DOGGER BANK D WIND FARM

Preliminary Environmental Information Report

Volume 1
Chapter 30 Socio-Economics, Tourism and Recreation

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Prepared By: **BiGGAR Economics**	Prepared For: **Dogger Bank D Offshore Wind Farm**

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Glossary

Term	Definition
Additional Mitigation	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). All additional mitigation measures adopted by the Project are provided in the Commitments Register.
Array Area	The area within which the wind turbines, inter-array cables and offshore platform(s) will be located.
Supporting components	All the supporting components and physical systems of an offshore wind farm, excluding the turbines
Birkhill Wood Substation	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.
Commitment	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. All commitments adopted by the Project are provided in the Commitments Register.
Design	All of the decisions that shape a development throughout its design and pre-construction, construction / commissioning, operation and, where relevant, decommissioning phases.
Development Consent Order (DCO)	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.
Effect	An effect is the consequence of an impact when considered in combination with the receptor's sensitivity / value / importance, defined in terms of significance.

Term	Definition
Embedded Mitigation	Embedded mitigation includes: • 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 • 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). All embedded mitigation measures adopted by the Project are provided in the Commitments Register.
Energy Storage and Balancing Infrastructure (ESBI)	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.
Enhancement	Measures committed to by the Project to create or enhance positive benefits to the environment or communities, as a result of the Project. All enhancement measures adopted by the Project are provided in the Commitments Register.
Environmental Impact Assessment (EIA)	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.
Environmental Statement (ES)	A document reporting the findings of the EIA which describes the measures proposed to mitigate any likely significant effects.
Evidence Plan Process (EPP)	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.
Expert Topic Group (ETG)	A forum for targeted technical engagement with relevant stakeholders through the EPP.
Grid Connection	The offshore and onshore electricity transmission network connection to Birkhill Wood Substation.
Impact	A change resulting from an activity associated with the Project, defined in terms of magnitude.

Term	Definition
Landfall	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.
Local Content	The businesses, components and/or workers used in the development, construction, operation and decommissioning of the Project which are sourced from the UK or Regional Study Areas as opposed to being imported.
Mitigation	Any action or process designed to avoid, prevent, reduce or, if possible, offset potentially significant adverse effects of a development. All mitigation measures adopted by the Project are provided in the Commitments Register.
Monitoring	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. All monitoring measures adopted by the Project are provided in the Commitments Register.
Offshore Construction Base Port(s)	The offshore construction base port(s) will be the home for the Project's service vessels, crew transfers and the control centre for managing marine logistics and traffic for offshore construction activities. At this stage, no decision has been made regarding which port(s) would be used for the Project's offshore construction. A decision upon the offshore construction base port(s) would not be made until post DCO determination.
Offshore Export Cable Corridor (ECC)	The area within which the offshore export cables will be located, extending from the DBD Array Area to Mean High Water Springs at the landfall.
Offshore Export Cables	Cables which bring electricity from the offshore platform(s) to the transition joint bay at landfall.
Offshore Platform(s)	Fixed structures located within the DBD Array Area that contain electrical equipment to aggregate and, where required, convert the power from the wind turbines, into a more suitable voltage for transmission through the export cables to the Onshore Converter Station. Such structures could include (but are not limited to): Offshore Converter Station(s) and an Offshore Switching Station.
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.

Term	Definition
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 offshore export cables will be located, extending from the DBD Array Area to Mean High Water Springs at the landfall.
Operation and Maintenance Base Port	The operation and maintenance (O&M) base port will be the home for the Project's service vessels, crew transfers and the control centre for managing marine logistics and traffic for offshore O&M activities. At this stage, no decision has been made regarding which port(s) would be used for the Project's offshore O&M activities. A decision upon an O&M base port would not be made until post DCO determination.
Project Design Envelope	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. The Project Design Envelope incorporates flexibility and addresses uncertainty in the DCO application and will be further refined during the EIA process.
Scoping Opinion	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. The Scoping Opinion for the Project was adopted by the Secretary of State on 02 August 2024.
Scoping Report	A request by the Applicant made to the Planning Inspectorate for a Scoping Opinion on behalf of the Secretary of State. The Scoping Report for the Project was submitted to the Secretary of State on 24 June 2024.
Study Area	A geographical area and / or temporal limit defined for each EIA topic to identify sensitive receptors and assess the relevant likely significant effects.
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.

Term	Definition
Transition Joint Bay (TJB)	An underground structure at landfall that houses the joints between the offshore and onshore export cables.
Wind Turbines	Power generating devices located within the DBD Array Area that convert kinetic energy from wind into electricity.

30 Socio-Economics, Tourism and Recreation

30.1 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 socio-economics, tourism and recreation.

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 final project design where appropriate and will be presented in an Environmental Statement (ES), which will be submitted with the DCO application.

4. This PEIR chapter:

   - Describes the baseline environment relating to socio-economics, tourism and recreation;
   - Presents an assessment of the likely significant effects on socio-economics, tourism and recreation 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 30.10.1**:

   - **Chapter 14 Commercial Fisheries**;
   - **Chapter 15 Shipping and Navigation**;
   - **Chapter 16 Aviation, Radar and Military;**
   - **Chapter 18 Other Marine Users**;
   - **Chapter 20 Air Quality and Dust**;
   - **Chapter 22 Soils and Land Use**;
   - **Chapter 24 Onshore Archaeology and Cultural Heritage**;
   - **Chapter 25 Noise and Vibration**;
   - **Chapter 26 Traffic and Transport**; and
   - **Chapter 27 Landscape and Visual Impacts**.

30.2 Policy and Legislation

30.2.1 National Policy Statements

6. Planning policy on energy National Significant Infrastructure Projects (NSIP) is set out in the National Policy Statements (NPS). The following NPS are relevant to the socio-economics, tourism and recreation assessment:

   - Overarching NPS for Energy (EN-1) (Department for Energy Security and Net Zero (DESNZ), 2023a); and
   - NPS for Renewable Energy Infrastructure (EN-3) (DESNZ, 2023b).

7. The socio-economics, tourism and recreation chapter has been prepared with reference to specific requirements in the above NPS. The relevant parts of the NPS are summarised in **Table 30-1**, along with how and where they have been considered in this PEIR chapter.

Table 30-1 Summary of Relevant National Policy Statement Requirements for Socio-Economics, Tourism and Recreation

NPS Reference and Requirement	How and Where Considered in the PEIR
Overarching NPS for Energy (EN-1)	
Paragraph 4.3.4: "To consider the potential effects, including benefits, of a proposal for a project, the applicant must set out information on the likely significant environmental, social and economic effects of the developments, and show how any likely significant negative effects would be avoided, reduced, mitigated or compensated for, following the mitigation hierarchy. This information could include matters such as employment, equality, biodiversity net gain, community cohesion, health and well-being."	Potential effects, including benefits of the Project, with consideration of how potential negative effects could be mitigated, are outlined in **Section 30.7**. This includes an assessment of employment impacts.
Paragraph 4.3.5: "For the purposes of this NPS and the technology specific NPSs the ES should cover the environmental, social and economic effects arising from pre-construction, construction, operation and decommissioning of the project. "	An assessment of social and economic effects associated with the development and construction, operation, and decommissioning of the Project are included in **Section 30.7**.
Paragraph 5.5.5: "UK airspace is important for both civilian and military aviation interests. It is essential that new energy infrastructure is developed collaboratively alongside aerodromes, aircraft, air systems and airspace so that safety, operations and capabilities are not adversely affected by new energy infrastructure. Likewise, it is essential that aerodromes, aircraft, air systems and airspace operators work collaboratively with energy infrastructure developers essential for net zero. Aerodromes can have important economic and social benefits, particularly at the regional and local level, but their needs must be balanced with the urgent need for new energy developments, which bring about a wide range of social, economic and environmental benefits."	Impacts on aviation are outlined in **Chapter 16 Aviation, Radar and Military**. The potential implications on the economy of impacts assessed in this chapter are considered in **Section 30.7**.
Paragraph 5.5.51: "When assessing the necessity, acceptability, and reasonableness of operational changes to aerodromes, the Secretary of State should be satisfied that they have the necessary information regarding the operational procedures along with any demonstrable risks or harm of such changes, taking into account the cases put forward by all parties. When making such a judgement in the case of military aerodromes, the Secretary of State should have regard to interests of defence and national security."	Impacts on aviation are outlined in **Chapter 16 Aviation, Radar and Military**. The potential implications on the economy of impacts assessed in this chapter are considered in **Section 30.7**.
Paragraph 5.13.2: "Where the project is likely to have socio-economic impacts at local or regional levels, the applicant should undertake and include in their application an assessment of these impacts."	Socio-economic impacts in terms of Gross Value Added (GVA), years of employment and jobs are considered in **Section 30.7**.
Paragraph 5.13.4: "The assessment should consider "the creation of jobs and training opportunities. Applicants may wish to provide information on the sustainability of the jobs created, including where they will help to develop the skills needed for the UK's transition to Net Zero."	The potential job creation impacts associated with the Project are considered in **Section 30.7**.
Paragraph 5.13.4: "The assessment should consider any indirect beneficial impacts of the region hosting the infrastructure, in particular in relation to use of local support services and supply chains."	Benefits associated with local content being used in the supply chain are considered in **Section 30.7**. Local content is defined as businesses, components and/or workers used in the development, construction, operation and decommissioning of the Project which are sourced from the UK or Regional Study Areas as opposed to being imported.
Paragraph 5.13.4: "The assessment should consider effects (positive and negative) on tourism and other users of the area impacted."	Potential impacts on tourism and recreation are considered in **Section 30.7**.

NPS Reference and Requirement	How and Where Considered in the PEIR
Paragraph 5.13.4: "The assessment should consider the impact of a changing influx of workers during the different construction, operation and decommissioning phases of the energy infrastructure."	Potential impacts of transient workers creating pressure on local infrastructure and services are considered in **Section 30.7**.
Paragraph 5.13.4: "The assessment should consider cumulative effects – if development consent were to be granted for a number of projects within a region and these were developed in a similar timeframe, there could be some short-term negative effects, for example a potential shortage of construction workers to meet the needs of other industries and major projects within the region."	The Project is assessed cumulatively, including the potential for competition for workers impacting the Project and other large-scale developments, in **Section 30.8**.
Paragraph 5.13.5: "Applicants should describe the existing socio-economic conditions in the areas surrounding the proposed development and should also refer to how the development's socio-economic impacts correlate with local planning policies."	The baseline characterisation of the Study Areas is described in **Section 30.6**.
Paragraph 5.13.6: "Socio-economic impacts may be linked to other impacts, for example visual impacts considered in Section 5.10 but may also have an impact on tourism and local businesses. Applicants are encouraged, where possible, to demonstrate that local suppliers have been considered in any supply chain."	Visual impacts were taken account of in the tourism assessment in **Section 30.6**.
Paragraph 5.13.7: "Applicants should consider developing accommodation strategies where appropriate, especially during construction and decommissioning phases, that would include the need to provide temporary accommodation for construction workers if required."	An assessment of pressure on local infrastructure and services including accommodation is covered in **Sections 30.7.1.3, Section 30.7.2.3** and **Section 30.7.3.3** for construction, O&M and decommissioning phases, respectively. A further assessment will be provided at ES stage which will detail any further mitigation measures as required.
Paragraph 5.13.12: "The Secretary of State may wish to include a requirement that specifies the approval by the local authority of an employment and skills plan detailing arrangements to promote local employment and skills development opportunities, including apprenticeships, education, engagement with local schools and colleges and training programmes to be enacted."	Commitment CO67 (see **Table 30-4**) commits the Applicant to developing an Employment and Skills Plan (ESP) which will set out how the Applicant aims to maximise the potential local socio-economic benefits of the Project and work with the supply chain to boost opportunities for UK suppliers and workers.
NPS for Renewable Energy Infrastructure (EN-3)	
Paragraph 2.8.178: "Offshore wind farms and offshore transmission will occupy an area of the sea or seabed. For offshore wind farms in particular it is inevitable that there will be an impact on navigation in and around the area of the site. This is relevant to both commercial and recreational users of the sea who may be affected by disruption or economic loss because of the proposed offshore wind farm and/or the offshore transmission."	Potential economic impacts on tourism and recreation are considered in **Section 30.7,** accounting for potential significant impacts on recreational and commercial users of the sea as identified by **Chapter 14 Commercial Fisheries**, **Chapter 15 Shipping and Navigation** and **Chapter 18 Other Marine Users**,
Paragraph 2.8.328: "The Secretary of State should be satisfied that the site selection has been made with a view to avoiding or minimising disruption or economic loss to the shipping and navigation industries, with particular regard to approaches to ports and to strategic routes essential to regional, national and international trade, lifeline ferries and recreational users of the sea."	Potential impacts on offshore marine recreation are considered in **Section 30.7.** Further information on site selection including routing of the offshore export cable corridor (ECC) is covered within **Chapter 5 Site Selection and Consideration of Alternatives**.

NPS Reference and Requirement	How and Where Considered in the PEIR
Paragraph 2.10.69: "Applicants should set out what would be decommissioned and removed from the site at the end of the operational life of the generating station, considering instances where it may be less harmful for the ecology of the site to keep or retain certain types of infrastructure, for example underground cabling, and where there may be socio-economic benefits in retaining site infrastructure after the operational life, such as retaining pathways through the site or a site substation."	No decision has been made regarding the final decommissioning strategy for the Project's infrastructure at this stage. The detailed decommissioning activities and methodology will be determined later in the Project's lifetime, including the potential for infrastructure to be retained after operational life. **Section 30.7** sets out the assumptions about potential decommissioning activities used to inform the socio-economics assessment and contains a qualitative discussion of the potential benefits of retaining infrastructure.

30.2.2 Other Policy and Legislation

8. There is no legislation which is specifically relevant to assessments of socio-economics, tourism and recreation. Relevant policies are summarised in the following sections.

30.2.2.1 National

30.2.2.1.1 UK Offshore Wind Sector Deal

9. The Offshore Wind Sector Deal (UK Government, 2020), sets out the UK Government's aim to support the development of offshore wind energy generation in the UK, making the sector a significant part of a low-cost, low-carbon flexible grid system. The deal also emphasises how UK companies can benefit from the opportunities presented by the expansion of the offshore wind sector, enhancing the competitiveness of UK firms internationally and sustaining the UK's role as a global leader in offshore wind generation.

10. The UK Government highlighted that some estimates suggest that offshore wind capacity globally will grow by 17% annually from 22 gigawatts (GW) to 154GW in 2030, which could mean the UK contributing up to 40GW of generating capacity. In 2022, this was increased to 50GW by 2030 (UK Government, 2022).

11. The UK Government aims to reach this capacity in a sustainable, timely way (UK Government, 2020) and commits to working with the offshore wind sector and wider stakeholders to deliver the expansion of the sector, addressing strategic deployment issues, transmission issues and environmental impacts. Reaching this level of capacity could support up to 27,000 jobs in the UK, while the sector will work with government, existing institutions, and universities to increase job mobility between energy sectors, increase apprenticeship opportunities and coordinate local efforts, further developing the benefits to the UK economy.

12. The UK Government has also highlighted the role that offshore wind can play in the transition to a net zero economy by 2050 (UK Government, 2021). Based on existing technology, electrification remains the main route to reach carbon neutrality. To make this change possible, the supply of electricity will need to increase significantly to match demand, and the Government aims to decarbonise the power sector by 2035. This also has the potential to create many new green jobs, as part of the UK Government's Build Back Greener agenda.

30.2.2.1.2 Offshore Wind Net Zero Investment Roadmap

13. In 2023, the UK Government published its Offshore Wind Net Zero Investment Roadmap (UK Government, 2023), outlining its ambitions for the sector to play a key role in decarbonising the UK's power system by 2035 and achieving net zero by 2050. The government commits to developing a supportive policy and regulatory environment, increasing its ambition for offshore wind development up to 50GW by 2030.

14. The roadmap demonstrates the public sector support for offshore wind development, highlighting the significant potential for growth in investment in the sector which has the potential to generate growth in the UK economy and support the delivery of good quality jobs.

30.2.2.1.3 Climate Change Committee, The Seventh Carbon Budget

15. The Seventh Carbon Budget by the Climate Change Committee (CCC, 2025) sets out the UK's roadmap for reducing greenhouse gas emissions between 2023 and 2037, as part of the commitment to reach Net Zero emissions by 2050. It outlines the scale and pace of change required across the economy, with recommendations on how different sectors should contribute to meeting the carbon targets.

16. A key focus is the role of electrification and offshore wind in driving decarbonisation. Electrifying areas like transport, heating and industry is expected to deliver about 60% of emissions reductions by 2040. Equally important is the economic value of generating low-carbon electricity by expanding clean power through technologies like offshore wind. Investments in low-carbon power will bring economic benefits, reducing exposure to energy price shocks from fossil fuels, supporting energy security and creating green jobs, at a low cost of 0.2% of GDP annually.

30.2.2.2 Regional

30.2.2.2.1 Humber Local Energy Strategy

17. In 2019, three local enterprise partnerships (LEP), Coast to Capital, Enterprise M3, and South East LEP, published the Humber Local Energy Strategy (Humber Local Enterprise Partnership, 2019). The strategy outlines the shared vision for energy in the area: *"To become a leader for sustainable energy production within the UK, powering innovative, decarbonised and clean economic growth."* In order to achieve this vision, the strategy sets out two key objectives for the region:

- To ensure the Humber region plays a leading role in the UK's decarbonisation efforts by making targeted interventions to reduce emissions I n the electricity, heat and transport sectors; and

- To foster clean energy growth by supporting public and private sector investments in novel low carbon technologies to take advantage of the opportunities presented by the emerging local carbon economy.

18. The strategy highlights the pivotal role the Humber will play in the transition from fossil fuels to renewables, with the natural resources of the area already supporting the Hornsea offshore wind farm projects located 120km off the coast. The document emphasises that, while the offshore wind sector already plays a significant role in the economy of the Humber, taking advantage of the possible benefits of the sector requires support by business-friendly policies and investment from local municipalities and central government. The strategy outlines four activities for the LEP, with the aim of supporting the expansion of the offshore wind cluster and maintaining the Humber as a key national hub for offshore wind manufacture and operations:

- To facilitate skills development, job security and creation through the existing supply chain, higher education and training providers;
- To build on existing capabilities, competencies, and infrastructure to ensure the offshore wind ecosystem becomes more efficient;
- To undertake campaigns aimed at attracting new inward investment into the sector and investment in innovation; and
- To offer services and expertise to other regions in the UK and internationally.

30.2.2.2.2 Hull and East Yorkshire Economic Strategy

19. In 2021, Hull and East Yorkshire LEP published its Economic Growth and Workforce Wellbeing Strategy for 2021 to 2026 (Hull and East Yorkshire LEP, 2021). The strategy considers some of the challenges that the region has faced regarding the impact of the Covid-19 pandemic and the implications of the UK leaving the EU on maritime and trading activities. The strategy sets out four priorities for the area, namely:

- The development of a productive and innovative economy;
- The development of a clean growth economy;
- The development of a skilled and inclusive economy; and
- Ensuring the region features attractive, competitive and resilient locations.

20. Offshore wind is discussed as an important development sector throughout the strategy. This includes:

- The sector being discussed within the UK context, in particular the Sixth Carbon Budget, which highlights the connecting of economic and environmental policy;
- The reputation and skills that already exist in the area as a result of the development of offshore wind to date are considered a strength of the area, with opportunities to export both goods and services to a growing global market;
- Innovation in the offshore wind sector, particularly during the operations and maintenance phase, is being driven by developments in the area, including the Aura Innovation Centre and the wider conglomeration of offshore operations and maintenance facilities in the area; and
- The location of the Humber and its ports are a comparative advantage for the development of both manufacturing facilities and further installation activity as the whole southern North Sea is within easy reach.

21. The economic opportunities from the development of the offshore wind sector and the wider Net Zero ambitions are considered to be critical for the economic future of the area. To support this, the LEP will be progressing actions within the skills and employment strategies and the industrial cluster plan so that organisation and individuals are able to benefit from these opportunities.

30.3 Consultation

22. Topic-specific consultation in relation to socio-economics, tourism and recreation has been undertaken in line with the process set out in **Chapter 7 Consultation**. A Scoping Opinion from the Planning Inspectorate was received on 2nd August 2024, which has informed the scope of the assessment presented within this chapter (as outlined in **Section 30.4.2**).

23. 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 socio-economics, tourism and recreation are provided in **Table 30-2**.

Table 30-2 Technical Consultation Undertaken to Date on Socio-Economics, Tourism and Recreation

Meeting	Stakeholder(s)	Date(s) of Meeting / Frequency	Purpose of Meeting
ETG Meetings			
ETG11 (Air Quality, Noise and Vibration, Socio-Economics, Tourism and Recreation) Meeting 02	East Riding of Yorkshire Council (ERYC) *(Hull City Council invited but not able to attend)*	27h August 2024	• To provide an overview of the assessment methodology and any key issues; • To discuss comments received in the Scoping Opinion; and

Meeting	Stakeholder(s)	Date(s) of Meeting / Frequency	Purpose of Meeting
			• To attain agreement on the assessment scope.

24. **Volume 2, Appendix 30.1 Consultation Responses for Socio-Economics, Tourism and Recreation** summarises how consultation responses received to date are addressed in this chapter.

25. 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.

30.4 Basis of the Assessment

26. The following sections establish the basis of the assessment of likely significant effects, which is defined by the Study Area(s), assessment scope and realistic worst-case scenarios and development scenarios.

27. 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**.

30.4.1 Study Areas

28. Socio-economic impacts, including employment and any potential tourism and recreation effects, are less constrained by geography than other environmental impacts, such as noise or ecology.

29. The Study Areas for the assessment of socio-economic impacts have been defined in line with the guidance on identification of 'local areas' for offshore developments published by the Scottish Government (2022). Whilst this guidance primarily applies to developments in Scotland, the principles which it establishes are considered to be a sound basis for the identification of socio-economic Study Areas for offshore wind developments across the UK. The core principle of this guidance is that the 'local areas' identified should be specific to the socio-economic impact identified. Therefore, the Study Areas used for the assessment of economic impacts, such as employment and Gross Value Added (GVA), are different from those used to assess the impacts on tourism and recreational assets.

30. The Socio-Economic Study Areas are defined based on the following six principles:

- Principle 1 (Dual Geographies) - The local area for the supply chain and investment impacts should be separate from the local area(s) for wider socio-economic impacts, including tourism and recreation;
- Principle 2 (Appropriate Impacts) - The appropriate impacts to be considered for assessment should be identified before defining the local areas;
- Principle 3 (Epicentres) - The local areas should include all the epicentres of the appropriate impacts, where an epicentre is defined as an onshore location where major activities occur such as a port, supply chain cluster or the location of onshore infrastructure;
- Principle 4 (Accountability) - The local areas used in the assessment should comprise of pre-existing economic or political geographies (community parish and town councils, local authorities, development agencies) to enhance accountability;
- Principle 5 (Understandable) - The local areas should be defined in such a way that they are understandable to the communities they describe; and
- Principle 6 (Connected Geography) - The local area for the supply chain and investment impacts should consist of connected (including coastal) pre-existing economic or political geographies.

31. The locations of the offshore construction base port(s) and O&M base port for offshore O&M activities have not yet been decided and will not be available until post DCO determination (see **Chapter 4 Project Description** for more information). It is assumed that, where deliveries of construction materials and spare parts for repair and replacement of onshore infrastructure are undertaken by boat during the construction and O&M phase, this will occur at a port in the Humber (as assumed in **Chapter 26 Traffic and Transport** for the assignment of onwards traffic movements). These assumptions have been used to define the Study Areas. To ensure that the geographies for the socio-economic impact assessment are accountable through their elected representatives and understandable, local authorities have been used as the building blocks of the Socio-Economic Study Areas.

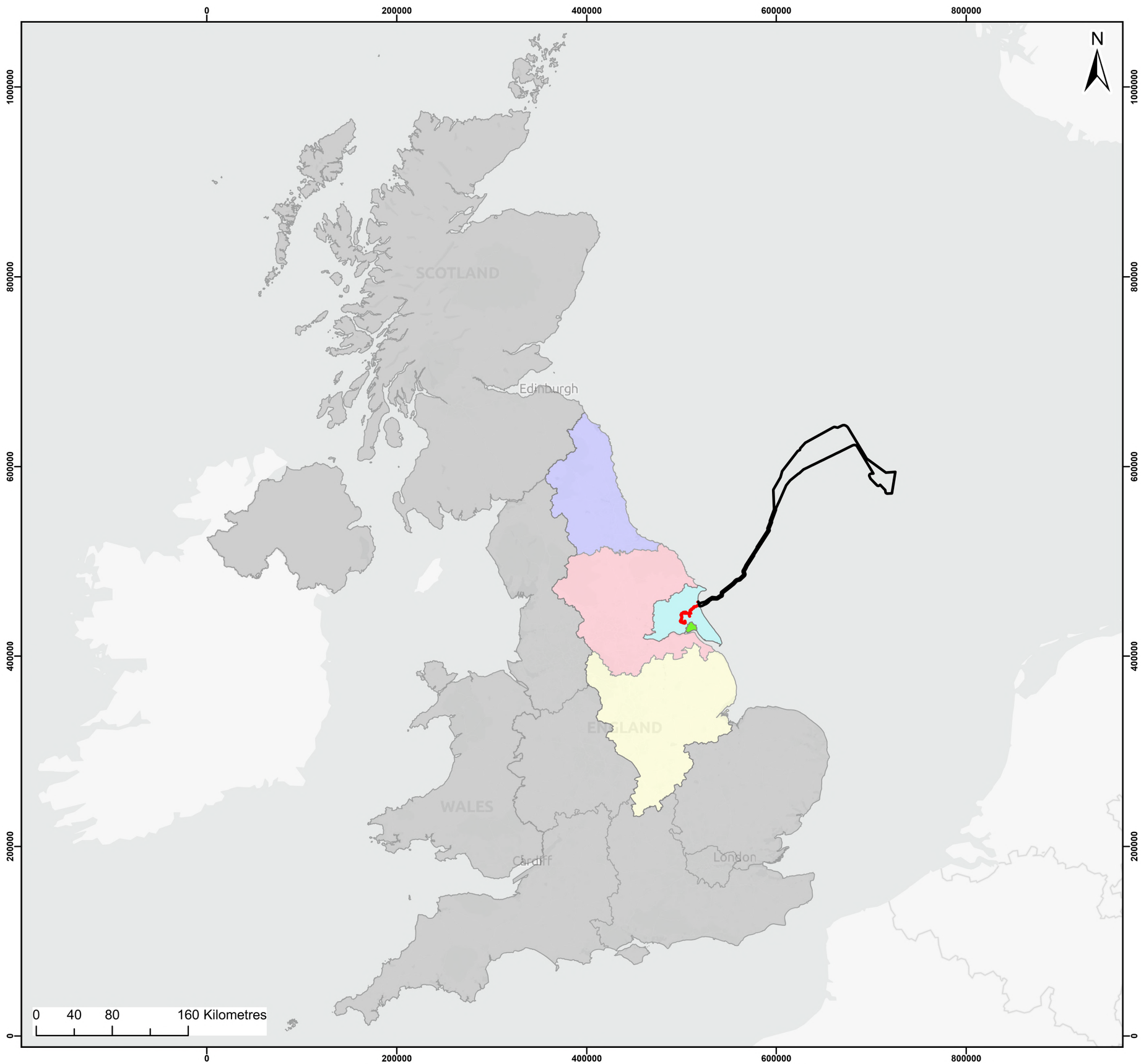
32. Three Study Areas are included within the assessment of socio-economic impacts to capture local, regional and national impacts. Using the principles for defining Socio-Economics Study Areas for offshore developments, the following Study Areas will be considered with respect to socio-economic impacts (see **Figure 30-1**):

- The Local Socio-Economic Study Area (LSESA), defined as East Riding of Yorkshire and Kingston upon Hull;
- The Regional Study Area (RSA), defined as the East Midlands, the North East of England and Yorkshire and the Humber; and
- The UK.

33. All economic impacts will be considered inclusively. For example, the impacts in the UK will include those within the RSA.

34. Besides the assumption of ports in the Humber for onshore construction and O&M activities, the ports that will be used for offshore construction and O&M activities have not yet been decided. For the purposes of this assessment, it has therefore been assumed that these ports will be within the RSA.

35. For the purpose of the tourism and recreation assessment, the Study Area identified is more localised and has been defined by aggregating the electoral wards covered by the Onshore Development Area. On this basis, the Local Tourism and Recreation Area (LTRA) is defined as the electoral wards of Beverley Rural, Dale, East Wolds and Coastal, Minster and Woodmansey, North Holderness, and St Mary's. While some recreational activities take place offshore, the LTRA covers only onshore as the businesses and tourist destinations which enable these offshore activities are the assets which would ultimately be affected. For the avoidance of doubt, marinas, ports, or beaches are included within the LTRA. The LTRA is presented on **Figure 30-2**.



Legend:

- Onshore Development Area
- Offshore Development Area
- United Kingdom

Local Socio-Economic Study Area (LSESA)

- East Riding of Yorkshire
- Kingston Upon Hull

Regional Study Area (RSA)

- East Midlands
- North East of England
- Yorkshire and the Humber

Project: Dogger Bank D Offshore Wind Farm

DOGGER BANK WIND FARM

Title: Socio-Economic Study Areas

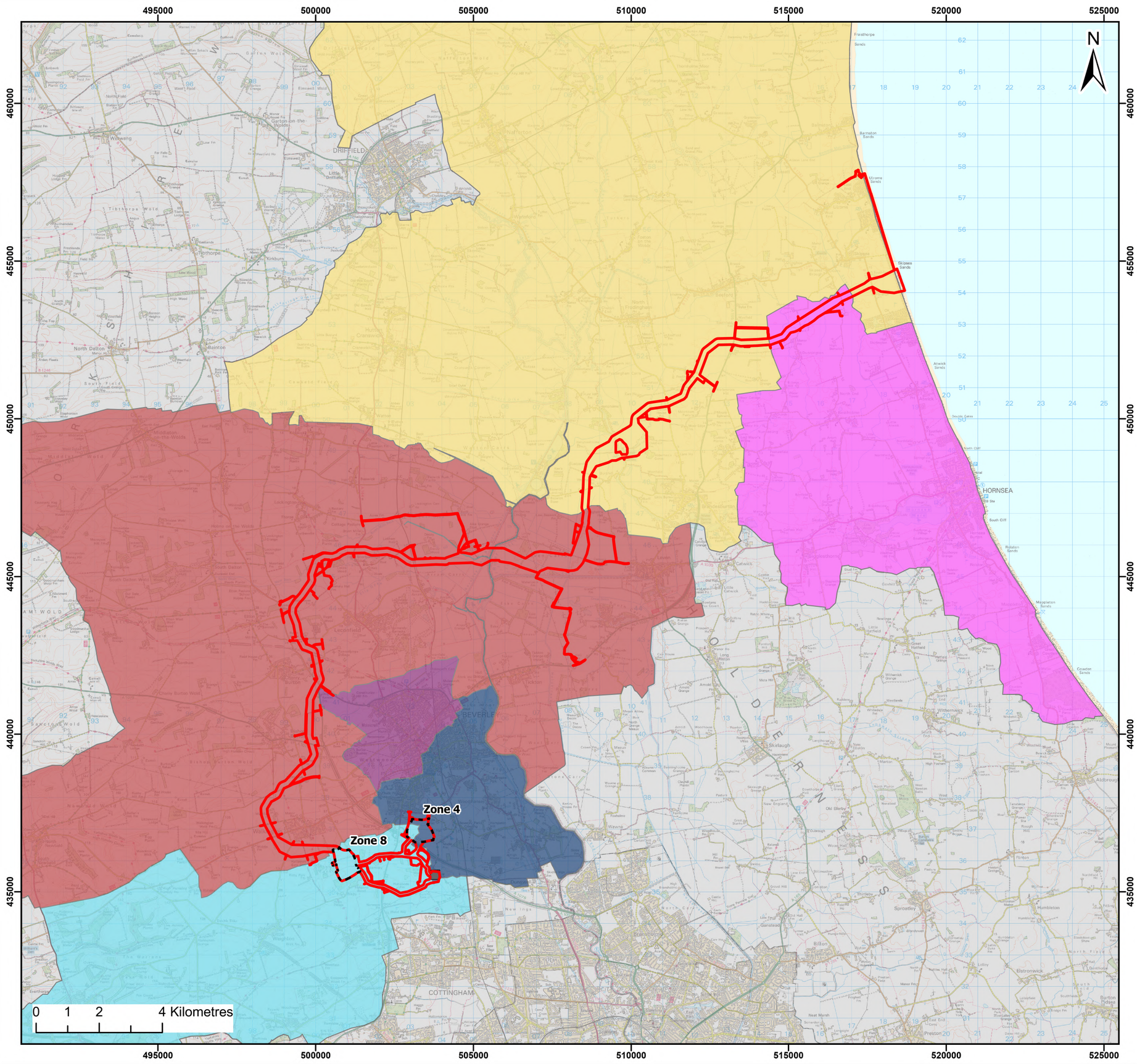
Figure: 30-1

Drawing No: PC6250-RHD-XX-ON-DR-GS-0306

Revision:	Date:	Drawn:	Checked:	Size:	Scale:
02	28/03/2025	JH	AB	A3	1:4,000,000
01	29/11/2024	JH	AB	A3	1:4,000,000

Co-ordinate system: British National Grid

sse Renewables equinor



Legend:

- Onshore Development Area
- Onshore Converter Station Zone Options
- Indicative Birkhill Wood Substation Location

Local Tourism and Recreation Area (LTRA) Wards

- Beverley Rural
- Dale
- East Wolds and Coastal
- Minster and Woodmansey
- North Holderness
- St Mary's
- Wards not in Tourism and Recreation Study Area

Project: Dogger Bank D Offshore Wind Farm

DOGGER BANK WIND FARM

Title: Local Tourism and Recreation Area

Figure: 30-2

Drawing No: PC6250-RHD-XX-ON-DR-GS-0308

Revision:	Date:	Drawn:	Checked:	Size:	Scale:
02	28/03/2025	JH	AB	A3	1:120,000
01	29/11/2024	JH	AB	A3	1:120,000

Co-ordinate system: British National Grid

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30.4.2 Scope of the Assessment

36. A number of impacts have been scoped out of the socio-economics, tourism and recreation assessment. These impacts are outlined in **Volume 2, Appendix 6.2 Impacts Register**, along with supporting justification and are in line with the Scoping Opinion (discussed in **Section 30.3**) and the project description outlined in **Chapter 4 Project Description**.

37. Impacts scoped out of the socio-economics, tourism and recreation assessment include:

- Disturbance to social infrastructure (offshore) during operation (SOC-O-07);
- Disturbance to recreational activities (offshore) during operation (SOC-O-08); and
- Disturbance to the tourism industry (offshore) during operation (SOC-O-09).

38. These impacts were scoped out as it was expected that offshore elements of the Project during operation would be unlikely to impact the receptors of these impacts due to the distance between the offshore infrastructure and the shore and the spatial extent of effects associated with these matters.

39. All remaining impacts have been scoped into the socio-economics, tourism and recreation assessment, as outlined in **Table 30-3** and discussed further in **Section 30.7**.

40. The scope of the assessment was discussed and agreed with ERYC at the second meeting of ETG11 held on 27th August 2024 (as noted in **Section 30.3**). However, HCC did not provide a response at this ETG11 meeting.

41. A full list of impacts scoped in / out of the socio-economics, tourism and recreation assessment 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 30-3 Socio-Economics, Tourism and Recreation – Impacts Scoped into the Assessment

Impact ID	Impact and Project Activity	Rationale
Construction		
SOC-C-01	Direct economic benefit from supply chain expenditure (offshore and onshore) – offshore and onshore construction activities	There is potential for an impact pathway in that supply chain expenditure on the construction phase in the LSESA, the RSA, and the UK, generate economic impact in the form of Gross Value Added (GVA).
SOC-C-02	Increased employment (offshore and onshore) – workforce requirement for offshore and onshore construction activities	There is potential for an impact pathway in that supply chain expenditure on the construction phase in the LSESA, the RSA, and the UK, generate economic impact in the form of job years.
SOC-C-03	Loss of, disruption to or pressure on local infrastructure and services (offshore and onshore) – offshore and onshore construction activities	The construction phase is likely to require transient workers living in the LSESA, RSA and the UK, which may increase demand on local infrastructure and services such as general practitioners (GP).
SOC-C-04	Disturbance to social infrastructure (offshore and onshore) – offshore and onshore construction activities	There is the potential for an impact pathway in that the construction of the Project could lead to disturbance on social infrastructure.
SOC-C-05	Disruption to recreational activities (offshore and onshore) – offshore and onshore construction activities	There is potential for an impact pathway in that the construction of the Project could impact the ability or likelihood of people utilising recreational facilities in the LTRA.
SOC-C-06	Disruption to the tourism industry (offshore and onshore) – offshore and onshore construction activities	There is potential for an impact pathway in that the construction of the Project could impact the ability or likelihood of people utilising tourism assets in the LTRA.
Operation and Maintenance		
SOC-O-01	Direct economic benefit from supply chain expenditure (offshore and onshore) – offshore and onshore operational and routine and unplanned maintenance activities	There is potential for an impact pathway in that supply chain expenditure on the O&M in the LSESA, the RSA, and the UK, generate economic impact in the form of GVA.
SOC-O-02	Increased employment (offshore and onshore) – workforce requirement for offshore and onshore operational and routine and unplanned maintenance activities	There is potential for an impact pathway in that supply chain expenditure on the O&M in the LSESA, the RSA, and the UK, generate economic impact in the form of employment.
SOC-O-03	Loss of, disruption to or pressure on local infrastructure and services (offshore and onshore) – offshore and onshore operational and routine and unplanned maintenance activities and the presence of offshore and onshore infrastructure during operation	The O&M is likely to require transient workers living in the LSESA, RSA and the UK, which may increase demand on local infrastructure and services such as GP.

Impact ID	Impact and Project Activity	Rationale
SOC-O-04	Disturbance to social infrastructure (onshore) – presence of onshore infrastructure during operation	There is the potential for an impact pathway in that the operation of the onshore elements of Project could lead to disturbance on social infrastructure.
SOC-O-05	Disruption to recreational activities (onshore) – presence of onshore infrastructure during operation	There is potential for an impact pathway in that the operation of the onshore elements of Project could impact the ability or likelihood of people utilising recreational facilities in the LTRA.
SOC-O-06	Disruption to the tourism industry (onshore) – presence of onshore infrastructure during operation	There is potential for an impact pathway in that the operation of the onshore elements of Project could impact the ability or likelihood of people utilising tourism assets in the LTRA.
Decommissioning		
SOC-D-01	Direct economic benefit from supply chain expenditure (offshore and onshore) – decommissioning activities not yet defined	Decommissioning impacts are scoped in; however, details of offshore and onshore decommissioning activities are not yet known at this stage. As discussed in **Section 30.7.3**, decommissioning impacts will be assessed in detail through the Offshore Decommissioning Programme and Onshore Decommissioning Plan (see **Table 30-4**, Commitment IDs CO21 and CO56) where relevant, which will be developed prior to the construction of the offshore works and the commencement of onshore decommissioning works respectively. 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. For impacts SOC-D-01, SOC-D-02 and SOC-D-03, a preliminary assessment of decommissioning impacts has been undertaken based on indicative information provided by the Applicant.
SOC-D-02	Increased employment (offshore and onshore) – decommissioning activities not yet defined	
SOC-D-03	Loss of, disruption to or pressure on local infrastructure and services (offshore and onshore) – decommissioning activities not yet defined	
SOC-D-04	Disturbance to social infrastructure (offshore and onshore) – decommissioning activities not yet defined	
SOC-D-05	Disruption to recreational activities (offshore and onshore) – decommissioning activities not yet defined	
SOC-D-06	Disruption to the tourism industry (offshore and onshore) – decommissioning activities not yet defined	

30.4.3 Embedded Mitigation and Enhancement Measures

42. 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. 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.

43. The assessment of impacts SOC-C-04, SOC-C-05, SOC-C-06, SOC-O-04, SOC-O-05 and SOC-O-06 considers the residual significant effects identified by other EIA topic chapters outlined in **Section 30.1** on social infrastructure, recreation and the tourism industry. It is assumed that the embedded mitigation measures outlined in these chapters would also mitigate against potential adverse effects on social infrastructure, recreation and tourism receptors. Therefore, these embedded mitigation measures are not repeated in this section, and only measures that are specific to the socio-economics, tourism and recreation assessment are outlined in **Table 30-4**.

44. In addition to embedded mitigation measures, the Project has also made commitments to create or enhance positive benefits to the environment and communities where relevant. **Table 30-4** identifies the proposed enhancement measures that is relevant to socio-economics, tourism and recreation.

45. 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.

46. The Commitments Register is provided at PEIR stage to give stakeholders 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 which will be submitted with the DCO application.

Table 30-4 Embedded Mitigation and Enhancement Measures Relevant to Socio-Economics, Tourism and Recreation

Commitment ID	Proposed Embedded Mitigation / Enhancement	How the Embedded Mitigation / Enhancement Will be Secured	Relevance to Socio-Economics, Tourism and Recreation Assessment	Relevance to Impact ID
CO21	An Offshore Decommissioning Programme will be provided prior to the construction of the offshore works and implemented at the time of decommissioning, based on the relevant guidance and legislation.	DCO Requirement - Offshore Decommissioning Programme	The Offshore Decommissioning Programme will include an assessment of impacts of offshore decommissioning works on social infrastructure, tourism and recreation receptors, where relevant, and appropriate mitigation measures to avoid significant effects.	SOC-D-04 SOC-D-05 SOC-D-06
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	The Onshore Decommissioning Plan will include an assessment of impacts of onshore decommissioning works on social infrastructure, tourism and recreation receptors, where relevant, and appropriate mitigation measures to avoid significant effects.	
CO67	An Employment and Skills Plan (ESP) will be developed in accordance with the Outline ESP. The ESP will set out how the Applicant aims to maximise the potential local socio-economic benefits of the Project and work with the supply chain to boost opportunities for UK suppliers and workers. The ESP will also include measures to increase benefits to vulnerable groups, including Not in Education, Employment or Training (NEET) population group, disadvantaged adults and local unemployed adults.	DCO Requirement - Employment and Skills Plan	The ESP is considered to provide enhancement as it will ensure that the economic benefits as outlined in **Section 30.7** are secured post-consent and will help to increase economic benefits beyond the assessed worst-case scenario with minimal local content. The ESP is also considered to be embedded mitigation as it can reduce the need for transient workers, helping to address the worst-case scenario for loss of, disruption to or pressure on local services outlined in **Section 30.7.**	By enabling higher local content, the ESP will help the Project generate employment in the Study Areas during construction, operation and decommissioning, working to enhance GVA and employment impacts, including: • SOC-C-01; • SOC-C-02; • SOC-O-01; and • SOC-O-02. By enabling higher local content, the ESP will reduce the need for transient workers. This will work to mitigate potential adverse impacts on local infrastructure and services, including: • SOC-C-03; and • SOC-O-03.

47. An Outline ESP will be developed at ES stage and submitted with the DCO application, which will inform the development and implementation of the ESP post-consent. Indicative embedded mitigation and enhancement measures which are proposed to be included in the Outline ESP are set out in **Table 30-5**.

Table 30-5 Indicative Embedded Mitigation and Enhancement Measures to be Included in the Outline Employment and Skills Plan

Outline ESP: Embedded Mitigation and Enhancement Measures for Socio-Economics (to be developed at ES stage)
Increasing Use of Local Content
Encourage and incentivise main contractors to maximise the use of local content in the supply chain.
Map the skills requirements of the Project and the education and training providers within the UK and the RSA. Identify skills and training gaps within the UK and RSA and utilise the mapping exercise to fill these gaps, enabling the RSA and UK to benefit from expenditure associated with the Project.
Identify and outline opportunities for collaboration with other offshore wind developers working in the UK and RSA to take a sector-wide approach to skills development.
Evaluate and build on the Applicant's experience of the other offshore wind projects which impacted the RSA and the UK.

30.4.4 Realistic Worst-Case Scenarios

48. 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 this section for each impact scoped into the assessment (as outlined in **Section 30.4.2**). 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 are provided in **Chapter 6 Environmental Impact Assessment Methodology**.

49. In the case of the socio-economics assessment (SOC-C-01, SOC-C-02, SOC-C-03, SOC-O-01, SOC-O-02, SOC-O-03, SOC-D-01, SOC-D-02 and SOC-D-03), the worst-case scenario is defined by minimum local content being used during construction, operation, and decommissioning, leading to both minimal GVA and employment impacts in the Study Areas, and increasing the requirement for transient workers, with potential detrimental impacts including the loss of, disruption to, or pressure on local infrastructure and services. To reflect this, conservative assumptions based on professional experience were made on the share of expenditure which would be likely to be contracted to businesses within the Study Areas.

50. The worst-case scenarios for potential impacts on social infrastructure, recreational activity and the tourism economy (SOC-C-04, SOC-C-05, SOC-C-06, SOC-O-04, SOC-O-05 and SOC-O-06) would be the worst-case scenarios as identified in the respective EIA topic chapters outlined in **Section 30.1** for which there is potential for residual significant effects to lead to adverse effects on social infrastructure, recreation and tourism receptors. It is therefore not beneficial to define one worst-case scenario for these impacts in this chapter. To reflect this, the assessment of these impacts will account for residual significant adverse effects identified by other chapters under the worst-case scenarios set out in each of these chapters.

51. 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.

30.4.5 Development Scenarios

52. 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.

53. With respect to the socio-economics, tourism and recreation assessment, it is noted that the assessment of likely significant effects is not materially affected by the two development scenarios, as the same broad receptors, realistic worst-case scenarios and potential effects are applicable to both OCS zone options. Therefore, the assessment outcomes presented in **Section 30.7** remain the same for both development scenarios.

30.5 Assessment Methodology

30.5.1 Guidance Documents

54. There are no relevant guidance documents used to inform the baseline characterisation, assessment methodology and mitigation design for socio-economics, tourism and recreation. The assessment methodology has been carried out following NPS requirements outlined in **Table 30-1**.

30.5.2 Data and Information Sources

30.5.2.1 Desk Study

55. A desk study has been undertaken to compile baseline information in the previously defined Study Areas (see **Section 30.4.1**) using the sources of information set out in **Table 30-6**.

Table 30-6 Desk-Based Sources for Socio-Economics, Tourism and Recreation Data

Data Source	Spatial Coverage	Year(s)	Summary of Data Contents
Aitchison Fullabrook Wind Farm proposal, North Devon - evidence gathering of the impact of wind farms on visitor numbers and tourist experience	East Riding of Yorkshire and Great Britain	2004	Study of the impact of wind farms on the tourism economy of North Devon.
BiGGAR Economics, Wind Farms & Tourism Trends in Scotland: Evidence from 44 Wind Farms.	East Riding of Yorkshire and Great Britain	2021	Study of the impact of wind farms on the tourism economy of Scotland.
BiGGAR Economics, East Anglia ONE North and East Anglia TWO Offshore Wind Farms: Tourism Impact Review.	East Riding of Yorkshire and Great Britain.	2019	Study of the impact on tourism of two offshore wind farms near the Suffolk Coast Area.
Glasgow Caledonian University/Moffat Centre, The Economic Impacts of Wind Farms on Scottish Tourism.	East Riding of Yorkshire and Great Britain.	2008	Study of the impact of wind farms on the tourism economy of Scotland.
Kantar, Great Britain Day Visits Survey.	East Riding of Yorkshire and Great Britain.	2019	Information on volume and levels of spending from day visitors.
Kantar, Great Britain Tourism Survey (Domestic Overnight Tourism).	East Riding of Yorkshire and Great Britain.	2020	Information on volume and levels of spending from domestic overnight visitors.
Northumbria University, Evaluation of the impacts of onshore wind farms on tourism.	East Riding of Yorkshire and Great Britain.	2014	Study of the impact of wind farms on the tourism economy of Northumberland.
Office of National Statistics (ONS), 2018-based Population Projections.	UK	2020	Information on projected population demographics in 2043.
ONS, 2018-based subnational principal population projections for local authorities in England.	East Riding of Yorkshire, Kingston upon Hull, Yorkshire and the Humber, Northeast of England, East Midlands	2021	Information on projected population demographics in 2043 and future demographic structure in England.
ONS, Annual Population Survey.	East Riding of Yorkshire, Kingston upon Hull, Yorkshire and the Humber, Northeast of England, East Midlands, UK	2024	Information on skill levels and economic activity (e.g., rate of economic activity and unemployment rate) and households with dependent children.
ONS, Annual Survey of Hours and Earnings.	East Riding of Yorkshire, Kingston upon Hull, Yorkshire and the Humber, Northeast of England, East Midlands, UK	2023	Information on median annual earnings.
ONS, Jobs Density Survey.	East Riding of Yorkshire, Kingston upon Hull, Yorkshire and the Humber, Northeast of England, East Midlands, UK	2024	Information on changes in employment over time.
ONS, Business Register and Employment Survey.	East Riding of Yorkshire, Kingston upon Hull, Yorkshire and the Humber, Northeast of England, East Midlands, UK	2024	Information on the turnover, employment and GVA of sectors across the economy.
ONS, Median house prices by lower layer super output area.	East Riding of Yorkshire, Kingston upon Hull	2023	Information on house prices for lower layer super output areas.

Data Source	Spatial Coverage	Year(s)	Summary of Data Contents
ONS, Median house prices by administrative geographies.	Yorkshire and the Humber, Northeast of England, East Midlands, England	2023	Information on house prices for administrative geographies.
ONS, International Passenger Survey.	East Riding of Yorkshire and Great Britain	2020	Information on volume and levels of spending from international overnight visitors.
ONS, Earnings and hours worked, place of residence by local authority.	East Riding of Yorkshire, Kingston upon Hull, Yorkshire and the Humber, Northeast of England, East Midlands, England	2024	Information on average annual gross income for full-time workers.
ONS, Population estimates – local authority based by single year of age.	East Riding of Yorkshire, Kingston upon Hull, Yorkshire and the Humber, Northeast of England, East Midlands, UK	2024	Information on total population and current demographic structure.
ONS, Regional gross value added (balanced) per head and income components	East Riding of Yorkshire, Kingston upon Hull, Yorkshire and the Humber, Northeast of England, East Midlands, UK	2024	Estimates of gross value added (GVA) generated by the regional areas of the UK.
Regeneris and The Tourism Company, Study into the Potential Economic Impact of Wind Farms and Associated Grid Infrastructure on the Welsh Tourism Sector.	East Riding of Yorkshire and Great Britain	2014	Study of the impact of wind farms on the tourism economy of Wales.
ONS, Schools, pupils and their characteristics.	East Riding of Yorkshire, Kingston upon Hull, Yorkshire and the Humber, Northeast of England, East Midlands, England	2024	Information on school numbers and pupil teacher ratios by UK region.
House of Commons Library, Local authority data: housing supply.	East Riding of Yorkshire, Kingston upon Hull, Yorkshire and the Humber, Northeast of England, East Midlands, England	2023	Information on housing stock in England.
NHS Digital, General Practice Workforce, 31 December 2022.	East Riding of Yorkshire, Kingston upon Hull, Yorkshire and the Humber, Northeast of England, East Midlands, England	2023	Information on the number of people per general practitioner across England.
NFO, Investigation into the potential impact of wind farms on tourism in Wales.	East Riding of Yorkshire and Great Britain	2003	Study of tourism perceptions of wind farms in Wales.
Ministry of Housing, Communities & Local Government, English indices of Deprivation.	East Riding of Yorkshire, Kingston upon Hull, Yorkshire and the Humber, Northeast of England, East Midlands	2019	Information on the deprivation level across different domains (e.g. income, health, crime) in the lower layer super output area.
Visit Britain, Annual Survey of Visits to Visitor Attractions.	East Riding of Yorkshire and Great Britain	2023	Information on key tourist attractions in Great Britain.
Visit East Yorkshire, Explore East Yorkshire.	East Riding of Yorkshire	2024	Information on local attractions in East Yorkshire.
Visit Hull and East Yorkshire	East Riding of Yorkshire, Kingston upon Hull, Yorkshire and the Humber	2025	Reviewed to ensure coverage of major tourist destinations in the LTRA.

30.5.2.2 Site-Specific Surveys

56. No site-specific surveys were undertaken for the socio-economics, tourism and recreation assessment.

30.5.3 Impact Assessment Methodology

57. **Chapter 6 Environmental Impact Assessment Methodology** sets out the overarching approach to the impact assessment methodology. The topic-specific methodology for the socio-economics, tourism and recreation assessment is described further in this section. The assessment methodology was agreed with ERYC at the second ETG11 meeting held on 27th August 2024 (as noted in **Section 30.3**).

30.5.3.1 Impact Assessment Criteria

58. Definitions of magnitude and sensitivity were developed based on professional judgement, informed by background knowledge of local, regional, and national economies.

30.5.3.1.1 Receptor Sensitivity

59. For the purposes of this assessment, the sensitivity of a receptor is defined with respects of the following characteristics:

- Adaptability - The degree to which a receptor can avoid or adapt to an impact;
- Tolerance - The ability of a receptor to accommodate temporary or permanent change without a significant adverse impact;
- Reversibility and recoverability - the temporal scale over and extent to which a receptor will recover following an impact; and
- Value and importance - a measure of the receptor's importance in terms of its relative ecological, social or economic value or status.

60. These dimensions of sensitivity have been applied to socio-economic and tourism receptors by considering:

- Economies;
- Sectors;
- Tourism and recreation assets;
- Local infrastructure and services; and
- Community and social assets.

30.5.3.1.1.1. Sensitivity of Economies

61. The sensitivity of an economy is linked to how well it is able to absorb change. To consider the sensitivity of an economy, or a sector within that economy, it is necessary to consider both the resilience and agility of the economy. There are a number of factors that contribute to an assessment of resilience and agility, these include:

- The scale of the economy;
- The diversity of sectors in the economy;
- The level of economic activity;
- The level of skills and education; and
- The level of economic potential from utilising capital (natural, human, social, economic).

62. The scale of an economy is particularly important in rural areas. An economy that is small in absolute terms may have less agility, particularly if the structure is well established. Demographic trends are also likely to be relevant.

63. The diversity of the economy, as defined by the spread of sectors, is a good indicator of resilience. If an economy is over reliant on one sector, then a shock that impacts on this sector could have a disproportionate impact on the economy as a whole.

64. The economic activity rate in an economy, particularly how this compares to the wider national economy and trends in this rate are an indicator of economic resilience. A declining, either in absolute or relative terms, economically active population could indicate that the economy has been less able to accommodate changes. Conversely, an economically active population that is growing at a faster rate than the national average could indicate a greater level of agility.

65. The level of skill in an economy, as described by the level of qualifications and occupation level, indicate the ability of the workforce to react to new employment opportunities or find new work if there is a loss of employment.

66. The economic potential of an economy is linked to the natural, human, social and economic capital that is available.

67. **Table 30-7** outlines the definition of sensitivity for socio-economic receptors.

Table 30-7 Definitions of Sensitivity for Socio-Economic Receptors

Sensitivity	Definition
High	A highly sensitive economy will not be able to absorb changes without fundamentally altering its present character or value. Factors that would contribute to an economy being considered of high sensitivity include: • The economy is particularly reliant on a one single sector; • The number of jobs in the economy has been declining over multiple years; and • The share of people with no qualifications is significantly above the average for the wider economy.
Medium	A medium sensitive economy has a moderate capacity to absorb changes without fundamentally altering its present character or value, however it would be less resilient than the wider economy. Factors that would contribute to an economy being considered of medium sensitivity include: • The economy is particularly reliant on a small number of sectors; • The number of jobs in the economy has grown less than the wider economy; and • The share of people with no qualifications is above the average for the wider economy.
Low	A low sensitive economy is tolerant to changes without fundamentally altering its present character or value. Factors that would contribute to an economy being considered of low sensitivity include: • Most sectors of the economy are well represented; • The number of jobs in the economy has grown in line with the wider economy; and • The level of educational attainment is in line with the wider economy.
Negligible	An economy with negligible sensitivity is very agile and will be able to accommodate changes without affecting its character or overall value. Factors that would contribute to an economy having negligible sensitivity include: • The economy is well balanced between sectors; • The number of jobs in the economy has grown at a quicker rate than the wider UK economy; and • The share of people with no qualifications is below average for the wider economy.

30.5.3.1.1.2. Sensitivity of the Tourism Economy

68. The assessment will consider the effect of the Project on the tourism economy. This will require an assessment of the sensitivity of the tourism sector in the Study Areas. A tourism sector will be sensitive if there are only a few drivers of tourism or if there is a particular reliance on a particular type of visitor.

69. The assessment of sensitivity will also consider the nature of the effect and the key drivers of the tourism economy in each Study Area. Different tourism and recreation assets will be sensitive to different environmental effects. Therefore, if key assets within the tourism sector are not sensitive to an environmental effect, this will reduce the sensitivity of the tourism economy to that effect. Similarly, if the key markets of the tourism sector in an area are sensitive to a particular environmental effect this will also contribute to the overall sensitivity of the tourism sector. Therefore, the overall sensitivity of the tourism sector is dependent on the sensitivity of the drivers of tourism in the area.

70. To assess the sensitivity of the tourism economy in each of the Study Areas it is necessary to consider:

- The type and number of drivers of tourism to the area;
- The sensitivity of key drivers of the tourism economy to the nature of the effect; and
- The types of visitors that are attracted to the area.

71. **Table 30-8** outlines the definition of sensitivity for the tourism sector.

Table 30-8 Definitions of Sensitivity for Tourism Sector

Sensitivity	Definition
High	A highly sensitive tourism sector will not be able to absorb changes without fundamentally altering its present character or value. Factors that would contribute to a tourism sector being considered as having high sensitivity include: • The tourism sector is particularly reliant on one single attraction or market that is sensitive to the environmental effect; and • The number of jobs in the tourism sector economy has been declining over multiple years.

Sensitivity	Definition
Medium	A medium sensitive tourism sector has a moderate capacity to absorb changes without fundamentally altering its present character or value. Factors that would contribute to a tourism sector being considered as having medium sensitivity include: • The tourism sector is particularly reliant on a small number of attractions or markets that are sensitive to the environmental effect; and • The number of jobs in the tourism sector economy has grown at a slower rate than the wider tourism sector.
Low	A low sensitive tourism sector will not be able to absorb changes without fundamentally altering its present character or value. Factors that would contribute to a tourism sector being considered as having low sensitivity include: • The assets and markets that drive the tourism economy are not sensitive to the environmental effect; and • The number of jobs in the tourism sector economy has grown at a similar rate to wider tourism sector.
Negligible	A tourism sector with negligible sensitivity is very agile and will be able to accommodate changes without affecting its character or overall value. Factors that would contribute to a tourism sector being considered as having negligible sensitivity include: • There are a wide range of assets and markets that drive the tourism economy in the area; • The number of jobs in the tourism sector economy has grown at a faster rate than the wider tourism sector.

72. This assessment will consider how the tourism sector contributes to wider economy of each Study Area and if it is a contributing factor to the sensitivity of the economy. This will consider factors such as the contribution of the tourism sector to the local economy, including:

- Tourism employment as a proportion of total employment;
- The contribution of the tourism sector to the productivity of the wider economy;
- The contribution of the area to the tourism sector in the wider economy. This will consider:
  - The number of visitors to the area relative to the number of visitors to the wider area; and
  - The presence of tourism attractions/receptors that are considered to be of national or regional importance.

73. The impact of the tourism sector on the economy of the Study Areas will be included in the economic impact analysis if it is determined that the broader economy is sensitive to changes in tourism activity.

30.5.3.1.1.3. Sensitivity of Tourism and Recreation Assets

74. The sensitivity of a tourism or recreation asset is determined by how reactive visitors, or users, of this asset are to a change in the environment. The sensitivity may change depending on which environmental factor is being considered. For example, an asset may be highly sensitive to changes in traffic and transport activity but have negligible sensitivity to landscape and visual impacts.

75. The sensitivity of these assets will also depend on the ability of the asset to react to any change. Assets that provide a fixed offering, such as monuments or nature-based attractions will be, other things equal, more sensitive to change.

76. **Table 30-9** outlines the definition of sensitivity for tourism and recreation assets.

Table 30-9 Definitions of Sensitivity for Tourism and Recreation Assets

Sensitivity	Definition
High	A tourism or recreational asset with a high sensitivity will not be able to tolerate or adapt to effects as these will result in a fundamental change in visitor behaviour. Factors that will contribute to a tourism or recreational asset being considered as having high sensitivity include: • Being dependent on a single environmental condition to attract or accommodate visitors and users; and • Being unable to adapt or adjust in response to changes in visitor or user behaviour.
Medium	A tourism or recreational asset with a medium sensitivity will have limited capacity to tolerate or adapt to effects as these will result in a moderate change in visitor behaviour. Factors that will contribute to a tourism or recreational asset being considered as having medium sensitivity include: • Being influenced by a single environmental condition to attract or accommodate visitors and users; and • Have a limited ability to adapt or adjust in response to changes in visitor or user behaviour.

Sensitivity	Definition
Low	A tourism or recreational asset with a low sensitivity will have the ability to tolerate or adapt to effects as these will result in an incidental change in visitor behaviour. Factors that will contribute to a tourism or recreational asset being considered as having low sensitivity include; • Environmental conditions have a low influence on the ability of the asset to attract or accommodate visitors and users; and • Being able to adapt or adjust the assets in response to changes in visitor or user behaviour.
Negligible	A tourism or recreational asset with a negligible sensitivity will be resistant to changes in environmental factors. Factors that will contribute to a tourism or recreational asset being considered as having negligible sensitivity include: • Environmental conditions have a negligible influence on the ability of the asset to attract or accommodate visitors and users; and • Having substantial ability to adapt or adjust the assets in response to changes in visitor or user behaviour.

30.5.3.1.1.4. Sensitivity of Local Infrastructure

77. Impacts on local infrastructure include demand for housing, health services and education services. The adaptability and tolerance of the housing market to accommodate change in each Study Area is implied by the relative change in the price of housing stock compared to the wider economy. If prices have increased significantly more within a Study Area, this would suggest that the housing market has not been able to adapt to a change in demand.

78. In the long term, local infrastructure will adapt to serve the communities they are in. Hospitals and education facilities are planned based on the demographic demands in a particular area. Therefore, these sensitivities are considered for short term impacts only and the long-term sensitivities of these receptors will be negligible. As a result, the impacts on local infrastructure are only considered during the development and construction phase.

79. The sensitivity of the public assets such as health services or schools will be dependent on the concentration of resources that are allocated to these assets. It is assumed that the ability of these assets to adapt to change will not vary by geography. Therefore, the key factor of sensitivity is tolerance to change. It is assumed that this is linked to the relative size of the community that is served by these assets. If a teacher or doctor has less students or patients than the national average, they are more likely to be able to tolerate changes, specifically increases, in these numbers. As a result, these assets will be less sensitive to change.

80. A summary of the definitions and contributing factors for the sensitivity of local infrastructure are presented in **Table 30-10**.

Table 30-10 Definitions of Sensitivity for Local Infrastructure

Sensitivity	Definition
High	A community or social asset with a high sensitivity will not be able to tolerate or adapt to impacts as these will result in a fundamental change in the ability of these assets to meet the needs of the community. Factors that will contribute to a community or social asset being considered as having high sensitivity include: • House prices have increased at a notably faster rate than the national average; • The number of GP per capita is much lower than the national average; and • The number of pupils per teacher is much higher than the national average.
Medium	A community or social asset with a medium sensitivity will have a limited capacity to tolerate or adapt to impacts as these will result in a moderate change in the ability of these assets to meet the needs of the community. Factors that will contribute to a community or social asset being considered as having medium sensitivity include: • House prices have increased at a faster rate than the national average; • The number of GP per capita is lower than the national average; and • The number of pupils per teacher is higher than the national average.
Low	A community or social asset with a high sensitivity will be able to tolerate or adapt to impacts without a change in the ability of these assets to meet the needs of the community. Factors that will contribute to a community or social asset being considered as having low sensitivity include: • House prices have increased at a similar rate than the national average; • The number of GP per capita is similar to the national average; and • The number of pupils per teacher is similar to the national average.
Negligible	A community or social asset with a negligible sensitivity will be resistant to change as they will have a greater capacity to tolerate changes than the wider country. Factors that will contribute to a community or social asset being considered as having negligible sensitivity include: • House prices have increased at a slower rate than the national average; • The number of GP per capita is higher than the national average; and • The number of pupils per teacher is lower than the national average.

30.5.3.1.1.5. Sensitivity of Social Infrastructure Assets

81. The sensitivity of a social infrastructure asset is determined by how reactive this asset is to a change in the environment. As with tourism assets, the sensitivity may change depending on which environmental factor is being considered.

82. **Table 30-11** outlines the definition of sensitivity for social infrastructure assets.

Table 30-11 Definitions of Sensitivity for Social Infrastructure Assets

Sensitivity	Definition
High	A social asset with a high sensitivity will not be able to tolerate or adapt to effects as these will result in a fundamental change in the behaviour of the local population. A social asset considered as having high sensitivity would be dependent on a single environmental condition to accommodate users. For example, a hospital with main access through one road would be highly sensitive to changes in traffic and transport such as road closures as this would affect access to services and therefore the behaviour of users.
Medium	A social asset with a medium sensitivity will have limited capacity to tolerate or adapt to effects as these will result in a moderate change in the behaviour of the local population. A social asset considered as having medium sensitivity would be influenced by a small number of environmental conditions to accommodate users. For example, a school with a small number of roads through which it is accessible will be of medium sensitivity the potential closure of one access road, as this would not make the school unusable but may result in a moderate change to the behaviour of users.
Low	A social asset with a low sensitivity will have the ability to tolerate or adapt to effects as these will result in an incidental change in the behaviour of the local population. Where environmental conditions have a low influence on the ability of the asset to accommodate users, that asset would be considered of a low sensitivity. For example, a community hall with a number of routes to access would be of low sensitivity to potential changes to traffic and transport such as road closures as this would be expected to have a low influence on the ability of the hall to accommodate users, and therefore while the behaviour of some users may change, for the majority their behaviour would not be affected.
Negligible	A social asset with a negligible sensitivity will be resistant to changes in environmental factors. Where environmental conditions have a negligible influence on the ability of the asset to accommodate users, that asset would be considered of a negligible sensitivity. For example, a school which is well connected, with multiple routes of access through both roads, public transport, and walking, would be of negligible sensitivity to traffic and transport impacts such as road closures as this would not be expected to influence the behaviour of users.

30.5.3.1.2 Impact Magnitude

83. The magnitude of impact on a receptor is defined based on the spatial extent, duration, frequency and severity of the impact. The potential effects may be adverse, beneficial, or neutral.

84. A series of dimensions need to be considered to establish the magnitude and probability of impact. These include:

- Spatial extent – the geographical area over which an impact occurs;
- Duration – the duration over which the impact occurs (short term to long term);
- Frequency and or likelihood of occurrence – how often the impact occurs and/or how likely occurrence is; and
- Severity – the degree of change relative to the baseline level.

85. The socio-economic, tourism and recreation impacts are considered over distinct Study Areas to capture the spatial extent of any impact. The magnitude of impact and resulting effect significance are then considered in relation to the baseline conditions within those Study Areas.

86. The frequency and temporal extent of any impact will be considered and those which occur over a short period of time will be described as temporary and those which occur over a longer period will be described as permanent.

87. The approach to determining the severity, and therefore magnitude, of any socio-economic impacts is outlined in this section for socio-economic, tourism and recreation impacts, including:

- Changes in economic activity;
- Tourism and recreation assets; and
- Demographic and service demand impacts.

30.5.3.1.2.1. Magnitude of Economic Impacts

88. Between 2004 and 2023, the average level of GDP per capita growth in the UK was 0.6% per annum (ONS, 2024f). Similarly, between 2004 and 2023 the number of jobs has grown by 0.7% per annum (ONS, 2024g). The magnitude of any change in an economy should be considered within this context and in relation to the levels of economic activity within a Study Area.

89. In addition to the change in the overall impact in the GVA or employment of an area, consideration can also be made for the sectors of the economy which are considered to contribute to the potential for the local area to secure contracts. For example, in the context of offshore wind, the construction, manufacturing and professional services sectors present in an area are likely to contribute towards it securing contracts, since the presence of potential suppliers is likely to increase the value of contracts secured in the Study Area.

90. The magnitude of employment impacts should be considered in relation to the levels of economic activity within a Study Area. The magnitude should be relative to the number of people in employment, rather than the unemployed. The geographic split of impact analysis should consider workplaces (jobs) rather than residents (employment rate) to be consistent with the approach used in distributing contracts between Study Areas which is based on the locations of the companies.

91. **Table 30-12** outlines the definition of magnitude for economic impacts.

Table 30-12 Definitions of Magnitude for Economic Impacts

Magnitude	Definition
High	An impact would be considered to have a high magnitude if it was equivalent to all the typical economic growth per capita. Specifically, for each Study Area: • Peak annual GVA impact is greater than, or equal to, 1% of the economy or sector; or • Peak employment supported is greater than, or equal to, 1% of the total number of jobs in the area or sector.
Medium	An impact would be considered to have a medium magnitude if it was equivalent to half of the typical economic growth per capita. Specifically, for each Study Area: • Peak annual GVA impact is greater than, or equal to, 0.5% of the economy or sector; or • Peak employment supported is greater than, or equal to, 0.5% of the total number of jobs in the area or sector.
Low	An impact would be considered to have a low magnitude if it was equivalent to a quarter of the typical economic growth per capita. Specifically, for each Study Area: • Peak annual GVA impact is greater than, or equal to, 0.25% of the economy or sector; or • Peak employment supported is greater than, or equal to, 0.25% of the total number of jobs in the area or sector.
Negligible	An impact would be considered to have a negligible magnitude if it was equivalent to less than a quarter of the typical economic growth per capita. Therefore, for each Study Area: • Peak annual GVA impact is less than 0.25% of the economy or sector; or • Peak employment supported is less than 0.25% of the total number of jobs in the area or sector.

30.5.3.1.2.2. Magnitude of Tourism and Recreation Impacts

92. Impacts will occur on tourism and recreation receptors if they are sensitive to changes in environmental factors that will occur because of the Project, and the receptor is considered to experience a significant impact as a result of changes to these environmental factors.

93. The impacts considered on tourism and recreation assets are changes to visitor or user behaviour and outcomes. Any environmental impact identified by other EIA topic chapters on these receptors will therefore be assessed against how it will change behaviour compared to the current baseline of visitor or user behaviour of the receptor.

94. The definitions of the magnitude of impacts on tourism and recreation assets are provided below in **Table 30-13**.

Table 30-13 Definitions of Magnitude for Tourism and Recreation Impacts

Magnitude	Definition
High	The impact on a tourism and recreation asset would be considered to have a high magnitude if it is predicted to experience a major change of behaviour of visitors or users.
Medium	The impact on a tourism and recreation asset would be considered to have a medium magnitude if it is predicted to experience a moderate change of behaviour of visitors or users.
Low	The impact on a tourism and recreation asset would be considered to have a low magnitude if it is predicted to experience a minor change of behaviour of visitors or users.
Negligible	The impact on a tourism and recreation asset would be considered to have a negligible magnitude if it is predicted to experience an undetectable change of behaviour of visitors or users.

30.5.3.1.2.3. Magnitude of Demographics and Infrastructure Demand Impacts

95. The magnitude of impacts on the social or community assets is dependent on the demographic changes that will occur in each of the Study Areas because of the Project.

96. The severity of any change in demographics is measured against the level of annual change that is typical in the Study Area that it serves. This will be in line with the change a community or social asset will accommodate in a year.

97. **Table 30-14** outlines the definition of magnitude for local infrastructure and services impacts.

Table 30-14 Definitions of Magnitude for Local Infrastructure and Services Impacts

Magnitude	Definition
High	The impact on a local infrastructure would be considered to have a high magnitude if the change in residual population was equivalent to 100% or more of the average annual growth rate for the Study Area.
Medium	The impact on local infrastructure would be considered to have a medium magnitude if the change in residual population was equivalent to between 50% and 100% of the average annual growth rate for the Study Area.
Low	The impact on local infrastructure would be considered to have a low magnitude if the change in residual population was equivalent to between 25% and 50% of the average annual growth rate for the Study Area.
Negligible	The impact on local infrastructure would be considered to have a negligible magnitude if the change in residual population was equivalent to less than 25% of the average annual growth rate for the Study Area.

30.5.3.1.2.4. Magnitude of Disturbance to Social Infrastructure Impacts

98. Impacts will occur on social infrastructure receptors if they are sensitive to changes in environmental factors that will occur because of the Project, and the receptor is considered to experience a significant impact as a result of changes to these environmental factors.

99. The impacts considered on social infrastructure assets are changes to the behaviour and outcomes of the local population, such as not being able to access schools or their home as a result of road closures. The potential magnitude of impacts to social infrastructure will be informed by environmental impacts identified by other EIA topic chapters on these social infrastructure receptors.

100. The definitions of the magnitude of impacts on social infrastructure assets are provided below in **Table 30-15**.

Table 30-15 Definitions of Magnitude for Disturbance to Social Infrastructure Impacts

Magnitude	Definition
High	The impact on a social infrastructure asset would be considered to have a high magnitude if it is predicted to experience a major change of behaviour of the local population.
Medium	The impact on a social infrastructure asset would be considered to have a medium magnitude if it is predicted to experience a moderate change of behaviour of local population.
Low	The impact on a social infrastructure asset would be considered to have a low magnitude if it is predicted to experience a minor change of behaviour of the local population.
Negligible	The impact on a social infrastructure asset would be considered to have a negligible magnitude if it is predicted to experience an undetectable change of behaviour of the local population.

30.5.3.1.3 Effect Significance

101. The interaction between a receptor's sensitivity and the impact magnitude is considered in **Table 30-16**. For EIA purposes, major and moderate effects are considered as significant.

Table 30-16 Effect Significance Matrix for the Socio-Economic, Tourism and Recreation Assessment

		Adverse Effect				Beneficial Effect			
		Impact Magnitude							
		High	**Medium**	**Low**	**Negligible**	**Negligible**	**Low**	**Medium**	**High**
Receptor Sensitivity	**High**	Major	Major	Moderate	Minor	Minor	Moderate	Major	Major
	Medium	Major	Moderate	Minor	Minor	Minor	Minor	Moderate	Major
	Low	Moderate	Minor	Minor	Negligible	Negligible	Minor	Minor	Moderate
	Negligible	Minor	Negligible	Negligible	Negligible	Negligible	Negligible	Negligible	Minor

102. **Table 30-17** outlines the definition for each level of effect significance.

Table 30-17 Definitions of Effect Significance for the Socio-Economic, Tourism and Recreation Assessment

Significance	Definition
Major	Very large or large change in receptor condition, both adverse or beneficial, which are likely to be important considerations at a regional or district level because they contribute to achieving national, regional or local objectives, or could result in exceedance of statutory objectives and/or breaches of legislation.
Moderate	Intermediate change in receptor condition, which are likely to be important considerations at a local level.
Minor	Small change in receptor condition, which may be raised as local issues but are unlikely to be important in the decision-making process.
Negligible	No discernible change in receptor condition.
No Change	No impact, therefore, no change in receptor condition.

30.5.4 Cumulative Effects Assessment Methodology

103. The cumulative effect assessment (CEA) considers other plans and projects that may act collectively with the Project to give rise to cumulative effects on socio-economics, tourism and recreation receptors. The general approach to the CEA for socio-economics, tourism and recreation 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**, **Volume 2, Appendix 6.4 Cumulative Effects Screening Report - Offshore** and **Volume 2, Appendix 6.5 Cumulative Effects Screening Report – Onshore** provide further details on the general framework and approach to the CEA.

104. For the socio-economics, tourism and recreation assessment, the potential cumulative impacts include:

- Economic impact on longer-term supply chains and skills from cluster development;
- Impacts on demographics;
- Impacts on housing supply and infrastructure; and
- Impacts on the tourism economy.

30.5.5 Transboundary Effects Assessment Methodology

105. The transboundary effect assessment considers the potential for effects to occur as a result of the Project on receptors within the Exclusive Economic Zone (EEZ) of other European Economic Area (EEA) member states or other interests of EEA member states. **Chapter 6 Environmental Impact Assessment Methodology** provides further details on the general framework and approach to the transboundary effect assessment.

106. For the socio-economics assessment, the potential for transboundary effects is limited to the potential for other countries to benefit from the manufacturing contracts associated with the Project. As these effects would lead to positive benefits, they have been scoped out of the assessment.

107. Similarly, given the location of the Project's Array Area, surface-protruding offshore infrastructure will not be visible from other EEA countries. The Project's onshore infrastructure is located entirely within the UK, and as such there is no potential for transboundary effects on the tourism industries and recreational assets of other EEA states.

108. Based on the reasons above, transboundary effects are scoped out of the socio-economics, tourism and recreation assessment. Refer to **Chapter 14 Commercial Fisheries**, **Chapter 15 Shipping and Navigation** and **Chapter 18 Other Marine Users** for further discussion on transboundary effects on these environmental topics.

30.5.6 Assumptions and Limitations

109. This chapter provides a preliminary assessment of the likely significant effects of the Project in relation to socio-economics, tourism and recreation 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

110. Data from official statistical sources, such as the surveys carried out by the Office for National Statistics (ONS), are generally published with a lag of between one and two years. This means that part of the information included in the baseline, while being based on the latest available data, does not reflect current economic activity. Similarly, this means that as the PEIR is revised and the ES is drafted, some of the baseline information may change. To provide the most up to date information possible, the baseline characterisation in **Section 30.6** was carried out as close as possible to the submission of this PEIR chapter.

111. The current data on population projections was published in 2018 and may not reflect the population and demographic changes expected to occur in the Study Areas. It is expected that updated population projections will be published in Q2 of 2025, and these projections, including total population projections, will be included at ES stage. The 2018 population demographic projections have been included at PEIR stage to provide some context, however, this data will also be updated to include the 2025 data at ES stage.

112. The latest year for which information on tourism is available is 2020. However, this was not considered an appropriate reference point due to constraints to tourism activity imposed by restrictions to international and domestic travel aimed at preventing the spread of Covid-19 throughout 2020 and 2021. Data from 2019 has therefore been used instead. Should more up to date data be published reflecting the state of the tourism sector following the effects of Covid-19, this data will be included at ES stage.

113. While the Covid-19 pandemic may have changed overall attitudes towards travel (for instance, shifting preferences from international to domestic holidays), international visitors are likely to remain a key group for the tourism sector.

114. The impact assessment is based on the latest information available regarding the generating capacity of the Project. For the purposes of this assessment, it was assumed that the Project will have a total generating capacity of 1,582 MW. Based on this, worst-case scenarios for the socio-economics assessment were developed with different numbers of wind turbines installed and different generating capacities per wind turbine.

115. The economic model estimating impacts on construction and GVA from the Project relies on an Input-Output Methodology. One of the main data sources associated with this document is the UK Input-Output Tables, which, when it was last published in 2022, refers to sectoral interactions as of 2018 (ONS, 2022).

116. The analysis relies on the matching of economic activity and wind farm-related contracts to appropriate sectoral codes from the ONS Standard Industrial Classification (SIC) of Economic Activities. Data availability becomes limited the more detailed the assessment of contracts. For this reason, the economic model relies on a breakdown of economic activity by sector up to SIC level 2.

117. The choice of the LSESA was based on the information available on port locations at the time of writing (see **Section 30.4.1**). Should more information become available prior to DCO application, the assessment in the ES will be more geographically targeted.

118. None of the assumptions and limitations listed above is likely to affect the overall assessment of effects from the development, construction, operation and decommissioning of the Project.

30.6 Baseline Environment

30.6.1 Existing Baseline

119. This section provides a baseline characterisation of the existing environment from the perspective of socio-economics, tourism and recreation. The baseline data for socio-economic impacts is carried out with reference to the LSESA, RSA and the UK, as outlined in **Section 30.4.1.**

120. For the purposes of the tourism and recreation assessment, the LTRA identified is more localised and analysis is carried out with reference to the LTRA, as defined in **Section 30.4.1.**

30.6.1.1 Demographics

121. In 2023, the LSESA had a population of 622,000, accounting for 5% of the RSA's population and 1% of the UK's total population (ONS, 2024a).

122. As shown in **Table 30-18**, around 61% of the LSESA's total population is of working age (16-64 years old), a slightly lower share than that accounted for by this age group in the RSA (62%) and across the UK (63%). Conversely, the LSESA has a higher share of the population aged 65 and over (22%) than the other two Study Areas, where 19-20% of the population falls within this group (ONS, 2024a).

Table 30-18 Population Estimates, 2023 (ONS, 2024a)

Demographics	LSESA	RSA	UK
Total Population	622,000	13,296,800	68,265,200
% under 16	18%	18%	18%
% age 16-64	61%	62%	63%
% aged 65 and over	22%	20%	19%

30.6.1.2 Population and Demographic Projections

123. **Table 30-19** shows population projections which forecast that in 2043, the working age population of the LSESA will be below average compared to the RSA and the UK as a whole, accounting for 56% of the population compared to 59% in both the RSA and the UK.

Table 30-19 Population Demographic Projections, 2043 (ONS, 2020b and ONS, 2021)

Demographics	LSESA	RSA	UK
% under 16	16%	17%	17%
% age 16-64	56%	59%	59%
% aged 65 and over	27%	24%	24%

124. It is expected that in 2043, the share of the population aged 65 and over will be above average in the LSESA, accounting for 27% of the population compared to 24% in the RSA and 24% across the UK as a whole (ONS, 2020b; ONS, 2021).

30.6.1.3 Industrial Activity

125. As shown in **Table 30-20**, in the LSESA, manufacturing employs the largest share of workers, accounting for 15% of those in employment, higher than the share of employment in this sector in the RSA (11%) and across the UK (7%) (ONS, 2024g). This is among the sectors that could benefit from the construction of the Project.

126. The wholesale and retail trade sector is also an important employer in the LSESA, with 15% of those in employment working in the sector. The share of employment in this industry is similar to that supported in the RSA but larger than the UK average as a whole (14%).

127. The construction of offshore wind farms particularly benefits the construction sector. The relative share of those employed by this sector is higher within the LSESA (6%) compared to both the regional and the UK average (5%).

128. Accommodation and food service activities, generally associated with the tourism industry, employs 7% of workers in the LSESA and RSA, smaller than the total share of employment in this sector across the UK (8%) (ONS, 2024b).

Table 30-20 Industrial Structure, 2023 (ONS, 2024g)

Sectors	LSESA	RSA	UK
Manufacturing	15%	11%	7%
Wholesale and retail trade	15%	14%	14%
Human health and social work activities	14%	15%	14%
Education	9%	9%	8%
Administrative and support service activities	8%	8%	9%
Accommodation and food service activities	7%	7%	8%
Construction	6%	5%	5%
Public administration, defence and compulsory social security	5%	5%	5%
Professional, scientific and technical activities	6%	7%	9%
Transportation and storage	5%	6%	5%
Agriculture, forestry and fishing	2%	1%	1%
Information and communication	2%	3%	4%
Arts, entertainment and recreation	2%	3%	3%
Real estate activities	1%	2%	2%
Other service activities	1%	2%	2%
Water supply; sewerage, waste management and remediation activities	1%	1%	1%
Financial and insurance activities	1%	2%	3%
Electricity, gas, steam and air conditioning supply	0%	0%	0%
Mining and quarrying	0%	0%	0%
Total Employment	268,500	5,917,000	32,258,000

30.6.1.4 Economic Activity

129. As shown in **Table 30-21,** in 2022, the rate of economic activity in the LSESA was 79% similar to that across the UK and higher than the regional average. The unemployment rate in the LSESA was smaller than the regional and UK rate of 4% (ONS, 2024b).

Table 30-21 Economic Activity (ONS 2023a, ONS, 2024b and ONS 2024c)

Economic Indicator	LSESA	RSA	UK
Economic Activity Rate	79%	77%	79%
Unemployment Rate	3%	4%	4%
Median Annual Gross Income (All Workers)	£27,622	£27,046	£29,669
Jobs Growth (2012-2022)	12%	12%	14%

130. The median annual gross income of those working in the LSESA is £27,622 which is larger than the regional income (£27,046) and smaller than the UK average (£29,669) (ONS, 2023a).

131. The labour market performance and levels of income in the LSESA are relatively better than the regional figures and similar or worse than the UK average.

132. Over the period between 2012 and 2022, the rate at which jobs have been created was larger across the UK (14%) than across the LSESA and RSA. This suggests economic activity in these two areas is less dynamic than elsewhere in the UK (ONS, 2024c).

30.6.1.5 Gross Value Added by Area

133. As shown in **Table 30-22**, in 2022, the Gross Value Added (GVA) generated within the LSESA stood at £15.9 billion, accounting for 5% of the GVA generated regionally (£236.9 billion) and 1% of the total GVA generated in the UK (£1,531.6 billion) (ONS, 2024d). Over the period since 2012, GVA has grown by 52% in the LSESA, a faster rate of growth than in the RSA (45%) and the UK as a whole (47%).

134. In the same year, GVA per head of population supported by the LSESA was £25,789, higher than the GVA per head in the RSA (£25,643) but considerably lower than the UK figure (£33,227). This highlights a gap of over £7,400 per person compared to the UK figure which indicates weaker economic performance.

Table 30-22 GVA and GVA per Head, 2022 (ONS, 2024d)

Economic Indicator	LSESA	RSA	UK
2012 GVA (£ billion)	10.5	236.9	1,531.6
2022 GVA (£ billion)	15.9	343.2	2,246.0
Change (2012-2022)	52%	45%	47%
GVA per Head (£)	25,789	25,643	33,227

30.6.1.6 Deprivation

135. The Index of Multiple Deprivation considers seven different dimensions of deprivation related to income, crime, employment, education, health, housing and the living environment. These data are gathered for each of the Lower-layer Super Output Areas (LSOA) of England.

136. Data from the Index of Multiple Deprivation (Ministry of Housing, Communities and Local Government, 2019) suggests that the LSESA is relatively more deprived than England as a whole. As shown in **Table 30-23**, of the 376 LSOA in the LSESA, 28% fall within England's 20% most deprived areas. Almost 50% of LSOA are within the country's 40% of most deprived areas. In comparison, 19% of LSOA in the LSESA are within England's least 20% deprived areas. Crime (31% of LSOA in the 20% most deprived areas) and employment and education, skills and training (30%) domains are the primary drivers of deprivation in the LSESA.

Table 30-23 Index of Multiple Deprivation (Ministry of Housing, Communities and Local Government, 2019)

Quintile	LSESA	RSA
1 (most deprived)	28%	27%
2	18%	19%
3	16%	17%
4	19%	19%
5 (least deprived)	19%	18%

137. The Index of Multiplied Deprivation for the RSA indicates similar results with 27% of the LSOA falling within England's 20% most deprived areas. Health (32% of LSOA in the 20% most deprived areas) and education, skills and training (30%) domains are the strongest drivers of deprivation in the area (Ministry of Housing, Communities and Local Government, 2019).

30.6.1.7 Education Levels and Skills

138. The education levels and skills are measured based on the proportion of working age population having a National Vocational Qualification (NVQ). NVQ is a work-based certification designed to demonstrate practical skills and competence in a specific job or profession and range from Level 1 (basic skills) to Level 7 (equivalent to postgraduate-level expertise).

139. As shown in **Table 30-24,** in the LSESA, 87% of those in the working age population have achieved an NVQ1 qualification or higher, a similar share compared to the UK but higher than the share in the RSA (86%). The share of the population who achieved an NVQ2 or higher is 75% is lower in the LSESA and RSA (75%) than across the UK (78%). Similarly, 55% of those in the LSESA achieved an NVQ3 qualification or higher, compared to 57% in the RSA and 61% in the UK (ONS, 2024a).

Table 30-24 Share of Working Age Population by Qualification Level (ONS, 2024a)

Qualification Level	LSESA	RSA	UK
% with no qualifications	9%	8%	7%
% NVQ1 +	87%	86%	87%
% NVQ2 +	75%	75%	78%
% NVQ3 +	55%	57%	61%
%NVQ4 +	33%	37%	44%

140. In the LSESA, 33% of people have achieved at least an NVQ4 qualification, equivalent to a higher education certificate, which is lower than the regional average (37%) and the UK average (44%). The share of people who have achieved no qualifications in the LSESA is higher than that in the RSA (8%) and across the UK (7%). Overall, the LSESA has on average a lower share of its population higher education qualifications (ONS, 2024a).

30.6.1.8 Class Sizes

141. As a measure of class size and existing pressure on educational provision, the analysis considered the average class size. As shown in **Table 30-25**, in the LSESA, the average class size is lower than that of England as a whole but broadly similar to that of the RSA (ONS, 2024d). More specifically, the average size in Primary School is 25.7 in the LSESA, compared to 25.8 regionally and 26.6 across England. At Secondary School, the average class size is about 22.3 for all three Study Areas.

Table 30-25 Class Sizes, 2023/24 (ONS, 2024d)

School Level	LSESA	RSA	England
Primary	25.7	25.8	26.6
Secondary	22.3	22.3	22.4

30.6.1.9 Housing

142. The affordability and availability of housing in an economy contribute to its sensitivity to change and ability to accommodate new people.

143. As shown in **Table 30-26,** total housing stock in the LSESA is 300,902, equivalent to 5% of the stock in the RSA (6.0 million) and 1% of the stock in England (25.4 million). The majority (84%) is private sector housing. The proportion of private housing in the LSESA is broadly in line with the proportion for the RSA and England as a whole (83%), whilst the proportion of local authority housing in the Local (11%) and Regional (8%) Areas is greater than across England (6%) (House of Commons Library, 2023).

Table 30-26 Median House Price Values and Changes, 2013-2023 (ONS, 2024e)

Year	LSESA	RSA	England
2013	119,000	129,000	185,000
2023	176,000	194,000	290,000
Change 2013-2023	48%	50%	57%

144. In 2023, a total of 701 residential properties were sold in the LSESA, an increase of 408 units above the 2013/14 figure. Over the past ten years, 848 affordable homes have been built and bought in the LSESA, with most of this activity occurring between 2018/19 and 2022/23. During the same period, 3,798 affordable rent housing has been built and 465 social rented homes. A total of 5,111 affordable housing units have been built between 2013/14 and 2022/23 (House of Commons Library, 2023).

145. The average median house price paid in the LSESA in 2023 was £176,000, considerably lower than the £194,000 for the RSA and £290,000 for England (ONS, 2023b; ONS, 2023c). This equates to the average house price paid in the LSESA and RSA being more than six times the average annual gross income of residents. This is lower than the average for England, where the average house price paid is about eight times the average annual income (ONS, 2024e).

30.6.1.10 Healthcare Provision

146. Data on the General Practitioner (GP) Workforce in England collected by NHS, indicates that, as of December 2023, there were 443 GP in the LSESA and 11,143 GP in the RSA (NHS Digital, 2024).

147. Given that the population of the LSESA is 622,000, dividing the population by the number of GP estimates that there are approximately 1,404 patients per GP locally. Similarly, there are 1,193 patients per GP in the RSA. There are 46,966 GPs across England corresponding to 1,228 patients per GP across the country (NHS Digital, 2024; ONS, 2024a). Based on this data, there is more pressure on GP services, in terms of the number of patients per GP, in the LSESA than the RSA and England. These figures are shown in **Table 30-27**.

Table 30-27 General Practitioners per Person, 2022 (ONS, 2024a and NHS Digital, 2024)

Indicator	LSESA	RSA	England
People per GP	1,404	1,193	1,228

30.6.1.11 Tourism Economy

148. A range of statistics are available on visitor numbers and visitor spend, including from Great Britain Day Visitor Survey (GBDVS) (Kantar TNS, 2020a), the Great Britain Tourism Survey (GBTS) (Kantar TNS, 2020b) and the International Passenger Survey (ONS, 2020a). As no tourism statistics is available at electoral ward level, statistics for East Riding of Yorkshire is used which includes the LTRA.

149. The GBDVS presents data on visitor numbers and spend for each region of England. The survey covers activity between 2016 and 2018. As shown in **Table 30-28,** on average, in this period there were 8.9 million day visitors to the LTRA, spending a total of £166.2 million. This indicates a spend of £19.0 per day visitor, which is lower than the £33.0 average spend per person across Great Britain.

Table 30-28 Number and Spend of Visitors, 2019 (Kantar TNS 2020a, Kantar TNS 2020b and ONS, 2020a)

Tourism Indicator	LTRA	Great Britain
Number of Day Visitors (million)	8.9	1,795.1
Total spend of Day Visitors (£m)	£166.2	£58,623.2
Total spend per Day Visitor (£)	£19.0	£33.0
Number of Domestic Overnight Visitors (million)	0.7	121.4
Total spend of Domestic Overnight Visitors (£m)	£103.7	£24,098.7
Total spend per Domestic Overnight Visitor (£)	£159	£199

150. In terms of domestic overnight visitors, on average between 2017 and 2019 the LTRA hosted 0.7 million visitors, spending a total of £103.7 million in the local economy. This indicates a spend of £159 per visitor, which is lower than the average for overnight visitors across Great Britain (£199).

151. The population of the LTRA is 90,295. In total, the local authority of East Riding of Yorkshire, where the LTRA is located, received 7.2 million UK visitors, equivalent to approximately 21 visits per person. This is lower than the average of 27 visits per person in Great Britain.

152. Similarly, based on data regarding international visitors, it was estimated that between 2017 and 2019, on average there were 36,000 international visits to the LTRA and 40.4 million across Great Britain. These visitors spend a total of £13.0 million in the LTRA (equivalent to £361 per visitor) and £27,189 million (£674 per visitor) across Great Britain.

30.6.1.11.1 Visitor Attractions

153. Visit Britain collects annual data on the number of visitors to visitor attractions across England. Based on the latest version of the report (Visit Britain, 2023), the regional (East Riding of Yorkshire) attractions and their distance from the Onshore Development Area are included in the tables below. Regional attractions are detailed in **Table 30-29**.

Table 30-29 Regional Attractions, 2023 (Visit Britain, 2023)

Attraction	Description	Number of Visitors	Distance from Onshore Development Area (km)
Beverley Minster	One of England's largest Gothic parish churches dating back to the 13th century.	91,200	2.1
Bayle Museum	A museum with exhibits on local archaeology, ancient artifacts, and the town's importance during the Middle Ages.	6,276	11.0
The Priory Church, Bridlington	A 12th century church known for its Norman architecture and history.	3,000	11.0
RSPB Bempton Cliffs Reserve	A nature reserve offering walking trails and wildlife observation viewpoints.	119,069	17.0
The Computer Sheds	An interactive centre offering computer workshops and coding courses for everyone.	35	19.0
Withernsea Lighthouse Museum	A museum showcasing maritime heritage and offering coastal views.	10,980	24.5

154. A further 37 local attractions were identified in the LTRA from online searches and the Visit East Yorkshire website (2024). Visit Hull and East Yorkshire (2025) was also reviewed to ensure coverage of major tourist attractions; however this organisation does not publish a database of attractions on its website. These are shown in **Table 30-30**. The visitor attractions identified all contribute to the attractiveness of the LTRA to visitors, either directly due to their location within this area or indirectly by bringing tourism to nearby areas which has spill-over impacts on the tourism economy.

Table 30-30 Local Attractions (Visit East Yorkshire, 2024)

Attraction	Description	Distance from Onshore Development Area (km)
Risby Park	A historic landscape surrounding Risby Hall, known for its architectural and cultural significance, with gardens, parkland and a fishing pond.	0.0
Walkington Playing Fields	Community sports facility with fields for football, cricket, and other sports, which hosts events.	0.0
Skipsea Castle	Ruins of a historic 11th century motte-and-bailey castle.	0.8
Leconfield Recreation Club	A facility offering sports amenities like football pitches and hosting social events.	1.0
Far Grange Golf Club	An 18-hole golf course known for its coastal views.	1.1
Beverley and East Riding Golf Club	An 18-hole golf course for all abilities featuring rolling hills and woodlands.	1.4
High Eske Nature Reserve	An area featuring wetlands and woodlands ideal for birdwatching.	1.5
Beverley Racecourse	A historic racing venue hosting events with views over the Westwood Common.	1.5
Hainsworth Park Golf Club	A golf club offering an 18-hole parkland course, dining facilities and practice areas.	1.5
Cottingham Parks Golf Club	A golf club featuring an 18-hole championship course set in scenic parkland, along with practice facilities and a modern clubhouse.	1.6
Beverley Westwood	A common offering views of Beverley Minster and countryside and a range of outdoor activities.	1.7
Beverley Art Gallery	A gallery featuring a collection of 19th and 20th century paintings and contemporary art and hosting exhibitions, workshops and events.	1.8
East Riding Theatre	A local theatre hosting various performances, including plays and community events.	1.9

Attraction	Description	Distance from Onshore Development Area (km)
Beverley Guildhall	Beverley Town's former administrative centre since the 16th century. It now serves as a museum and event space.	2.0
Aitcheson's Brickshed Brewery	Brewery based in a brick boat shed since the 1,600's.	2.0
St Nicolas' Church	A historic church known for its Norman architecture and 12th century tower.	2.2
St Mary's Church, Beverley	A Gothic parish church known for its architecture and rich history serving as a place for worship and events.	2.3
Beverley Beck	A canal from the River Hull into Beverley which was historically a key port in the area. Visitors can enjoy boat moorings, hire boats, fish, and see the historic barge 'Syntan'.	2.3
Let Loose Yorkshire	An outdoor adventure park offering activities including ropes courses and obstacle courses for everyone.	2.5
Lions Den Dog Field	An enclosed space where dog owners let their dogs run off-leash and train, while offering amenities including water stations.	2.6
Humberside Shooting Ground	A shooting venue offering clay pigeon shooting facilities, expert coaching, hosting competitions and events.	3.3
Hessle Golf Club	A golf club offering an 18-hole, par 71 course set in parkland.	3.9
Honeysuckle Farm	A farm offering the opportunity to interact with animals, enjoy hands-on activities, homemade cakes and refreshments.	5.4
Hornsea Memorial Gardens	A park honouring armed forces, featuring memorials and seating areas for reflection and community events.	6.5
Hornsea Museum	A museum showcasing the history of Hornsea, including exhibits on its pottery industry and maritime heritage.	6.6
Hornsea Mere	The largest natural lake in Yorkshire, ideal for birdwatching, sailing, and walking along scenic paths.	6.9
Wassand Hall	A Regency house owned by the same family since 1530. The estate features walled gardens, a woodland walk, and a park walk with views of Hornsea Mere, along with a collection of 18th and 19th-century art.	7.0
Hornsea Methodist Church	A community-focused place of worship where people gather for services, social activities, and support groups.	7.0
Bugtopia Hornsea Zoo	A zoo featuring interactive exhibits with exotic insects, reptiles, and small mammals as well as educational talks.	7.9
Hornsea Golf Club	An 18-hole golf course known for its coastal views.	8.5
RNLI Bridlington Lifeboat Station	A 200-year-old museum showcasing maritime history and offering a selection of goods for sale.	9.0
William's Den	An indoor and outdoor play facility with climbing frames, slides and sensory activities and a café.	9.1
Bridlington Spa	An entertainment venue known for its architecture and guided tours, seaside views and shows.	9.2
Bridlington Harbour	Previously a fishing village, this area evolved into a seaside resort and a popular attraction for enjoying fresh fish, private yachts, and leisure boats like the Yorkshire Belle.	9.4
Boyes Museum	A museum showcasing the history of the retail company with views of Bridlington's rooftops, the Harbour, and South Beach.	9.6
Alex May Gallery	A gallery featuring original contemporary art and hosting solo artist exhibitions.	10.7
Sewerby Hall & Gardens	A historic Georgian house featuring beautiful gardens and a zoo.	12.3

30.6.1.11.2 Beaches within the LTRA

155. There are four beaches in the LTRA considered as tourist attractions. These are:

- Skipsea Beach, a sandy beach awarded the Quality Coast Away from It All Award, near the ruins of 13th century Skipsea Castle, which overlaps the Onshore Development Area;
- Moos Beach, known for its natural beauty, peaceful atmosphere and scenic coastal views, which overlaps the Onshore Development Area;
- Driffield Beach, which is popular with walkers and for nature observation, which overlaps the Onshore Development Area; and
- Hornsea Beach, most popular amongst visitors looking to take part in swimming and other water sports, located 6.5km from the onshore ECC.

156. These tourist attractions are where it would be expected visitors would take part in activities such as sea swimming, coastal fishing, and water sports on the coast.

30.6.1.11.3 Accommodation Providers

157. An overview of accommodation providers is provided by a report from AECOM (2016) on tourism in East Riding of Yorkshire as shown in **Table 30-31**. While this study was produced in 2016 reporting on the tourism economy in 2015, it is expected that the overall findings of the report remain applicable with respect to the nature of accommodation provision in East Riding of Yorkshire. The study identified upwards of 548 accommodation providers in the area. Of the accommodation providers, the majority (upwards of 290) were located in East Coast Bridlington, outside of the LTRA.

Table 30-31 Accommodation by Type, East Riding of Yorkshire (2015) (AECOM, 2016)

Accommodation Type	Number of Businesses
Hotels	260
B&Bs/Guest Houses	21
Self-Catered Units	206
Holiday Parks	40
Sites with Touring Pitches	51
Total	548*

*Adjusted number not accounting for providers offering more than one type of accommodation.

158. 34 accommodation providers located within 1km of the Onshore ECC and within 5km of OCS Zone 4 or Zone 8 have been identified and are listed below in **Table 30-32**.

Table 30-32 Accommodation Providers within 1km of the Onshore ECC and within 5km of OCS Zone 4 or Zone 8 (Google Maps, 2024)

Accommodation Provider	Distance from Onshore Development Area (km)
Within 1km of Onshore ECC	
Holiday Parks	
Billabong Water Sports and Caravan Park	0.0
Top View Caravan Park	0.0
Seaside Caravan Park	0.1
Greengrass Park Static and Touring Caravan Park	0.2
Skipsea Sands Holiday Park	0.2
Butt Farm Caravan, Camping & Glamping Site	0.3
Cherry Burton Leisure Park	0.3
Strawberry Fields Holiday Park	0.4
Kingfisher Lakes Glamping and Lodges	0.4
Centre Meadows Holiday Park	0.4
Sea Breeze at Skipsea	0.4
Mill Farm Country Park	0.9
The Holiday Home Centre	0.9
Samara Caravan Park Skipsea	1.0
Self-Catered Units	
Granary Cottage	0.1
Baswick Steer Holiday Cottage	0.6
The Old Coach House	0.8
West End Farmhouse	1.0

Accommodation Provider	Distance from Onshore Development Area (km)
Bumblebee Cottage	1.0
Hotels and B&B	
Tickton Grange Hotel	0.8
Lazaat	0.8
Within 5km of OCS Zone 4	
Holiday Parks	
Beverley Holiday Park	1.7
Tudor Springs Caravan Site	1.8
Barmston Farm Holiday Park	2.9
Self-Catered Units	
Dragonfly Cottage Beverley	1.6
Beverley Central Townhouse	1.7
Hotels and B&Bs	
Premier Inn Beverley Town Centre Hotel	1.7
Beverley Budget Inn	1.7
Hunter's Hall	1.7
Beverley Arms Hotel	2.5
Within 5km of OCS Zone 8	
Self-Catered Units	
Broadgate Farm Cottages	1.6
Raywell Hall Country Lodge Park	4.8
Hotels and B&Bs	
The Rowley Manor Hotel	4.3
Mercure Hull Grange Park Hotel	4.5

30.6.1.11.4 Recreational Activity

159. The East Riding of Yorkshire Council website (2022) identified a number of long-distance walking and cycle routes across East Riding of Yorkshire which pass within the LTRA, including:

- Yorkshire Wolds Way (National Trail);
- Trans Pennine Trail;
- Way of the Roses coast to coast cycle route;
- Sections of the National Cycle Network;
- Minster Way;
- King Charles III England Coast Path;
- East Riding Heritage Way; and
- High Hunsley Circuit.

160. Other routes identified within the LTRA include:

- The Hudson Way (East Riding Coast and Countryside, 2024);
- The Wilberforce Way (Long Distance Walkers Association (LDWA), 2024a); and
- Beverley 20 (LDWA, 2024b).

161. There are 39 Public Rights of Way (PRoW) which overlap the Onshore Development Area, located within the LTRA. These are outlined in **Chapter 22 Soils and Land Use**.

162. East Riding is also increasingly a key destination for recreational competitions, with the Tour of Britain passing through the area in 2023, and the British Rally Championship expected to include the East Riding Stages rally in 2025.

30.6.1.12 Marine Recreation

30.6.1.12.1 Boating

163. Compared to other coastal areas, there is relatively little recreational boating off the coast of the LTRA. **Volume 2, Appendix 15.2 Navigational Risk Assessment** (NRA) notes that the main vessel type recorded within the NRA Study Area was cargo vessels, accounting for 44% of all vessels recorded. Commercial fishing vessels accounted for 12% of all vessels recorded and recreational vessels accounted for less than 10% of vessels. Over the summer survey period, the NRA recorded three unique recreational vessels, which is expected as the sea conditionals in the Dogger Bank Region are known to be unfavourable. Over the 54-day survey period, an average of one unique recreational vessel was recorded within the Study Area per week.

164. Within East Riding of Yorkshire, there are two designated boating launch sites, in Bridlington and Hornsea. One speedboat company offering boat tours, Bridlington Speed Boats, operates at Bridlington.

165. The main marinas are in the Humber Estuary, at Grimsby and Hull, outside the LTRA. In addition, there are Royal Yachting Association (RYA) training centres and clubs also around the Humber and along the North Norfolk coast. These locations also related broadly to the vessel usage heatmap, which represents Automatic Identifier System (AIS) recreational vessel data and is provided by the RYA Coastal Atlas (2021).

166. The highest usage is in the Humber Estuary with activity extending south to the mouth of the Wash and the North Norfolk coast. These focus points lead to bands of routes concentrated on Scarborough to the Humber and the Humber to north Norfolk. There was also a light usage route from Scarborough to Northeast Norfolk. Vessel usage further offshore was very low, mostly absent. Vessel usage was reported to be generally low in this region due to the lack of suitable weather and therefore vessel safety.

30.6.1.12.2 Angling

167. Recreational fishing, in terms of both shore and sea angling, is a popular recreational activity throughout English waters.

168. Popular sea angling sites within the LTRA include Flamborough Head, Bridlington, and Spurn Point (British Sea Fishing, 2024). The recreational angling offering at these sites is largely shore-based, with anglers at Flamborough Head able to fish off cliffs as well as at sea level, fishing at Bridlington mainly taking place at the harbour, and angling at Spurn Head located on a spit of land at the further point. The coast between Bridlington and Spurn Point is also host to the Paul Roggeman European Open Beach Championship (EOBC), an annual three-day fishing competition (EOBC, 2024).

169. Offshore sea angling within the LTRA operates mainly out of Bridlington, with trips mainly targeting wrecks, ground and rough areas, with species caught mainly comprising cod, bass and flatfish. In Bridlington, chartered boats carried out trips less frequently than other areas, with trips taking place between 20 to 60 days a year.

30.6.1.12.3 Scuba Diving

170. Unlike many parts of England's coast, little scuba diving takes place off the coast of the LTRA, as is reflected by nature conservation diving reports over multiple years (Seasearch, 2021). Although these are carried out by volunteers in their personal leisure time, these provide a proxy for general levels of diving activity and locations. Scuba activity is limited and mainly concentrated off the coast of Barmston, located in the north of the coastal areas of the LTRA.

30.6.1.13 Factors Driving Tourism Activity

171. Based on existing evidence on tourism and the tourism economy, activity is mostly driven by the following factors:

- The ability and willingness of tourists to travel;
- Economic performance (and so whether tourists have disposable income available for leisure trips);
- Exchange rates;
- The quality of the overall tourism product;
- The effectiveness of destination marketing; and
- The quality and value for money of the services offered by tourism businesses.

172. There is no relationship between most of these factors and the existence of an offshore wind development. The assessment of tourism impacts during the O&M of the Project will consider whether visitor attractions and the motivations for visiting them will be affected by the Project.

173. In case any evidence was found, for a change in tourism activity to happen, the following conditions would need to be met:

- The Project's construction and operation has some impact(s) on the area;
- Visitors, or potential visitors are aware of such impact(s);
- Visitors, or potential visitors, react by changing their behaviour. For example, by changing the length of stay, where they choose to visit or the activities that they undertake;
- The change in behaviour results in a change in their level of spending; and
- These changes in visitor spending result in a change in performance of the tourism sector, for example a change in employment.

30.6.2 Predicted Future Baseline

174. A description of future baseline conditions for socio-economics, tourism and recreation has been carried out and is described within this section.

175. In the event the Project is not developed, there would be no change to the industrial structure, job creation in sectors relevant to the operational impacts, or demographic trends, aside from the effects of other approved or in development renewable energy projects within the LSESA, the RSA and the UK. These effects are expected to influence the future baseline of the Study Areas over time, reflecting the broader changes brought about by these initiatives.

176. As shown in **Table 30-19**, LSESA, RSA and the UK, the 2018 projection data suggests that the working-age population of the LSESA will be below average in 2043, while the proportion of people aged 65 and over will be above average compared to the RSA and the UK as a whole. This demographic split is likely to influence labour market dynamics and economic resilience across the Study Areas.

177. Over the duration of the Project's O&M phase, approximately 35 years, the tourism baseline conditions are expected to remain relatively stable. For example, during the period between 2013 and 2019, a period prior to disruptions to the tourism industry caused by the Covid-19 pandemic, East Riding of Yorkshire saw an increase in the levels of domestic day visits from 8.5 million visits in 2013 (Visit Britain, 2014) to 8.9 million visits in 2019 (Kantar TNS, 2020a). Similar trends were followed by the overnight visits between 2015 (0.6 million visits) (Visit Britain, 2016) and 2019 (0.7 million visits) (Kantar TNS 2020b).

178. Therefore, while uncertainties remain over long-term trends, these upward figures indicate that in the absence of the Project, there is no evidence that show that tourism activity would shift significantly, aside from effects resulting from unforeseen external shocks. In the absence of the Project, it is expected that there would be no change to tourism and recreation taking place within the LTRA. Visitor numbers would not change aside from due to other approved or in development projects which may affect the LTRA.

30.7 Assessment of Effects

179. The likely significant effects to socio-economics, tourism and recreation 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 30.5** and is based on the realistic worst-case scenarios defined in **Section 30.4.4**, with consideration of embedded mitigation and enhancement measures identified in **Section 30.4.3**.

180. As noted in **Section 51**, the assessment of likely significant effects for the OCS zone infrastructure will remain the same for both development scenarios.

30.7.1 Potential Effects during Construction

30.7.1.1 Direct Economic Benefit from Supply Chain Expenditure (Offshore and Onshore) (SOC-C-01)

181. The construction phase will generate beneficial economic impact through the expenditure in the supply chain. The first round of expenditure and economic impact will occur within the Applicant's respective organisations and through its directly procured contractors such as environmental consultants and surveyors, and engineering consultants. For the purpose of the assessment, both the Applicant and its directly procured contractors are considered as one group within the direct impact analysis. This expenditure will generate GVA within these companies, which is measured by the sum of the profits and staff costs that will be stimulated by this turnover.

182. The level of GVA supported by a given amount of turnover is dependent on the sector that the company is operating in. To estimate the direct GVA from each of the main contract categories, each contract was split into sub-contracts. Using industry-specific data on turnover and GVA, turnover/GVA ratios were applied to each specific sub-contract in order to estimate GVA.

183. There would also be indirect effects in the supply chain from the second round of expenditure as these directly procured companies purchase goods and services to support their activities. This will include for example the manufactured goods and specialised equipment required in order to construct the Project. These effects are estimated by applying Type 1 (Indirect) GVA multipliers, as derived from the UK Input-Output Tables to the direct GVA impacts.

184. Those who are directly employed on the Project, or through the supply chain, will also have an impact on the economy through spending of their salaries across the economy. This is the induced impact, and it is calculated using the Type 2 multipliers.

185. The Project's construction phase is expected to occur between 2029 and 2033, in line with the details outlined in **Chapter 4 Project Description**.

30.7.1.1.1 Receptor Sensitivity

186. The sensitivity of an economy is based on its responsiveness to change, its relative diversity (more diverse economies are less sensitive) and growth trajectory (for example is the number of jobs increasing or decreasing).

187. The sensitivity of the economic receptors has been assessed in line with the parameters outlined in **Table 30-7**.

188. The sensitivity of the economy of the LSESA has been assessed as **medium** because jobs growth has been lower than the national average and the qualification level of the labour force is notably lower than the UK as a whole. It is therefore expected that the economy of the LSESA would be of **medium** sensitivity to economic benefits from supply chain expenditure. The economy is also more reliant on a smaller number of sectors than for the RSA and UK as a whole.

189. The sensitivity of the economy of the RSA has been assessed as **low** because while jobs growth has been lower than the national average, the economy is well balanced between sectors. The qualification level of the labour force is below that of the UK average, however not to the same extent as the LSESA.

190. The sensitivity of the economy of the UK has been assessed as **low**, as most of the sectors of the economy are well represented, in line with the definitions in **Table 30-7**.

30.7.1.1.2 Impact Magnitude

191. The construction of the Project will generate economic impacts through the expenditure in the supply chain that will be required during this phase. This includes the expenditure associated with the construction of the Array Area infrastructure, offshore and onshore export cable infrastructure, OCS and the ESBI. The embedded measure to develop an Outline ESP, as noted in **Table 30-4** (Commitment ID CO67), is expected to secure the delivery of economic benefits post-consent. The Outline ESP will be provided with the DCO application.

192. The Applicant provided an indicative breakdown of the capital investment. Based on this, assumptions were made about how the supply chain expenditure could be allocated across different categories. For each category, estimates were developed regarding the proportion of contracts that might be secured in each Study Area and the relevant sectors for those contracts. These assumptions were informed by professional judgement and expertise in the sector, and the current industrial capabilities within each of the Study Areas. The expenditure figures have not been presented in this chapter. However, the contract categories and the approximate proportion of capital expenditure of each contract category are presented in **Table 30-33.**

Table 30-33 Capital Expenditure by Category

Contract Category	Share of Capital Expenditure (CAPEX)
Wind Turbine Supply and Installation	40%
Offshore Foundations Supply	22%
Inter-Array and Offshore Export Cable Installation	12%
Offshore Platform(s) Supply and Installation	7%
Offshore Foundations Installation	7%
Cables Supply (Inter-Array, Offshore Export and Onshore Export Cables)	6%
Development and Consenting Services	1%
Enabling Infrastructure Investment	1%
OCS and ESBI Supply and Installation and Onshore Export Cable Installation	4%
Total	**100%**

193. The magnitude of the economic impact from the expenditure during the construction phase has been estimated in line with the methodology outlined in **Section 30.5**. For the purposes of assessment, only the direct and indirect economic impacts are considered when determining the magnitude of the impact. These describe the economic activity required to realise the Project.

194. The induced impacts are quantified and presented for completeness but are not used in the assessment of magnitude. The estimated GVA generated by the Project during the construction phase is shown in **Table 30-34**.

Table 30-34 GVA Impacts, Construction

	LSESA	RSA	The UK
Direct GVA (£m)	£20m	£139m	£330m
Indirect GVA (£m)	£8m	£103m	£286m
Total GVA (£m)	**£28m**	**£242m**	**£617m**
Induced GVA (£m)	£7m	£53m	£254m
Total GVA including Induced (£m)	**£35m**	**£295m**	**£871m**

195. The peak GVA impacts of the Project during the construction phase in each of the Study Areas and the current GVA (as of 2022) of the construction sector in each Study Area are shown in **Table 30-35**.

Table 30-35 Magnitude of GVA Impacts, Construction

	LSESA	RSA	The UK
Peak GVA (£m)	£17 m	£84 m	£231 m
Current GVA of Construction Sector in Study Area (£bn)	£1.1 bn	£23.1 bn	£139.1 bn
Peak GVA as % of Current GVA	1.55%	0.37%	0.17%
Magnitude of Impact	**High (Beneficial)**	**Low (Beneficial)**	**Negligible (Beneficial)**

196. On this basis, the GVA attracted by the Project was equivalent to 1.55% of the LSESA economy, 0.37% of the RSA economy, and 0.17% of the UK economy.

197. Following a review of **Chapter 14 Commercial Fisheries, Chapter 15 Shipping and Navigation, Chapter 16 Aviation, Radar and Military** and **Chapter 22 Soils and Land Use**, it is not expected that there will be any adverse effects on economic activity as a result of the construction activity interacting with commercial fisheries, shipping and navigation, aviation and agricultural land use. While residual significant adverse effects were identified on disruption to farming practices during the O&M of the Project in **Chapter 22 Soils and Land Use**, the assessment notes that where land cannot be returned, private agreements are expected to be undertaken between the Applicant and the relevant landowner / occupier. It is not expected that disruption to farming practices on individual farms would constitute a significant adverse effect on the economies of the LSESA, the RSA, or the UK.

30.7.1.1.3 Effect Significance

198. The sensitivity of the economy of the LSESA is assessed as **medium**, and the magnitude of the GVA impact is assessed as **high**. The effect is therefore of **major beneficial** significance in the LSESA, which is **significant** in EIA terms.

199. The sensitivity of the economy of the RSA is assessed as **low**, and the magnitude of the GVA impact is assessed as **low.** The effect is therefore of **minor beneficial** significance in the RSA, which is **not significant** in EIA terms.

200. The sensitivity of the economy of the UK is assessed as **low**, and the magnitude of the GVA impact is assessed as **negligible**. The effect is therefore of **negligible beneficial** significance in the UK, which is **not significant** in EIA terms.

201. Since construction spending is expected to result in a beneficial impact on GVA, no additional mitigation measures are envisaged to be required.

30.7.1.2 Increase in Employment (Offshore and Onshore) (SOC-C-02)

202. The construction phase of the Project will result in the creation of employment. The estimation of employment impacts uses the same methodology and assumptions adopted to estimate the impact on GVA.

203. The level of employment that is supported by a given amount of turnover is dependent on the sector that the company is operating in. To estimate the direct jobs from each of the main contract categories, each contract was split into sub-contracts. Using industry-specific data on turnover and jobs, turnover/employment ratios were applied to each specific sub-contract in order to estimate employment.

204. There would also be knock on effects in the supply chain as these directly procured companies employ workers to support their activities. These effects are estimated by applying Type 1 (Indirect) employment multipliers, as derived from the UK Input-Output Tables to the direct employment impacts.

205. Those who are directly employed on the Project, or through the supply chain, will also have an impact on the economy as they spend their earnings which will circulate through the economy, creating jobs throughout the economy. This is the induced impact, and it is calculated using the Type 2 multipliers, that are based on the Input-Output Tables.

206. As the construction of the Project will generate short term employment, any impacts on employment are estimated in terms of 'years of employment', whereby a job lasting for 18 months is to be interpreted as 1.5 years of employment.

207. Jobs created during the construction phase will span a range of roles, including skilled technical positions, such as engineering and project management, as well as roles in IT, finance, administration, and logistics. While some roles will require upskilling or retraining to meet the demands of the renewable energy sector, many positions will be accessible to individuals currently unemployed or underemployed, helping to improve local workforce participation.

208. It is a national policy objective to increase employment in the renewable energy sector, as outlined in the strategic context in **Section 30.2**.

30.7.1.2.1 Receptor Sensitivity

209. The sensitivity of the economy of the LSESA (which employs 270,000 people) has been assessed as **medium** because jobs growth has been lower than the national average and the qualification level of the labour force is notably lower than the UK as a whole.

210. The sensitivity of the economy of the RSA (which employs 5.9 million people) has been assessed as **low** because while jobs growth has been lower than the national average, the economy is well balanced between sectors. The qualification level of the labour force is below that of the UK average, however not to the same extent as the LSESA.

211. The sensitivity of the economy of the UK (which employs 32.3 million people) has been assessed as **low**.

30.7.1.2.2 Impact Magnitude

212. The construction of the Project will generate economic impacts through the expenditure that will be required during this phase. As with GVA impacts, the embedded measure to develop an Outline ESP (Commitment ID CO67, **Table 30-4**) is expected to secure the delivery of economic benefits post-consent.

213. Based on the same expenditure estimates used to estimate GVA impacts, the potential employment impacts can be calculated.

214. The magnitude of the employment impact from the expenditure during the construction phase has been estimated in line with the methodology outlined in **Section 30.5**. For the purposes of assessment, only the direct and indirect economic impacts are considered when determining the magnitude of the impact. These describe the economic activity required to realise the Project.

215. The induced impacts are quantified and presented for completeness but are not used in the assessment of magnitude. The employment impacts through the construction phase of the Project are shown below in **Table 30-36**.

Table 30-36 Employment Impacts, Construction

	LSESA	RSA	The UK
Direct Years of Employment	226	1,954	4,810
Indirect Years of Employment	111	1,535	4,230
Total Years of Employment	**337**	**3,489**	**9,040**
Induced Years of Employment	88	768	3,720
Total Years of Employment including Induced	**425**	**4,257**	**12,760**

216. The peak employment impacts of the Project during the construction phase in each of the Study Areas are shown in **Table 30-37**, and is expected to occur in 2031. In 2022, the construction employment in the LSESA was approximately 16,020, 295,050 in the RSA, and 1,566,300 in the UK. On this basis, the peak employment supported by the Project was equivalent to 1.29% of the LSESA economy, 0.41% of the RSA economy, and 0.22% of the UK economy.

Table 30-37 Magnitude of Employment Impacts, Construction

	LSESA	RSA	The UK
Peak Employment (Jobs)	207	1,211	3,423
Current Level of Employment in Construction Sector in Study Area	16,020	295,050	1,566,300
Peak Employment as % of Current Construction Sector Employment	1.29%	0.41%	0.22%
Magnitude of Impact	**High (Beneficial)**	**Low (Beneficial)**	**Negligible (Beneficial)**

30.7.1.2.3 Effect Significance

217. The sensitivity of the economy of the LSESA is assessed as **medium**, and the magnitude of the employment impact is assessed as **high**. The effect is therefore of **major beneficial** significance in the LSESA, which is **significant** in EIA terms.

218. The sensitivity of the economy of the RSA is assessed as **low**, and the magnitude of the employment impact is assessed as **low**. The effect is therefore of **minor beneficial** significance in the RSA, which is **not significant** in EIA terms.

219. The sensitivity of the economy of the UK is assessed as **low**, and the magnitude of the employment impact is assessed as **negligible**. The effect is therefore of **negligible beneficial** significance in the UK, which is **not significant** in EIA terms.

220. Since construction spending is expected to result in a beneficial impact on employment, no additional mitigation measures are envisaged to be required.

30.7.1.3 Loss of, Disruption to, or Pressure on Local Infrastructure and Services (Offshore and Onshore) (SOC-C-03)

221. There is potential for a considerable number of transient workers to have an impact on local infrastructure and services such as housing, schools and GP.

222. As outlined in **Section 30.6.1**, the most recent available population projections are 2018-based and may not accurately reflect current expected changes in total population in the LSESA. As shown in **Table 30-14**, the potential for loss of, disruption to, or pressure on local infrastructure and services is determined by comparing peak employment to average annual population growth. As average annual population growth cannot yet be determined, the magnitude of the impact cannot accurately be assessed at this stage. It is expected that up-to-date population projections will be published in Q2 of 2025, therefore the magnitude and significance of this impact will be assessed at ES stage once this data is available.

223. The assessment will consider the potential impact on local infrastructure assets, as a result of a change in demand for assets during the construction phase. In practice, a number of activities, such as fabrication, will utilise existing local workforces and some activities will not require workers to stay in local accommodation throughout their working period, with offshore workers likely to be accommodated in service operation vessels during the majority of this period. However, the assessment should consider a worst-case scenario, it is assumed that 100% of the workforce would be transient workers, as a result of factors such as competition for labour, who many require use of local infrastructure and services throughout their time working on the construction of the Project.

30.7.1.3.1 Receptor Sensitivity

224. The population of the LSESA has a similar demographic structure to the UK as a whole and has a total population of 622,000. House prices in the area have increased at a slower rate than the national average. However, the availability of services like healthcare is lower, as indicated by the lower number of GP per capita. In line with the definitions outlined in **Table 30-10**, the sensitivity of the local infrastructure assets of the LSESA has been assessed as **low**.

30.7.1.3.2 Impact Magnitude

225. The potential change in demographics as a result of construction of the Project is linked to the number of jobs that are supported.

226. The distribution of economic activity during the construction of the Project is determined by the location of the directly contracted and supply chain companies. Changes to the use of and demand for local infrastructure will be the result of new people moving to the area to work on the Project.

227. In 2019, total visitor nights in accommodation in the LSESA was 4,005,250 (Kantar TNS, 2020b and ONS, 2020a). The peak employment that will be supported in the LSESA during the construction of the Project is estimated to be 207 jobs. Assuming workers would be staying in the LSESA 250 nights a year, this is equivalent to 51,750 nights, around 1% of the total annual visitor nights in the LSESA in 2024. This suggests that there is considerable scope for the area to accommodate transient workers during the construction period.

228. The magnitude of the impact will be determined at ES stage, once 2025 population projection data is available (see **Section 30.5.6**).

30.7.1.3.3 Effect Significance

229. The sensitivity of the local infrastructure assets of the LSESA is assessed as **low**. The magnitude of the impact will be presented in the ES once the 2025 population projection data is available. Therefore, the significance of the effect will be determined at ES stage.

30.7.1.3.4 Additional Mitigation and Residual Effect

230. Where required, requirements for additional mitigation, and the resulting residual effect, will be determined at ES stage, once up-to-date population projection data is available.

30.7.1.4 Disturbance to Social Infrastructure (Offshore and Onshore) (SOC-C-04)

231. The construction of the Project's onshore infrastructure may result in disturbance to social infrastructure as a result of noise, air quality, visual and traffic impacts. The analysis in this section is carried out with reference to the findings from **Chapter 20 Air Quality and Dust**, **Chapter 25 Noise and Vibration**, **Chapter 26 Traffic and Transport** and **Chapter 27 Landscape and Visual Impacts**. The receptors for disturbance to social infrastructure are determined by receptors for which residual significant adverse effects have been identified by these chapters. Residual significant adverse effects identified by these chapters are outlined below in **Table 30-38**.

232. There were no residual significant adverse effects identified in **Chapter 14 Commercial Fisheries**, **Chapter 15 Shipping and Navigation** and **Chapter 18 Other Marine Users** that would affect social infrastructure. Therefore, impacts from construction of the Project's offshore infrastructure are not considered further, and the assessment below only covers impacts from the Project's onshore infrastructure.

30.7.1.4.1 Receptor Sensitivity

233. The inclusion of disturbance to social infrastructure impacts as a result of noise, air quality, traffic or visual impacts, depends on the residual significant adverse effects identified by the following onshore EIA topic chapters: **Chapter 20 Air Quality and Dust**, **Chapter 25 Noise and Vibration**, **Chapter 26 Traffic and Transport** and **Chapter 27 Landscape and Visual Impacts**. Residual significant adverse effects identified by these chapters are outlined below in **Table 30-38**.

Table 30-38 Social Infrastructure – Residual Significant Adverse Effects Identified by Other Chapters

Social Infrastructure Asset	Noise and Vibration	Traffic and Transport	Landscape and Visual Impacts	Air Quality and Dust
Residential properties within 150m and between 150m to 180m of trenchless crossing entry pits locations along the onshore ECC	Yes	No	No	No
Residential properties proximate to landfall	No	No	Yes	No
Residential properties proximate to OCS Zone 4 and OCS Zone 8	No	No	Yes	No

234. The sensitivity of each asset to social infrastructure impacts is determined by its relative potential for noise and vibration, traffic and transport, air quality, or landscape and visual impacts to affect its ability to provide accommodate users. The sensitivity of each identified asset is outlined below in **Table 30-39**.

Table 30-39 Social Infrastructure Asset Sensitivities

Social Infrastructure Asset	Receptor Sensitivity	Rationale
Onshore Construction Noise		
Residential properties within 150m and between 150m to 180m of trenchless crossing entry pit locations along the onshore ECC	**High**	The sensitivity of residential properties to noise impacts is high as its ability to continue to accommodate users will not tolerate or adapt to this impact.
Landscape and Visual Impacts During Construction		
Residential properties proximate to the landfall, OCS Zone 4 and OCS Zone 8	**Negligible**	The sensitivity of residential properties to landscape and visual impacts is negligible as, while residents may be able to see changes to the landscape character or the view from receptors, the ability of houses to continue to accommodate users is resistant to this impact.

30.7.1.4.2 Impact Magnitude

235. The magnitude of the impact on social infrastructure assets has been assessed with reference to the findings of other relevant EIA topic chapters that may have a significant impact on social infrastructure.

236. **Chapter 25 Noise and Vibration** found that there is potential for residual significant adverse effects on residential properties within 150m and between 150 and 180m from potential trenchless crossing entry pit locations along the onshore ECC as there is potential for night-time working at these areas to last for at least ten consecutive days. Given the private ownership of residential receptors, any issues from construction activity can be resolved with the affected parties. It is not expected that changes in residual receptors will affect the overall quality and provision of social infrastructure. On this basis, the magnitude of the impact of disturbance to social infrastructure from noise and vibration has been assessed as **negligible (adverse)**.

237. As considered in **Chapter 27 Landscape and Visual Impacts**, it is expected that there will be localised visual effects around the landfall, OCS Zone 4, and OCS Zone 8, with residual effects to be determined at ES stage. While residents are likely to perceive these impacts, it is not expected that it would impact the ability of these residencies to accommodate residents. As these properties are privately owned, it is also expected that any issues will be resolved directly with affected parties. The magnitude of the impact is therefore assessed as **negligible (adverse)**.

238. At ES stage, additional mitigation measures may be required for impacts assessed in **Chapter 27 Landscape and Visual Impacts**. It is therefore expected that at ES stage, the impacts on social infrastructure arising from landscape and visual impacts which may affect the behaviour of users will be confirmed, and appropriate mitigation measures would be identified.

30.7.1.4.3 Effect Significance

239. The sensitivity of residential properties (part of the social infrastructure) to disturbance as a result of noise is assessed as **high** and the magnitude of the impact is assessed as **negligible**. The effect is therefore of **minor adverse** significance, which is **not significant** in EIA terms.

240. The sensitivity of residential properties (part of the social infrastructure) to disturbance as a result of visual impacts is assessed as **negligible** and the magnitude of the impact is assessed as **negligible**. The effect is therefore of **negligible adverse** significance, which is **not significant** in EIA terms.

241. As such, no further mitigation measures would be required beyond the proposed mitigation presented in the relevant EIA topic chapters.

30.7.1.5 Disruption to Recreational Activities (Offshore and Onshore) (SOC-C-05)

242. The analysis in this section is carried out with reference to the findings from **Chapter 14 Commercial Fisheries, Chapter 15 Shipping and Navigation, Chapter 18 Other Marine Users, Chapter 20 Air Quality and Dust**, **Chapter 22 Soils and Land Use, Chapter 25 Noise and Vibration**, **Chapter 26 Traffic and Transport** and **Chapter 27 Landscape and Visual Impacts**. This section assesses the potential for changes in visitor activity at onshore and marine recreational assets which may result from residual significant adverse effects identified by these chapters.

30.7.1.5.1 Receptor Sensitivity

243. The sensitivity of recreational assets outlined in **Section 30.6.1** has been assessed in line with the methodology outlined in **Table 30-9**. The sensitivity of all onshore recreational assets was assessed as **negligible**. The sensitivity of all marine recreation assets was assessed as **negligible.**

30.7.1.5.2 Impact Magnitude

244. There were no residual significant adverse effects identified that would affect marine recreational activities by **Chapter 14 Commercial Fisheries**, **Chapter 15 Shipping and Navigation** and **Chapter 18 Other Marine Users**. The magnitude of impact on marine recreation activities was therefore assessed as **no impact**.

245. The magnitude of impact of the Project on onshore recreational assets is informed by the residual significant adverse effects identified by the following onshore EIA topic chapters: **Chapter 20 Air Quality and Dust**, **Chapter 22 Soils and Land Use, Chapter 25 Noise and Vibration**, **Chapter 26 Traffic and Transport** and **Chapter 27 Landscape and Visual Impacts**. **Table 30-40** shows only the onshore recreational assets where residual significant adverse effects have been identified by these chapters.

Table 30-40 - Onshore Recreational Assets – Residual Significant Adverse Effects Identified by Other Chapters

Recreational Asset	Soils and Land Use	Noise and Vibration	Traffic and Transport	Landscape and Visual Impacts	Air Quality and Dust
Beverley 20	No	No	No	Yes	No
East Riding Heritage Way	No	No	No	Yes	No
Wilberforce Way	No	No	No	Yes	No
High Hunsley Circuit	No	No	No	Yes	No
King Charles III England Coast Path	No	No	No	Yes	No
National Cycle Network 1	No	No	No	Yes	No
PRoW proximate to landfall, OCS Zone 4 and OCS Zone 8	No	No	No	Yes	No

246. It is expected that there will be localised residual significant adverse effects on recreational routes and PRoW which pass within 1km of the landfall, 2km of OCS Zone 4, and 1km within OCS Zone 8.

247. King Charles III England Coast Path passes within 1km of the landfall and is expected to experience a residual significant adverse visual effect. Construction in the area affected is expected to last approximately three years, with periods of active construction likely to be much less than this (i.e. 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). The landscape effect is predicted to be short term and reversible.

248. Beverley 20, East Riding Heritage Way, the Wilberforce Way, and National Cycle Network 1 all pass within 2km of OCS Zone 4. Beverley 20, East Riding Heritage Way and High Hunsley pass within 1km of OCS Zone 8. It is therefore expected that these routes may experience residual significant adverse visual effects. Construction works at OCS Zone 4 or OCS Zone 8 are expected to take approximately five years, with the intensity of works varying over time. The landscape effect is predicted to be short term and partly reversible.

249. PRoW proximate to the landfall, OCS Zone 4 and OCS Zone 8 are also expected to experience residual significant adverse visual effects.

250. While residual significant adverse effects have been identified by the landscape and visual assessment, it is not expected that landscape and visual effects on the recreational trails or PRoW in the area will result in significant changes in recreational activity in the long-term, or the overall use of recreational trails or PRoW in the area due to the presence of alternative routes. It is expected that, where PRoW may be impacted in the long-term, these will be dealt with directly via the PRoW Management Plan, which will be provided as an appendix to the CoCP post-consent. An **Outline Public Rights of Way Management Plan** (document reference 8.9, Appendix A) is provided at PEIR stage and will be updated at ES stage for the DCO application submission.

251. Therefore, the magnitude of impact on onshore recreational assets where residual significant adverse effects were identified by other chapters has been assessed as **negligible (adverse)**.

252. There were no residual significant adverse effects identified by other onshore chapters on the remaining recreational assets. Therefore, for these assets, the magnitude of impact has been assessed as **no impact**.

253. At ES stage, additional mitigation measures may be required for impacts assessed in **Chapter 27 Landscape and Visual Impacts**. It is therefore expected that at ES stage, the impacts on recreational assets arising from landscape and visual impacts which may affect recreational activity will be confirmed, and appropriate mitigation measures would be identified.

30.7.1.5.3 Effect Significance

254. The sensitivity of all onshore recreational assets is assessed as **negligible**.

255. For onshore recreational assets where no residual significant adverse effects were identified by other chapters, the impact magnitude is assessed as **no impact**. The effect significance is therefore assessed as **no change**, which is **not significant** in EIA terms.

256. For long distance walking and cycling routes King Charles III England Coast Path, Beverley 20, East Riding Heritage Way, National Cycle Network 1, Wilberforce Way, and High Hunsley and PRoW proximate to the landfall, OCS Zone 4 and OCS Zone 8, the impact magnitude is assessed as **negligible**. Therefore, the effect is **negligible adverse**, which is **not significant** in EIA terms.

257. The sensitivity of marine recreation activities was assessed as **negligible,** and the magnitude of the impact is assessed as **no impact**. The effect is therefore assessed as **no change**, which is **not significant** in EIA terms.

258. As such, no further mitigation measures would be required beyond the proposed mitigation presented in the relevant EIA topic chapters.

30.7.1.6 Disruption to the Tourism Industry (Offshore and Onshore) (SOC-C-06)

259. With respect to disruption to the tourism industry from construction of the Project's onshore infrastructure, the analysis in this section is carried out with reference to the findings from **Chapter 20 Air Quality and Dust**, **Chapter 22 Soils and Land Use, Chapter 24 Onshore Archaeology and Cultural Heritage, Chapter 25 Noise and Vibration**, **Chapter 26 Traffic and Transport** and **Chapter 27 Landscape and Visual Impacts**. This section assesses the potential for changes in visitor activity at tourism assets which may result from residual significant adverse effects identified by these chapters.

260. There were no residual significant adverse effects identified in **Chapter 14 Commercial Fisheries**, **Chapter 15 Shipping and Navigation** and **Chapter 18 Other Marine Users** that would affect tourism assets. Therefore, impacts from construction of the Project's offshore infrastructure are not considered further, and the assessment below only covers impacts from the Project's onshore infrastructure.

30.7.1.6.1 Receptor Sensitivity

261. The sensitivity of tourism assets outlined in **Section 30.6.1** has been assessed in line with the methodology outlined in **Table 30-9**. The sensitivity of all tourism assets was assessed as **negligible**.

30.7.1.6.2 Impact Magnitude

262. **Table 30-41,** shows only the tourism assets where residual significant adverse effects have been identified by the following onshore EIA topic chapters: **Chapter 20 Air Quality and Dust**, **Chapter 22 Soils and Land Use, Chapter 24 Onshore Archaeology and Cultural Heritage, Chapter 25 Noise and Vibration**, **Chapter 26 Traffic and Transport** and **Chapter 27 Landscape and Visual Impacts**.

Table 30-41 Tourism Assets – Residual Significant Adverse Effects Identified by Other Chapters

Tourism Asset	Soils and Land Use	Noise and Vibration	Traffic and Transport	Landscape and Visual Impacts	Air Quality and Dust	Onshore Archaeology and Cultural Heritage
Walkington Playing Fields	No	No	No	Yes	No	No
Leconfield Recreation Club	No	No	No	Yes	No	No
Beverley and East Riding Golf Club	No	No	No	Yes	No	No
High Eske Nature Reserve	No	No	No	Yes	No	No
Hainsworth Park Golf Club	No	No	No	Yes	No	No
Beverley Art Gallery	No	No	No	Yes	No	No
East Riding Theatre	No	No	No	Yes	No	No
Beverley Guildhall	No	No	No	Yes	No	No
Aitcheson's Brickshed Brewery	No	No	No	Yes	No	No
Moos Beach	No	No	No	Yes	No	No
Driffield Beach	No	No	No	Yes	No	No
Skipsea Beach	No	No	No	Yes	No	No
Skipsea Castle	No	No	No	Yes	No	No
Beverley Westwood	No	No	No	Yes	No	No
Beverley Racecourse	No	No	No	Yes	No	No
Hessle Golf Club	No	No	No	Yes	No	No
Far Grange Golf Club	No	No	No	Yes	No	No
Cottingham Parks Golf Club	No	No	No	Yes	No	No
Risby Park	No	No	No	Yes	No	No
Top View Caravan Park	No	No	No	Yes	No	No
Seaside Caravan Park	No	No	No	Yes	No	No
Skipsea Sands Holiday Park	No	No	No	Yes	No	No
Centre Meadows Holiday Park	No	No	No	Yes	No	No
Mill Farm Country Park	No	No	No	Yes	No	No
Samara Caravan Park Skipsea	No	No	No	Yes	No	No
Beverley Holiday Park	No	No	No	Yes	No	No
Tudor Springs Caravan Site	No	No	No	Yes	No	No

Tourism Asset	Soils and Land Use	Noise and Vibration	Traffic and Transport	Landscape and Visual Impacts	Air Quality and Dust	Onshore Archaeology and Cultural Heritage
Dragonfly Cottage Beverley	No	No	No	Yes	No	No
Beverley Central Townhouse	No	No	No	Yes	No	No
Premier Inn Beverley Town Centre Hotel	No	No	No	Yes	No	No
Beverley Budget Inn	No	No	No	Yes	No	No
Hunter's Hall	No	No	No	Yes	No	No
Broadgate Farm Cottages	No	No	No	Yes	No	No
Raywell Hall Country Lodge Park	No	No	No	Yes	No	No
The Rowley Manor Hotel	No	No	No	Yes	No	No
Mercure Hull Grange Park Hotel	No	No	No	Yes	No	No

263. The magnitude of the impact on tourism assets has been assessed with reference to the findings of other relevant EIA topic chapters that may have a residual significant adverse effect on tourism assets.

264. As considered in **Chapter 27 Landscape and Visual Impacts**, there will be localised landscape effects, mitigated by vegetation, landforms, and low cliffs near Ulrome, Skipsea and Skirlington at the landfall. These are unlikely to significantly disrupt tourist activities such as coastal walks and beach visits or stays at caravan parks. Taking into account the short-term nature of works and that area will be restored to its original state post-construction, the overall impact magnitude on the majority of the tourism assets is assessed as **low (adverse)**.

265. According to findings from **Chapter 27 Landscape and Visual Impacts**, Skipsea Beach and Skipsea Sands Holiday Park may experience some disruption from construction which result in significant visual effects. However, tourists visit for beach activities, family holidays, and park facilities, which will be largely unaffected. Given these broader motivations and the temporary nature of the disruptions, the impact magnitude on these tourism assets is assessed as **low (adverse)**.

266. As considered in **Chapter 27 Landscape and Visual Impacts**, there will be potential significant localised landscape effects at up to 2km from OCS Zone 4 with more open views from the north-east side. However, the landscape setting is not the fundamental driver of the decision to participate in outdoor activities, events offered by the Beverley Racecourse and golf courses and leisure facilities offered by Cottingham Parks and Hessle Golf Club. The views from the Westwood common on Beverley Minster and countryside will also be mostly uninterrupted. Given these broader motivations, the temporary nature of the disruptions and considering that the area will be partly restored to its original state post-construction, the impact magnitude on these tourism assets is assessed as **low (adverse)**.

267. Residual significant adverse effects are identified in the **Chapter 27 Landscape and Visual Impacts** within 1km from OCS Zone 8. However, these are localised as visibility from all directions would vary due to the vegetation, woodland blocks at Risby Park and buildings which provide some local screening. The main motivation to visit Risby Park is also to view the grounds and take part in fishing at the available pond, neither of which is not expected to experience considerable changes in activity. Therefore, the impact on these tourism assets is expected to be **low (adverse)**.

268. Where there were no residual significant adverse effects identified by other onshore chapters on the remaining tourism assets, the magnitude of the impact has been assessed as **no impact**.

269. At ES stage, additional mitigation measures may be required for impacts assessed in **Chapter 27 Landscape and Visual Impacts**. It is therefore expected that at ES stage, the impacts on tourism assets arising from landscape and visual impacts which may affect tourism activity will be confirmed, and appropriate mitigation measures would be identified.

30.7.1.6.3 Effect Significance

270. The sensitivity of tourism assets, including tourism attractions and accommodation providers, is assessed as **negligible**. The magnitude of the impacts as a result of visual effects are assessed as **low**. The effect is therefore assessed as **negligible adverse** which is **not significant** in EIA terms.

271. For assets where no residual significant adverse effects were identified by other chapters, the impact magnitude is assessed as **no impact**. The effect significance is therefore assessed as **no change**, which is **not significant** in EIA terms.

272. As the significance of effect on all tourism assets within the LTRA were assessed as either no change or negligible adverse, it is not expected that there will be any negative impacts on the tourism economy of the LTRA as a result of the construction of the Project.

273. As such, no further mitigation measures would be required beyond the proposed mitigation presented in the relevant EIA topic chapters.

30.7.2 Potential Effects during Operation

30.7.2.1 Direct Economic Benefit from Supply Chain Expenditure (Offshore and Onshore) (SOC-O-01)

274. The O&M phase will generate beneficial economic impacts through expenditure in the supply chain, similar to the construction phase. For this phase, annual impacts are presented, with benefits to be delivered each year over the expected 35-year operational lifetime of the Project.

275. The initial economic impact will occur within the Applicant's organisations and their directly procured contractors, which are collectively considered in the direct impact analysis. This expenditure will contribute to GVA, measured as the sum of profits and staff costs stimulated by turnover.

276. Indirect effects will arise within the supply chain of contractors as directly procured companies purchase goods and services, and induced impacts will occur as employees spend their wages within the economy. These indirect and induced effects are calculated using Type 1 and Type 2 GVA multipliers, respectively, consistent with the methodology applied during the construction phase.

30.7.2.1.1 Receptor Sensitivity

277. The sensitivity of the economy of the LSESA has been assessed as **medium** because jobs growth has been lower than the national average and the qualification level of the labour force is notably lower than the UK as a whole. It is therefore expected that the economy of the LSESA would be of **medium** sensitivity to economic benefits from supply chain expenditure. The economy is also more reliant on a smaller number of sectors than for the RSA and UK as a whole.

278. The sensitivity of the economy of the RSA has been assessed as **low** because while jobs growth has been lower than the national average, the economy is well balanced between sectors. The qualification level of the labour force is below that of the UK average, however not to the same extent as the LSESA.

279. The sensitivity of the economy of the UK has been assessed as **low**, as most of the sectors of the economy are well represented, in line with the definitions in **Table 30-7**.

30.7.2.1.2 Impact Magnitude

280. The O&M of the Project will generate economic impacts through the expenditure that will be required during this phase. As outlined in **Table 30-4** (Commitment ID CO67), the Outline ESP included as embedded mitigation will help to ensure that these economic benefits from the Project are realised.

281. During the O&M phase, expenditure allocation across different categories was assessed using the same methodology as the construction phase (see **Section 30.7.1.1**), with assumptions informed by professional judgement and expertise in the sector, and the current industrial capabilities within each of the Study Areas. The expenditure figures have not been presented in this chapter. However, the contract categories and the approximate proportion of capital expenditure of each contract category are presented in **Table 30-42.**

Table 30-42 Operation and Maintenance Expenditure by Category

Category	Share of OPEX
Operational Training	1%
Operational Onshore Logistics	1%
Operational Offshore Logistics	3%
Health and Safety Inspections	1%
Operational Insurance	8%

Category	Share of OPEX
Wind Turbine Maintenance and Service	56%
Supporting Components Maintenance and Service	31%
Total OPEX	**100%**

282. For the purposes of this assessment, it is assumed that the O&M base port for the Project's offshore infrastructure will be located in the RSA, but not within the LSESA (see **Section 30.4.1**). Therefore, the only activity within the LSESA during the O&M phase will be that associated with the maintenance of the onshore infrastructure, including the OCS and ESBI, which is expected to be minimal. The impacts of supply chain expenditure in the LSESA are therefore not assessed further for this Study Area.

283. The magnitude of the economic impact from the expenditure during the O&M phase has been estimated in line with the methodology outlined in **Section 30.5**. For the purposes of assessment, only the direct and indirect economic impacts are considered when determining the magnitude of the impact. These describe the economic activity required to realise the Project.

284. The induced impacts are quantified and presented for completeness but are not used in the assessment of magnitude. The impacts throughout O&M of the Project are shown in **Table 30-43**.

Table 30-43 GVA Annual Impacts, Operation and Maintenance

	RSA	The UK
Direct GVA (£m)	£10 m	£14 m
Indirect GVA (£m)	£7 m	£13 m
Total GVA (£m)	**£17 m**	**£27 m**
Induced GVA (£m)	£4 m	£11 m
Total GVA including Induced (£m)	**£20 m**	**£38 m**

285. As shown below in **Table 30-44**, in 2022, the GVA of the construction sector in the LSESA was approximately £1.1 billion, that of the RSA was £23.1 billion and that of the UK was £139.1 billion. On this basis, the GVA attracted by the Project was equivalent to 0.07% of the RSA economy and 0.02% of the UK economy.

Table 30-44 Magnitude of GVA Impacts, Operation and Maintenance

	RSA	The UK
Annual GVA (£m)	£17 m	£27 m
Current GVA of Construction Sector in Study Area (£bn)	£23.1 bn	£139.1 bn
Peak GVA as % of Current GVA	0.07%	0.02%
Magnitude of Impact	**Negligible (Beneficial)**	**Negligible (Beneficial)**

286. Following a review of **Chapter 14 Commercial Fisheries, Chapter 15 Shipping** and **Navigation, Chapter 16 Aviation, Radar and Military** and **Chapter 22 Soils and Land Use**, it is not expected that there will be any significant adverse effects on economic activity as a result of the O&M activity interacting with commercial fisheries, fishing and navigation, aviation, and agricultural land use. While residual significant adverse effects were identified on disruption to farming practices during the O&M of the Project in **Chapter 22 Soils and Land Use**, the assessment notes that where land cannot be returned, private agreements are expected to be undertaken between the Applicant and the relevant landowner / occupier. It is not expected that disruption to farming practices on individual farms would constitute a significant adverse effect on the economies of the LSESA, the RSA, or the UK.

30.7.2.1.3 Effect Significance

287. The sensitivity of the economy of the LSESA is assessed as **medium**. As it was assumed the O&M base port for the Project's offshore infrastructure will be located in the RSA, but not within the LSESA, the impact of supply chain expenditure has not been assessed further for this Study Area.

288. The sensitivity of the economy of the RSA is assessed as **low**, and the magnitude of the GVA impact is assessed as **negligible**. The effect is therefore of **negligible beneficial** significance in the RSA, which is **not significant** in EIA terms.

289. The sensitivity of the economy of the UK is assessed as **low**, and the magnitude of the GVA impact is assessed as **negligible**. The effect is therefore of **negligible beneficial** significance in the UK, which is **not significant** in EIA terms.

290. Since O&M spending is expected to result in a beneficial impact on GVA, no additional mitigation measures are envisaged.

30.7.2.2 Increase in Employment (Offshore and Onshore) (SOC-O-02)

291. As with the generation of GVA, the O&M phase of the Project will result in the creation of employment. This impact is important for the RSA in that it would create long-term, well paid jobs over the expected 35-year operational lifetime of the Project, with the potential to increase the working population of the area. The estimation of employment impacts relied on the same methodology and assumptions adopted to estimate the impact on GVA.

292. The level of employment that is supported by a given amount of turnover is dependent on the sector that the company is operating in. To estimate the direct jobs from each of the main contract categories, each contract was split into sub-contracts. Using industry-specific data on turnover and jobs, turnover/employment ratios were applied to each specific sub-contract in order to estimate employment. There would also be knock on effects in the supply chain as these directly procured companies employ workers to support their activities who then have an impact on the economy when they spend their salaries. These are the indirect and induced, estimated by applying Type 1 (Indirect) employment multipliers and Type 2 (induced) employment multipliers, as derived from the UK Input-Output Tables, to the direct employment impacts.

30.7.2.2.1 Receptor Sensitivity

293. The sensitivity of the economy of the LSESA has been assessed as **medium** because jobs growth has been lower than the national average and the qualification level of the labour force is notably lower than the UK as a whole.

294. The sensitivity of the economy of the RSA (which employs 5.9 million people) has been assessed as **low** because while jobs growth has been lower than the national average, the economy is well balanced between sectors. The qualification level of the labour force is below that of the UK average, however not to the same extent as the LSESA.

295. The sensitivity of the economy of the UK has been assessed as **low**, in line with the definitions in **Table 30-7**.

30.7.2.2.2 Impact Magnitude

296. The O&M of the Project will generate economic impacts through the expenditure that will be required during this phase. As outlined in **Table 30-4**, the Outline ESP will help to ensure these economic benefits are realised (Commitment ID CO67).

297. Based on the same expenditure estimates used to estimate GVA impacts, the potential employment impacts can be calculated.

298. The magnitude of the employment impact from the expenditure during the O&M phase has been estimated in line with the methodology outlined in **Section 30.5**. For the purposes of assessment, only the direct and indirect economic impacts are considered when determining the magnitude of the impact. These describe the economic activity required to realise the Project. As outlined in **Section 30.7.2.1**, it is assumed that the O&M base port for the Project's offshore infrastructure will be located in the RSA, but not within the LSESA. Due to the very specialist nature of the OCS and ESBI, highly skilled workers will be required to maintain these assets. It is common for operations to be carried out by specialist companies in the supply chain which are located outwith the LSESA. Therefore, short term transient workers will be brought in for this work. The impacts of employment are therefore not assessed further for the LSESA.

299. The induced impacts are quantified and presented for completeness but are not used in the assessment of magnitude. **Table 30-45** shows the expected jobs that would be generated during the O&M phase.

Table 30-45 Annual Employment Impacts, Operation and Maintenance

	RSA	The UK
Direct Jobs	131	177
Indirect Jobs	101	178
Total Jobs	**232**	**355**
Induced Jobs	50	132
Total Jobs	**283**	**94**

300. As shown in **Table 30-46**, **i**n 2022, the construction employment in the RSA was approximately 295,050 and 1,566,300 in the UK. On this basis, the annual employment supported by the Project was equivalent to <0.01% of the RSA economy and <0.01% of the UK economy.

Table 30-46 Magnitude of Employment Impacts, Operation and Maintenance

	RSA	The UK
Annual Employment	232	355
Current Level of Employment in Construction Sector in Study Area	295,050	1,566,300

	RSA	The UK
Peak Employment as % of Current Construction Sector Employment	<0.01%	<0.01%
Magnitude of Impact	**Negligible (Beneficial)**	**Negligible (Beneficial)**

30.7.2.2.3 Effect Significance

301. The sensitivity of the economy of the LSESA is assessed as **medium**. The magnitude of the employment impact was not assessed for this Study Area (see **Section 30.7.2.1.3**).

302. The sensitivity of the economy of the RSA is assessed as **low**, and the magnitude of the employment impact is assessed as **negligible**. The effect is therefore of **negligible beneficial** significance in the RSA, which is **not significant** in EIA terms.

303. The sensitivity of the economy of the UK is assessed as **low**, and the magnitude of the employment impact is assessed as **negligible**. The effect is therefore of **negligible beneficial** significance in the UK, which is **not significant** in EIA terms.

304. Since O&M spending is expected to result in a beneficial impact on employment, no additional mitigation measures are envisaged.

30.7.2.3 Loss of, Disruption to, or Pressure on Local Infrastructure and Services (Offshore and Onshore) (SOC-O-03)

305. The potential for a considerable number of transient workers having an impact on local infrastructure has been scoped into this assessment. This assessment considers the potential impact on local infrastructure assets as a result of a change in demand for assets during the O&M phase.

30.7.2.3.1 Receptor Sensitivity

306. The population of the LSESA has a similar demographic structure to the UK as a whole and has a total population of 622,000. House prices in the area have increased at a slower rate than the national average, however the availability of services like healthcare is lower, as indicated by the lower number of GP per capita. In line with the definitions outlined in **Table 30-10**, the sensitivity of the local infrastructure assets of the LSESA has been assessed as **low**.

30.7.2.3.2 Impact Magnitude

307. The distribution of economic activity during the O&M of the Project is determined by the location of the directly contracted and supply chain companies. Changes to the use of and demand for local infrastructure will be the result of new people moving to the area to work on the Project.

308. As the O&M base port is not expected to be located within the LSESA, the Project is not anticipated to generate employment in this Study Area during the O&M phase. The OCS and ESBI are unmanned assets, with no permanent presence of on-site workers. However, a small number of workers may be required for the O&M of the Project's onshore infrastructure. Under the worst-case scenario approach used in this assessment, it is assumed that these roles would be filled by short term transient workers based outside the LSESA. The magnitude of this impact in the LSESA has therefore been assessed as **no impact**.

309. Loss of, disruption to, or pressure on local infrastructure and services is not assessed for the RSA as any impacts would be distributed across the large Study Area, which includes the East Midlands, the North East of England, and Yorkshire and the Humber. Any impacts on this Study Area would therefore be considered negligible.

30.7.2.3.3 Effect Significance

310. The sensitivity of the local infrastructure assets of the LSESA is assessed as **low**, and the magnitude of impact is assessed as **no impact**. The effect is therefore **no change** in the LSESA, which is **not significant** in EIA terms.

311. As such, no further mitigation measures would be required beyond the proposed mitigation presented in the relevant EIA topic chapters.

30.7.2.4 Disturbance to Social Infrastructure (Onshore) (SOC-O-04)

312. As with construction, the O&M of the Project may result in disturbance to social infrastructure as a result of noise, air quality, visual or traffic impacts. The analysis in this section is carried out with reference to the findings from **Chapter 20 Air Quality and Dust**, **Chapter 25 Noise and Vibration**, **Chapter 26 Traffic and Transport** and **Chapter 27 Landscape and Visual Impacts**. The receptors for disturbance to social infrastructure are determined by receptors for which residual significant adverse effects have been identified by these chapters. Residual significant adverse effects identified by these chapters are outlined in **Table 30-47**Error! Reference source not found..

Table 30-47 Social Infrastructure – Residual Significant Adverse Effects Identified by Other Chapters

Social Infrastructure Asset	Noise and Vibration	Traffic and Transport	Landscape and Visual Impacts	Air Quality and Dust
Residential properties proximate to OCS Zone 4 and OCS Zone 8	No	No	Yes	No

30.7.2.4.1 Receptor Sensitivity

313. While residents may be able to see changes to the landscape character or the view from receptors, the ability of houses to continue to accommodate residents is fairly able to adapt to this change. Therefore, in line with the definitions of sensitivity outlined in **Table 30-11**, the sensitivity of residential properties to disturbance as a result of landscape and visual impacts has been assessed as **negligible**.

30.7.2.4.2 Impact Magnitude

314. As considered in the **Chapter 27 Landscape and Visual Impacts**, there will be localised visual effects around OCS Zone 4 and OCS Zone 8. While residents are likely to perceive these impacts, it is not expected that it would impact the ability of these residencies to accommodate residents. The magnitude of the impact is therefore assessed as **negligible (adverse)**.

315. At ES stage, additional mitigation measures may be required for impacts assessed in **Chapter 27 Landscape and Visual Impacts**. It is therefore expected that at ES stage, the impacts on social infrastructure arising from landscape and visual impacts which may affect the behaviour of users will be confirmed, and appropriate mitigation measures would be identified.

30.7.2.4.3 Effect Significance

316. The sensitivity of residential properties (part of the social infrastructure) to disturbance as a result of visual impacts is assessed as **negligible** and the magnitude of the impact is assessed as **negligible**. The effect is therefore of **negligible adverse** significance, which is **not significant** in EIA terms. Given the negligible effect, no additional mitigation measures would be required beyond the mitigation measures proposed in the relevant EIA topic chapters.

30.7.2.5 Disruption to Recreational Activities (Onshore) (SOC-O-05)

317. The analysis in this section is carried out with reference to the findings from **Chapter 20 Air Quality and Dust**, **Chapter 22 Soils and Land Use, Chapter 25 Noise and Vibration**, **Chapter 26 Traffic and Transport** and **Chapter 27 Landscape and Visual Impacts**. This section assesses the potential for changes in visitor activity during the O&M of the Project at recreational assets which may result from residual significant adverse effects identified by these chapters.

318. Potential impacts from offshore activity on recreational assets were scoped out for the O&M phase, therefore this section accounts only for onshore impacts identified by other chapters (see SOC-O-08 in **Volume 2, Appendix 6.2 Impacts Register**).

30.7.2.5.1 Receptor Sensitivity

319. The sensitivity of recreational assets outlined in **Section 30.6.1** has been assessed in line with the methodology outlined in **Table 30-9**. The sensitivity of all recreational assets was assessed as **negligible**.

30.7.2.5.2 Impact Magnitude

320. The magnitude of impact of the Project on recreational assets is informed by the residual significant adverse effects identified by other onshore EIA topic chapters, including **Chapter 20 Air Quality and Dust**, **Chapter 22 Soils and Land Use, Chapter 25 Noise and Vibration**, **Chapter 26 Traffic and Transport** and **Chapter 27 Landscape and Visual Impacts**. **Table 30-48** shows only the onshore recreational assets where residual significant adverse effects have been identified by these chapters.

Table 30-48 Onshore Recreational Assets – Residual Significant Adverse Effects Identified by Other Chapters

Recreational Asset	Soils and Land Use	Noise and Vibration	Traffic and Transport	Landscape and Visual Impacts	Air Quality and Dust
National Cycle Network 1	No	No	No	Yes	No
Beverley 20	No	No	No	Yes	No
East Riding Heritage Way	No	No	No	Yes	No
High Hunsley Circuit	No	No	No	Yes	No
PRoW proximate to OCS Zone 4 and OCS Zone 8	No	No	No	Yes	No

321. During the O&M phase, it is expected that there will be residual significant adverse visual effects on receptors within 1km of OCS Zone 4, which includes National Cycle Network 1, Beverley 20, and East Riding Heritage Way, or within 1km of OCS Zone 8, which includes High Hunsley Circuit, Beverley 20, and East Riding Heritage Way.

322. There is also potential for ProW proximate to OCS Zone 4 and OCS Zone 8 to experience residual significant adverse visual effects during the O&M phase.

323. While residual significant adverse effects have been identified by the landscape and visual assessment, it is not expected that landscape and visual effects on the recreational trails or ProW in the area will result in significant changes in recreational activity in the long-term, or the overall use of recreational trails or ProW in the area due to the presence of alternative routes. It is expected that, where ProW may be impacted in the long-term, these will be dealt with directly via the ProW Management Plan which will provided as part of the CoCP post-consent. An **Outline Public Rights of Way Management Plan** (document reference 8.9, Appendix A) is provided at PEIR stage and will be updated at ES stage for the DCO application submission.

324. Therefore, the magnitude of the impact on the recreational assets where residual significant adverse effects were identified by other chapters has been assessed as **negligible (adverse)**.

325. There were no residual significant adverse effects identified by other chapters on the remaining recreational assets. Therefore, the magnitude of the impact has been assessed as **no impact**.

326. At ES stage, additional mitigation measures may be required for impacts assessed in **Chapter 27 Landscape and Visual Impacts**. It is therefore expected that at ES stage, the impacts on recreational assets arising from landscape and visual impacts which may affect recreational activity will be confirmed, and appropriate mitigation measures would be identified.

30.7.2.5.3 Effect Significance

327. The sensitivity of all onshore recreational assets is assessed as **negligible**.

328. For assets where no residual significant adverse effects were identified by other chapters, the impact magnitude is assessed as **no impact**. The effect significance is therefore assessed as **no change**, which is **not significant** in EIA terms.

329. For long distance walking and cycling routes East Riding Heritage Way, High Hunsley Circuit, National Cycle Network 1 and Beverley 20 and ProW proximate to OCS Zone 4 and OCS Zone 8, the impact magnitude is assessed as **negligible**. The effect significance is therefore assessed as **negligible adverse**, which is **not significant** in EIA terms.

330. As such, no further mitigation measures would be required beyond the proposed mitigation presented in the relevant EIA topic chapters.

30.7.2.6 Disruption to the Tourism Industry (Onshore) (SOC-O-06)

331. The analysis in this section is carried out with reference to the findings from **Chapter 20 Air Quality and Dust**, **Chapter 22 Soils and Land Use, Chapter 24 Onshore Archaeology and Cultural Heritage, Chapter 25 Noise and Vibration**, **Chapter 26 Traffic and Transport** and **Chapter 27 Landscape and Visual Impacts**. This section assesses the potential for changes in visitor activity at tourism assets which may result from residual significant adverse effects identified by these chapters.

332. Potential impacts from offshore activity on tourism assets were scoped out for the O&M phase, therefore this section accounts only for onshore impacts identified by other chapters (see SOC-O-09 in **Volume 2, Appendix 6.2 Impacts Register**).

30.7.2.6.1 Receptor Sensitivity

333. The sensitivity of tourism assets outlined in **Section 30.6.1** has been assessed in line with the methodology outlined in **Table 30-9**. The sensitivity of all tourism assets was assessed as **negligible**.

30.7.2.6.2 Impact Magnitude

334. **Table 30-49** shows only the tourism assets where residual significant adverse effects have been identified by other onshore EIA topic chapters, including **Chapter 20 Air Quality and Dust**, **Chapter 22 Soils and Land Use, Chapter 24 Onshore Archaeology and Cultural Heritage**, **Chapter 25 Noise and Vibration**, **Chapter 26 Traffic and Transport** and **Chapter 27 Landscape and Visual Impacts**.

Table 30-49 Tourism Assets – Residual Significant Effects Identified by Other Chapters

Tourism Asset	Soils and Land Use	Noise and Vibration	Traffic and Transport	Landscape and Visual Impacts	Air Quality and Dust	Onshore Archaeology and Cultural Heritage
Risby Park	No	No	No	Yes	No	No
Walkington Playing Fields	No	No	No	Yes	No	No
Beverley and East Riding Golf Club	No	No	No	Yes	No	No
Broadgate Farm Cottages	No	No	No	Yes	No	No

335. As considered in **Chapter 27 Landscape and Visual Impact**, there will be potential significant localised landscape effects at up to 1km from OCS Zone 4. However, the landscape setting is not the fundamental driver of the decision to visit historical sites, participate in sports and leisure activities and golf courses. Given these broader motivations, the impact magnitude on these tourism assets is assessed as **low (adverse)**.

336. Residual significant adverse effects are identified in the **Chapter 27 Landscape and Visual Impacts** within 1km from OCS Zone 8. However, these are localised as visibility from all directions would vary due to the vegetation, woodland blocks at Risby Park and buildings which provide some local screening. Visitor motivations are focused on specific recreational activities and local experiences rather than views. The main motivation to visit Risby Park is to view the grounds and take part in fishing at the available pond, neither of which is expected to experience considerable changes in activity. Therefore, the impact on these tourism assets is expected to be **low (adverse)**.

337. At ES stage, additional mitigation measures may be required for impacts assessed in **Chapter 27 Landscape and Visual Impacts**. It is therefore expected that at ES stage, the impacts on tourism assets arising from landscape and visual impacts which may affect tourism activity will be confirmed, and appropriate mitigation measures would be identified.

30.7.2.6.3 Effect Significance

338. The sensitivity of all tourism assets is assessed as **negligible**.

339. The magnitude of the impact on tourism assets where no residual significant adverse effects were identified by other chapters is assessed as **no impact**. The significance of the effect is therefore assessed as **no change**, which is **not significant** in EIA terms.

340. The magnitude of impact on the tourist attractions Beverley Westwood Beverley Racecourse, Cottingham Parks and Hessle Golf Club is assessed as **low**. The effect significance is therefore assessed as **negligible adverse,** which is **not significant** in EIA terms.

341. As the significance of effect on all tourism assets within the LTRA were assessed as either no change or negligible adverse, it is not expected that there will be any negative impacts on the tourism economy of the LTRA as a result of the operation of the Project.

342. As such, no further mitigation measures would be required beyond those proposed in the relevant EIA topic chapters.

30.7.3 Potential Effects during Decommissioning

343. No decision has been made regarding the final decommissioning strategy for the Project's infrastructure, as it is recognised that regulatory requirements and industry best practice change over time.

344. Commitment IDs CO21 and CO56 (see **Table 30-4**) requires an Offshore Decommissioning Programme and an Onshore Decommissioning Plan to be prepared and agreed with the relevant authorities prior to the commencement of the Project's offshore and onshore decommissioning works respectively. This will ensure that decommissioning socio-economics, tourism and recreation 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.

345. The detailed activities and methodology for decommissioning will be determined later within the Project's lifetime, but would be expected to include:

- Offshore:
  - Removal of all the wind turbine components and part of the foundations (those above seabed level);
  - Removal of some or all of the inter-array and offshore export cables;
  - The inter-array and offshore export cables will likely be cut at the cable ends and left in-situ below the seabed, and scour and cable protection would likely be left in-situ other than where there is a specific condition for its removal.
- Onshore:
  - 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.

346. Should the final decommissioning strategy of the Project's infrastructure involve retaining components to be left in-situ for future use, the direct economic benefit from expenditure in the supply chain and employment would be affected, as this would reduce the overall expenditure during the decommissioning phase. However, this would also create opportunities for future use of the infrastructure, with potential future economic benefits for the LSESA, the RSA, and the UK, such as attracting future investment in new projects. However, as the potential for the retention of infrastructure is confirmed at this stage, this has not been considered in the assessment of impacts during the decommissioning phase.

347. For benefits from supply chain expenditure and increased employment and impact on local infrastructure and services due to transient workers during decommissioning (SOC-D-01, SOC-D-02 and SOC-D-03), a preliminary assessment has been undertaken and presented below.

348. For impacts on social infrastructure, recreational and tourism assets (SOC-D-04, SOC-D-05 and SOC-D-06), it is not possible to identify the impact pathways on these receptors at this stage, as decommissioning activities are not yet defined, and other EIA topic chapters have not undertaken a detailed assessment of decommissioning impacts to identify the potential for residual significant adverse environmental effects. As such, it is assumed that most decommissioning impacts on these receptors would likely be of similar nature to, and no worse than, those identified during the construction phase.

30.7.3.1 Direct Economic Benefit from Supply Chain Expenditure (Offshore and Onshore) (SOC-D-01)

349. The Project's operational lifetime is expected to be approximately 35 years, meaning details on the scale and duration of decommissioning activities are not yet fully known. For this assessment, an indicative figure for decommissioning expenditure was provided by the Applicant, and an assumption was made about the duration of the decommissioning phase.

350. Similar to the construction phase, the decommissioning phase will generate beneficial economic impact through the expenditure in the supply chain by the Applicant and directly procured contractors. The expenditure will generate GVA within these organisations, measured by the sum of profits and staff costs stimulated by the turnover.

351. As with the construction phase, GVA impacts are estimated using turnover to GVA ratios specific to each contract category. Indirect effects in the supply chain are estimated using Type 1 GVA multipliers, while induced impacts, representing the economy activity generated by employee spending, are calculated using Type 2 multipliers derived from the UK Input-Output tables.

30.7.3.1.1 Receptor Sensitivity

352. The sensitivity of the economy of the LSESA has been assessed as **medium** because jobs growth has been lower than the national average and the qualification level of the labour force is notably lower than the UK as a whole. It is therefore expected that the economy of the LSESA would be of **medium** sensitivity to economic benefits from supply chain expenditure. The economy is also more reliant on a smaller number of sectors than for the RSA and UK as a whole.

353. The sensitivity of the economy of the RSA has been assessed as **low** because while jobs growth has been lower than the national average, the economy is well balanced between sectors. The qualification level of the labour force is below that of the UK average, however not to the same extent as the LSESA.

354. The sensitivity of the economy of the UK has been assessed as **low**, as most of the sectors of the economy are well represented, in line with the definitions in **Table 30-7**.

30.7.3.1.2 Impact Magnitude

355. The decommissioning of the Project will generate economic impacts through the expenditure that will be required during this phase.

356. The Applicant provided a breakdown of the expenditure during the decommissioning phase. Based on this, assumptions were made about how the expenditure could be allocated across different categories. For each category, estimates were developed regarding the proportion of contracts that might be secured in each Study Area and the relevant sectors for those contracts. These assumptions were informed by BiGGAR Economics' expertise in the sector, and the current industrial capabilities within each of the Study Areas. The expenditure figures have not been presented in this chapter. However, the contract categories and the approximate proportion of decommissioning expenditure of each contract category are presented in **Table 30-50**.

Table 30-50 Decommissioning Expenditure by Category

Contract Category	Share of Decommissioning Expenditure
Wind Turbine Decommissioning	14%
Offshore Foundation and Offshore Platform(s) Decommissioning	23%
Inter-Array, Offshore Export and Onshore Export Cable Decommissioning	43%
OCS and ESBI Decommissioning	20%
Total	**100%**

357. The magnitude of the economic impact from the expenditure during the decommissioning phase has been estimated in line with the methodology outlined in **Section 30.5**. As outlined in **Section 30.7.2.1,** it is assumed that the base port for the Project's offshore infrastructure will be located in the RSA, but not within the LSESA. The impacts of supply chain expenditure are therefore not assessed further for this Study Area.

358. For the purposes of assessment, only the direct and indirect economic impacts are considered when determining the magnitude of the impact. These describe the economic activity required to realise the Project.

359. The induced impacts are quantified and presented for completeness but are not used in the assessment of magnitude. **Table 30-51** shows the estimated GVA that would be generated during decommissioning of the Project.

Table 30-51 GVA Impacts, Decommissioning

	RSA	The UK
Direct GVA (£m)	£47m	£47m
Indirect GVA (£m)	£31m	£42m
Total GVA (£m)	**£78m**	**£89m**
Induced GVA (£m)	£18m	£36m
Total GVA including Induced (£m)	**£96m**	**£124m**

360. As shown in **Table 30-52**, in 2022, the GVA of the construction sector in the LSESA was approximately £1.1 billion, that of the RSA was £23.1 billion and that of the UK was £139.1 billion. On this basis, the GVA attracted by the Project was equivalent 0.34% of the RSA economy, and 0.06% of the UK economy.

Table 30-52 Magnitude of GVA Impacts, Decommissioning

	RSA	The UK
Peak GVA (£m)	£78m	£89m
Current GVA of Construction Sector in Study Area (£bn)	£23.1bn	£139.1bn
Peak GVA as % of Current GVA	0.34%	0.06%
Magnitude of Impact	**Low (Beneficial)**	**Negligible (Beneficial)**

30.7.3.1.3 Effect Significance

361. The sensitivity of the economy of the LSESA is assessed as **medium**. The supply chain expenditure impact during decommissioning was not assessed further.

362. The sensitivity of the economy of the RSA is assessed as **low**, and the magnitude of the employment impact is assessed as **low**. The effect is therefore of **minor beneficial** significance in the RSA, which is **not significant** in EIA terms.

363. The sensitivity of the economy of the UK is assessed as **low**, and the magnitude of the employment impact is assessed as **negligible**. The effect is therefore of **negligible beneficial** significance in the UK, which is **not significant** in EIA terms.

364. Since decommissioning spending is expected to result in a beneficial impact on GVA, no additional mitigation measures are envisaged.

30.7.3.2 Increase in Employment (Offshore and Onshore) (SOC-D-02)

365. The decommissioning phase of the Project will result in the creation of short-term employment, similar to the construction phase, most notably in sectors such as construction and civil engineering, with some potential for upskilling and retraining to meet the demands of the sector, with roles available for individuals currently unemployed or underemployed, helping to improve local workforce participation. Decommissioning is expected to take place approximately 35 years from when the Project becomes operational. The same methodology and assumptions used to estimate the impact on GVA were applied to calculate the employment impacts.

366. Employment impacts include direct jobs supported by turnover, indirect jobs created in the supply chain (using Type 1 employment multiplier), and induced jobs generated through employee spending (using Type 2 multipliers).

367. As with the construction phase, the decommissioning phase will generate short-term employment. These impacts are expressed in terms of "years of employment", with, for example, a job lasting 18 months interpreted as 1.5 years of employment.

30.7.3.2.1 Receptor Sensitivity

368. The sensitivity of an economy is based on its responsiveness to change, its relative diversity (more diverse economies are less sensitive) and growth trajectory (for example is the number of jobs increasing or decreasing).

369. In line with the construction phase, the sensitivity of the economy of the LSESA has been assessed as **medium**, the RSA has been assessed as **low**, and the UK has been assessed as **low**.

30.7.3.2.2 Impact Magnitude

370. The decommissioning of the Project will generate economic impacts through the expenditure that will be required during this phase. Based on the same expenditure estimates used to estimate GVA impacts, the potential employment impacts can be calculated.

371. As outlined in **Section 30.7.2.1**, it is assumed that the base port for the Project's offshore infrastructure will be located in the RSA, but not within the LSESA. The impacts of employment are therefore not assessed further for this Study Area.

372. The magnitude of the employment impact from the expenditure during the decommissioning phase has been estimated in line with the methodology outlined in **Section 30.5**. For the purposes of assessment, only the direct and indirect economic impacts are considered when determining the magnitude of the impact. These describe the economic activity required to realise the Project.

373. The induced impacts are quantified and presented for completeness but are not used in the assessment of magnitude. The employment impacts of the Project during decommissioning are outlined in **Table 30-53**.

Table 30-53 Employment Impacts, Decommissioning

	RSA	The UK
Direct Years of Employment	547	547
Indirect Years of Employment	399	532
Total Years of Employment	**946**	**1,079**
Induced Years of Employment	212	433
Total Years of Employment including Induced	**1,158**	**1,502**

374. In 2022, the construction employment in the RSA was 295,050, and 1,566,300 in the UK. On this basis, the annual employment supported by the Project was equivalent to 0.32% of the RSA economy, and 0.07% of the UK economy. The magnitude of employment impacts is assessed in **Table 30-54**.

Table 30-54 Magnitude of Employment Impacts, Decommissioning

	RSA	The UK
Employment	946	1,079
Current Level of Employment in Study Area	295,050	1,566,300
Peak Employment as % of Current Employment	0.32%	0.07%
Magnitude of Impact	**Low (Beneficial)**	**Negligible (Beneficial)**

30.7.3.2.3 Effect Significance

375. The sensitivity of the economy of the LSESA is assessed as **medium**. The employment impact during decommissioning was not assessed further for the LSESA.

376. The sensitivity of the economy of the RSA is assessed as **low**, and the magnitude of the employment impact is assessed as **low**. The effect is therefore of **minor beneficial** significance in the RSA, which is **not significant** in EIA terms.

377. The sensitivity of the economy of the UK is assessed as **low**, and the magnitude of the employment impact is assessed as **negligible**. The effect is therefore of **negligible beneficial** significance in the UK, which is **not significant** in EIA terms.

378. Since decommissioning spending is expected to result in a beneficial impact on employment, no additional mitigation measures are envisaged.

30.7.3.3 Loss of, Disruption to, or Pressure on Local Infrastructure and Services (Offshore and Onshore) (SOC-D-03)

379. The potential for a considerable number of transient workers having an impact on local infrastructure has been scoped into this assessment. This assessment considers the potential impact on local infrastructure assets as a result of a change in demand for assets during the decommissioning phase.

30.7.3.3.1 Receptor Sensitivity

380. In line with the definitions outlined in **Table 30-10**, the sensitivity of the local infrastructure assets of the LSESA has been assessed as **low**.

30.7.3.3.2 Impact Magnitude

381. The potential change in demographics as a result of decommissioning of the Project is linked to the number of jobs that are supported. As it is not expected that the base port will be located in the LSESA, it is not expected that the Project will generate jobs during this phase. Therefore, the magnitude of this impact has been assessed as **no impact**.

30.7.3.3.3 Effect Significance

382. The sensitivity of the local infrastructure assets of the LSESA is assessed as **low**, and the magnitude of the employment impact is assessed as **no impact**. The effect is therefore **no change** in the LSESA, which is **not significant** in EIA terms.

383. As such, no further mitigation measures would be required beyond the proposed mitigation presented in the relevant EIA topic chapters.

30.7.4 Additional Mitigation Measures

384. No additional mitigation measures have been proposed with respect to socio-economics, tourism and recreation.

30.8 Cumulative Effects

385. 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.

386. 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 Advice Note Seventeen: 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 socio-economics, tourism and recreation receptors.

387. The main cumulative effects related to socio-economics are expected to relate to the supply chain, as this is shared across the whole offshore wind sector. As a result, offshore wind developments elsewhere in the RSA or the UK have the potential to cumulatively affect the Project.

388. Cumulative impacts on local infrastructure and services may occur should other projects, in conjunction with the Project, result pressure on these services as a result of an increase in transient workers. As a result, developments on the East Coast of England between Berwick-Upon Tweed and Norfolk, have the potential to result in cumulative impacts.

389. The Project, in conjunction with other large infrastructure projects, can result in effects on factors such as visual impacts, traffic, or air quality, with the potential to cause disturbance to social infrastructure, the tourism industry, and recreational assets.

30.8.1 Screening for Potential Cumulative Effects

390. The first step of the CEA identifies which impacts associated with the Project alone, as assessed under **Section 30.7**, 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 30-55** 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 30-55 Socio-Economics, Tourism and Recreation – Potential Cumulative Effects

Impact ID	Impact and Project Activity	Potential for Cumulative Effects	Rationale
Construction			
SOC-C-01	Direct economic benefit from supply chain expenditure (offshore and onshore) – offshore and onshore construction activities	Yes	Maximum economic impacts are likely to result from the construction of cumulative projects, leading to increased investment in the sector. Multiple construction projects have the potential to lead to the attraction of investment and to strengthen local supply chains, with implications on the level of GVA supported by each project. Multiple construction projects occurring at the same time are likely to result in competition for labour within the LSESA, RSA, and the UK. This may lead to lower GVA impacts directly associated with the Project as more transient workers would be required.
SOC-C-02	Increased employment (offshore and onshore) – workforce requirement for offshore and onshore construction activities	Yes	
SOC-C-03	Loss of, disruption to or pressure on local infrastructure and services (offshore and onshore) – offshore and onshore construction activities	Yes	The Project, in combination with other cumulative projects, may lead to a higher cumulative number of transient workers with potential impacts on local infrastructure and services.
SOC-C-04	Disturbance to social infrastructure (offshore and onshore) – offshore and onshore construction activities	Yes	The Project, in combination with other cumulative projects, may have a cumulative environmental effect which has an impact on social infrastructure within the LSESA.
SOC-C-05	Disruption to recreational activities (offshore and onshore) – offshore and onshore construction activities	Yes	The Project, in combination with other cumulative projects, may have a cumulative environmental effect which has an impact on recreational assets in the LTRA.
SOC-C-06	Disruption to the tourism industry (offshore and onshore) – offshore and onshore construction activities	Yes	The Project, in combination with other projects proximate to it, may have a cumulative environmental effect which has an impact on the key tourism assets in the LTRA.
Operation and Maintenance			
SOC-O-01	Direct economic benefit from supply chain expenditure (offshore and onshore) – offshore and onshore operational and routine and unplanned maintenance activities	Yes	Maximum economic impacts are likely to result from the operations of cumulative projects, leading to increased investment in the sector. Multiple operational projects have the potential to lead to the attraction of investment and to strengthen local supply chains, with implications on the level of GVA supported by each project.
SOC-O-02	Increased employment (offshore and onshore) – workforce requirement for offshore and onshore operational and routine and unplanned maintenance activities	Yes	
SOC-O-03	Loss of, disruption to or pressure on local infrastructure and services (offshore and onshore) – offshore and onshore operational and routine and unplanned maintenance activities and the presence of offshore and onshore infrastructure during operation	No	Effect significance alone was assessed as no change.
SOC-O-04	Disturbance to social infrastructure (onshore) – presence of onshore infrastructure during operation	Yes	The Project, in combination with other cumulative projects, may have a cumulative environmental effect which has an impact on social infrastructure within the LSESA.
SOC-O-05	Disruption to recreational activities (onshore) – presence of onshore infrastructure during operation	Yes	The Project, in combination with other projects proximate to it, may have a cumulative environmental effect which has an impact on the key recreational assets in the LTRA.

Impact ID	Impact and Project Activity	Potential for Cumulative Effects	Rationale
SOC-O-06	Disruption to the tourism industry (onshore) – presence of onshore infrastructure during operation	Yes	The Project, in combination with other projects proximate to it, may have a cumulative environmental effect which has an impact on the key tourism assets in the LTRA.
Decommissioning			
There is insufficient information available on other plans and projects which could have a spatial and temporal overlap with the Project's decommissioning works. The details and scope of offshore and onshore decommissioning works will be determined by the relevant regulations and guidance at the time of decommissioning and provided in the Offshore Decommissioning Programme and Onshore Decommissioning Plan respectively (see **Table 30-4**, Commitment IDs CO21 and CO56). This will include a detailed assessment of decommissioning impacts and appropriate mitigation measures to avoid significant effects, including cumulative effects. 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.			

30.8.2 Screening for Other Projects

391. 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 operation phases. The short-list provided in **Table 30-56** has been produced specifically to assess cumulative effects on socio-economics, tourism and recreation receptors. The exhaustive list of all offshore and onshore plans and projects considered in the development of the Project's CEA framework is provided in **Volume 2, Appendix 6.4 Cumulative Effects Screening Report – Offshore** and **Volume 2, Appendix 6.5 Cumulative Effects Screening Report – Onshore** respectively.

392. 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 30-56**.

393. 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 30-56**.

Table 30-56 Short List of Plans / Projects for the Socio-Economics, Tourism and Recreation Cumulative Effect Assessment

Project / Plan	Development Type	Status	Tier*	Construction / Operation Period	Closest Distance to Array Area (km)	Closest Distance to Offshore ECC (km)	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 (PINS)	Construction: 2024 to 2026 Operation: 2027+	N/A	N/A	0.77	0.40	1.94	Yes	Potential for impact on the tourism and recreation economies of the LTRA. Potential disturbance to social infrastructure.
A63 Castle Street Improvements (TR10016)	Road improvements Scheme	Under Construction	1 (PINS)	Construction: 2024 to 2026 Operation: 2027+	N/A	N/A	9.02	10.05	10.84	Yes	Potential increased investment in the sector and the development of the local supply chain, resulting in higher GVA and employment.
Blyth Demonstration Phase 2 Offshore Wind Farm	Offshore Wind Farm	Approved	1 (NE)	Construction: Unknown Operation: Unknown	252	144	N/A	N/A	N/A	Yes	Potential increased investment in the sector and the development of the local supply chain, resulting in higher GVA and employment.
Creyke Beck Solar Farm (21/02335/STPLF)	Solar Farm	Approved	1 (PINS)	Construction: Unknown Operation: Unknown	N/A	N/A	0.33	1.05	1.56	Yes	Potential for impact on the tourism and recreation economies of the LTRA. Potential disturbance to social infrastructure.
Wanlass Beck National Grid Substation (24/03819/STPLF)	Electricity Transmission Infrastructure	Pending Consideration	1 (PINS)	Construction: 2026 to 2030 Operation: 2031+	N/A	N/A	0.91	2.09	3.02	Yes	Potential increased investment in the sector and the development of the local supply chain, resulting in higher GVA and employment. Potential disturbance to social infrastructure. Potential for impact on the tourism and recreation economies of the LTRA.

Project / Plan	Development Type	Status	Tier*	Construction / Operation Period	Closest Distance to Array Area (km)	Closest Distance to Offshore ECC (km)	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
Dogger Bank A Offshore Wind Farm (EN010021)	Offshore Wind Farm	Operational	1 (PINS) 2 (NE)	Operation: 2025+	43	0	0	0.50	2.66	Yes	Potential increased investment in the sector and the development of the local supply chain, resulting in higher GVA and employment. Potential to result in transient workers within the LSESA, impacting local infrastructure and services. Potential for impact on the tourism and recreation economies of the LTRA. Potential for disturbance to social infrastructure.
Dogger Bank B Offshore Wind Farm (EN010021)	Offshore Wind Farm	Under Construction	1 (PINS) 2 (NE)	Construction: 2020 to 2025 Operation: 2026+	52	0	0	0.50	2.66	Yes	Potential increased investment in the sector and the development of the local supply chain, resulting in higher GVA and employment. Potential to result in transient workers within the LSESA, impacting local infrastructure and services. Potential for impact on the tourism and recreation economies of the LTRA. Potential disturbance to social infrastructure.
Dogger Bank C Offshore Wind Farm (EN100051)	Offshore Wind Farm	Under Construction	2 (NE)	Construction: 2020 to 2026 Operation: 2027+	0	3	N/A	N/A	N/A	Yes	Potential increased investment in the sector and the development of the local supply chain, resulting in higher GVA and employment. Potential to result in transient workers within the LSESA, impacting local infrastructure and services.

Project / Plan	Development Type	Status	Tier*	Construction / Operation Period	Closest Distance to Array Area (km)	Closest Distance to Offshore ECC (km)	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
Dogger Bank South Offshore Wind Farms (EN010125)	Offshore Wind Farm	Examination	1 (PINS) 2 (NE)	Construction: 2026 to 2033 Operation: 2034+	73	0	0	0.10	0.30	Yes	Potential increased investment in the sector and the development of the local supply chain, resulting in higher GVA and employment. Potential competition for labour during construction which may increase the need for transient workers for the Project with potential effects on the local GVA and employment impacts. Potential to result in transient workers within the LSESA, impacting local infrastructure and services. Potential disturbance to social infrastructure. Potential for impact on the tourism and recreation economies of the LTRA.
Eastern Green Link (EGL 2)	Electricity Interconnector	Under Construction	1 (PINS) 2 (NE)	Construction: 2025 to 2029 Operation: 2030 to post 2035	356	283	N/A	N/A	N/A	Yes	Potential increased investment in the sector and the development of the local supply chain, resulting in higher GVA and employment. Potential competition for labour during construction which may increase the need for transient workers for the Project with potential effects on the local GVA and employment impacts.
Moray West Offshore Wind Farm	Offshore Wind Farm	Under Construction	2 (NE)	Construction: 2023 to 2024 Operation: 2025+	474	402	N/A	N/A	N/A	Yes	Potential increased investment in the sector and the development of the local supply chain, resulting in higher GVA and employment.

Project / Plan	Development Type	Status	Tier*	Construction / Operation Period	Closest Distance to Array Area (km)	Closest Distance to Offshore ECC (km)	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
Neart na Gaoithe Offshore Wind Farm	Offshore Wind Farm	Under Construction	2 (NE)	Construction: 2020 to 2024 Operation: 2025+	327	241	N/A	N/A	N/A	Yes	Potential increased investment in the sector and the development of the local supply chain, resulting in higher GVA and employment.
Peartree Hill Solar Farm (EN010157)	Solar Farm	Planning	2 (PINS)	Construction: 2026 to 2027 Operation: 2028+	N/A	N/A	0.42	1.05	2.66	Yes	Potential increased investment in the sector and the development of the local supply chain, resulting in higher GVA and employment. Potential disturbance to social infrastructure. Potential for impact on the tourism and recreation economies of the LTRA.
Sofia Offshore Wind Farm (EN010051)	Offshore Wind Farm	Under Construction	2 (NE)	Construction: 2025 Operation: 2026+	18	23	N/A	N/A	N/A	Yes	Potential increased investment in the sector and the development of the local supply chain, resulting in higher GVA and employment. Potential to result in transient workers within the LSESA, impacting local infrastructure and services.
Birkhill Wood National Grid Substation	Electricity Transmission Infrastructure	Planning	3 (PINS)	Construction: 2026 to 2030 Operation: 2031+	N/A	N/A	0	1.11	2.31	Yes	Potential increased investment in the sector and the development of the local supply chain, resulting in higher GVA and employment. Potential disturbance to social infrastructure. Potential for impact on the tourism and recreation economies of the LTRA.

Project / Plan	Development Type	Status	Tier*	Construction / Operation Period	Closest Distance to Array Area (km)	Closest Distance to Offshore ECC (km)	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
Dudgeon Offshore Wind Farm Extension (EN010109)	Offshore Wind Farm	Approved	3 (NE)	Construction: 2025 to 2033 Operation: 2034+	202	101	N/A	N/A	N/A	Yes	Potential increased investment in the sector and the development of the local supply chain, resulting in higher GVA and employment. Potential competition for labour during construction which may increase the need for transient workers for the Project with potential effects on the local GVA and employment impacts. Potential to result in transient workers within the LSESA, impacting local infrastructure and services.
East Anglia ONE NORTH Offshore Wind Farm (EN010077)	Offshore Wind Farm	Under Construction	3 (NE)	Construction: 2024 to 2027 Operation: 2028+	280	229	N/A	N/A	N/A	Yes	Potential increased investment in the sector and the development of the local supply chain, resulting in higher GVA and employment. Potential to result in transient workers within the LSESA, impacting local infrastructure and services.
East Anglia THREE Offshore Wind Farm (EN010056)	Offshore Wind Farm	Under Construction	3 (NE)	Construction: 2022 to 2026 Operation: 2027+	241	220	N/A	N/A	N/A	Yes	Potential increased investment in the sector and the development of the local supply chain, resulting in higher GVA and employment. Potential to result in transient workers within the LSESA, impacting local infrastructure and services.
East Anglia TWO Offshore Wind Farm (EN010078)	Offshore Wind Farm	Under Construction	3 (NE)	Construction: 2024 to 2027 Operation: 2028+	296	233	N/A	N/A	N/A	Yes	Potential increased investment in the sector and the development of the local supply chain, resulting in higher GVA and employment.

Project / Plan	Development Type	Status	Tier*	Construction / Operation Period	Closest Distance to Array Area (km)	Closest Distance to Offshore ECC (km)	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
											Potential to result in transient workers within the LSESA, impacting local infrastructure and services.
Eastern Green Link 1 (EGL1)	Electricity Interconnector	Under Construction	3 (NE)	Construction: 2025 to 2029 Operation: 2030+	254	116	N/A	N/A	N/A	Yes	Potential increased investment in the sector and the development of the local supply chain, resulting in higher GVA and employment. Potential competition for labour during construction which may increase the need for transient workers for the Project with potential effects on the local GVA and employment impacts.
Forthwind Offshore Wind Farm	Offshore Wind Farm	Under Construction	3 (NE)	Construction: 2024 Operation: 2025+	376	286	N/A	N/A	N/A	Yes	Potential increased investment in the sector and the development of the local supply chain, resulting in higher GVA and employment.
Green Volt Offshore Wind Farm	Offshore Wind Farm	Approved	3 (NE)	Construction: 2025 to 2029 Operation: 2030+	362	297	N/A	N/A	N/A	Yes	Potential increased investment in the sector and the development of the local supply chain, resulting in higher GVA and employment. Potential competition for labour during construction which may increase the need for transient workers for the Project with potential effects on the local GVA and employment impacts.

Project / Plan	Development Type	Status	Tier*	Construction / Operation Period	Closest Distance to Array Area (km)	Closest Distance to Offshore ECC (km)	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
Hornsea Project Four Offshore Wind Farm (EN010098)	Offshore Wind Farm	Under Construction	1 (PINS) 3 (NE)	Construction: 2025 to 2028 Operation: 2029+	134	31	0	0.11	0.01	Yes	Potential increased investment in the sector and the development of the local supply chain, resulting in higher GVA and employment. Potential competition for labour during construction which may increase the need for transient workers for the Project with potential effects on the local GVA and employment impacts. Potential to result in transient workers within the LSESA, impacting local infrastructure and services. Potential disturbance to social infrastructure. Potential for impact on the tourism and recreation economies of the LTRA.
Hornsea Project Three Offshore Wind Farm (EN010080)	Offshore Wind Farm	Operational	3 (NE)	Construction: 2023 to 2027 Operation: 2028+	106	107	N/A	N/A	N/A	Yes	Potential increased investment in the sector and the development of the local supply chain, resulting in higher GVA and employment. Potential to result in transient workers within the LSESA, impacting local infrastructure and services.
Inch Cape Offshore Wind Farm	Offshore Wind Farm	Under Construction	3 (NE)	Construction: 2023 to 2026 Operation: 2027+	331	247	N/A	N/A	N/A	Yes	Potential increased investment in the sector and the development of the local supply chain, resulting in higher GVA and employment.

Project / Plan	Development Type	Status	Tier*	Construction / Operation Period	Closest Distance to Array Area (km)	Closest Distance to Offshore ECC (km)	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
Norfolk Boreas Offshore Wind Farm (EN010087)	Offshore Wind Farm	Under Construction	3 (NE)	Construction: 2023 to 2028 Operation: 2029+	189	192	N/A	N/A	N/A	Yes	Potential increased investment in the sector and the development of the local supply chain, resulting in higher GVA and employment. Potential competition for labour during construction which may increase the need for transient workers for the Project with potential effects on the local GVA and employment impacts. Potential to result in transient workers within the LSESA, impacting local infrastructure and services.
Norfolk Vanguard East Offshore Wind Farm (EN010079)	Offshore Wind Farm	Under Construction	3 (NE)	Construction: 2023 to 2028 Operation: 2029+	210	204	N/A	N/A	N/A	Yes	Potential increased investment in the sector and the development of the local supply chain, resulting in higher GVA and employment. Potential to result in transient workers within the LSESA, impacting local infrastructure and services.
Norfolk Vanguard West Offshore Wind Farm (EN010079)	Offshore Wind Farm	Under Construction	3 (NE)	Construction: 2023 to 2028 Operation: 2029+	212	185	N/A	N/A	N/A	Yes	Potential increased investment in the sector and the development of the local supply chain, resulting in higher GVA and employment. Potential to result in transient workers within the LSESA, impacting local infrastructure and services.

Project / Plan	Development Type	Status	Tier*	Construction / Operation Period	Closest Distance to Array Area (km)	Closest Distance to Offshore ECC (km)	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
North Humber to High Marnham Grid Upgrade (EN020034)	Electricity Transmission Infrastructure	Planning	3 (PINS)	Construction: 2028 to 2030 Operation: 2031+	N/A	N/A	0	0.89	0.41	Yes	Potential increased investment in the sector and the development of the local supply chain, resulting in higher GVA and employment. Potential competition for labour during construction which may increase the need for transient workers for the Project with potential effects on the local GVA and employment impacts. Potential disturbance to social infrastructure. Potential for impact on the tourism and recreation economies of the LTRA.
Pentland Offshore Wind Farm	Offshore Wind Farm	Under Construction	3 (NE)	Construction: 2025 to 2026 Operation: 2027+	557	486	N/A	N/A	N/A	Yes	Potential increased investment in the sector and the development of the local supply chain, resulting in higher GVA and employment.
Seagreen Phase 1A Offshore Wind Farm	Offshore Wind Farm	Operational	3 (NE)	Operation: 2023+	321	241	N/A	N/A	N/A	Yes	Potential increased investment in the sector and the development of the local supply chain, resulting in higher GVA and employment.
Sheringham Shoal Offshore Wind Farm Extension (EN010109)	Offshore Wind Farm	Approved	3 (NE)	Construction: 2025 to 2033 Operation: 2034+	224	108	N/A	N/A	N/A	Yes	Potential increased investment in the sector and the development of the local supply chain, resulting in higher GVA and employment. Potential competition for labour during construction which may increase the need for transient workers for the Project with potential effects on the local GVA and employment impacts.

Project / Plan	Development Type	Status	Tier*	Construction / Operation Period	Closest Distance to Array Area (km)	Closest Distance to Offshore ECC (km)	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
											Potential to result in transient workers within the LSESA, impacting local infrastructure and services.
Berwick Bank Offshore Wind Farm	Offshore Wind Farm	Pending Consideration	4 (NE)	Construction: 2028 to 2029 Operation: 2030 to post 2035	272	189	N/A	N/A	N/A	Yes	Potential increased investment in the sector and the development of the local supply chain, resulting in higher GVA and employment. Potential competition for labour during construction which may increase the need for transient workers for the Project with potential effects on the local GVA and employment impacts.
Five Estuaries Offshore Wind Farm (EN010115)	Offshore Wind Farm	Examination	4 (NE)	Construction: 2029 to 2030 Operation: 2031+	329	263	N/A	N/A	N/A	Yes	Potential increased investment in the sector and the development of the local supply chain, resulting in higher GVA and employment. Potential competition for labour during construction which may increase the need for transient workers for the Project with potential effects on the local GVA and employment impacts. Potential to result in transient workers within the LSESA, impacting local infrastructure and services.
North Falls Offshore Wind Farm (EN010119)	Offshore Wind Farm	Examination	4 (NE)	Construction: 2027 to 2032 Operation: 2033+	333	254	N/A	N/A	N/A	Yes	Potential increased investment in the sector and the development of the local supply chain, resulting in higher GVA and employment. Potential competition for labour during construction which may increase the need for transient workers for the Project with potential effects on the local GVA and employment impacts.

Project / Plan	Development Type	Status	Tier*	Construction / Operation Period	Closest Distance to Array Area (km)	Closest Distance to Offshore ECC (km)	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
											Potential to result in transient workers within the LSESA, impacting local infrastructure and services.
Outer Dowsing Offshore Wind Farm (EN010130)	Offshore Wind Farm	Examination	4 (NE)	Construction: 2027 to 2030 Operation: 2031+	170	77	N/A	N/A	N/A	Yes	Potential increased investment in the sector and the development of the local supply chain, resulting in higher GVA and employment. Potential competition for labour during construction which may increase the need for transient workers for the Project with potential effects on the local GVA and employment impacts. Potential to result in transient workers within the LSESA, impacting local infrastructure and services.
Rampion 2 Offshore Wind Farm (EN010117)	Offshore Wind Farm	Consented	4 (NE)	Construction: 2025 to 2030 Operation: 2031+	523	363	N/A	N/A	N/A	Yes	Potential increased investment in the sector and the development of the local supply chain, resulting in higher GVA and employment. Potential competition for labour during construction which may increase the need for transient workers for the Project with potential effects on the local GVA and employment impacts.
West of Orkney Offshore Wind Farm	Offshore Wind Farm	Pending Consideration	4 (NE)	Construction: 2027 to 2029 Operation: 2030+	578	508	N/A	N/A	N/A	Yes	Potential increased investment in the sector and the development of the local supply chain, resulting in higher GVA and employment. Potential competition for labour during construction which may increase the need for transient workers for the Project with potential effects on the local GVA and employment impacts.

Project / Plan	Development Type	Status	Tier*	Construction / Operation Period	Closest Distance to Array Area (km)	Closest Distance to Offshore ECC (km)	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
Arven Offshore Wind Farm	Offshore Wind Farm	Planning	6 (NE)	Construction: 2026 to 2030 Operation: 2031+	584	525	N/A	N/A	N/A	Yes	Potential increased investment in the sector and the development of the local supply chain, resulting in higher GVA and employment. Potential competition for labour during construction which may increase the need for transient workers for the Project with potential effects on the local GVA and employment impacts.
Arven South Offshore Wind Farm	Offshore Wind Farm	Planning	6 (NE)	Construction: 2026 to 2030 Operation: 2031+	587	528	N/A	N/A	N/A	Yes	Potential increased investment in the sector and the development of the local supply chain, resulting in higher GVA and employment. Potential competition for labour during construction which may increase the need for transient workers for the Project with potential effects on the local GVA and employment impacts.
Ayre Offshore Wind Farm	Offshore Wind Farm	Planning	6 (NE)	Construction: 2029 to 2032 Operation: 2033+	496	430	N/A	N/A	N/A	Yes	Potential increased investment in the sector and the development of the local supply chain, resulting in higher GVA and employment. Potential competition for labour during construction which may increase the need for transient workers for the Project with potential effects on the local GVA and employment impacts.

Project / Plan	Development Type	Status	Tier*	Construction / Operation Period	Closest Distance to Array Area (km)	Closest Distance to Offshore ECC (km)	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
Bellrock Offshore Wind Farm	Offshore Wind Farm	Planning	6 (NE)	Construction: 2026 to 2030 Operation: 2031+	239	172	N/A	N/A	N/A	Yes	Potential increased investment in the sector and the development of the local supply chain, resulting in higher GVA and employment. Potential competition for labour during construction which may increase the need for transient workers for the Project with potential effects on the local GVA and employment impacts.
Bowdun Offshore Wind Farm	Offshore Wind Farm	Planning	6 (NE)	Construction: 2029 to 2032 Operation: 2033+	317	244	N/A	N/A	N/A	Yes	Potential increased investment in the sector and the development of the local supply chain, resulting in higher GVA and employment. Potential competition for labour during construction which may increase the need for transient workers for the Project with potential effects on the local GVA and employment impacts.
Broadshore Offshore Wind Farm	Offshore Wind Farm	Planning	6 (NE)	Construction: 2027 to 2031 Operation: 2032+	429	361	N/A	N/A	N/A	Yes	Potential increased investment in the sector and the development of the local supply chain, resulting in higher GVA and employment. Potential competition for labour during construction which may increase the need for transient workers for the Project with potential effects on the local GVA and employment impacts.

Project / Plan	Development Type	Status	Tier*	Construction / Operation Period	Closest Distance to Array Area (km)	Closest Distance to Offshore ECC (km)	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
Orbital Projects 5	Tidal	Pre-planning	6 (NE)	Construction: 2028 Operation: 2029+	559	492	N/A	N/A	N/A	Yes	Potential increased investment in the sector and the development of the local supply chain, resulting in higher GVA and employment. Potential competition for labour during construction which may increase the need for transient workers for the Project with potential effects on the local GVA and employment impacts.
Ossian Offshore Wind Farm	Offshore Wind Farm	Pending Consideration	6 (NE)	Construction: 2031 to 2037 Operation: 2038+	231	159	N/A	N/A	N/A	Yes	Potential increased investment in the sector and the development of the local supply chain, resulting in higher GVA and employment. Potential competition for labour during construction which may increase the need for transient workers for the Project with potential effects on the local GVA and employment impacts.

*Note: *Projects using the Planning Inspectorate tier system (Planning Inspectorate, 2024) are marked as with "PINS" in the tier column, projects using the Natural England and Defra guidance (Parker et al., 2022) for the tier system are marked with "NE" in the tier column of the table.*

394. The screening exercise has been undertaken based on available information on each plan or project up to and including 31st December 2024. Information has been obtained from the Planning Inspectorate's Nationally Significant Infrastructure Project portal, East Riding of Yorkshire Council and Hull City Council planning portals, the Marine Management Organisation's marine licence register 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.

395. Plans and projects identified in **Table 30-56** have been assigned a tier based on their development status, the level of information available to inform the CEA and the degree of confidence in the available information. A three-tier system based on the Planning Inspectorate Advice Note Seventeen has been adopted (Planning Inspectorate, 2024) for projects related to the Onshore Development Area. For projects related to the Offshore Development Area, a seven-tier system based on the guidance issued by Natural England and the Department of Environmental, Food and Rural Affairs (Defra) has been adopted (Parker et al., 2022).

396. The zones of influence (ZoI) used to identify relevant plans and projects for the socio-economics, tourism and recreation CEA are as follows:

- For impacts on GVA, employment, the ZoI is the UK as there is potential for the Project, along with other projects located in the UK, to develop the domestic supply chain, enabling increased economic impact;
- For impacts on tourism and recreation and social infrastructure the ZoI is 5km from each of the OCS zones and 600m from the onshore ECC, These ZoI are the maximum geographically bounded ZoI for the relevant EIA topics which inform the respective assessment; and
- For impacts on local services and infrastructure, the ZoI is the East Coast of England between Berwick-Upon Tweed and Norfolk, as it is possible that these projects will result in transient workers staying in the LSESA and could result in competition for local labour which will result in increased need for transient workers.

397. Each plan or project in **Table 30-56** 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.

398. The CEA for socio-economics, tourism and recreation has identified a total of 46 plans and projects to be scoped into the cumulative assessment. Of these, all are relevant to the socio-economics cumulative assessment, and 6 are relevant to the assessment of tourism and recreation impacts. A detailed assessment of cumulative effects is provided in the section below.

30.8.3 Assessment of Cumulative Effects

399. A description of the significance of cumulative effects upon the economies of the LSESA, the RSA and the UK, the tourism and recreation economy of the LTRA, and local infrastructure within the LSESA arising from each identified impact is given below.

400. Due to the lack of publicly available data, it is not possible to quantify the potential magnitude of the cumulative impacts. Therefore, these effects are discussed qualitatively.

401. Similar to the approach noted in **Section 51**, the CEA for the OCS zone infrastructure will remain the same for both development scenarios. Only one OCS zone option will be taken forward to development, which will be confirmed in the ES. Therefore, there is no cumulative development scenario in which both OCS zones would be developed simultaneously for consideration in the CEA.

30.8.3.1 Cumulative Impact 1: Direct Economic Benefit from Supply Chain Expenditure (Offshore and Onshore) (SOC-C-01)

402. The potential cumulative impact associated with the direct economic benefit from supply chain expenditure is assessed with all Tier 2, Tier, 3, Tier 4, Tier 5, Tier 6, and Tier 7 projects for which there is potential for the construction phase to overlap with the Project, as this has the potential to result in cumulative direct economic benefits from supply chain expenditure.

403. The cumulative effect of the developments outlined in **Table 30-56** will be a significant driver of demand for services and goods to support the offshore wind energy sector, with the potential to create demand for supporting activities in both the LSESA, RSA, and the UK as a whole. This would include demand for port services, vessels, manufacturing facilities and skills. This demand will drive the investment required in the sector, in port facilities, manufacturing facilities and skills development.

30.8.3.1.1 Receptor Sensitivity

404. The sensitivity of an economy is based on its responsiveness to change, its relative diversity (more diverse economies are less sensitive) and growth trajectory (for example is the number of jobs increasing or decreasing).

405. The sensitivity of the economy of the LSESA has been assessed as **medium** because jobs growth has been lower than the national average and the qualification level of the labour force is notably lower than the UK as a whole.

406. The sensitivity of the economy of the RSA has been assessed as **low** because while jobs growth has been lower than the national average, the economy is well balanced between sectors. The qualification level of the labour force is below that of the UK average, however not to the same extent as the LSESA.

407. The sensitivity of the economy of the UK has been assessed as **low**, in line with the definitions in **Table 30-7**.

30.8.3.1.2 Cumulative Impact Magnitude

408. The cumulative impact of the developments would be to enable the supply chain to generate beneficial impacts which are greater than those of the Project alone. The cumulative projects include many of the projects that are driving the energy transition across the Humber region and the wider UK. Across the Humber region, including the LSESA, it is anticipated that the decarbonisation projects and energy transition will safeguard 10% of jobs and create thousands of new ones (Humber Energy Board, 2022).

409. Across the UK, the economic opportunities and impacts of these projects will be at least ten times greater than the impacts of the Project in isolation and will account for more than 1% of construction activity.

410. Therefore, when assessed cumulatively with the projects outlined in **Table 30-56**, the magnitude of the impact is considered to be **high (beneficial)** in the long-term in the LSESA, the RSA, and the UK.

30.8.3.1.3 Cumulative Effect Significance

411. The sensitivity of receptors, the magnitude of the cumulative impact, and the cumulative effect significance is shown in **Table 30-57**.

Table 30-57 Effect Significance of Cumulative Direct Economic Benefit from Supply Chain Expenditure, Considering the Project and all Tier 2, Tier 3, Tier 4, Tier 5, Tier 6, and Tier 7 Projects for which the Construction Phase overlaps with the Project

	LSESA	**RSA**	**The UK**
Receptor Sensitivity	Medium	Low	Low
Impact Magnitude	High (Beneficial)	High (Beneficial)	High (Beneficial)
Effect Significance	**Major Beneficial (Significant)**	**Moderate Beneficial (Significant)**	**Moderate Beneficial (Significant)**

30.8.3.2 Cumulative Impact 2: Increase in Employment (Offshore and Onshore) (SOC-C-02)

412. The potential cumulative impact associated with an increase employment is assessed with all Tier 2, Tier, 3, Tier 4, Tier 5, Tier 6, and Tier 7 projects for which there is potential for the construction phase to overlap with the Project, as this has the potential to result in cumulative direct economic benefits from supply chain expenditure.

413. As with the direct economic benefits from supply chain expenditure, there is potential for cumulative benefits on employment generated by the developments outlined in **Table 30-56** as they will be a significant driver of demand for services and goods to support the offshore wind energy sector, with the potential to create demand for supporting activities in both the LSESA, RSA, and the UK as a whole. This would include demand for port services, vessels, manufacturing facilities and skills. This demand will drive the investment required in the sector, in port facilities, manufacturing facilities and skills development.

30.8.3.2.1 Receptor Sensitivity

414. The sensitivity of an economy is based on its responsiveness to change, its relative diversity (more diverse economies are less sensitive) and growth trajectory (for example is the number of jobs increasing or decreasing).

415. The sensitivity of the economic receptors has been assessed in line with the parameters outlined in **Table 30-7**.

416. The sensitivity of the economy of the LSESA has been assessed as **medium** because jobs growth has been lower than the national average and the qualification level of the labour force is notably lower than the UK as a whole.

417. The sensitivity of the economy of the RSA has been assessed as **low** because while jobs growth has been lower than the national average, the economy is well balanced between sectors. The qualification level of the labour force is below that of the UK average, however not to the same extent as the LSESA.

418. The sensitivity of the economy of the UK has been assessed as **low**, in line with the definitions in **Table 30-7**.

30.8.3.2.2 Cumulative Impact Magnitude

419. The cumulative impact of the developments would be to enable the supply chain to generate beneficial impacts which are greater than those of the Project alone. As with the impacts on economic benefit (SOC-C-01), when assessed cumulatively with projects included in **Table 30-56**, the magnitude of the impact is considered to be **high (beneficial)** in the long-term in the LSESA, the RSA, and the UK.

30.8.3.2.3 Cumulative Effect Significance

420. Cumulative effect significance is shown in **Table 30-58**.

Table 30-58 Effect Significance Of Cumulative Increase in Employment, Considering the Project and all Tier 2, Tier 3, Tier 4, Tier 5, Tier 6, and Tier 7 Projects for which the Construction Phase overlaps with the Project

	LSESA	RSA	The UK
Receptor Sensitivity	Medium	Low	Low
Impact Magnitude	High (Beneficial)	High (Beneficial)	High (Beneficial)
Effect Significance	**Major Beneficial (Significant)**	**Moderate Beneficial (Significant)**	**Moderate Beneficial (Significant)**

30.8.3.3 Cumulative Impact 3: Loss of, Disruption to, or Pressure on Local Infrastructure and Services (Offshore and Onshore) (SOC-C-03)

421. The potential cumulative impact associated with a loss of, disruption to, or pressure on local infrastructure and services is assessed with all Tier 2, Tier, 3, Tier 4, Tier 5, Tier 6, and Tier 7 projects located off the East Coast of England between Berwick-Upon Tweed and Norfolk which are likely to result in transient workers within the LSESA included in **Table 30-56**, as this would increase the likelihood of loss of, disruption to, or pressure on local infrastructure and services. These projects are as follows:

- Dogger Bank A Offshore Wind Farm;
- Dogger Bank B Offshore Wind Farm;
- Dogger Bank C Offshore Wind Farm;
- Hornsea Project Three Offshore Wind Farm;
- Hornsea Project Four Offshore Wind Farm;
- Sofia Offshore Wind Farm;
- Outer Dowsing Offshore Wind Farm;
- Norfolk Vanguard East Offshore Wind Farm;
- Norfolk Boreas Offshore Wind Farm;
- Norfolk Vanguard West Offshore Wind Farm;
- Five Estuaries Offshore Wind Farm;
- Eastern Anglia ONE North Offshore Wind Farm;
- Eastern Anglia TWO Offshore Wind Farm;
- Eastern Anglia THREE Offshore Wind Farm;
- North Falls Offshore Wind Farm;
- Dudgeon Offshore Wind Farm Extension;
- Sheringham Shoal Offshore Wind Farm Extension; and
- Dogger Bank South Offshore Wind Farms.

30.8.3.3.1 Receptor Sensitivity

422. The population of the LSESA has a similar demographic structure to the UK as a whole and has a total population of 622,000. House prices in the area have increased at a slower rate than the national average, however the availability of services like healthcare is lower, as indicated by the lower number of GP per capita. In line with the definitions outlined in **Table 30-10**, the sensitivity of the local infrastructure assets of the LSESA has been assessed as **low**.

30.8.3.3.2 Cumulative Impact Magnitude

423. There is potential for the cumulative effect of the developments outlined in **Table 30-56** to result in considerable demand for services and goods to support the offshore wind energy sector. The cumulative employment impacts would also generate cumulative demand on local infrastructure and services.

424. In the short term, there is the potential that the cumulative effect of employment results in a greater share of the workforce in the LSESA being new to the area as developments compete for workers. As discussed in **Section 30.7**, there is scope for transient workers to find accommodation as the nights required for workers employed is expected to be around 1% of current tourist nights at its peak.

425. As outlined in **Section 30.7.1.3**, it was not possible to accurately assess the potential loss of, disruption to, or pressure on local infrastructure from the Project alone. The cumulative effect of the Project with developments outlined in **Table 30-56** will be assessed at ES stage once 2025 population projection data has been published.

30.8.3.3.3 Cumulative Effect Significance

426. The sensitivity of the local infrastructure assets of the LSESA is assessed as **low**. The magnitude of the impact and therefore the cumulative effect significance will be determined at ES stage.

30.8.3.3.4 Additional Mitigation and Residual Effect

427. Any requirements for additional mitigation, and the resulting residual effect, will be determined at ES stage, once up-to-date population projection data is available.

30.8.3.4 Cumulative Impact 4: Disturbance to Social Infrastructure (Offshore and Onshore) (SOC-C-04)

428. There were no residual significant adverse effects identified in **Chapter 14 Commercial Fisheries**, **Chapter 15 Shipping and Navigation** and **Chapter 18 Other Marine Users** that would result in cumulative effects on social infrastructure. Therefore, cumulative impacts from construction of the Project's offshore infrastructure are not considered further, and the assessment below only covers impacts from the Project's onshore infrastructure.

429. The potential cumulative impact associated with disturbance to social infrastructure is assessed with projects identified as potentially resulting in significant cumulative effects in other onshore EIA topic chapters, including **Chapter 25 Noise and Vibration, Chapter 26 Traffic and Transport**, and **Chapter 27 Landscape and Visual Impacts**. There were no significant cumulative noise or traffic and transport effects identified during construction. Significant cumulative visual effects were identified on residential properties when the Project was assessed cumulatively with the following projects:

- Dogger Bank South Offshore Wind Farms;
- North Humber to High Marnham Grid Upgrade;
- Birkhill Wood National Grid Substation;
- Wanlass Beck National Grid Substation; and
- Creyke Beck Solar Farm.

30.8.3.4.1 Receptor Sensitivity

430. The sensitivity of each asset is determined by its relative potential for landscape and visual impacts to affect its ability to accommodate users. The sensitivity of residential properties to disturbance as a result of visual effects has been assessed as **negligible** as the ability of houses to continue to accommodate residents is able to adapt to changes in visual impacts.

30.8.3.4.2 Cumulative Impact Magnitude

431. As considered in **Chapter 27 Landscape and Visual Impacts**, it is expected that there will be localised, cumulative visual impacts when the construction phase of the Project overlaps with Dogger Bank South at the landfall, as the landfalls for both projects are in close proximity, and where the onshore ECC of both projects are most proximate to each other, West of Beverley and between the A164 and the coastline near Dunnington.

432. It is also expected that construction of the OCS and ESBI within OCS Zone 4 or OCS Zone 8 may result in cumulative visual impacts when assessed with Dogger Bank South, North Humber to High Marnham Grid Upgrade, Creyke Beck Solar Farm, Wanlass Beck Substation, and Birkhill Wood Substation. For OCS Zone 4, these short term effects would impact receptors located around Jock's Lodge.

433. For OCS Zone 8, these short term effects are expected to impact receptors at the Yorkshire Wolds, largely farmland, around Bentley, and east across the A164.

434. While residents and users of social infrastructure are likely to perceive these impacts, it is not expected that it would impact the ability of these residencies to accommodate residents or the ability of other social infrastructure to accommodate users. The magnitude of the impact is therefore assessed as **negligible (adverse)**.

435. At ES stage, additional mitigation measures may be required for impacts assessed in **Chapter 27 Landscape and Visual Impacts**. It is therefore expected that at ES stage, the impacts on social infrastructure arising from landscape and visual impacts which may affect the behaviour of users will be confirmed, and appropriate mitigation measures would be identified.

30.8.3.4.3 Cumulative Effect Significance

436. The sensitivity of residential properties (part of the social infrastructure) to social infrastructure impacts was assessed as **negligible**. The magnitude of the social infrastructure impact was assessed as **negligible**. Therefore, the effect significance has been assessed as **negligible adverse**, which is **not significant** in EIA terms.

30.8.3.5 Cumulative Impact 5: Disruption to Recreational Activities (Offshore and Onshore) (SOC-C-05)

437. There were no residual significant adverse effects identified in **Chapter 14 Commercial Fisheries**, **Chapter 15 Shipping and Navigation** and **Chapter 18 Other Marine Users** that would result in cumulative effects on marine recreational activities. Therefore, cumulative impacts from construction of the Project's offshore infrastructure are not considered further, and the assessment below only covers impacts from the Project's onshore infrastructure.

438. The potential cumulative impact associated with disruption to recreation is assessed with all Tier 2, Tier, 3, Tier 4, Tier 5, Tier 6, and Tier 7 projects with overlapping construction timetables with the Project, for which the onshore infrastructure is located 5km from each of the OCS zones and 600m from the onshore ECC, increasing the potential for disruption to recreational assets within the LTRA. This includes:

- Dogger Bank South Offshore Wind Farms;
- North Humber to High Marnham Grid Upgrade;
- Birkhill Wood National Grid Substation;
- Wanless Beck National Grid Substation; and
- Creyke Beck Solar Farm.

30.8.3.5.1 Receptor Sensitivity

439. The sensitivity of recreational assets outlined in **Section 30.6.1** has been assessed in line with the methodology outlined in **Table 30-9**. The sensitivity of all onshore recreational assets was assessed as **negligible**.

30.8.3.5.2 Cumulative Impact Magnitude

440. **Table 30-59** shows only the onshore recreational assets where significant cumulative effects have been identified by other chapters.

Table 30-59 Onshore Recreational Assets – Cumulative Residual Significant Adverse Effects Identified by Other Chapters

Recreational Asset	Soils and Land Use	Noise and Vibration	Traffic and Transport	Landscape and Visual Impacts	Air Quality and Dust
High Hunsley Circuit	No	No	No	Yes	No
Beverley 20	No	No	No	Yes	No
National Cycle Network 1	No	No	No	Yes	No
Yorkshire Wolds	No	No	No	Yes	No
East Riding Heritage Way	No	No	No	Yes	No
Wilberforce Way	No	No	No	Yes	No
Minster Way	No	No	No	Yes	No
PRoW located proximate to the landfall, West of Beverley, between the A165 and the coastline, at Jock's Lodge, at the Yorkshire Wolds, in Bentley, and proximate to the A164	No	No	No	Yes	No

441. **Chapter 27 Landscape and Visual Impacts** identifies cumulative visual impacts at the landfall, West of Beverley, and between the A165 and the coastline during construction associated with the landfall and the onshore ECC, when assessed cumulatively with Dogger Bank South. This may result in visual effects on PRoW in these areas and the long distance recreational trail the High Hunsley Circuit.

442. It is also expected that construction at OCS Zone 4 may result in cumulative visual impacts when assessed with Dogger Bank South, North Humber to High Marnham Grid Upgrade, Creyke Beck Solar Farm, Wanlass Beck Substation, and Birkhill Wood Substation. These visual impacts would affect PRoW located around Jock's Lodge, the recreational trail Beverley 20, and the cycling route National Cycle Network 1.

443. Construction at OCS Zone 8 may result in cumulative visual impacts when assessed with Dogger Bank South, North Humber to High Marnham Grid Upgrade, Creyke Beck Solar Farm, Wanless Beck Substation and Birkhill Wood Substation. These short term effects are expected to impact PRoW located at the Yorkshire Wolds, around Bentley, and east across the A164, as well as recreational trails such as the Yorkshire Wolds, East Riding Heritage Way, Wilberforce Way, Minster Way, and Beverley 20, and the cycling route National Cycle Network 1.

444. It is not expected landscape and visual effects on the recreational trails in the area would result in significant changes in recreational activity in the long-term, or the overall use of recreational trails or PRoW in the area due to the presence of alternative routes. It is expected that, where PRoW may be impacted in the long-term, these will be dealt with directly via the PRoW Management Plan which will provided as part of the CoCP post-consent. An **Outline Public Rights of Way Management Plan** (document reference 8.9, Appendix A) is provided at PEIR stage and will be updated at ES stage for the DCO application submission.

445. The Yorkshire Wolds is 127km, the East Riding Heritage Way is 136km, and the National Cycle Network 1 is 2,034km. These receptors would experience visual impacts for a relatively short part of their routes. Therefore, it is not expected that these routes will experience a change in recreational activity.

446. The motivations to use the remaining recreational trails, High Hunsley Circuit, Wilberforce Way, Minster Way, and Beverley 20, include the ability to view the valleys of the Yorkshire Wolds and pass through local villages, farmland, and nature reserves. The trails also benefit from passing historical sites such as Beverley Minster, York Minster and the Wilberforce Monument. These main motivations to take these routes would not be affected by the visual impacts, and therefore it is not expected that these routes will experience changes in recreational activity.

447. Therefore, the impact on onshore recreational assets with residual significant adverse visual effects have been assessed as **negligible (adverse)**.

448. There were no residual significant adverse effects identified by other chapters on the remaining onshore recreational assets. Therefore, the magnitude of the impact has been assessed as **no impact**.

449. At ES stage, additional mitigation measures may be required for impacts assessed in **Chapter 27 Landscape and Visual Impacts**. It is therefore expected that at ES stage, the impacts on recreational assets arising from landscape and visual impacts which may affect recreational activity will be confirmed, and appropriate mitigation measures would be identified.

30.8.3.5.3 Cumulative Effect Significance

450. Based on the assessment of both magnitude and sensitivity, the effect of the construction of the Project on the recreational assets is assessed below in **Table 30-60**.

Table 30-60 Significance of Cumulative Effects on Recreational Assets

Recreational Asset	Receptor Sensitivity	Impact Magnitude	Effect Significance
Recreational assets for which no residual significant adverse effects were identified in other chapters	Negligible	No Impact	**No Change (Not Significant)**
High Hunsley Circuit	Negligible	Negligible (Adverse)	**Negligible Adverse (Not Significant)**
Beverley 20	Negligible	Negligible (Adverse)	**Negligible Adverse (Not Significant)**
National Cycle Network 1	Negligible	Negligible (Adverse)	**Negligible Adverse (Not Significant)**
Yorkshire Wolds	Negligible	Negligible (Adverse)	**Negligible Adverse (Not Significant)**
East Riding Heritage Way	Negligible	Negligible (Adverse)	**Negligible Adverse (Not Significant)**
Wilberforce Way	Negligible	Negligible (Adverse)	**Negligible Adverse (Not Significant)**
Minster Way	Negligible	Negligible (Adverse)	**Negligible Adverse (Not Significant)**

Recreational Asset	Receptor Sensitivity	Impact Magnitude	Effect Significance
PRoW located proximate to the landfall, West of Beverley, between the A165 and the coastline, at Jock's Lodge, at the Yorkshire Wolds, in Bentley, and proximate to the A164	Negligible	Negligible (Adverse)	**Negligible Adverse (Not Significant)**

30.8.3.6 Cumulative Impact 6: Disruption to the Tourism Industry (Offshore and Onshore) (SOC-C-06)

451. There were no residual significant adverse effects identified in **Chapter 14 Commercial Fisheries**, **Chapter 15 Shipping and Navigation** and **Chapter 18 Other Marine Users** that would result in cumulative effects on tourism assets. Therefore, cumulative impacts from construction of the Project's offshore infrastructure are not considered further, and the assessment below only covers impacts from the Project's onshore infrastructure.

452. The potential cumulative impact associated with disruption to the tourism industry is assessed with all Tier 2, Tier, 3, Tier 4, Tier 5, Tier 6, and Tier 7 projects with overlapping construction timetables with the Project, for which the onshore infrastructure is located 5km from each of the OCS zones and 600m from the onshore ECC, increasing the potential for disruption to tourist attractions within the LTRA. This includes:

- Dogger Bank South Offshore Wind Farms;
- North Humber to High Marnham Grid Upgrade;
- Birkhill Wood National Grid Substation;
- Wanless Beck National Grid Substation; and
- Creyke Beck Solar Farm.

30.8.3.6.1 Receptor Sensitivity

453. The sensitivity of tourism assets outlined in **Section 30.6.1** has been assessed in line with the methodology outlined in **Table 30-9**. The sensitivity of all tourism assets was assessed as **negligible**.

30.8.3.6.2 Impact Magnitude

454. **Table 30-61** shows only the tourism assets where cumulative residual significant adverse effects have been identified by other chapters.

Table 30-61 Tourism Assets – Cumulative Residual Significant Adverse Effects Identified by Other Chapters

Tourism Asset	Soils and Land Use	Noise and Vibration	Traffic and Transport	Landscape and Visual Impacts	Air Quality and Dust	Onshore Archaeology and Cultural Heritage
Walkington Playing Fields	No	No	No	Yes	No	No
Beverley and East Riding Golf Club	No	No	No	Yes	No	No
Beverley Art Gallery	No	No	No	Yes	No	No
East Riding Theatre	No	No	No	Yes	No	No
Beverley Guildhall	No	No	No	Yes	No	No
Skipsea Beach	No	No	No	Yes	No	No
Skipsea Castle	No	No	No	Yes	No	No
Beverley Westwood	No	No	No	Yes	No	No
Beverley Racecourse	No	No	No	Yes	No	No
Risby Park	No	No	No	Yes	No	No
Seaside Caravan Park	No	No	No	Yes	No	No
Skipsea Sands Holiday Park	No	No	No	Yes	No	No
Centre Meadows Holiday Park	No	No	No	Yes	No	No

Tourism Asset	Soils and Land Use	Noise and Vibration	Traffic and Transport	Landscape and Visual Impacts	Air Quality and Dust	Onshore Archaeology and Cultural Heritage
Samara Caravan Park Skipsea	No	No	No	Yes	No	No
Beverley Holiday Park	No	No	No	Yes	No	No
Dragonfly Cottage Beverley	No	No	No	Yes	No	No
Beverley Central Townhouse	No	No	No	Yes	No	No
Premier Inn Beverley Town Centre Hotel	No	No	No	Yes	No	No
Beverley Budget Inn	No	No	No	Yes	No	No
Hunter's Hall	No	No	No	Yes	No	No
Broadgate Farm Cottages	No	No	No	Yes	No	No

455. According to findings from **Chapter 27 Landscape and Visual Impacts**, there are significant local cumulative effects in the area between landfall locations and around Skipsea and west of Beverley and between the A165 and the coastline near Dunnington. This is due to the overlap with the construction period of Dogger Bank South (i.e. 2029-2030), the close proximity of the landfall locations and similar nature of works. These are unlikely to significantly alter visitor motivations such as access to the coast, local facilities, Beverley's heritage and events as a result of potential cumulative impacts from projects outlined in **Table 30-56**. As these experiences remain largely unaffected, and impacts are short term, the cumulative impact on these tourism assets is expected to be **low (adverse)**.

456. According to findings from **Chapter 27 Landscape and Visual Impacts**, there are expected to be localised visibility impacts on assets proximate to OCS Zone 4. The Project construction period overlaps with Dogger Bank South and the North Humber to High Marnham Grid Upgrade between 2029 and 2030 and potentially with Creyke Beck Solar Farm. The main tourism asset proximate is Risby Park, located adjacent to OCS Zone 8 and less than 3km from Zone 4. Attractions and accommodation providers near Jock's Lodge, such as Beverley and East Riding Golf Club, Beverley Racecourse, Walkington Playing Fields and Broadgate Farm Cottages, primarily serve local leisure, sports activities and rural short stays. Visitor motivations are centred on specific experiences rather than long-distance views or landscape character. The key motivation to visit Risby Park is to view the grounds and take part in fishing at the available pond, neither of which is not expected to experience considerable changes in activity as a result of potential cumulative impacts from projects outlined in **Table 30-56.** Therefore, the cumulative impact on these tourism assets is expected to be **low (adverse)**.

457. According to findings from **Chapter 27 Landscape and Visual Impacts**, there is potential for locally significant cumulative landscape impacts in the area around OCS Zone 8, particularly if nearby infrastructure projects such as Dogger Bank South and the North Humber to High Marnham Grid Upgrade are built at the same time. These changes may temporarily affect the visual quality and rural character of the area, including parts of the Yorkshire Wolds, Bentley and to the east side across the A164. Although some attractions such as Beverley Westwood, local golf clubs, racecourse, and Walkington Playing Fields are located in close proximity, visitor motivations are unlikely to be significantly affected. As activities taking place at these assets are focused on localised experiences rather than wider views, and impacts are short-term, the cumulative impact on these tourism assets is expected to be **low (adverse)**.

458. Where residual significant adverse effects were not identified by other chapters, the magnitude of impact for the remaining tourism assets is assessed as **no impact**.

459. At ES stage, additional mitigation measures may be required for impacts assessed in **Chapter 27 Landscape and Visual Impacts**. It is therefore expected that at ES stage, the impacts on tourism assets arising from landscape and visual impacts which may affect tourism activity will be confirmed, and appropriate mitigation measures would be identified.

30.8.3.6.3 Effect Significance

460. Based on the assessment of both magnitude and sensitivity, the effect of the construction of the Project on the tourism assets is assessed below in **Table 30-62**.

Table 30-62 Cumulative Effect Significance on Tourism Assets

Tourism Asset	Receptor Sensitivity	Impact Magnitude	Effect Significance
Tourism assets where no residual significant adverse effects have been identified by other chapters	Negligible	No Impact	**No Change (Not Significant)**
Walkington Playing Fields	Negligible	Low (Adverse)	**Negligible Adverse (Not Significant)**
Beverley and East Riding Golf Club	Negligible	Low (Adverse)	**Negligible Adverse (Not Significant)**
Beverley Art Gallery	Negligible	Low (Adverse)	**Negligible Adverse (Not Significant)**
East Riding Theatre	Negligible	Low (Adverse)	**Negligible Adverse (Not Significant)**
Beverley Guildhall	Negligible	Low (Adverse)	**Negligible Adverse (Not Significant)**
Skipsea Beach	Negligible	Low (Adverse)	**Negligible Adverse (Not Significant)**
Skipsea Castle	Negligible	Low (Adverse)	**Negligible Adverse (Not Significant)**
Beverley Westwood	Negligible	Low (Adverse)	**Negligible Adverse (Not Significant)**
Beverley Racecourse	Negligible	Low (Adverse)	**Negligible Adverse (Not Significant)**
Risby Park	Negligible	Low (Adverse)	**Negligible Adverse (Not Significant)**
Seaside Caravan Park	Negligible	Low (Adverse)	**Negligible Adverse (Not Significant)**
Skipsea Sands Holiday Park	Negligible	Low (Adverse)	**Negligible Adverse (Not Significant)**
Centre Meadows Holiday Park	Negligible	Low (Adverse)	**Negligible Adverse (Not Significant)**
Samara Caravan Park Skipsea	Negligible	Low (Adverse)	**Negligible Adverse (Not Significant)**
Beverley Holiday Park	Negligible	Low (Adverse)	**Negligible Adverse (Not Significant)**
Dragonfly Cottage Beverley	Negligible	Low (Adverse)	**Negligible Adverse (Not Significant)**
Beverley Central Townhouse	Negligible	Low (Adverse)	**Negligible Adverse (Not Significant)**
Premier Inn Beverley Town Centre Hotel	Negligible	Low (Adverse)	**Negligible Adverse (Not Significant)**
Beverley Budget Inn	Negligible	Low (Adverse)	**Negligible Adverse (Not Significant)**
Hunter's Hall	Negligible	Low (Adverse)	**Negligible Adverse (Not Significant)**
Broadgate Farm Cottages	Negligible	Low (Adverse)	**Negligible Adverse (Not Significant)**

30.8.3.7 Cumulative Impact 7: Direct Economic Benefit from Supply Chain Expenditure (Offshore and Onshore) (SOC-O-01)

461. The potential cumulative impact associated with the direct economic benefit from supply chain expenditure is assessed with all Tier 2, Tier, 3, Tier 4, Tier 5, Tier 6, and Tier 7 projects as there may be potential overlap in the O&M phase.

462. The cumulative effect of the developments outlined in **Table 30-56** will be a significant driver of demand for services and goods to support the offshore wind energy sector, with the potential to create demand for supporting activities in both the LSESA, RSA, and the UK as a whole. This would include demand for port services, vessels, maintenance facilities and skills. This demand will drive the investment required in the sector, in port facilities, manufacturing facilities and skills development.

30.8.3.7.1 Receptor Sensitivity

463. The sensitivity of an economy is based on its responsiveness to change, its relative diversity (more diverse economies are less sensitive) and growth trajectory (for example is the number of jobs increasing or decreasing).

464. The sensitivity of the economic receptors has been assessed in line with the parameters outlined in **Table 30-7**.

465. The sensitivity of the economy of the LSESA has been assessed as **medium** because jobs growth has been lower than the national average and the qualification level of the labour force is notably lower than the UK as a whole. The economy is also more reliant on a smaller number of sectors, than for the RSA and UK as a whole.

466. The sensitivity of the economy of the RSA (which employs 5.9 million people) has been assessed as **low** because while jobs growth has been lower than the national average, the economy is well balanced between sectors. The qualification level of the labour force is below that of the UK average, however not to the same extent as the LSESA.

467. The sensitivity of the economy of the UK has been assessed as **low**, in line with the definitions in **Table 30-7**.

30.8.3.7.2 Cumulative Impact Magnitude

468. The cumulative impact of the developments would be to enable the supply chain to generate beneficial impacts which are greater than those of the Project alone. The projects considered in the cumulative impact assessment consist of a considerable proportion of the offshore wind developments that will be operational by 2030. Therefore, when assessed cumulatively with projects included in **Table 30-56**, the magnitude of the impact is considered to be **high (beneficial)** in the long-term in the RSA, and the UK.

469. The magnitude of the direct economic benefit from supply chain expenditure was not assessed for the LSESA as it is assumed that the O&M base port for the Project's offshore infrastructure will be located in the RSA, but not within the LSESA (see **Section 30.4.1**).

470. As shown in **Table 30-63**, the significance of the cumulative impacts of supply chain expenditure during operation is expected to be **moderate beneficial** in the RSA, which is **significant** in EIA terms, and **moderate beneficial** in the UK, which is **significant** in EIA terms.

Table 30-63 Significance of Cumulative Direct Economic Benefit from Supply Chain Expenditure, Considering the Project and all Tier 2, Tier 3, Tier 4, Tier 5, Tier 6, and Tier 7 Projects

	RSA	The UK
Receptor Sensitivity	Low	Low
Impact Magnitude	High (Beneficial)	High (Beneficial)
Effect Significance	**Moderate Beneficial (Significant)**	**Moderate Beneficial (Significant)**

30.8.3.8 Cumulative Impact 8: Increase in Employment (Offshore and Onshore) (SOC-O-02)

471. The potential cumulative impact associated with an increase employment is assessed with all, Tier 2, Tier, 3, Tier 4, Tier 5, Tier 6, and Tier 7 projects as there may be potential overlap in the O&M phase.

472. As with the direct economic benefits from supply chain expenditure, there is potential for cumulative benefits on employment generated by the developments outlined in **Table 30-56** as they will be a significant driver of demand for services and goods to support the offshore wind energy sector, with the potential to create demand for supporting activities in both the LSESA, RSA, and the UK as a whole. This would include demand for port services, vessels, maintenance facilities and skills. This demand will drive the investment required in the sector, in port facilities, manufacturing facilities and skills development.

30.8.3.8.1 Receptor Sensitivity

473. The sensitivity of an economy is based on its responsiveness to change, its relative diversity (more diverse economies are less sensitive) and growth trajectory (for example is the number of jobs increasing or decreasing).

474. The sensitivity of the economic receptors has been assessed in line with the parameters outlined in **Table 30-7**.

475. The sensitivity of the economy of the LSESA has been assessed as **medium** because jobs growth has been lower than the national average and the qualification level of the labour force is notably lower than the UK as a whole.

476. The sensitivity of the economy of the RSA (which employs 5.9 million people) has been assessed as **low** because while jobs growth has been lower than the national average, the economy is well balanced between sectors. The qualification level of the labour force is below that of the UK average, however not to the same extent as the LSESA.

477. The sensitivity of the economy of the UK has been assessed as **low**, in line with the definitions in **Table 30-7**.

30.8.3.8.2 Cumulative Impact Magnitude

478. The cumulative impact of the developments would be to enable the supply chain to generate beneficial impacts which are greater than those of the Project alone. Estimates of the future workforce in the UK offshore wind sector for 2030 find that 26% of these roles are expected to be in the operations and maintenance phase (OWIC, 2023). This is equivalent to over 26,000 jobs in the UK, which is equivalent to 1.7% of the current level of employment in the construction sector.

479. As with the impacts on economic benefit (SOC-O-01), when assessed cumulatively with projects included in **Table 30-56,** the magnitude of the impact is considered to be **high (beneficial)** in the long-term in the RSA and the UK.

480. The magnitude of the increase in employment was not assessed for the LSESA (see **Section 30.7.2.2**).

30.8.3.8.3 Cumulative Effect Significance

481. As shown in **Table 30-64**, the significance of the cumulative impacts on employment during operation is expected to be **moderate (beneficial)** in the RSA, which is **significant** in EIA terms, and **moderate (beneficial)** in the UK, which is **significant** in EIA terms.

Table 30-64 Significance of Cumulative Increase in Employment, Considering the Project and all Tier 2, Tier 3, Tier 4, Tier 5, Tier 6, and Tier 7 Projects

	RSA	The UK
Receptor Sensitivity	Low	Low
Impact Magnitude	High (Beneficial)	High (Beneficial)
Effect Significance	**Moderate Beneficial (Significant)**	**Moderate Beneficial (Significant)**

30.8.3.9 Cumulative Impact 9: Disturbance to Social Infrastructure (Onshore) (SOC-O-04)

482. The potential cumulative impact associated with disturbance to social infrastructure is assessed with projects identified in **Chapter 27 Landscape and Visual Impacts** as having potential to result in cumulative impacts on residential properties proximate to OCS Zone 4 and OCS Zone 8, including:

- Hornsea Project Four Offshore Wind Farm;
- Dogger Bank South Offshore Wind Farms;
- North Humber to High Marnham Grid Upgrade;
- Birkhill Wood National Grid Substation;
- Wanlass Beck National Grid Substation;
- Creyke Beck Solar Farm; and
- A164 And Jock's Lodge Junction Improvement Scheme.

30.8.3.9.1 Receptor Sensitivity

483. The sensitivity of residential properties proximate to OCS Zone 4 and OCS Zone 8 has been assessed as **negligible** as the ability of houses to continue to deliver a accommodate residents is able to adapt to changes in visual impacts.

30.8.3.9.2 Impact Magnitude

484. **Chapter 27 Landscape and Visual Impacts** identifies potential cumulative visual impacts resulting from the operation phase at OCS Zone 4 when assessed with the identified cumulative projects. These visual impacts would affect receptors located south of OCS Zone 4.

485. OCS Zone 8 may result in cumulative visual impacts when assessed with the identified cumulative projects. These visual impacts would affect receptors located between OCS Zone 8 and Dogger Bank South substation, around Bentley, and to the West towards the Yorkshire Wolds, largely farmland.

486. While residents and users of social infrastructure are likely to perceive these impacts, it is not expected that it would impact the ability of these dwellings to accommodate residents or the ability of other social infrastructure to accommodate users. The magnitude of the impact is therefore assessed as **negligible (adverse)**.

487. At ES stage, additional mitigation measures may be required for impacts assessed in **Chapter 27 Landscape and Visual Impacts**. It is therefore expected that at ES stage, the impacts on social infrastructure arising from landscape and visual impacts which may affect the behaviour of users will be confirmed, and appropriate mitigation measures would be identified.

30.8.3.9.3 Effect Significance

488. The sensitivity of residential properties (part of the social infrastructure) to social infrastructure impacts was assessed as **negligible**. The magnitude of the social infrastructure impact was assessed as **negligible**. Therefore, the effect significance has been assessed as **negligible adverse** which is **not significant** in EIA terms.

30.8.3.10 Cumulative Impact 10: Disruption to Recreational Activities (Onshore) (SOC-O-05)

489. The potential cumulative impact associated with disruption to recreational activities is assessed with all Tier 2, Tier, 3, Tier 4, Tier 5, Tier 6, and Tier 7 projects for which the onshore infrastructure is located 5km from each of the OCS zones and 600m from the onshore ECC, increasing the potential for disruption to recreation within the LTRA. This includes:

- Hornsea Project Four Offshore Wind Farm;
- Dogger Bank South Offshore Wind Farms;
- North Humber to High Marnham Grid Upgrade;
- Birkhill Wood National Grid Substation;
- Wanlass Beck National Grid Substation;
- Creyke Beck Solar Farm; and
- A164 And Jock's Lodge Junction Improvement Scheme.

30.8.3.10.1 Receptor Sensitivity

490. The sensitivity of recreational assets outlined in **Section 30.6.1** has been assessed in line with the methodology outlined in **Table 30-9**. The sensitivity of all recreational assets was assessed as **negligible**.

30.8.3.10.2 Cumulative Impact Magnitude

491. **Table 30-65** shows only the recreational assets where significant effects have been identified by other chapters.

Table 30-65 Onshore Recreational Assets – Cumulative Residual Significant Adverse Effects Identified by Other Chapters

Recreational Asset	Soils and Land Use	Noise and Vibration	Traffic and Transport	Landscape and Visual Impacts	Air Quality and Dust
High Hunsley Circuit	No	No	No	Yes	No
Beverley 20	No	No	No	Yes	No
National Cycle Network 1	No	No	No	Yes	No
Yorkshire Wolds	No	No	No	Yes	No
East Riding Heritage Way	No	No	No	Yes	No
PRoW located South of OCS Zone 4, West of OCS Zone 8 and at Bentley	No	No	No	Yes	No

492. **Chapter 27 Landscape and Visual Impacts** identifies cumulative visual impacts resulting from the operation phase at OCS Zone 4 when assessed with the identified cumulative projects. These visual impacts would affect PRoW located south of OCS Zone 4, the recreational trails East Riding Heritage Way and Beverley 20, and the cycling route National Cycling Network 1.

493. OCS Zone 8 may result in cumulative visual impacts when assessed with the identified cumulative projects. These visual impacts would affect PRoW located between OCS Zone 8 and Dogger Bank South substation, around Bentley, and to the West towards the Yorkshire Wolds, the recreational trails High Hunsley Circuit, the East Riding Heritage Way, the Wolds Way, and Beverley 20, and the cycling route National Cycle Network 1.

494. It is not expected landscape and visual effects on the recreational trails in the area would result in significant changes in recreational activity in the long-term, or the overall use of recreational trails or PRoW in the area due to the presence of alternative routes. It is expected that, where PRoW may be impacted in the long-term, these will be dealt with directly via the PRoW Management Plan which will provided as part of the CoCP post-consent. An **Outline Public Rights of Way Management Plan** (document reference 8.9, Appendix A) is provided at PEIR stage and will be updated at ES stage for the DCO application submission.

495. The Yorkshire Wolds is 127km, the East Riding Heritage Way is 136km, and the National Cycle Network 1 is 2,034km. These receptors would experience visual impacts for a relatively short part of their routes. Therefore, it is not expected that these routes will experience a change in recreational activity during the O&M phase.

496. The motivations to use the remaining recreational trails, the High Hunsley Circuit and Beverley 20, include the ability to view the valleys of the Southern Yorkshire Wolds, pass through local villages, and view historical landmarks such as Beverley Minster. The main motivations to take these routes would not be affected by the visual impacts, and therefore it is not expected that these routes will experience changes in recreational activity.

497. Therefore, the magnitude of the impact on the recreational assets with residual significant adverse visual effects has been assessed as **negligible (adverse)**.

498. There were no residual significant adverse effects identified by other chapters on the remaining recreational assets. Therefore, the magnitude of the impact has been assessed as **no impact**.

499. At ES stage, additional mitigation measures may be required for impacts assessed in **Chapter 27 Landscape and Visual Impacts**. It is therefore expected that at ES stage, the impacts on recreational assets arising from landscape and visual impacts which may affect recreational activity will be confirmed, and appropriate mitigation measures would be identified.

30.8.3.10.3 Cumulative Effect Significance

500. Based on the assessment of both magnitude and sensitivity, the effect of the operation of the Project on the recreational assets is assessed below in **Table 30-66**.

Table 30-66 Cumulative Significance of Effect on Recreational Assets

Recreational Asset	Receptor Sensitivity	Impact Magnitude	Effect Significance
Recreational assets for which no residual significant adverse effects were identified in other chapters	Negligible	No Impact	**No Change (Not Significant)**
High Hunsley Circuit	Negligible	Negligible (Adverse)	**Negligible Adverse (Not Significant)**
Beverley 20	Negligible	Negligible (Adverse)	**Negligible Adverse (Not Significant)**
National Cycle Network 1	Negligible	Negligible (Adverse)	**Negligible Adverse (Not Significant)**
Yorkshire Wolds	Negligible	Negligible (Adverse)	**Negligible Adverse (Not Significant)**
East Riding Heritage Way	Negligible	Negligible (Adverse)	**Negligible Adverse (Not Significant)**
PRoW located south of OCS Zone 4, west of OCS Zone 8 and at Bentley	Negligible	Negligible (Adverse)	**Negligible Adverse (Not Significant)**

30.8.3.11 Cumulative Impact 11: Disruption to the Tourism Industry (Onshore) (SOC-O-06)

501. The potential cumulative impact associated with disruption to the tourism industry is assessed with all Tier 2, Tier, 3, Tier 4, Tier 5, Tier 6, and Tier 7 projects for which the onshore infrastructure is located 5km from each of the OCS zones and 600m from the onshore ECC, increasing the potential for disruption to tourist attractions within the LTRA. This includes:

- Hornsea Project Four Offshore Wind Farm;
- Dogger Bank South Offshore Wind Farms;
- North Humber to High Marnham Grid Upgrade;
- Birkhill Wood National Grid Substation;
- Wanlass Beck National Grid Substation;
- Creyke Beck Solar Farm; and
- A164 And Jock's Lodge Junction Improvement Scheme

30.8.3.11.1 Receptor Sensitivity

502. The sensitivity of tourism assets outlined in **Section 30.6.1** has been assessed in line with the methodology outlined in **Table 30-9.** The sensitivity of all tourism assets was assessed as **negligible**.

30.8.3.11.2 Impact Magnitude

503. **Table 30-67** shows only the tourism assets where residual significant adverse effects have been identified by other chapters.

Table 30-67 Tourism Assets – Cumulative Residual Significant Adverse Effects Identified by Other Chapters

Tourism Asset	Soils and Land Use	Noise and Vibration	Traffic and Transport	Landscape and Visual Impacts	Air Quality and Dust	Onshore Archaeology and Cultural Heritage
Risby Park	No	No	No	Yes	No	No
Walkington Playing Fields	No	No	No	Yes	No	No

Tourism Asset	Soils and Land Use	Noise and Vibration	Traffic and Transport	Landscape and Visual Impacts	Air Quality and Dust	Onshore Archaeology and Cultural Heritage
Beverley and East Riding Golf Club	No	No	No	Yes	No	No
Broadgate Farm Cottages	No	No	No	Yes	No	No

504. According to findings from **Chapter 27 Landscape and Visual Impacts**, the Project alongside the identified cumulative projects will result in noticeable changes to the landscape character south of the A1079 for OCS Zone 4. However, this area has limited tourism assets, and the few nearby assets, such as Walkington Playing Fields, Beverley and East Riding Golf Club, Risby Park, are related to specific activities like recreation, fishing, and rural breaks. Visitor motivations are unlikely to be affected by distant or screened infrastructure, particularly with landscape mitigation in place. Therefore, the impact on these tourism assets is expected to be **low (adverse)**.

505. According to findings from **Chapter 27 Landscape and Visual Impacts**, the area between OCS Zone 8 and the Dogger Bank South substation, particularly around Bentley and extending into the Yorkshire Wolds, is expected to experience significant cumulative landscape effects. This is due to the close proximity with the identified cumulative projects. Assets such as Beverley and East Riding Golf Club, Walkington Playing Fields and Broadgate Farm Cottages fall within the area identified as experiencing significant impacts. However, visitor motivations are focused on specific recreational activities and local experiences rather than views. Therefore, the impact on these tourism assets is expected to be **low (adverse)**.

506. According to findings from **Chapter 27 Landscape and Visual Impacts**, during operation, it is expected that the tourism asset Risby Park, located adjacent to OCS Zone 8 and less than 3km from Zone 4, will have visibility of the onshore infrastructure. The main motivation to visit Risby Park is to view the grounds and take part in fishing at the available pond, neither of which is not expected to be experience considerable changes in activity as a result of potential cumulative impacts from projects outlined in **Table 30-56**. Therefore, the impact on this tourism asset is expected to be **low (adverse)**.

507. Where residual significant adverse effects were not identified by other chapters, the magnitude of impact is assessed as **no impact**.

508. At ES stage, additional mitigation measures may be required for impacts assessed in **Chapter 27 Landscape and Visual Impacts**. It is therefore expected that at ES stage, the impacts on tourism assets arising from landscape and visual impacts which may affect tourism activity will be confirmed, and appropriate mitigation measures would be identified.

30.8.3.11.3 Effect Significance

509. Based on the assessment of both magnitude and sensitivity, the effect is assessed below in **Table 30-68**.

Table 30-68 Cumulative Effect Significance on Tourism Assets

Tourism Asset	Receptor Sensitivity	Impact Magnitude	Effect Significance
Tourism assets where no residual significant adverse effects have been identified by other chapters	Negligible	No Impact	**No Change (Not Significant)**
Risby Park	Negligible	Low (Adverse)	**Negligible Adverse (Not Significant)**
Walkington Playing Fields	Negligible	Low (Adverse)	**Negligible Adverse (Not Significant)**
Beverley and East Riding Golf Club	Negligible	Low (Adverse)	**Negligible Adverse (Not Significant)**
Broadgate Farm Cottages	Negligible	Low (Adverse)	**Negligible Adverse (Not Significant)**

30.9 Transboundary Effects

510. No potential for significant transboundary effects regarding socio-economics, tourism and recreation from the Project on receptors within the EEZ of other EEA member states or other interests of EEA member states have been identified. For the socio-economics assessment, any transboundary effects would be associated with expenditure in the supply chain, and would therefore be positive. There impacts would also be considered of negligible significance as it is not currently known where the components of the Project will come from or where companies in the supply chain will be based, meaning impact would be assessed against the combined economies of many countries, for which the impact will always be negligible.

511. There is also no potential for transboundary effects on the tourism and recreational assets or economies of other EEA states as surface-protruding offshore infrastructure

will not be visible from other EEA countries and the Project's onshore infrastructure is located entirely within the UK.

512. Therefore, a transboundary effect assessment has been scoped out of the EIA.

30.10 Inter-Relationships and Effects Interactions

30.10.1 Inter-Relationships

513. 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 socio-economics, tourism and recreation and other environmental topics within the PEIR have been considered, where relevant. **Table 30-69** provides a summary of key inter-relationships and signposts to where they have been addressed in the relevant chapters.

514. For impacts SOC-C-02, SOC-C-03, and SOC-O-02, there are no inter-relationships with other chapters as these impacts are not informed by residual effects identified by other chapters. For impact SOC-O-03, no inter-relationships were identified, as the effect is determined to be no change.

Table 30-69 Socio-Economics, Tourism and Recreation – Inter-Relationships with Other Topics

Impact ID	Impact and Project Activity	Related EIA Topic	Where Assessed in Chapter 30 Socio-Economics, Tourism and Recreation	Rationale
Construction				
SOC-C-01	Benefits of supply chain expenditure (offshore and onshore) - offshore and onshore construction activities	**Chapter 14 Commercial Fisheries** **Chapter 15 Shipping and Navigation** **Chapter 16 Aviation, Radar and Military** **Chapter 22 Soils and Land Use**	**Section 30.7.2.1**	The residual significant adverse effects identified by these chapters may result in negative impacts on the GVA of the economy.
SOC-C-04	Disturbance to social infrastructure (offshore and onshore) - offshore and onshore construction activities	**Chapter 14 Commercial Fisheries** **Chapter 15 Shipping and Navigation** **Chapter 18 Other Marine Users** **Chapter 20 Air Quality and Dust** **Chapter 25 Noise and Vibration** **Chapter 26 Traffic and Transport** **Chapter 27 Landscape and Visual Impacts**	**Section 30.7.1.4**	The residual significant adverse effects identified by these chapters may include effects on social infrastructure during the construction phase.
SOC-C-05	Disruption to recreational activities (offshore and onshore) - offshore and onshore construction activities	**Chapter 14 Commercial Fisheries** **Chapter 15 Shipping and Navigation** **Chapter 18 Other Marine Users** **Chapter 20 Air Quality and Dust** **Chapter 22 Soils and Land Use** **Chapter 25 Noise and Vibration** **Chapter 26 Traffic and Transport** **Chapter 27 Landscape and Visual Impacts**	**Section 30.7.1.5**	The residual significant adverse effects identified by these chapters may include effects on recreational assets within the LTRA during the construction phase.

Impact ID	Impact and Project Activity	Related EIA Topic	Where Assessed in Chapter 30 Socio-Economics, Tourism and Recreation	Rationale
SOC-C-06	Disruption to the tourism industry (offshore and onshore) - offshore and onshore construction activities	**Chapter 14 Commercial Fisheries** **Chapter 15 Shipping and Navigation** **Chapter 18 Other Marine Users** **Chapter 20 Air Quality and Dust** **Chapter 22 Soils and Land Use** **Chapter 24 Onshore Archaeology and Cultural Heritage** **Chapter 25 Noise and Vibration** **Chapter 26 Traffic and Transport** **Chapter 27 Landscape and Visual Impacts**	**Section 30.7.1.6**	The residual significant adverse effects identified by these chapters may include effects on tourism assets within the LTRA during the construction phase.
Operation				
SOC-O-01	Benefits of supply chain expenditure (offshore and onshore) - offshore and onshore construction activities	**Chapter 14 Commercial Fisheries** **Chapter 15 Shipping and Navigation** **Chapter 16 Aviation, Radar and Military** **Chapter 22 Soils and Land Use**	**Section 30.7.2.1**	The residual significant adverse effects identified by these chapters may result in negative impacts on the GVA of the economy.
SOC-O-04	Disturbance to social infrastructure (onshore) - presence of onshore infrastructure during operation	**Chapter 20 Air Quality and Dust** **Chapter 25 Noise and Vibration** **Chapter 26 Traffic and Transport** **Chapter 27 Landscape and Visual Impacts**	**Section 30.7.2.4**	The residual significant adverse effects identified by these chapters may include effects on social infrastructure during the O&M phase.
SOC-O-05	Disruption to recreational activities (onshore) - presence of onshore infrastructure during operation	**Chapter 20 Air Quality and Dust** **Chapter 22 Soils and Land Use** **Chapter 25 Noise and Vibration** **Chapter 26 Traffic and Transport** **Chapter 27 Landscape and Visual Impacts**	**Section 30.7.2.5**	The residual significant adverse effects identified by these chapters may include effects on recreational assets within the LTRA during the O&M phase.
SOC-O-06	Disruption to the tourism industry (onshore) - presence of onshore infrastructure during operation	**Chapter 20 Air Quality and Dust** **Chapter 22 Soils and Land Use** **Chapter 24 Onshore Archaeology and Cultural Heritage** **Chapter 25 Noise and Vibration** **Chapter 26 Traffic and Transport** **Chapter 27 Landscape and Visual Impacts**	**Section 30.7.2.6**	The residual significant adverse effects identified by these chapters may include effects on tourism assets within the LTRA during the O&M phase.

Impact ID	Impact and Project Activity	Related EIA Topic	Where Assessed in Chapter 30 Socio-Economics, Tourism and Recreation	Rationale
Decommissioning				
The details and scope of decommissioning works will be determined by the relevant regulations and guidance at the time of decommissioning and provided in the Offshore Decommissioning Programme and Onshore Decommissioning Plan (see **Table 30-4**, Commitment IDs CO21 and 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.				

30.10.2 Interactions

515. The impacts identified and assessed in this chapter have the potential to interact with each other. Potential interactions between impacts are identified in **Table 30-70**. Where there is potential for interaction between impacts, these are assessed in **Table 30-71** for each receptor or receptor group.

516. 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.

30.11 Monitoring Measures

517. No monitoring measures have been proposed for socio-economics, tourism and recreation.

30.12 Summary

518. **Table 30-72** presents a summary of the preliminary results of the assessment of likely significant effects on socio-economics, tourism and recreation during the construction, operation and decommissioning of the Project.

30.13 Next Steps

519. Following refinement of the Onshore Development Area, the Socio-Economics, Tourism and Recreation ES chapter will include an updated baseline environment and impact assessment. The chapter will also incorporate any additional data which has become available following the publication of the PEIR, as well as any comments received as part of the statutory consultation. An Outline ESP will also be provided with the DCO application.

Table 30-70 Socio-Economics, Tourism and Recreation – Potential Interactions between Impacts throughout the Project's lifetime

Construction, Operation and Maintenance

	SOC-C-01	SOC-C-02	SOC-C-03	SOC-C-04	SOC-C-05	SOC-C-06	SOC-O-01	SOC-O-02	SOC-O-03	SOC-O-04	SOC-O-05	SOC-O-06
Direct economic benefit from supply chain expenditure (offshore and onshore) (SOC-C-01)		No	No	No	No	No	Yes	No	No	No	No	No
Increased employment (offshore and onshore) (SOC-C-02)	No		No	No	No	No	No	Yes	No	No	No	No
Loss of, disruption to or pressure on local infrastructure and services (offshore and onshore) (SOC-C-03)	No	No		Yes	No	No	No	No	No	No	No	No
Disturbance to social infrastructure (offshore and onshore) (SOC-C-04)	No	No	Yes		No	No	No	No	No	Yes	No	No
Disruption to recreational activities (offshore and onshore) (SOC-C-05)	No	No	No	No		No	No	No	No	No	Yes	No
Disruption to the tourism industry (offshore and onshore) (SOC-C-06)	No	No	No	No	No		No	No	No	No	No	Yes
Direct economic benefit from supply chain expenditure (offshore and onshore) (SOC-O-01)	Yes	No	No	No	No	No		No	No	No	No	No
Increased employment (offshore and onshore) (SOC-O-02)	No	Yes	No	No	No	No	No		No	No	No	No
Loss of, disruption to or pressure on local infrastructure and services (offshore and onshore) (SOC-O-03)	No	No	No	No	No	No	No	No		No	No	No
Disturbance to social infrastructure (onshore) (SOC-O-04)	No	No	No	Yes	No	No	No	No	No		No	No
Disruption to recreational activities (onshore) (SOC-O-05)	No	No	No	No	Yes	No	No	No	No	No		No
Disruption to the tourism industry (onshore) (SOC-O-06)	No	No	No	No	No	Yes	No	No	No	No	No	

Decommissioning

The details and scope of decommissioning works will be determined by the relevant regulations and guidance at the time of decommissioning and provided in the Offshore Decommissioning Programme and Onshore Decommissioning Plan (see **Table 30-4**, Commitment IDs CO21 and 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 30-71 Interaction Assessment – Phase and Lifetime Effects

Receptor	Impact ID	Highest Significance Level			Phase Assessment	Lifetime Assessment
		Construction	Operation and Maintenance	Decommissioning		
Economy of the LSESA	SOC-C-01 SOC-C-02 SOC-O-01 SOC-O-02	Major (beneficial)	Negligible (beneficial)	TBC – Assumed no greater than construction	**Construction**: No greater than individually assessed impact as the impact as impacts on the economy during operation or decommissioning will not result in higher GVA during construction. **Operation and Maintenance**: No greater than individually assessed impact as the effect significance during operation was negligible. **Decommissioning**: No greater than individually assessed impact. For assessment purposes, it is assumed that decommissioning impacts will be of a similar nature and no worse than construction impacts.	No greater than individually assessed impact. While resulting supply chain development during construction and operation may result in increased GVA and employment impacts during the subsequent phases, it is not expected that this will result in changes to the overall significance of the impact.
Economy of the RSA	SOC-C-01 SOC-C-02 SOC-O-01 SOC-O-02	Minor (beneficial)	Negligible (beneficial)	TBC – Assumed no greater than construction	**Construction**: No greater than individually assessed impact as the impact as impacts on the economy during operation or decommissioning will not result in higher GVA during construction. **Operation and Maintenance**: No greater than individually assessed impact as the effect significance during operation was negligible. **Decommissioning**: No greater than individually assessed impact. For assessment purposes, it is assumed that decommissioning impacts will be of a similar nature and no worse than construction impacts.	No greater than individually assessed impact. While resulting supply chain development during construction and operation may result in increased GVA and employment impacts during the subsequent phases, it is not expected that this will result in changes to the overall significance of the impact.

Receptor	Impact ID	Highest Significance Level			Phase Assessment	Lifetime Assessment
		Construction	Operation and Maintenance	Decommissioning		
Economy of the UK	SOC-C-01 SOC-C-02 SOC-O-01 SOC-O-02	Negligible (beneficial)	Negligible (beneficial)	TBC – Assumed no greater than construction	**Construction**: No greater than individually assessed impact as the impact as impacts on the economy during operation or decommissioning will not result in higher GVA during construction. **Operation and Maintenance**: No greater than individually assessed impact as the effect significance during operation was negligible. **Decommissioning**: No greater than individually assessed impact. For assessment purposes, it is assumed that decommissioning impacts will be of a similar nature and no worse than construction impacts.	No greater than individually assessed impact. While resulting supply chain development during construction and operation may result in increased GVA and employment impacts during the subsequent phases, it is not expected that this will result in changes to the overall significance of the impact.
Local and social infrastructure assets in the LSESA	SOC-C-03 SOC-C-04 SOC-O-04	Minor (adverse) May be updated at ES stage once assessment of SOC-C-03 is complete.	Negligible (adverse)	TBC – Assumed no greater than construction	**Construction**: No greater than individually assessed impact as the highest significance of disturbance to local and social infrastructure was assessed as minor adverse. **Operation and Maintenance**: No greater than individually assessed impact as the highest significance of both effects was assessed as negligible. **Decommissioning**: No greater than individually assessed impact. For assessment purposes, it is assumed that decommissioning impacts will be of a similar nature and no worse than construction impacts, as the significance of both effects was assessed as negligible.	No greater than individually assessed impact. As the disturbance to local and social infrastructure impacts were assessed as negligible throughout the lifetime of the Project, this will not result in additional pressure on, disruption to or loss of local and social infrastructure and services. It is therefore considered that over the Project's lifetime, these impacts would not interact to change the overall effect significance.

Receptor	Impact ID	Highest Significance Level			Phase Assessment	Lifetime Assessment
		Construction	Operation and Maintenance	Decommissioning		
Recreational assets in the LTRA	SOC-C-05 SOC-O-05	Negligible (adverse)	Negligible (adverse)	TBC – Assumed no greater than construction	**Construction**: No greater than individually assessed impact as the highest significance of effects on recreational assets was negligible. **Operation and Maintenance**: No greater than individually assessed impact as the highest significance of the effect on recreational assets was negligible. **Decommissioning**: No greater than individually assessed impact. For assessment purposes, it is assumed that decommissioning impacts will be of a similar nature and no worse than construction impacts.	No greater than individually assessed impact. As the highest significance of the effect on recreational assets was negligible throughout the lifetime of the Project, it is not expected that this will result in further effects on recreational activities.
Tourism assets in the LTRA	SOC-C-06 SOC-O-06	Negligible (adverse)	Negligible (adverse)	TBC – Assumed no greater than construction	**Construction**: No greater than individually assessed impact as the highest significance of effects on tourism assets was negligible. **Operation and Maintenance**: No greater than individually assessed impact as the highest significance of the effect on tourism assets was negligible. **Decommissioning**: No greater than individually assessed impact. For assessment purposes, it is assumed that decommissioning impacts will be of a similar nature and no worse than construction impacts.	No greater than individually assessed impact. As the highest significance of the effect on tourism assets was negligible throughout the lifetime of the Project, it is not expected that any tourism asset will experience a higher significance of effect over the lifetime of the Project.

Table 30-72 Summary of Potential Effects Assessed for Socio-Economics, Tourism and Recreation

Impact ID	Impact and Project Activity	Embedded Mitigation / Enhancement Measures	Receptor	Receptor Sensitivity	Impact Magnitude	Effect Significance	Additional Mitigation Measures	Residual Effect	Monitoring Measures
Construction									
SOC-C-01	Direct economic benefit from supply chain expenditure (offshore and onshore) - offshore and onshore construction activities	CO67	LSESA	**Medium**	**High (Beneficial)**	**Major Beneficial (Significant)**	N/A	**Major Beneficial (Significant)**	N/A
		CO67	RSA	**Low**	**Low (Beneficial)**	**Minor Beneficial (Not significant)**	N/A	**Minor Beneficial (Not significant)**	N/A
		CO67	UK	**Low**	**Negligible (Beneficial)**	**Negligible Beneficial (Not Significant)**	N/A	**Negligible Beneficial (Not Significant)**	N/A
SOC-C-02	Increased employment (offshore and onshore) - workforce requirement for offshore and onshore construction activities	CO67	LSESA	**Medium**	**High (Beneficial)**	**Major Beneficial (Significant)**	N/A	**Major Beneficial (Significant)**	N/A
		CO67	RSA	**Low**	**Low (Beneficial)**	**Minor Beneficial (Not significant)**	N/A	**Minor Beneficial (Not significant)**	N/A
		CO67	UK	**Low**	**Negligible (Beneficial)**	**Negligible Beneficial (Not Significant)**	N/A	**Negligible Beneficial (Not Significant)**	N/A
SOC-C-03	Loss of, disruption to or pressure on local infrastructure and services (offshore and onshore) – offshore and onshore construction activities	CO67	LSESA	**Low**	To be determined at ES stage.	To be determined at ES stage.	To be determined at ES stage.	To be determined at ES stage.	N/A
SOC-C-04	Disturbance to social infrastructure (offshore and onshore) - offshore and onshore construction activities	N/A	Residential properties within 150m and between 150m and 180m of trenchless crossing entry pits locations along the onshore ECC	**High**	**Negligible (Adverse)**	**Minor Adverse (Not Significant)**	N/A	**Minor Adverse (Not Significant)**	N/A
		N/A	Residential properties proximate to landfall, OCS Zone 4 and OCS Zone 8	**Negligible**	**Negligible (Adverse)**	**Negligible Adverse (Not Significant)**	N/A	**Negligible Adverse (Not Significant)**	N/A

Impact ID	Impact and Project Activity	Embedded Mitigation / Enhancement Measures	Receptor	Receptor Sensitivity	Impact Magnitude	Effect Significance	Additional Mitigation Measures	Residual Effect	Monitoring Measures
SOC-C-05	Disruption to recreational activities (offshore and onshore) - offshore and onshore construction activities	N/A	Recreational assets within the LTRA for which residual significant adverse effects were identified by other EIA topic chapters	**Negligible**	**Negligible (Adverse)**	**Negligible Adverse (Not Significant)**	N/A	**Negligible Adverse (Not Significant)**	N/A
		N/A	Recreational assets within the LTRA for which no residual significant adverse effects were identified by other EIA topic chapters	**Negligible**	**No Impact**	**No Change (Not Significant)**	N/A	**No Change (Not Significant)**	N/A
SOC-C-06	Disruption to the tourism industry (offshore and onshore) - offshore and onshore construction activities	N/A	Tourism assets within the LTRA for which residual significant adverse effects were identified by other EIA topic chapters	**Negligible**	**Negligible (Adverse)**	**Negligible Adverse (Not Significant)**	N/A	**Negligible Adverse (Not Significant)**	N/A
		N/A	Tourism assets within the LTRA for which no residual significant adverse effects were identified by other EIA topic chapters	**Negligible**	**No Impact**	**No Change (Not Significant)**	N/A	**No Change (Not Significant)**	N/A

Impact ID	Impact and Project Activity	Embedded Mitigation / Enhancement Measures	Receptor	Receptor Sensitivity	Impact Magnitude	Effect Significance	Additional Mitigation Measures	Residual Effect	Monitoring Measures
Operation and Maintenance									
SOC-O-01	Direct economic benefit from supply chain expenditure (offshore and onshore) - offshore and onshore operational and routine and unplanned maintenance activities	CO67	LSESA	**Medium**	Not assessed	Not assessed	N/A	Not assessed	N/A
		CO67	RSA	**Low**	**Negligible (Beneficial)**	**Negligible Beneficial (Not Significant)**	N/A	**Negligible Beneficial (Not Significant)**	N/A
		CO67	UK	**Low**	**Negligible (Beneficial)**	**Negligible Beneficial (Not Significant)**	N/A	**Negligible Beneficial (Not Significant)**	N/A
SOC-O-02	Increased employment (offshore and onshore) - workforce requirement for offshore and onshore operational and routine and unplanned maintenance activities	CO67	LSESA	**Medium**	Not assessed	Not assessed	N/A	Not assessed	N/A
		CO67	RSA	**Low**	**Negligible (Beneficial)**	**Negligible Beneficial (Not Significant)**	N/A	**Negligible Beneficial (Not Significant)**	N/A
		CO67	UK	**Low**	**Negligible (Beneficial)**	**Negligible Beneficial (Not Significant)**	N/A	**Negligible Beneficial (Not Significant)**	N/A
SOC-O-03	Loss of, disruption to or pressure on local infrastructure and services (offshore and onshore). - offshore and onshore operational and routine and unplanned maintenance activities and the presence of offshore and onshore infrastructure during operation	CO67	LSESA	**Low**	**No Impact**	**No Change (Not Significant)**	N/A	**No Change (Not Significant)**	N/A

Impact ID	Impact and Project Activity	Embedded Mitigation / Enhancement Measures	Receptor	Receptor Sensitivity	Impact Magnitude	Effect Significance	Additional Mitigation Measures	Residual Effect	Monitoring Measures
SOC-O-04	Disturbance to social infrastructure (onshore) -presence of onshore infrastructure during operation	N/A	Residential properties proximate to OCS Zone 4 and OCS Zone 8	**Negligible**	**Negligible (Adverse)**	**Negligible Adverse (Not Significant)**	N/A	**Negligible Adverse (Not Significant)**	N/A
SOC-O-05	Disruption to recreational activities (onshore) - presence of onshore infrastructure during operation	N/A	Recreational assets within the LTRA for which residual significant adverse effects were identified by other EIA topic chapters	**Negligible**	**Negligible (Adverse)**	**Negligible Adverse (Not Significant)**	N/A	**Negligible Adverse (Not Significant)**	N/A
		N/A	Recreational assets within the LTRA for which no residual significant adverse effects were identified by other EIA topic chapters	**Negligible**	**No Impact**	**No Change (Not Significant)**	N/A	**No Change (Not Significant)**	N/A
SOC-O-06	Disruption to the tourism industry (onshore) - presence of onshore infrastructure during operation	N/A	Tourism assets within the LTRA for which residual significant adverse effects were identified by other EIA topic chapters	**Negligible**	**Low (Adverse)**	**Negligible Adverse (Not Significant)**	N/A	**Negligible Adverse (Not Significant)**	N/A
		N/A	Tourism assets within the LTRA for which no residual significant adverse effects were identified by other EIA topic chapters	**Negligible**	**No Impact**	**No Change (Not Significant)**	N/A	**No Change (Not Significant)**	N/A

Impact ID	Impact and Project Activity	Embedded Mitigation / Enhancement Measures	Receptor	Receptor Sensitivity	Impact Magnitude	Effect Significance	Additional Mitigation Measures	Residual Effect	Monitoring Measures
Decommissioning									
SOC-D-01	Direct economic benefit from supply chain expenditure (offshore and onshore) - decommissioning activities not yet defined	N/A	LSESA	**Medium**	Not assessed	Not assessed	N/A	Not assessed	N/A
			RSA	**Low**	**Low (Beneficial)**	**Minor Beneficial (Not Significant)**	N/A	**Minor Beneficial (Not Significant)**	N/A
			UK	**Low**	**Negligible (Beneficial)**	**Negligible Beneficial (Not Significant)**	N/A	**Negligible Beneficial (Not Significant)**	N/A
SOC-D-02	Increased employment (offshore and onshore) - decommissioning activities not yet defined	N/A	LSESA	**Medium**	Not assessed	Not assessed	N/A	Not assessed	N/A
			RSA	**Low**	**Low (Beneficial)**	**Minor Beneficial (Not Significant)**	N/A	**Minor Beneficial (Not Significant)**	N/A
			UK	**Low**	**Negligible (Beneficial)**	**Negligible Beneficial (Not Significant)**	N/A	**Negligible Beneficial (Not Significant)**	N/A
SOC-D-03	Loss of, disruption to or pressure on local infrastructure and services (offshore and onshore) - decommissioning activities not yet defined	N/A	LSESA	**Low**	**No Impact**	**No Change (Not Significant)**	N/A	**No Change (Not Significant)**	N/A

Impact ID	Impact and Project Activity	Embedded Mitigation / Enhancement Measures	Receptor	Receptor Sensitivity	Impact Magnitude	Effect Significance	Additional Mitigation Measures	Residual Effect	Monitoring Measures
SOC-D-04	Disturbance to social infrastructure (offshore and onshore) – decommissioning activities not yet defined	CO21 CO56	The details and scope of decommissioning works will be determined by the relevant regulations and guidance at the time of decommissioning and provided in the Offshore Decommissioning Programme and Onshore Decommissioning Plan (see **Table 30-4**, Commitment IDs CO21 and CO56**)**. This will include a detailed assessment of decommissioning impacts and appropriate mitigation measures to avoid significant effects. 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.						
SOC-D-05	Disruption to recreational activities (offshore and onshore) – decommissioning activities not yet defined								
SOC-D-06	Disruption to the tourism industry (offshore and onshore) – decommissioning activities not yet defined								

References

AECOM (2016). Tourism Accommodation Study.

British Sea Fishing (2024), Yorkshire and the Humber. Available at: https://britishseafishing.co.uk/yorkshire-and-humberside/ {Accessed 18/10/24. Visited 18/10/24}.

Climate Change Committee (CCC) (2025). The Seventh Carbon Budget: The UK's path to Net Zero. London: Climate Change Committee. Available at: https://www.theccc.org.uk/publication/the-seventh-carbon-budget/ [Accessed 15/04/2025. Visited 15/04/2025].

DESNZ (2023a). Overarching NPS for Energy (EN-1). Available at: https://www.gov.uk/government/publications/overarching-national-policy-statement-for-energy-en-1 [Accessed 06/05/25. Visited 06/05/25].

DESNZ (2023b). NPS for Renewable Energy Infrastructure (EN-3). Available at:: https://www.gov.uk/government/publications/overarching-national-policy-statement-for-energy-en-1 Accessed 06/05/25. Visited 06/05/25].

East Riding Coast and Countryside (2024. Beverley to Market Weighton Rail Trail (Hudson Way). Available at:: https://www.eastridingcoastandcountryside.co.uk/places-to-visit/find-a-place/?entry=hudson_way_rail_trail. [Accessed 18/11/24. Visited 18/11/24].

East Riding of Yorkshire Council (2022). Walking, riding and cycling. Available at: https://www.eastriding.gov.uk/leisure/countryside-and-walks/walking-riding-and-cycling/ [Accessed 22/10/24. Visited 22/10/24].

EOBC (2024). Paul Roggeman European Open Beach Championship Competition Handbook. Available at: https://www.eobc.co.uk/ [Accessed 16/01/25. Visited 16/04/25].

Greater Lincolnshire LEP (2021). Greater Lincolnshire LEP Local Industrial Strategy. Available at:: https://www.greaterlincolnshirelep.co.uk/priorities-and-plans/strategies-and-plans/local-industrial-strategy/ [Accessed 18/11/24. Visited 18/11/24].

House of Commons Library (2023). *Local authority data: housing supply*. UK Parliament. Available at: https://commonslibrary.parliament.uk/local-authority-data-housing-supply/ [Accessed 18/11/24. Visited 18/11/24].

Hull and East Yorkshire LEP (2021). Hull and East Yorkshire Economic Strategy. Available at: https://data.hull.gov.uk/wp-content/uploads/HCC-Economic-Strategy-2021-2026.pdf [Accessed 18/11/24. Visited 18/11/24].

Humber Energy Board (2022). Humber Vision 2030. Available at: https://www.cbi.org.uk/media/yvulac20/final_humber_2030_vision.pdf [Accessed 22/11/24].

Humber Local Enterprise Partnership (2019). Humber Local Energy Strategy. Available at: https://www.southeastlep.com/app/uploads/2019/03/Local-Energy-Strategy-FINAL.pdf [Accessed 18/11/24. Visited 18/11/24].

Kantar TNS (2020a). Great Britain Day Visits Survey. Available at: https://www.visitbritain.org/gb-day-visits-survey-latest-results. [Accessed 05/11/24. Visited 05/11/24].

Kantar TNS (2020b). Great Britain Tourism Survey. Available at: https://www.visitbritain.org/sites/default/files/vb-corporate/gb_tourist_annual_report_2019_final.pdf [Accessed 05/11/24. Visited 05/11/24].

LDWA (2024a). Wilberforce Way. Available at: https://ldwa.org.uk/ldp/members/show_path.php?path_name=Wilberforce+Way [Accessed 18/11/24. Visited 18/11/24].

LDWA (2024b). Beverley Twenty. Available at:https://ldwa.org.uk/ldp/members/show_path.php?path_name=Beverley+Twenty [Accessed 18/11/24. Visited 18/11/24].

Ministry of Housing, Communities & Local Government (2019). English Indices of Deprivation 2019: Statistical release. [online] Available at: https://www.gov.uk/government/statistics/english-indices-of-deprivation-2019 [Accessed 18/11/24. Visited 18/11/24].

NHS Digital (2024). General Practice Workforce, 31 December 2023. Available at: https://digital.nhs.uk/data-and-information/publications/statistical/general-and-personal-medical-services/31-december-2023 [Accessed 18/11/24. Visited 18/11/24].

NFO (2003). Investigation into the potential impact of wind farms on tourism in Wales. Available at: https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN020014/EN020014-001080-Mr%20Iwan%20Jones.pdf (Accessed Nov 2024). [Accessed 21/10/24. Visited 21/10/24].

ONS (2020a). International Passenger Survey. Available at: https://www.ons.gov.uk/surveys/informationforhouseholdsandindividuals/householdandindividualsurveys/internationalpassengersurvey [Accessed 05/11/24. Visited 05/11/24].

ONS (2020b). 2018-based Population Projections. Available at: https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationprojections/bulletins/subnationalpopulationprojectionsforengland/2018based#:~:text=The%20population%20of%20England%20is,2018%2Dbased%20national%20population%20projections. [Accessed 05/11/24. Visited 05/11/24].

ONS (2021). 2018-based subnational principal population projections for local authorities in England. Available at:

https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationprojections/bulletins/subnationalpopulationprojectionsforengland/2018based#:~:text=The%20population%20of%20England%20is,2018%2Dbased%20national%20population%20projections. [Accessed 05/11/24. Visited 05/11/24].

ONS (2022). Input-output supply and use tables. Available at: https://www.ons.gov.uk/economy/nationalaccounts/supplyandusetables/datasets/inputoutputsupplyandusetables. [Accessed 05/11/24. Visited 05/11/24].

ONS (2023a). Annual Survey of Hours and Earnings – Resident Analysis. Available at: https://www.nomisweb.co.uk/datasets/asher. [Accessed 20/10/24. Visited 20/10/24].

ONS (2023b). Median house prices by lower layer super output area: HPSSA dataset 46. Available at: https://www.ons.gov.uk/peoplepopulationandcommunity/housing/datasets/medianpricepaidbylowerlayersuperoutputareahpssadataset46. [Accessed 05/11/24. Visited 05/11/24].

ONS (2023c). Median house prices for administrative geographies: HPSSA dataset 9. Available at: https://www.ons.gov.uk/peoplepopulationandcommunity/housing/datasets/medianhousepricefornationalandsubnationalgeographiesquarterlyrollingyearhpssadataset09. [Accessed 06/11/24. Visited 06/11/24].

ONS (2024a). Population estimates – local authority based by five year band. Available at: https://www.nomisweb.co.uk/datasets/pestnew. [Accessed 19/10/24. Visited 19/10/24].

ONS (2024b). Annual Population Survey. Available at: https://www.nomisweb.co.uk/datasets/apsnew. [Accessed 19/10/24. Visited 19/10/24]

ONS (2024c). Job Density. Available at: https://www.nomisweb.co.uk/datasets/jd. [Accessed 19/10/24. Visited 19/10/24].

ONS (2024d). Regional gross value added (balanced) per head and income components. Available at: https://www.ons.gov.uk/economy/grossvalueaddedgva/datasets/nominalregionalgrossvalueaddedbalancedperheadandincomecomponents.[Accessed 20/10/24. Visited 20/10/24].

ONS (2024e). Schools, pupils and their characteristics. Available at: https://explore-education-statistics.service.gov.uk/find-statistics/school-pupils-and-their-characteristics. [Accessed 19/10/24. Visited 19/10/24].

ONS (2024f). Earnings and hours worked, place of residence by local authority: ASHE Table 8. Available at: https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/earningsandworkinghours/datasets/placeofresidencebylocalauthorityashetable8. [Accessed 05/11/24. Visited 05/11/24].

ONS (2024g). Business Register and Employment Survey. Available at: https://www.nomisweb.co.uk/datasets/newbres6eul. [Accessed 21/10/24. Visited 21/10/24].

OWIC (2023). Offshore Wind Skills Intelligence Report. Available at: https://www.owic.org.uk/media/gf5ddwxt/offshore-wind-skills-intelligence-report-2023.pdf [Accessed 22/11/24].

Parker et al. (2022). Phase III Best Practice by Natural England and DEFRA Guidance. Offshore wind – best practice advice to facilitate sustainable development – Natural England.

Planning Inspectorate (2024). Nationally Significant Infrastructure Projects: Advice on Cumulative Effects Assessment. Available at: https://www.gov.uk/guidance/nationally-significant-infrastructure-projects-advice-on-cumulative-effects-assessment [Accessed: 17/10/24].

RYA (2021). UK Coastal Atlas of Recreational Boating. Available at: https://www.rya.org.uk/knowledge/planning-licensing/uk-coastal-atlas-of-recreational-boating. [Accessed 20/10/24. Visited 20/10/24].

Scottish Government (2022). Defining 'Local Area' for assessing impact of offshore renewables and other marine developments.

Seasearch Scuba Diving (2021). Scuba dive records. Available at: https://www.seasearch.org.uk/data. [Accessed 20/10/24. Visited 20/10/24].

UK Government (2020). The Offshore Wind Sector Deal. Available at: https://www.gov.uk/government/publications/offshore-wind-sector-deal/offshore-wind-sector-deal. [Accessed 18/11/24. Visited 18/11/24].

UK Government (2023). Offshore Wind Net Zero Investment Roadmap. Available at: https://www.gov.uk/government/publications/offshore-wind-net-zero-investment-roadmap. [Accessed 18/11/24. Visited 18/11/24].

Visit Britain (2014). Great Britain Day Visits Survey 2013. Available at: https://www.visitbritain.org/research-insights/great-britain-domestic-day-visits-archive [Accessed 15/04/25. Visited 15/04/25].

Visit Britain (2016). Great Britain Tourism Survey 2015: GB domestic overnight trips summary. Available at: https://www.visitbritain.org/research-insights/great-britain-domestic-overnight-trips-archive [Accessed 15/04/25. Visited 15/04/25].

Visit Britain (2023). Annual Survey of Visits to Visitor Attractions. Available at: https://www.visitbritain.org/annual-survey-visits-visitor-attractions-latest-results. [Accessed 08/11/24. Visited 08/11/24].

Visit East Yorkshire (2024). Explore East Yorkshire. Available at: https://www.visiteastyorkshire.co.uk [Accessed 08/11/24. Visited 08/11/24].

Visit Hull and East Yorkshire (2025). Visit Hull and East Yorkshire. Available at: https://www.visithullandeastyorkshire.co.uk/ [Accessed 27/02/25. Visited 27/02/25].

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List of Acronyms

Acronym	Definition
AIS	Automatic Identifier System
BEIS	Department for Business, Energy, and Industrial Strategy
CEA	Cumulative Effect Assessment
CoCP	Code of Construction Practice
DBS	Dogger Bank South
DCO	Development Consent Order
DESNZ	Department for Energy Security and Net Zero
EIA	Environmental Impact Assessment
EPP	Evidence Plan Process
ES	Environmental Statement
ESBI	Energy Storage and Balancing Infrastructure
ETG	Expert Topic Group
FTE	Full Time Equivalent
GDP	Gross Domestic Product
GP	General Practitioner
GVA	Gross Value Added
GW	Gigawatt
LDWA	Long Distance Walkers Association
LEP	Local Enterprise Partnership
LSESA	Local Socio-Economic Study Area
LTRA	Local Tourism and Recreation Area
MW	Megawatt
NHS	National Health Service
NPS	National Policy Statement
NPV	Net Present Value
NRA	Navigational Risk Assessment
NVQ	National Vocational Qualifications
OCS	Onshore Converter Station
ONS	Office for National Statistics
GPES	General Practitioner Engagement Strategy
OWIC	Offshore Wind Industry Council
PEIR	Preliminary Environmental Information Report
RSA	Regional Study Area
RYA	Royal Yachting Association
SIC	Standard Industrial Classification
TJB	Transition Joint Bay
UK	United Kingdom