown when the construction of Creyke Beck Solar Farm, Wanlass Beck National Grid Substation and Birkhill Wood National Grid Substation would take place, but there may be some overlap with the Project. Given the potential proximity of the OCS and ESBI in OCS Zone 4 to the other cumulative schemes, there is potential for cumulative effects on views experienced by people in the local area, including residents at Beverley, users of the road network and recreational receptors travelling along the PRow network.



479. Construction of the OCS and ESBI in OCS Zone 4, and larger scale cumulative schemes (e.g. Dogger Bank South Offshore Wind Farms, Wanlass Beck National Grid Substation, North Humber to High Marnham Grid Upgrade, and Birkhill Wood National Grid Substation) would involve tall structures (e.g. cranes and partially built pylons) which may be visible at the same time from some locations. Lower-lying construction activities are less likely to be visible. Successive and sequential views are likely to be experienced by people travelling along local roads (e.g. A1079 and A164) and the PRow network (e.g. Woodmansey Bridleway No. six and 30, Rowley Bridleway 13 and Skidby Bridleway 7). Receptors may experience an increased level of construction activity, including some close range views and longer ranging views of taller elements, as they move through the area. PRow users may also be diverted as a result of construction of the Creyke Beck Solar Farm.

480. Construction works would likely result in a **medium** magnitude of change on sequential views during construction, if the construction stages overlap.

#### 27.8.3.5.3 Cumulative Effect Significance

481. There is potential for **significant** (up to **moderate adverse**) cumulative effects on visual receptors during construction, during the times that construction stages overlap. Cumulative construction effects would be short term in nature.

### 27.8.3.6 Cumulative Impact 5: Impacts on Landscape Character and Designated Landscapes – Sub-Area 3: Onshore Converter Station Zone 4 (LV-O-02)

#### 27.8.3.6.1 Receptor Sensitivity

482. The landscape of Sub-area 3 is judged to be of **medium** sensitivity as set out in **Section 27.7.1.3.1**.

#### 27.8.3.6.2 Cumulative Impact Magnitude

483. During the O&M phase of the Project, the presence of the Project and several other large-scale schemes including Dogger Bank South Offshore Wind Farms, Hornsea Project Four Offshore Wind Farm and Birkhill Wood National Grid Substation in the surrounding landscape would result in cumulative effects on local landscape character. The Project is located within approximately 1.5km of all these cumulative schemes. Given the scale of the Project and these schemes, they would all form noticeable features in the landscape, with the Project extending development further north of the A1079 towards Beverley. Landscape mitigation planting around each of these schemes would provide some screening and help to better integrate the Project and schemes into the landscape.

484. The Project would be located within approximately 1km of Creyke Beck Solar Farm. Although the solar panels are of a lower vertical height compared to the Project, they are expected to extend across a larger spatial area. The Project alongside this wide-spreading solar farm schemes would result in cumulative effects on the landscape character of the area.

485. The Project would be seen in the context of the Jock's Lodge Road Improvement to the west and south-west of OCS Zone 4. Once operational, the road improvement is expected to be similar in character to the existing baseline of main roads (e.g. A164 and A1079), and there would be minimal cumulative interaction with the Project. Likewise, cumulative interactions with more distant schemes such as the Wanlass Beck National Grid Substation, would be reduced due to intervening distance.

486. The presence of the Project and the various cumulative schemes across this area would likely result in a **medium** magnitude of change on local landscape character.

#### 27.8.3.6.3 Cumulative Effect Significance

487. There is potential for **significant** (up to **moderate adverse**) cumulative effects on landscape receptors during operation. The effect on landscape character would occur in the area south of the OCS Zone 4, where the majority of the other schemes are located, and with the Project extending development further north of the A1079.

### 27.8.3.7 Cumulative Impact 6: Impacts on Visual Receptors – Sub-Area 3: Onshore Converter Station Zone 4 (LV-O-04)

#### 27.8.3.7.1 Receptor Sensitivity

488. The most sensitive visual receptors within Sub-area 3 are judged to be of **high** sensitivity as set out in the viewpoint assessments in **Section 27.7.2.3**.

#### 27.8.3.7.2 Cumulative Impact Magnitude

489. During operation, there are unlikely to be any locations where the Project would be seen in combined or successive views with all the cumulative schemes. There would be locations where the Project would be seen simultaneously with one or more of the cumulative schemes, however such locations are expected to be quite limited. People might experience views of the Project and other cumulative schemes in a sequential nature whilst travelling along the local road and PRow network.

490. Recreational receptors travelling along the local PRoW network between the A164 and A1079 (e.g. Woodmansey bridleway no. six and 30, Skidby bridleway no. seven and 16, and Rowley bridleway no. 13 – see Viewpoint 2) are expected to experience sequential views of several cumulative schemes as they travel through the area. This would include views, to varying degrees, of Dogger Bank South Offshore Wind Farms, Hornsea Project Four Offshore Wind Farm, Creyke Beck Solar Farm, North Humber to High Marnham Grid Upgrade, Birkhill Wood National Grid Substation, and Wanlass Beck National Grid Substation.
491. The Project would be of a larger vertical scale than the Creyke Beck Solar Farm which would sit at a lower elevation. Therefore, distant views of both the Project and the solar farm are less likely due to screening of the solar farm provided by intervening vegetation. However, people travelling along the PRoW, A1079, and A164 would experience close ranging sequential views of each development. The Wanlass Beck National Grid Substation extension would be seen in the context of the existing Creyke Beck National Grid Substation, and therefore, the magnitude of cumulative change of the Project alongside this scheme will be limited.
492. With the exception of Dogger Bank South Offshore Wind Farms, the cumulative schemes are all largely confined spatially between the A164 and A1079. However, the Project would extend this development north of the A1079 towards Beverley. It would result in the A1079 being more enclosed on each side by large-scale development.
493. The presence of the Project alongside the other cumulative schemes would have additional impacts on views experienced from localised areas of the surroundings. Interactions will vary between different schemes, given the differences in intervening distance. In addition, the Project and most cumulative schemes propose landscape mitigation planting. As this planting matures, it will become more effective at screening visibility of the Project and the other schemes, reducing the magnitude of cumulative visual impact. Key interactions for the OCS and ESBI in OCS Zone 4 are likely to be with Dogger Bank South Offshore Wind Farms (0.8km to the west).
494. It is expected that the presence of the Project and the cumulative scheme would result in a **high** magnitude of change in static views from the area to the south of Beverley, where the Project would be seen to bring large-scale development closer to the settlement edge compared to other schemes such as Dogger Bank South Offshore Wind Farms. However, from elsewhere cumulative magnitude of impact on static locations will be lower. A **medium** magnitude of change is expected on sequential views experienced by people travelling along the PRoW network.

#### 27.8.3.7.3 Cumulative Effect Significance

495. There is potential for **significant** (up to **moderate adverse**) cumulative effects on visual receptors during operation, particularly on sequential views experienced by visual receptors travelling through the area on the local road and PRoW network. These effects may reduce once mitigation planting proposed around the Project and the other schemes has matured and become more effective at screening visibility.

#### 27.8.3.8 Cumulative Impact 7: Impacts on Landscape Character and Designated Landscapes – Sub-Area 4: Onshore Converter Station Zone 8 (LV-C-02)

##### 27.8.3.8.1 Receptor Sensitivity

496. The landscape of Sub-area 4 is judged to be of **medium** sensitivity as set out in **Section 27.7.1.4.1**.

##### 27.8.3.8.2 Cumulative Impact Magnitude

497. The construction stages of Dogger Bank South Offshore Wind Farms and the North Humber to High Marnham Grid Upgrade are expected to overlap with construction of the Project during 2029 and 2030. It is unknown when the construction of Creyke Beck Solar Farm, Wanlass Beck National Grid Substation and Birkhill Wood National Grid Substation would take place, but there may be some overlap with the Project. Given the OCS and ESBI in OCS Zone 8 and North Humber to High Marnham Grid Upgrade scheme are located within the Open High Rolling Farmland (LCT 13), there is potential for cumulative landscape impacts of a direct nature on the Landscape Character of LCT 13 and on the Yorkshire Wolds.
498. There is potential for perceptual impacts on the landscape character of Sloping Farmland (LCT 16), given the OCS and ESBI in OCS Zone 8 would be located near the boundary of the LCT, and several other cumulative schemes (Dogger Bank South Offshore Wind Farms, North Humber to High Marnham Grid Upgrade, Creyke Beck Solar Farm, Wanlass Beck National Grid Substation and Birkhill Wood National Grid Substation) are located within LCT 16. The proximity of the Project to Dogger Bank South Offshore Wind Farms (c. 0.5km) is also likely to result in cumulative landscape impacts on the Yorkshire Wolds ILA.
499. Visibility of construction activities for the Project, and cumulative schemes may be experienced from localised areas within the LCT, affecting some of the perceived characteristics of the area including the “*views across the open landscape*”.
500. Construction works would likely result in a **high** magnitude of change at construction, if the construction stages overlap.

## 27.8.3.8.3 Cumulative Effect Significance

501. There is potential for **locally significant** (up to **moderate adverse**) cumulative effects on landscape receptors during construction, during the times that construction stages overlap. The greatest effect on landscape character would occur in the area between OCS Zone 8 and the Dogger Bank South Offshore Wind Farms' substation, around Bentley, and extending east across the A164. Cumulative construction effects would be short term in nature.

## 27.8.3.9 Cumulative Impact 8: Impacts on Visual Receptors – Sub-Area 4: Onshore Converter Station Zone 8 (LV-C-04)

## 27.8.3.9.1 Receptor Sensitivity

502. The most sensitive visual receptors within Sub-area 4 are judged to be of **high** sensitivity as set out in the viewpoint assessments in **Section 27.7.2.4**.

## 27.8.3.9.2 Cumulative Impact Magnitude

503. The construction stages of Dogger Bank South Offshore Wind Farms and the North Humber to High Marnham Grid Upgrade are expected to overlap with construction of the Project during 2029 and 2030. It is unknown when the construction of Creyke Beck Solar Farm, Wanlass Beck National Grid Substation and Birkhill Wood National Grid Substation would take place, but there may be some overlap with the Project. Given the potential proximity of the OCS and ESBI in OCS Zone 8 to the other cumulative schemes, notably Dogger Bank South Offshore Wind Farms and the North Humber to High Marnham Grid Upgrade, there is potential for cumulative impacts on views experienced by people in the local area, including residents at Bentley and Walkington, users of the road network and recreational receptors travelling along the PRoW network.
504. Construction of the OCS and ESBI in OCS Zone 8, and larger scale cumulative schemes (e.g. Dogger Bank South Offshore Wind Farms, Wanlass Beck National Grid Substation, North Humber to High Marnham Grid Upgrade and Birkhill Wood National Grid Substation) would involve tall structures (e.g. cranes and partially built pylons) which may be visible at the same time from some locations. Lower-lying construction activities are less likely to be visible. Successive and sequential views are likely to be experienced by people travelling along local roads (e.g. the A164 and Coppleflat Lane) and the PRoW network (e.g. Beverley 20, and Rowley Bridleway No 7-9). Receptors may experience an increased level of construction activity, including some close range views and longer ranging views of taller elements, as they move through the area. PRoW users may also be diverted as a result of construction of the North Humber to High Marnham Grid Upgrade.
505. Construction works would likely result in a **medium** magnitude of change on sequential views during construction, if the construction stages overlap.

## 27.8.3.9.3 Cumulative Effect Significance

506. There is potential for **significant** (up to **major adverse**) cumulative effects on visual receptors during construction, during the times that construction stages overlap. Cumulative construction effects would be short term in nature.

## 27.8.3.10 Cumulative Impact 9: Impacts on Landscape Character and Designated Landscapes – Sub-Area 4: Onshore Converter Station Zone 8 (LV-O-02)

## 27.8.3.10.1 Receptor Sensitivity

507. The landscape of Sub-area 4 is judged to be of **medium** sensitivity as set out in **Section 27.7.1.4.1**.

## 27.8.3.10.2 Cumulative Impact Magnitude

508. During the O&M phase of the Project, the presence of the Project and several other large-scale schemes including Dogger Bank South Offshore Wind Farms, Hornsea Project Four Offshore Wind Farm, Birkhill Wood National Grid Substation and the North Humber to High Marnham Grid Upgrade in the surrounding landscape would result in cumulative impacts on local landscape character.
509. The Project is located within approximately 3km of all these cumulative schemes, and is in particular close proximity to Dogger Bank South Offshore Wind Farms (0.5km) and the North Humber to High Marnham Grid Upgrade (0.4km). Given the scale of the Project alongside Dogger Bank South Offshore Wind Farms and their close proximity, they would form noticeable features in the landscape, particularly from the more sensitive Yorkshire Wolds. The Project would also be a noticeable feature alongside the grid upgrade scheme which would cross the Wolds north of Skidby.
510. The Project would extend development further north-west into the Yorkshire Wolds. Landscape mitigation planting around each of the larger substation schemes would provide some screening and help to better integrate the Project and the cumulative schemes into the landscape.
511. The Project would be located approximately 1.6km from Creyke Beck Solar Farm. Although the solar panels are of a lower vertical height compared to the Project, they are expected to extend across a much larger spatial area. The Project alongside this wide-spreading solar scheme would result in cumulative impacts on the landscape character of the area, particularly when experienced from the Yorkshire Wolds, given the close proximity between the Project and Creyke Beck Solar Farm.



512. There would be reduced cumulative interactions between the Project and more distant schemes such as the Wanlass Beck National Grid Substation due to intervening distance.

513. The presence of the Project and the various cumulative schemes across this area would likely result in a **medium** magnitude of change on local landscape character.

#### 27.8.3.10.3 Cumulative Effect Significance

514. There is potential for locally **significant** (up to **moderate adverse**) cumulative effects on landscape receptors during operation. The effect on landscape character would occur in the area between OCS Zone 8 and the Dogger Bank South Offshore Wind Farms' substation, around Bentley, and extending development into the Yorkshire Wolds ILA.

#### 27.8.3.11 Cumulative Impact 10: Impacts on Visual Receptors – Sub-Area 4: Onshore Converter Station Zone 8 (LV-O-04)

##### 27.8.3.11.1 Receptor Sensitivity

515. The most sensitive visual receptors within Sub-area 4 are judged to be of **high** sensitivity as set out in the viewpoint assessments in **Section 27.7.2.4**.

##### 27.8.3.11.2 Cumulative Impact Magnitude

516. During the O&M phase, there are unlikely to be any locations where the Project would be seen in combined or successive views with *all* the cumulative schemes. There would be locations where the Project would be seen simultaneously with one or more of the cumulative schemes, however such locations are expected to be quite limited. People might experience views of the Project and other cumulative schemes in a sequential nature whilst travelling along the local road and PRoW network.

517. Given the proximity of the Project in OCS Zone 8 to Dogger Bank South Offshore Wind Farms (which is approximately 0.5km east), both are likely to be seen in combined and successive views from locations along Coppleflat Lane, and around Bentley and Risby Park (e.g. Rowley Footpath No.8 and No.9). In addition, recreational receptors along these PRoW, the Beverley 20, and the A164 may also experience combined, successive and sequential views of the Project and the North Humber to High Marnham Grid Upgrade. The Project is unlikely to be visible from the A1079. The grid upgrade would introduce views of new overhead lines into views which are already influenced by existing overhead lines.

518. Recreational receptors travelling along the local PRoW network between the A164 and A1079 (e.g. Woodmansey bridleway no. six and 30, Skidby bridleways no. seven and 16, and Rowley bridleway no. 13) are expected to experience sequential views of several cumulative schemes as they travel through the area. This would include views, to varying degrees, of Dogger Bank South Offshore Wind Farms, Hornsea Project Four Offshore Wind Farm, Creyke Beck Solar Farm, North Humber to High Marnham Grid Upgrade, Birkhill Wood National Grid Substation and Wanlass Beck National Grid Substation. Given the intervening distance from most of these schemes (>1.6km), the Project in OCS Zone 8 is likely to be largely screened from this area, but sequential views may still be experienced by people travelling from the Jillywood Farm / Birkhill Wood area to Risby Park via Bentley and Coppleflat Lane.

519. The Project would be of a larger vertical scale than the Creyke Beck Solar Farm which would sit at a lower elevation. Given the differences in scale, the undulating landform, and the intervening distance between the Project and Creyke Beck Solar Farm, there is less likely to be any distant views of both the Project and the solar farm. However, close ranging sequential views of each may be afforded by people travelling along the A164 and local road network. The Wanlass Beck National Grid Substation would be seen in the context of the existing substation, and therefore, the cumulative magnitude of change of the Project alongside this scheme is expected to be limited.

520. With the exception of Dogger Bank South Offshore Wind Farms, the cumulative schemes are all largely confined spatially between the A164 and A1079. However, the Project would extend large-scale electricity infrastructure further west into the Yorkshire Wolds, towards Walkington. The Project would increase the presence of development close to Walkington and would surround Bentley to the west. Residents around Bentley may feel an increased sense of enclosure by large-scale development when travelling around the local area, noting that the Project would be to the west, Dogger Bank South Offshore Wind Farms to the north, and Creyke Beck Solar Farm to the south and south-east, and potentially the North Humber to High Marnham Grid Upgrade to the south.

521. The presence of the Project alongside the other cumulative schemes would have additional impacts on views experienced from localised areas of the surroundings. Interactions will vary between different schemes, given the differences in intervening distance. In addition, the Project and most cumulative schemes propose landscape mitigation planting. As this planting matures, it will become more effective at screening visibility of the Project and the other schemes, reducing the cumulative visual impact. Key interactions for the Project in OCS Zone 8 are likely to be with Dogger Bank South Offshore Wind Farms (0.8km to the west).

522. It is expected that the presence of the Project and the cumulative scheme would result in a **medium** magnitude of change in static views from the area around Bentley and Risby, where the Project would be seen in the context of Dogger Bank South Offshore Wind Farms. It would bring large-scale development closer to Walkington and recreational receptors around Risby Park compared to Dogger Bank South Offshore Wind Farms. However, from elsewhere the magnitude of cumulative change would be lower. A **medium** magnitude of change is expected on sequential views experienced by people travelling along the PRow network.

27.8.3.11.3 Cumulative Effect Significance

523. There is potential for **significant** (up to **moderate adverse**) cumulative effects on visual receptors during operation, particularly on sequential views experienced by visual receptors travelling through the area on the local road and PRow network. These effects may reduce once mitigation planting proposed around the Project and the other schemes has matured and become more effective at screening visibility.

27.9 Inter-Relationships and Effects Interactions

27.9.1 Inter-Relationships

524. Inter-relationships are defined as effects arising from residual effects associated with different environmental topics acting together upon a single receptor or receptor group. Potential inter-relationships between landscape and visual impact and other environmental topics have been considered, where relevant, within the PEIR. **Table 27-24** provides a summary of key inter-relationships and signposts to where they have been addressed in the relevant chapters.

Table 27-24 Landscape and Visual Impacts – Inter-Relationships with Other Topics

Impact ID	Impact and Project Activity	Related EIA Topic	Where Assessed in the PEIR Chapter	Rationale
Construction				
LV-C-01		Chapter 22 Soils and Land Use	Refer to landscape and visual receptors assessment in Section 27.7.	Both chapters consider the effects of the loss of farmland (as a landscape element or an agricultural asset).
LV-C-02				
LV-C-03				
LV-C-04				

Impact ID	Impact and Project Activity	Related EIA Topic	Where Assessed in the PEIR Chapter	Rationale
	Impacts on landscape character and designated landscapes - resulting from construction activities at the landfall and along the onshore ECC  Impacts on landscape character and designated landscapes - resulting from construction activities at the OCS zone including infrastructure within the OCS zone  Impacts on visual receptors - resulting from construction activities at the landfall and along the onshore ECC  Impacts on visual receptors - resulting from construction activities at the OCS zone including infrastructure within the OCS zone	Chapter 23 Onshore Ecology and Ornithology	Refer to landscape and visual receptors assessment in Section 27.7 and summary of embedded mitigation as set out in Section 27.4.3.	Both chapters consider the effects of vegetation loss, including hedgerows and trees (as a landscape element or an ecological asset). Both chapters consider the mitigation of hedgerow and tree loss.
		Chapter 24 Onshore Archaeology and Cultural Heritage	Refer to landscape and visual receptors assessment in Section 27.7.	Both chapters consider the visual effects on receptors.
		Chapter 30 Socio-Economics, Tourism and Recreation	Refer to visual receptors assessment in Section 27.7.	Both chapters consider effects on recreational receptors.

Operation and Maintenance				
LV-O-02	Impacts on landscape character and designated landscapes - resulting from the presence of above-ground infrastructure within the OCS zone	Chapter 24 Onshore Archaeology and Cultural Heritage	Refer to landscape and visual receptors assessment in Section 27.7.	Both chapters consider the visual effects on receptors.
LV-O-04		Chapter 30 Socio-Economics, Tourism and Recreation	Refer to visual receptors assessment in Section 27.7.	Both chapters consider effects on recreational receptors.

Impact ID	Impact and Project Activity	Related EIA Topic	Where Assessed in the PEIR Chapter	Rationale
	Impacts on visual receptors - resulting from the presence of above-ground infrastructure within the OCS zone			

**Decommissioning**

The details and scope of onshore decommissioning works will be determined by the relevant regulations and guidance at the time of decommissioning and provided in the Onshore Decommissioning Plan (see **Table 27-5**, Commitment ID CO56).

For this assessment, it is assumed that inter-relationships during the decommissioning phase would be of similar nature to those identified during the construction phase.

**27.9.2 Interactions**

525. The impacts identified and assessed in this chapter have the potential to interact with each other. Potential interactions between impacts are identified in **Table 27-25**. Where there is potential for interaction between impacts, these are assessed in **Table 27-26** for each receptor or receptor group.
526. Interactions are assessed by development phase (“phase assessment”) to see if multiple impacts could increase the overall effect significance experienced by a single receptor or receptor group during each phase. Following from this, a lifetime assessment is undertaken which considers the potential for multiple impacts to accumulate across the construction, O&M and decommissioning phases and result in a greater effect on a single receptor or receptor group. When considering synergistic effects from interactions, it is assumed that the receptor sensitivity remains consistent, while the magnitude of different impacts is additive.



Table 27-25 Landscape and Visual Impacts – Potential Interactions Between Impacts throughout the Project’s Lifetime

Construction, Operation and Maintenance								
	LV-C-01	LV-C-02	LV-C-03	LV-C-04	LV-O-01	LV-O-02	LV-O-03	LV-O-04
Impacts on landscape character and designated landscapes (resulting from the landfall and onshore ECC) (LV-C-01)		Yes	Yes	Yes	No	Yes	No	Yes
Impacts on landscape character and designated landscapes (resulting from infrastructure within the OCS zone) (LV-C-02)	Yes		Yes	Yes	No	Yes	No	Yes
Impacts on visual receptors (resulting from the landfall and onshore ECC) (LV-C-03)	Yes	Yes		Yes	No	Yes	No	Yes
Impacts on visual receptors (resulting from infrastructure within the OCS zone) (LV-C-04)	Yes	Yes	Yes		No	Yes	No	Yes
Impacts on landscape character and designated landscapes (resulting from the landfall and onshore ECC) (LV-O-01)	No	No	No	No		No	No	No
Impacts on landscape character and designated landscapes (resulting from infrastructure within the OCS zone) (LV-O-02)	Yes	Yes	Yes	Yes	No		No	Yes
Impacts on visual receptors (resulting from the landfall and onshore ECC) (LV-O-03)	No	No	No	No	No	No		No
Impacts on visual receptors (resulting from infrastructure within the OCS zone) (LV-O-04)	Yes	Yes	Yes	Yes	No	Yes	No	
Decommissioning								
The details and scope of onshore decommissioning works will be determined by the relevant regulations and guidance at the time of decommissioning and provided in the Onshore Decommissioning Plan (see <b>Table 27-5</b> , Commitment ID CO56).								
For this assessment, it is assumed that interactions during the decommissioning phase would be of similar nature to, and no worse than, those identified during the construction phase.								

Table 27-26 Interaction Assessment – Phase and Lifetime Effects

Receptor	Impact ID	Highest Significance Level			Phase Assessment	Lifetime Assessment
		Construction	Operation and Maintenance	Decommissioning		
Landscape character (landfall and onshore ECC)	LV-C-01	Moderate (significant)	N / A	TBC – Assumed no greater than construction	<b>Construction:</b> No greater than individually assessed impact as assessment has been based on the parameters set out in the worst-case scenario table. <b>Operation and Maintenance:</b> No effect. <b>Decommissioning:</b> No greater than individually assessed impact. For assessment purposes, it is assumed that decommissioning impacts will be of similar nature and no worse than construction phase.	No greater than individually assessed impact as the assessment has considered the maximum effects which will arise during the lifetime of the Project.
Landscape character (OCS zones)	LV-C-02 LV-O-02	Major (significant)	Major (significant)		<b>Construction:</b> No greater than individually assessed impact as assessment has been based on the parameters set out in the worst-case scenario table. <b>Operation and Maintenance:</b> No greater than individually assessed impact as assessment has been based on the parameters set out in the worst-case scenario table. <b>Decommissioning:</b> No greater than individually assessed impact. For assessment purposes, it is assumed that decommissioning impacts will be of similar nature and no worse than construction phase.	No greater than individually assessed impact as the assessment has considered the maximum effects which will arise during the lifetime of the Project.
Visual receptors (landfall and onshore ECC)	LV-C-03	Moderate (significant)	N / A		<b>Construction:</b> No greater than individually assessed impact as assessment has been based on the parameters set out in the worst-case scenario table. <b>Operation and Maintenance:</b> No effect. <b>Decommissioning:</b> No greater than individually assessed impact. For assessment purposes, it is assumed that decommissioning impacts will be of similar nature and no worse than construction phase.	No greater than individually assessed impact as the assessment has considered the maximum effects which will arise during the lifetime of the Project.
Visual receptors (OCS zones)	LV-C-04 LV-O-04	Major (significant)	Major (significant)		<b>Construction:</b> No greater than individually assessed impact as assessment has been based on the parameters set out in the worst-case scenario table. <b>Operation and Maintenance:</b> No greater than individually assessed impact as assessment has been based on the parameters set out in the worst-case scenario table. <b>Decommissioning:</b> No greater than individually assessed impact. For assessment purposes, it is assumed that decommissioning impacts will be of similar nature and no worse than construction phase.	No greater than individually assessed impact as the assessment has considered the maximum effects which will arise during the lifetime of the Project.

## 27.10 Monitoring Measures

527. Potential monitoring measures for landscape and visual impacts will be developed through the EIA process and identified in the ES and Outline LMP submitted with the DCO application.

## 27.11 Summary

528. **Table 27-27** presents a summary of the preliminary results of the assessment of likely significant effects on landscape and visual impacts during the construction, operation and decommissioning of the Project.
529. This chapter has provided a characterisation of the baseline environment for the LVIA based on both existing data and site-specific survey, which has established that there will be some potential impacts on landscape and visual receptors.

### 27.11.1 Construction Phase

530. Moderate (significant) landscape effects are identified at the landfall during the construction phase, particularly as a result of any works needed along the coastline and in the intertidal area. However, given the low-lying nature of these construction activities, significant landscape effects are expected to be within the immediate surroundings (i.e. 1km) of the landfall.
531. Minor (not significant) landscape effects are identified along the onshore ECC. This is due to the very localised direct landscape effects of the onshore export cable construction works. The flat nature of the landscape and woodland and hedgerow cover limits the potential for wider effects on landscape character.
532. During the construction phase of the OCS and ESBI in OCS Zone 4, moderate (significant) landscape effects are predicted due to the loss of landscape features and the change in character from open arable fields to a construction site. Beyond the immediate geographical context of the OCS zone the impact on the landscape would reduce and would not be significant.
533. During the construction phase of the OCS and ESBI in OCS Zone 8, construction activities would bring about loss of landscape features and a change in character from open arable fields to a construction site. The landscape effects are predicted to be major (significant) as the rolling and more enclosed landscape of OCS Zone 8 would be affected to a greater extent by the construction activities, particularly the large earthworks required in this small-scale rolling landscape. Beyond the immediate geographical context of the OCS zone, the impact on the landscape would reduce and would not be significant.

534. Significant visual effects of the construction phase are limited to the landfall (moderate) and visual receptors around the OCS zones (moderate and major). The following viewpoints are predicted to experience significant effects during the construction phase:

- VP1: Shepherd Lane (moderate) – OCS Zone 4;
- VP2: Beverley 20 near Jillywood Farm (moderate) - OCS Zone 4;
- VP3: Beverley Parks (major) - OCS Zone 4;
- VP4: Long Lane (moderate) - OCS Zone 4; and
- VP6: Core Path near Bentley (major) - OCS Zone 8.

535. The residual level of effect on the landfall and OCS zones will be superseded by the operational effects.

### 27.11.2 Operation and Maintenance Phase

536. Landscape and visual effects associated with the O&M phase of the landfall and onshore ECC were not considered in detail in the assessment, as following installation and restoration of ground, underground onshore export cable infrastructure (with the exception of above ground link boxes where required) would not significantly impact landscape or visual receptors. There would be some loss of hedgerows which would result in gaps until they had been restored, however, this is not expected to result in significant adverse effects on the landscape.
537. Significant effects on landscape character (major) are predicted during the O&M phase of the OCS and ESBI (on either OCS zone) due to the loss of landscape features and the change in character from open arable fields to built infrastructure. These effects would be localised, and would reduce with distance, falling below the threshold of significance beyond the immediate geographical context of the OCS zone footprints. In addition, these effects would be reversed following decommissioning after the land has been reinstated (as discussed in **Section 27.7.5**).
538. An LMP will be implemented around the OCS and ESBI. This will aim to reduce the level of effect further. The level of residual effect will be confirmed in the ES, accounting for additional mitigation measures developed as part of the Outline LMP submitted with the DCO application.
539. In terms of visual effects of the operational OCS and ESBI (on each OCS zone), significant visual effects are predicted for sensitive receptors at the following viewpoints, during the O&M phase:
- VP1: Shepherd Lane (major) – OCS Zone 4;
  - VP2: Beverley 20 near Jillywood Farm (moderate) - OCS Zone 4;
  - VP3: Beverley Parks (major) - OCS Zone 4;
  - VP4: Long Lane (moderate) - OCS Zone 4;
  - VP5: Footpath, Walkington (moderate) – OCS Zone 8;



- VP6: Core Path near Bentley (major) - OCS Zone 8; and
- VP7: Risby Park (moderate) – OCS Zone 8.

540. All of these viewpoints represent higher sensitivity residential or recreational receptors and are contained within 1km of the OCS zone. A landscape mitigation scheme will be implemented around the selected OCS zone. However, this will be produced at ES stage and presented in the Outline LMP. Therefore, the level of residual effect will be confirmed in the ES.

## 27.12 Next Steps

541. The design and layout of the OCS and ESBI will be developed in line with the design principles included in the **Design Vision** (document reference 7.4). An Outline LMP will be developed at ES stage including a landscape mitigation plan and submitted with the DCO application. For the Landscape and Visual Impacts ES chapter, there will be more certainty over the specific location and dimensions of the key infrastructure within the chosen zone. Once more detail is known about the project design, the LVIA will be updated to reflect refinements to the Project Design Envelope and committed mitigation. The LVIA at ES stage will include an updated ZTV to reflect the chosen OCS zone, progressed project design and a more refined selection of LVIA viewpoints, which will be agreed with relevant stakeholders. Photomontage visualisations will be produced for each of the viewpoints, showing the design of the OCS and ESBI, and illustrating proposed mitigation planting as set out in the Outline LMP.

Table 27-27 Summary of Potential Effects Assessed for Landscape and Visual Impacts

Impact ID	Impact and Project Activity	Embedded Mitigation Measures	Receptor	Receptor Sensitivity	Impact Magnitude	Effect Significance	Additional Mitigation Measures	Residual Effect	Monitoring Measures
<b>Construction</b>									
LV-C-01	Impacts on landscape character and designated landscapes - resulting from construction activities at the landfall and along the onshore ECC	CO23 CO39 CO46	Landscape character (landfall)	Medium	Medium	<b>Moderate Adverse (Significant)</b> within approximately 1km. Not significant beyond 1km.	To be determined at ES stage.	To be determined at ES stage.	To be determined at ES stage.
		CO47 CO59 CO60 CO65 CO83 CO85 CO100 CO101	Landscape character (onshore ECC)	Medium	Low	<b>Minor Adverse (Not significant)</b>	To be determined at ES stage.	To be determined at ES stage.	To be determined at ES stage.
LV-C-02	Impacts on landscape character and designated landscapes - resulting from construction activities at the OCS zone including infrastructure within the OCS zone	CO39 CO46 CO47 CO59 CO60	Landscape character (OCS Zone 4)	Medium	Medium	<b>Moderate Adverse (Significant)</b> in the area defined by Minster Way and the edge of Beverly to the north, Long Lane and Model Farm to the east, Birkhill Wood and the A1079 to the south, and the A164 to the west. Not significant beyond these areas.	To be determined at ES stage.	To be determined at ES stage.	To be determined at ES stage.
		CO65 CO85 CO100	Landscape character (OCS Zone 8)	High	High	<b>Major adverse (Significant)</b> in the area defined by Risby Park woodlands to the south and west, Walkington to the north and Johnson's Pit, Eleven Acre Wood and Bentley to the east. Not significant beyond these areas.	To be determined at ES stage.	To be determined at ES stage.	To be determined at ES stage.
LV-C-03		CO23	Visual receptors (landfall)	Medium	Medium	<b>Moderate Adverse (Significant)</b>	To be determined at ES stage.	To be determined at ES stage.	To be determined at ES stage.

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Impact ID	Impact and Project Activity	Embedded Mitigation Measures	Receptor	Receptor Sensitivity	Impact Magnitude	Effect Significance	Additional Mitigation Measures	Residual Effect	Monitoring Measures
	Impacts on visual receptors - resulting from construction activities at the landfall and along the onshore ECC	CO39 CO47 CO59 CO60 CO65 CO83 CO85 CO100 CO101	Visual Receptors (onshore ECC)	Medium	Low	Minor Adverse (Not Significant)	To be determined at ES stage.	To be determined at ES stage.	To be determined at ES stage.
LV-C-04	Impacts on visual receptors - resulting from construction activities at the OCS zone including infrastructure within the OCS zone	CO39 CO47 CO59 CO60 CO65 CO85 CO100	VP1: Shepherd Lane	Medium	Medium	Moderate Adverse (Significant)	To be determined at ES stage.	To be determined at ES stage.	To be determined at ES stage.
			VP2: Beverley 20 near Jillywood Farm	Medium	Medium	Moderate Adverse (Significant)	To be determined at ES stage.	To be determined at ES stage.	To be determined at ES stage.
			VP3: Beverley Parks	Medium	High	Major Adverse (Significant)	To be determined at ES stage.	To be determined at ES stage.	To be determined at ES stage.
			VP4: Long Lane	Medium	Medium	Moderate Adverse (Significant)	To be determined at ES stage.	To be determined at ES stage.	To be determined at ES stage.
			VP5: Footpath, Walkington	High	Low	Minor Adverse (Not Significant)	To be determined at ES stage.	To be determined at ES stage.	To be determined at ES stage.
			VP6: Core Path near Bentley	Medium	High	Major Adverse (Significant)	To be determined at ES stage.	To be determined at ES stage.	To be determined at ES stage.
			VP7: Risby Park	High	Low	Minor Adverse (Not Significant)	To be determined at ES stage.	To be determined at ES stage.	To be determined at ES stage.
			VP8: Little Weighton	High	Low	Minor Adverse (Not Significant)	To be determined at ES stage.	To be determined at ES stage.	To be determined at ES stage.



Impact ID	Impact and Project Activity	Embedded Mitigation Measures	Receptor	Receptor Sensitivity	Impact Magnitude	Effect Significance	Additional Mitigation Measures	Residual Effect	Monitoring Measures
Operation and Maintenance									
LV-O-01	Impacts on landscape character and designated landscapes - resulting from the presence of above-ground infrastructure at landfall and onshore ECC (e.g. above-ground link boxes, bollards, marker posts etc.)	CO59 CO60 CO61 CO65 CO83 CO100	Landscape character (onshore ECC)	Medium	Low	Minor Adverse (Not Significant)	To be determined at ES stage.	To be determined at ES stage.	To be determined at ES stage.
LV-O-02	Impacts on landscape character and designated landscapes - resulting from the presence of above-ground infrastructure within the OCS zone	CO59 CO63 CO64 CO65 CO66 CO100	Landscape character (OCS Zone 4)	Medium	High	Major Adverse (Significant) within the local area of the OCS Zone, in the area defined by the edge of Beverly to the north, Long Lane to the east, Birkhill Wood to the south, and the A164 to the west. Not significant beyond these areas.	To be determined at ES stage.	To be determined at ES stage.	To be determined at ES stage.
			Landscape character (OCS Zone 8)	High	High	Major Adverse (Significant) within the local area of the OCS Zone, in the area defined by the woodland blocks of Risby Park to the south and west, Walkington to the north, and Johnson's Pit Wood, Eleven Acre Plantation and Bentley village to the east. Not significant beyond these areas.	To be determined at ES stage.	To be determined at ES stage.	To be determined at ES stage.

Impact ID	Impact and Project Activity	Embedded Mitigation Measures	Receptor	Receptor Sensitivity	Impact Magnitude	Effect Significance	Additional Mitigation Measures	Residual Effect	Monitoring Measures
LV-O-03	Impacts on visual receptors - resulting from the presence of above-ground infrastructure at landfall and onshore ECC (e.g. above-ground link boxes, bollards, marker posts etc.)	CO59 CO60 CO61 CO65 CO83 CO100	Visual receptors (onshore ECC)	Medium	Low	Minor Adverse (Not Significant)	To be determined at ES stage.	To be determined at ES stage.	To be determined at ES stage.
LV-O-04	Impacts on visual receptors - resulting from the presence of above-ground infrastructure within the OCS zone	CO59 CO63 CO64 CO65 CO66 CO100	VP1: Shepherd Lane	Medium	High	Major Adverse (Significant)	To be determined at ES stage.	To be determined at ES stage.	To be determined at ES stage.
			VP2: Beverley 20 near Jillywood Farm	Medium	High	Moderate Adverse (Significant)	To be determined at ES stage.	To be determined at ES stage.	To be determined at ES stage.
			VP3: Beverley Parks	Medium	High	Major Adverse (Significant)	To be determined at ES stage.	To be determined at ES stage.	To be determined at ES stage.
			VP4: Long Lane	Medium	Medium	Moderate Adverse (Significant)	To be determined at ES stage.	To be determined at ES stage.	To be determined at ES stage.
			VP5: Footpath, Walkington	High	Medium	Moderate Adverse (Significant)	To be determined at ES stage.	To be determined at ES stage.	To be determined at ES stage.
			VP6: Core Path near Bentley	Medium	High	Major Adverse (Significant)	To be determined at ES stage.	To be determined at ES stage.	To be determined at ES stage.
			VP7: Risby Park	High	Medium	Moderate Adverse (Significant)	To be determined at ES stage.	To be determined at ES stage.	To be determined at ES stage.
			VP8: Little Weighton	High	Low	Minor Adverse (Not Significant)	To be determined at ES stage.	To be determined at ES stage.	To be determined at ES stage.

Impact ID	Impact and Project Activity	Embedded Mitigation Measures	Receptor	Receptor Sensitivity	Impact Magnitude	Effect Significance	Additional Mitigation Measures	Residual Effect	Monitoring Measures
Decommissioning									
LV-D-02	Impacts on landscape character and designated landscapes - decommissioning activities not yet defined	CO56	<p>The details and scope of onshore decommissioning works will be determined by the relevant regulations and guidance at the time of decommissioning and provided in the Onshore Decommissioning Plan (see <b>Table 27-5</b>, Commitment ID CO56). This will include a detailed assessment of decommissioning impacts and appropriate mitigation measures to avoid significant effects.</p> <p>For this assessment, it is assumed that impacts during the decommissioning phase would be of similar nature to, and no worse than, those identified during the construction phase.</p>						
LV-D-04	Impacts on visual receptors - decommissioning activities not yet defined								



## References

AECOM (2018). East Riding of Yorkshire Landscape Character Assessment. [Online] Available at: <https://www.eastriding.gov.uk/planning-permission-and-building-control/planning-policy-and-the-local-plan/landscape-character-assessment/>

CPRE (n.d.) England's Light Pollution and Dark Skies. [Online] Available at: <https://www.cpre.org.uk/light-pollution-dark-skies-map/> [Accessed 28/04/2025].

Department for Energy Security and Net Zero (2023a). Overarching National Policy Statement for Energy (EN-1). Presented to the Houses of Parliament pursuant to section 9(8) of the Planning Act 2008. [Online] Available at: <https://www.gov.uk/government/publications/overarching-national-policy-statement-for-energy-en-1> [Accessed 28/04/2025].

Department for Energy Security and Net Zero (2023b). National Policy Statement for Renewable Energy Infrastructure (EN-3). Presented to the Houses of Parliament pursuant to section 9(8) of the Planning Act 2008. [Online] Available at: <https://www.gov.uk/government/publications/national-policy-statement-for-renewable-energy-infrastructure-en-3> [Accessed 28/04/2025].

Department for Energy Security and Net Zero (2023c). National Policy Statement for Electricity Networks Infrastructure (EN-5). Presented to the Houses of Parliament pursuant to section 9(8) of the Planning Act 2008. [Online] Available at: <https://www.gov.uk/government/publications/national-policy-statement-for-electricity-networks-infrastructure-en-5> [Accessed 28/04/2025].

East Riding of Yorkshire Council (2018). Landscape Character Assessment. Available at: <https://www.eastriding.gov.uk/planning-permission-and-building-control/planning-policy-and-the-local-plan/landscape-character-assessment/> [Accessed 28/04/2025].

East Riding of Yorkshire Council (2025). East Riding Local Plan Update 2025 – 2039. Strategy Document Update April 2025. Available at: <https://downloads.eastriding.org.uk/corporate/pages/east-riding-local-plan-update/adoption-docs/LPU%20-%20Strategy%20Document%20Update%20Adopted%202025.pdf> [Accessed 25/04/2025].

Forewind (2013). Dogger Bank Creyke Beck Environmental Statement.

Landscape Institute (2019). Technical Guidance Note 06/19: Visual Representation of development proposals. [Online] Available at: [https://landscapewpstorage01.blob.core.windows.net/www-landscapeinstitute-org/2019/09/LI\\_TGN-06-19\\_Visual\\_Representation.pdf](https://landscapewpstorage01.blob.core.windows.net/www-landscapeinstitute-org/2019/09/LI_TGN-06-19_Visual_Representation.pdf) [Accessed 25/04/2025].

Landscape Institute and Institute of Environmental Management and Assessment (2013). Guidelines for Landscape and Visual Impact Assessment. 3rd Edition.

Ministry of Housing, Communities and Local Government (2024). National Planning Policy Framework. [Online] Available at: <https://www.gov.uk/government/publications/national-planning-policy-framework--2> [Accessed 25/04/2025].

Natural England (2013). National Character Area 40: Holderness. [Online] Available at: <https://nationalcharacterareas.co.uk/holderness>. [Accessed 25/04/2025].

Natural England (2013). National Character Area 27: Yorkshire Wolds. [Online] Available at: <https://nationalcharacterareas.co.uk/yorkshire-wolds/>. [Accessed 25/04/2025]

Ørsted (2021). Hornsea Project Four: Environmental Statement (ES) Volume A3, Chapter 4: Landscape and Visual Assessment.

Planning Inspectorate (2024). Nationally Significant Infrastructure Projects: Advice on Cumulative Effects Assessment.

RWE (2024). Dogger Bank South Environmental Statement (ES) Volume 7, Chapter 23: Landscape and Visual Impact Assessment.

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List of Acronyms

Acronym	Definition
AOD	Above Ordnance Datum
CEA	Cumulative Effect Assessment
CoCP	Code of Construction Practice
DCO	Development Consent Order
ECC	Export Cable Corridor
EIA	Environmental Impact Assessment
EPP	Evidence Plan Process
ERYC	East Riding of Yorkshire Council
ES	Environmental Statement
ESBI	Energy Storage and Balancing Infrastructure
ETG	Expert Topic Group
ha	Hectare
HVAC	High Voltage Alternating Current
HVDC	High Voltage Direct Current
ILA	Important Landscape Area
LCT	Landscape Character Types
LVIA	Landscape and Visual Impact Assessment
NCN	National Cycle Network
NSIP	Nationally Significant Infrastructure Project
OCS	Onshore Converter Station
OS	Ordnance Survey
PEIR	Preliminary Environmental Information Report

Acronym	Definition
PRoW	Public Right of Way
RPG	Registered Park and Garden