Morgan and Morecambe Offshore Wind Farms: Transmission Assets

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Environmental Statement Volume 4, Chapter 2: Socio-economics

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MORGAN AND MORECAMBE OFFSHORE WIND FARMS: TRANSMISSION ASSETS

Environmental Statement

Volume 4, Chapter 2: Socio-economics

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Glossary

Term	Meaning
400 kV grid connection cables	Cables that will connect the proposed onshore substations to the existing National Grid Penwortham substation.
Aero club	Aircraft movements operated by aero-club members for instruction or pleasure.
Air taxi	A movement by an aircraft of less than 15 tonnes MTWA operating on a non-scheduled service. These are predominantly sole-use charter operations.
Air transport	Landings or take-offs of aircraft engaged on the transport of passengers, cargo or mail on commercial terms. All scheduled Aircraft movements, including those operated empty, loaded charter and air taxi movements are included.
Applicants	Morgan Offshore Wind Limited (Morgan OWL) and Morecambe Offshore Windfarm Ltd (Morecambe OWL).
Baseline	The status of the environment without the Transmission Assets in place.
Business aviation	Non-commercial aircraft movements operated on aircraft of 2730kgs MTWA or greater (with no upper weight limit) conducting business operations
Commitment	This term is used interchangeably with mitigation and enhancement measures. The purpose of commitments is to avoid, prevent, reduce or, if possible, offset significant adverse environmental effects. Primary and tertiary commitments are taken into account and embedded within the assessment set out in this Environmental Statement. Secondary commitments are incorporated to reduce effects to environmentally acceptable levels following initial assessment.
Cumulative effects	The combined effect of the Transmission Assets in combination with the effects from other proposed developments, on the same receptor or resource.
Design envelope	A description of the range of possible elements and parameters that make up the Transmission Assets options under consideration, as set out in detail in Volume 1, Chapter 3: Project Description. This envelope is used to define the Transmission Assets for EIA purposes when the exact engineering parameters are not yet known. This is also referred to as the Maximum Design Scenario or Rochdale Envelope approach.
Development Consent Order	An order made under the Planning Act 2008, as amended, granting development consent.
Direct economic impacts	Direct economic impacts are directly attributable to a development. For example, the direct employment impacts are the jobs supported by activities associated with delivering each phase of a project.
Effect	The term used to express the consequence of an impact. The significance of effect is determined by correlating magnitude of the impact with the importance, or sensitivity, of the receptor or resource in accordance with defined significance criteria.
EIA Scoping Report	A report setting out the proposed scope of the Environmental Impact Assessment process. The Transmission Assets Scoping Report was submitted to The Planning Inspectorate (on behalf of the Secretary of State) for the Morgan and Morecambe Offshore Windfarms Transmission Assets in October 2022.

Term	Meaning
Enterprise Zone	Enterprise Zones are geographically defined areas in which commercial and industrial businesses can receive incentives to set up or expand, including a business rate discounts, Enhanced Capital Allowances for the purchase of machinery and equipment, as well as benefitting from simplified planning laws.
Environmental Impact Assessment	The process of identifying and assessing the significant effects likely to arise from a project. This requires consideration of the likely changes to the environment, where these arise as a consequence of a project, through comparison with the existing and projected future baseline conditions.
Environmental Statement	The document presenting the results of the Environmental Impact Assessment process.
Full-time equivalent (FTE)	Indicates the work time of an employed person in a way that makes jobs comparable e.g., an FTE of 1.0 is equivalent to a full time worker, while an FTE of 0.5 signals half a full time worker.
Gross Value Added	GVA is a measure of economic output and is the value generated (i.e. contribution to the economy) by any industry, sector, manufacturer, area or region engaged in the production of goods and services.
Impact	Change that is caused by an action/proposed development, e.g., land clearing (action) during construction which results in habitat loss (impact).
Impact industries	Defined set of industries used for assessment of socioeconomic impacts, which represent employment and GVA in industries associated with the construction, operation and maintenance, and decommissioning of offshore energy infrastructure (i.e. not limited to offshore wind). These definitions can be found in Volume 4, Annex 2.1: Technical impact report - socio-economicsSocio-economics technical report of the Environmental Statement.
Indirect economic impacts	Indirect economic impacts are secondary impacts that occur as a result of the interactions between a development and other parts of the economy. For example, a project will require fabrication of components and subcomponents, and supply of equipment and transportation, all of which increases sector demand leading to economic impacts throughout the supply chain.
Induced economic impacts	Induced economic impacts result from changes in household spending patterns as a consequence of direct and indirect economic impacts. For example, the employment opportunities supported by a project (including those throughout the supply chain) result in workers having income to spend, leading to further economic impacts in other parts of the economy.
Inter-related Effects	Inter-related effects arise where an impact acts on a receptor repeatedly over time to produce a potential additive effect or where a number of separate impacts, such as noise and habitat loss, affect a single receptor.
Local authority	A body empowered by law to exercise various statutory functions for a particular area of the United Kingdom. This includes County Councils, District Councils and County Borough Councils.
Local movements	Commercial flights undertaken for press, survey, agricultural and fisheries flying, or public entertainment purposes
Marine Licence	The Marine and Coastal Access Act 2009 requires a marine licence to be obtained for licensable marine activities. Section 149A of the Planning Act 2008 allows an applicant for to apply for ‘deemed marine licences’ in English waters as part of the development consent process.
Maximum Design Scenario	The realistic worst case scenario, selected on a topic-specific and impact specific basis, from a range of potential parameters for the Transmission Assets

Term	Meaning
Mean High Water Springs	The height of mean high water during spring tides in a year.
Mean Low Water Springs	The height of mean low water during spring tides in a year.
Military	Aircraft movements exclusively for military purposes using military aircraft. Military movements at military airfields are not included in these statistics
Mitigation measures	This term is used interchangeably with Commitments. The purpose of such measures is to avoid, prevent, reduce or, if possible, offset significant adverse environmental effects.
Morecambe Offshore Windfarm: Generation Assets	The offshore generation assets and associated activities for the Morecambe Offshore Windfarm.
Morecambe OWL	Morecambe Offshore Windfarm Ltd is a joint venture between Zero-E Offshore Wind S.L.U. (Spain) (a Cobra group company) Cobra Instalaciones y Servicios, S.A. (Cobra) and Flotation Energy Ltd.
Morgan and Morecambe Offshore Wind Farms: Transmission Assets	The offshore export cables, landfall and onshore infrastructure for the Morgan Offshore Wind Project and the Morecambe Offshore Windfarm. This includes the offshore export cables, landfall site, onshore export cables, onshore substations, 400 kV grid connection cables and associated grid connection infrastructure such as circuit breaker compounds. Also referred to in this report as the Transmission Assets, for ease of reading.
Morgan Offshore Wind Project: Generation Assets	The offshore generation assets and associated activities for the Morgan Offshore Wind Project.
Morgan OWL	Morgan Offshore Wind Limited is a joint venture between bp Alternative Energy Investments Ltd. and Energie Baden-Württemberg AG (EnBW).
National Grid Penwortham substation	The existing National Grid substation at Penwortham, Lancashire.
National Policy Statement(s)	The current national policy statements published by the Department for Energy Security and Net Zero in 2023 and adopted in 2024.
Official	Aircraft movements for official purposes (excluding Air transport Movements) by British or foreign civil Government Departments eg movements by aircraft of the Civil Aviation Authority's Flight Calibration Services, the Queen's Flight and flights performed under a Police Air Operators Certificate
Offshore Energy Alliance	The Offshore Energy Alliance is a newly established offshore and energy supply chain cluster for the North Wales and North West region of the UK. The Alliance is a collective of public and private partners who work together under one umbrella, to promote wider involvement in offshore wind and other low carbon energy sectors.
Offshore export cables	The cables which would bring electricity from the Generation Assets to the landfall.
Onshore Infrastructure Area	The area within the Transmission Assets Order Limits landward of the landfall transition joint bay, which contains the onshore export cables, onshore substations and 400 kV grid connection cables will be located. Those parts of the Transmission Assets Order Limits proposed only for ecological mitigation/biodiversity net gain are excluded from this area.

Term	Meaning
Other flights	Non-revenue earning aircraft movements by air transport operators or manufacturers for the sole purpose of moving their own personnel or stores from one place to another, for delivery, refuelling or maintenance of empty aircraft and air transport flights forced to return to base by bad weather, engine failure or other causes.
Planning Inspectorate	The agency responsible for operating the planning process for applications for development consent under the Planning Act 2008.
Policy	A set of decisions by governments and other political actors to influence, change, or frame a problem or issue that has been recognized as in the political realm by policy makers and/or the wider public.
Positioning flights	Aircraft movements by aircraft moving into position for scheduled or charter transport flights or returning to base after such flights, including empty Air Taxi Movements
Preliminary Environmental Information Report	A report that provides preliminary environmental information in accordance with the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017. This is information that enables consultees to understand the likely significant environmental effects of a project and which helps to inform consultation responses.
Private flights	Aircraft movements for purely non-commercial purposes by private owners or other private aircraft operators, excluding aero-clubs movements
Renewable energy	Energy from a source that is not depleted when used, such as wind or solar power.
Scoping Opinion	Sets out the Planning Inspectorate's response (on behalf of the Secretary of State) to the Scoping Report prepared by the Applicants. The Scoping Opinion contains the range of issues that the Planning Inspectorate, in consultation with statutory stakeholders, has identified should be considered within the Environmental Impact Assessment process.
Spatial extent	Geographical area over which the impact may occur.
Standard Industrial Classification 2007	The current Standard Industrial Classification (SIC) used in classifying business establishments and other statistical units by the type of economic activity in which they are engaged.
Study area	This is an area which is defined for each environmental topic which includes the Transmission Assets Order Limits as well as potential spatial and temporal considerations of the impacts on relevant receptors. The study area for each topic is intended to cover the area within which an impact can be reasonably expected.
Substation	Part of an electrical transmission and distribution system. Substations transform voltage from high to low, or the reverse by means of electrical transformers.
Test and training	Aircraft movements for the purpose of testing aircraft or for training flying crew or ground personnel. Also included in this category are demonstration flights by makers or sellers of aircraft and aviation equipment. Aero-club instructional flights are not included in this category.
The Secretary of State for Energy Security and Net Zero	The decision maker with regards to the application for development consent for the Transmission Assets.
Tier 1 supplier	Direct suppliers of a product or service

Term	Meaning
Transboundary effects	Effects from a project within one state that affect the environment of another state(s).

Acronyms

Acronym	Meaning
BRES	Business Register and Employment Survey
CAA	UK Civil Aviation Authority
CEA	Cumulative Effects Assessment
Cumbria LEP	Cumbria Local Enterprise Partnership
DCO	Development Consent Order
DESNZ	Department for Energy Security and Net Zero
DLUHC	Department for Levelling Up, Housing and Communities
EIA	Environmental Impact Assessment
ES	Environmental Statement
FTE	Full Time Equivalent
GB	Great Britain
GDP	Gross Domestic Product
GVA	Gross Value Added
IEMA	Institute of Environmental Management and Assessment
ILO	International Labour Organisation
IPPR	Institute of Public Policy Research
ISV	Installation Support Vessel
ITL	International Territorial Levels
MDS	Maximum Design Scenario
N/A	Not Applicable
NFER	National Foundation for Educational Research
NPPF	National Planning Policy Framework
NPS	National Policy Statements
NPS EN-1	NPS for Energy
NPS EN-3	NPS for Renewable Energy Infrastructure
NPS EN-5	NPS for Electricity Networks Infrastructure
OBR	Office for Budget Responsibility
ONS	Office for National Statistics

Acronym	Meaning
ORE Catapult	Offshore Renewable Energy Catapult
OWIC	Offshore Wind Industry Council
PEIR	Preliminary Environmental Information Report
PPG	Planning Practice Guidance
SIC	Standard Industrial Classification
SIC07	Standard Industrial Classification 2007
UK	United Kingdom

Units

Unit	Description
%	Percentage
£	Pound Sterling
£ bn	Billion pounds
£ m	Million pounds
GW	Gigawatt
km	Kilometre
kV	Kilovolt
MW	Megawatt
nm	Nautical miles

2 Socio-economics

2.1 Introduction

2.1.1 Overview

2.1.1.1 This chapter of the Environmental Statement (ES) presents the assessment of the potential impact of the Morgan and Morecambe Offshore Wind Farms: Transmission Assets on socio-economics (including tourism). For ease of reference the Morgan and Morecambe Offshore Wind Farms Transmission Assets are referred to in this chapter as the 'Transmission Assets'. This ES accompanies the application to the Planning Inspectorate for development consent for the Transmission Assets.

2.1.1.2 The purpose of the Transmission Assets is to connect the Morgan Offshore Wind Project: Generation Assets and Morecambe Offshore Windfarm: Generation Assets (referred to collectively as the 'Generation Assets') to the National Grid.

2.1.1.3 Separate impact assessments have been carried out for Morgan Offshore Wind Project: Generation Assets and Morecambe Offshore Windfarm: Generation Assets. The offshore assessment in this chapter relates solely to the offshore export cables of the Transmission Assets. A description of the Transmission Assets can be found in Volume 1, Chapter 3: Project description of the ES.

2.1.1.4 This chapter considers the likely impacts of the Transmission Assets on socio-economics during the construction, operation and maintenance, and decommissioning phases. Specifically, it relates to the offshore elements of the Transmission Assets seaward of Mean Low Water Springs and the onshore and offshore elements of the Transmission Assets landward of Mean Low Water Springs.

2.1.1.5 This ES chapter:

- identifies the key legislation, policy and guidance relevant to socio-economics;
- details the EIA scoping and consultation process undertaken to date for socio-economics;
- confirms the study area for the assessment, the methodology used to identify baseline environmental conditions and sets out the existing and future environmental baseline conditions, established from desk studies, surveys and consultation;
- identifies the scope of the assessment;
- details the mitigation and/or monitoring measures that are proposed to prevent, minimise, reduce or offset the possible environmental effects identified in the EIA process;
- defines the project design parameters used to inform for the impact assessment;

- identifies the impact assessment methodology and presents an assessment of the likely impacts and effects in relation to the construction, operation and maintenance and decommissioning phases of the Transmission Assets on socio-economics; and
- identifies any cumulative, transboundary and/or inter-related effects in relation to the construction, operation and maintenance and decommissioning phases of the Transmission Assets on socio-economics.

2.1.1.6 With respect to the Transmission Assets (as with other similar projects), there is a complexity with the socio-economic and community impacts associated with offshore activities primarily manifesting onshore. This chapter's approach is focused on the 'source' of the impact. This is consistent with the broader approach to separating onshore and offshore effects.

- Offshore: if physical infrastructure and civil works are located offshore, any resulting impacts are categorised as offshore. This includes the manufacture of export cables and installation and staging of the offshore export cables.
- Onshore: if physical infrastructure and civil works are located onshore, any resulting impacts are categorised as onshore. This includes onshore export cable installation, installation and operation and maintenance of the onshore substations, 400 kV grid connection cables installation and landfall[1].

2.1.1.7 The assessment presented is informed by the following ES chapters:

- Volume 2, Chapter 7: Shipping and navigation of the ES;
- Volume 2, Chapter 9: Other sea users of the ES;
- Volume 3, Chapter 6: Land use and recreation of the ES;
- Volume 3, Chapter 10: Landscape and visual resources of the ES; and
- Volume 3, Chapter 11: Aviation and radar of the ES.

2.1.1.8 This chapter also draws upon information contained within Volume 4, Annex 2.1: Socio-economics technical report of the ES.

2.1.1.9 This chapter considers socio-economic receptors within the following categories.

- Economic: assessing the potential employment and Gross Value Added (GVA) impacts associated with the Transmission Assets and the associated impacts on local employment opportunities.
- Economic interactions with aviation: assessing potential economic impacts associated with construction works at Blackpool Airport.

[1] Volume 1, Chapter 3: Project description of the ES sets out the landfall elements of the Transmission Assets, in addition to onshore and offshore elements. The approach to estimating socio-economic impacts (set out in section 1.3 of Volume 4, Annex 2.1: Socio economics technical report of the ES) allows for the separation of onshore and offshore elements only, therefore landfall elements are not assessed separately within this chapter.

- Social: assessing the potential impacts of the workforce associated with the Transmission Assets on housing, accommodation and population (including local services).
- Tourism: assessing the potential indirect impacts associated with visual amenity, overnight accommodation and recreation on tourism.

2.1.1.10 The approach to separating potential economic and social impacts is consistent with the best available non-statutory industry guidance, Glasson et al. (2020) Guidance on assessing the socio-economic impacts of offshore wind farms, and Marine Scotland (2022) guidance defining 'local area' for assessing impact of offshore renewables and other marine developments.

Economic and social

2.1.1.11 Expenditure on major energy infrastructure projects can stimulate economic growth by creating jobs and increasing output.

2.1.1.12 Direct economic impacts are directly attributable to a development. For example, the direct employment impacts are the jobs supported by activities associated with delivering each phase of a project.

2.1.1.13 Indirect economic impacts are secondary impacts that occur as a result of the interactions between a development and other parts of the economy. For example, a project will require fabrication of components and subcomponents, and supply of equipment and transportation, all of which increases sector demand leading to economic impacts throughout the supply chain.

2.1.1.14 Induced economic impacts result from changes in household spending patterns as a consequence of direct and indirect economic impacts. For example, the employment opportunities supported by a project (including those throughout the supply chain) result in workers having income to spend, leading to further economic impacts in other parts of the economy.

2.1.1.15 In addition, the economic measures linked to direct, indirect and induced impacts can result in wider beneficial outcomes for the population. Employment can provide individuals with a sense of purpose and connection within their community, thereby reducing feelings of social isolation and providing benefits in terms of self-esteem and mental wellbeing. Similarly, employment can provide individuals and households with economic stability, improving people's ability to meet essential needs such as food, housing, utilities and healthcare.

2.1.1.16 The movement of labour associated with the delivery of major energy infrastructure projects has the potential to result in social impacts. Workforce movements during construction may lead to an increase in demand for short term and temporary accommodation, whilst labour migration during the operation and maintenance of a project may increase demand for long term and permanent accommodation. Long term changes to populations associated with labour migration can lead to increased demand for public services such as healthcare and education. Significant increases in population associated with the delivery of major energy infrastructure projects can also raise concerns related to social cohesion.

2.1.1.17 More broadly, with increased economic output governments can generate higher tax revenues, facilitating increased investment in public services such as healthcare, education and infrastructure, all of which can further improve quality of life for the population. Increased employment and reduced unemployment can also reduce public spending via the welfare system. Economic growth and competitiveness can also increase innovation activity which can lead to technological progress, which can improve people's standard of living as well as the ongoing performance of sectors and the wider economy.

2.1.1.18 It is therefore important to assess the potential economic and social impacts associated with the Transmission Assets in order to understand the extent to which the general population might be impacted.

2.1.1.19 Within this assessment the economic impacts are assessed in terms of jobs and GVA. These impacts represent the overall benefits associated with economic growth described here.

Economic interactions with aviation

2.1.1.20 There are potential impacts associated with construction of the Transmission Assets on operations at Blackpool Airport and Blackpool Airport Enterprise Zone. Potential aviation impacts could result in alterations to key flight activity in poor weather conditions of low cloud or visibility (for a period of a few hours to a day in duration). The potential impacts on aviation may result in adverse economic impacts.

2.1.1.21 It is therefore important to assess the potential economic impacts associated with potential changes to aviation activities at Blackpool Airport and Blackpool Airport Enterprise Zone to understand the extent to which economic conditions may be impacted.

Tourism

2.1.1.22 There are potential impacts associated with major energy infrastructure projects which primarily have the potential to indirectly impact the visitor economy. The potential visual impacts associated with a project may result in adverse or beneficial impacts in relation to the visitor economy. The short term and temporary accommodation requirements of construction workers has the potential to impact overnight accommodation providers such as hotels, B&Bs and hostels. Finally, the physical infrastructure has the potential to impact recreation activities, which could indirectly impact the visitor economy.

2.1.1.23 It is therefore important to assess the potential tourism impacts associated with the Transmission Assets in order to understand the extent to which the visitor economy might be impacted.

2.2 Legislative and policy context

2.2.1 Legislation

2.2.1.1 There is no legislation specific to the assessment of potential socio-economic effects beyond the general requirements set out in Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (Environmental Impact Assessment (EIA) Regulations) which applies to the whole ES.

2.2.2 Planning policy context

2.2.2.1 The Transmission Assets will be located in English offshore waters (beyond 12 nautical miles (nm) from the English coast) and inshore waters (within 12 nm from the English coast), with the onshore infrastructure located wholly within England. As set out in Volume 1, Chapter 1: Introduction of the ES, the Secretary of State for the Department for Business, Energy and Industrial Strategy (the department which preceded the Department for Energy Security and Net Zero) has directed that the Transmission Assets are to be treated as development for which development consent is required under section 35 of the Planning Act 2008, as amended.

National Policy Statements

2.2.2.2 There are currently six energy National Policy Statements (NPSs), three of which contain policy relevant to offshore wind development and the Transmission Assets, specifically:

- overarching NPS for Energy (NPS EN-1) which sets out the United Kingdom (UK) Government's policy for the delivery of major energy infrastructure (Department for Energy Security & Net Zero (DESNZ), 2023a);
- NPS for Renewable Energy Infrastructure (NPS EN-3) (DESNZ, 2023b); and
- NPS for Electricity Networks Infrastructure (NPS EN-5) (DESNZ, 2023c).

2.2.2.3 NPS EN-1 and NPS EN-5 includes guidance on what matters are to be considered in the assessment. NPS EN-1 also highlights a number of factors relating to the determination of an application and in relation to mitigation. These are summarised in

2.2.2.4 Table 2.1. There are no provisions within NPS EN-3 that are relevant to the topic of socio-economics.

2.2.2.5 The policies within the current NPSs relevant to all topics in the ES can be viewed in the National Policy Statement tracker (document reference J26), Planning Statement (document reference J28), submitted with the application.

Table 2.1: Summary of the NPS EN-1 and NPS EN-5 requirements relevant to this chapter

Summary of NPS provision	How and where considered in the ES
NPS EN-1	
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 development, 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. [Paragraph 4.3.4]	As per **paragraph 2.1.1.9**, economic and social impacts are assessed within their own category. Economic impacts are estimated within Volume 4, Annex 2.1: Socio-economics technical report of the ES, covering employment and GVA impacts and the potential associated impacts on local employment opportunities. Social impacts are estimated within Volume 4, Annex 2.1: Socio-economics technical report, covering potential workforce on housing, accommodation and population.
For the purposes of this NPS and the technology specific NPSs the Environmental Statement should cover the environmental, social and economic effects arising from pre-construction, construction, operation and decommissioning of the project. [Paragraph 4.3.5]	Impacts during project development i.e. pre-construction, are included within the economic impact estimates presented in Volume 4, Annex 2.1: Socio-economics technical report of the ES. Potential economic and social impacts during construction, operation and maintenance, and decommissioning phases are presented in Volume 4, Annex 2.1: Socio-economics technical report of the ES. Effects resulting from potential economic and social impacts are assessed within **sections 2.11** and **2.12**.
Where some details are still to be finalised, the Environmental Statement should, to the best of the applicant's knowledge, assess the likely worst-case environmental, social and economic effects of the proposed development to ensure that the impacts of the project as it may be constructed have been properly assessed. [Paragraph 4.3.12]	The 'most likely' (current capacity) and 'worst case' (low) scenarios have been considered in the assessment of both economic and social effects within **section 2.11**. See also **section 2.9** for further details on how the'most likely' and 'worst case' scenarios have been considered for the topic of socio-economics.
Aerodromes can have important economic and social benefits, particularly at the regional and local level, but there is also an urgent need for new energy developments, which bring about a wide range of social, economic and environmental benefits. [Paragraph 5.5.5]	Economic impacts associated with potential changes to aviation activities at Blackpool Airport and Blackpool Airport Enterprise Zone are assessed within **section 2.12.**
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. [Paragraph 5.5.51]	Economic impacts associated with potential changes to aviation activities at Blackpool Airport and Blackpool Airport Enterprise Zone are assessed within **section 2.12.**

Summary of NPS provision	How and where considered in the ES
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 as part of the Environmental Statement. [Paragraph 5.13.2]	As set out in **sections 2.11** and **2.12**, potential socio-economic impacts are assessed at sub-national (North Wales, North West England) geographies. Economic and social impacts are assessed within Volume 4, Annex 2.1: Socio-economics technical report of the ES.
The applicant is strongly encouraged to engage with relevant local authorities during early stages of project development so that the applicant can gain a better understanding of local or regional issues and opportunities. [Paragraph 5.13.3]	Stakeholder consultation (non-statutory) undertaken for the topic of socio-economics during preparation of the Preliminary Environmental Information Report (PEIR) invited all potentially relevant local authorities to participate (see **section 2.3**). Statutory (Planning Act 2008, s42) consultation on the PEIR has provided all relevant statutory stakeholders with the opportunity to provide input to the application, outlined in **section 2.3**.
The applicant's assessment should consider all relevant socio-economic impacts, which may include 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. [Paragraph 5.13.4]	Economic impacts are estimated within Volume 4, Annex 2.1: Socio-economics technical report of the ES, covering employment and GVA impacts and the potential associated impacts on local employment opportunities and the sustainability of these roles (temporary/permanent, short/long term). An Outline Employment and Skills Plan (document reference J31) is included in the Development Consent Order (DCO) application. The actions presented within the Outline Plan will form the basis of two post-consent Employment and Skills Plans, which will be separately prepared and adopted by the Applicants to help develop and support the economic benefits associated with the Transmission Assets in relation to employment and skills within the offshore wind sector.
The applicant's assessment should consider all relevant socio-economic impacts, which may include the contribution to the development of low-carbon industries at the local and regional level as well as nationally. [Paragraph 5.13.4]	Economic impacts are estimated within Volume 4, Annex 2.1: Socio-economics technical report of the ES, covering employment and GVA impacts and the potential associated impacts on local employment opportunities. The significance of effects associated with potential economic impacts (employment and GVA) are assessed within **sections 2.11** and **2.12**. according to existing baseline conditions, which includes consideration of the offshore wind sector (see **section 2.6**).
The applicant's assessment should consider all relevant socio-economic impacts, which may include the provision of additional local services and improvements to local infrastructure, including the provision of educational and visitor facilities. [Paragraph 5.13.4]	Potential social impacts are estimated within Volume 4, Annex 2.1: Socio-economics technical report of the ES, covering potential workforce impacts on housing, accommodation and population (including local services). An Outline Employment and Skills Plan (document reference J31) is included in the DCO application. The actions presented within the Outline Plan will form the basis of two post-consent Employment and Skills Plans, which will be separately prepared and

Summary of NPS provision	How and where considered in the ES
	adopted by the Applicants to help develop and support the economic benefits associated with the Transmission Assets in relation to employment and skills within the offshore wind sector. The Applicants have considered the provision of visitor facilities and have concluded that the inclusion of such facilities as part of the Transmission Assets is not appropriate.
The applicant's assessment should consider all relevant socio-economic impacts, which may include any indirect beneficial impacts for the region hosting the infrastructure, in particular in relation to use of local support services and supply chains. [Paragraph 5.13.4]	Economic impacts are estimated within Volume 4, Annex 2.1: Socio-economics technical report of the ES, covering regional employment and GVA impacts and the potential associated impacts on local employment opportunities. This includes an estimate of potential direct, indirect (i.e. supply chain) and induced (i.e. household expenditure) economic impacts within the regions of North West England, North Wales and other local impacted geographies.
The applicant's assessment should consider all relevant socio-economic impacts, which may include effects (positive and negative) on tourism and other users of the area impacted. [Paragraph 5.13.4]	Effects on tourism are assessed within **section 2.12**.
The applicant's assessment should consider all relevant socio-economic impacts, which may include the impact of a changing influx of workers during the different construction, operation and decommissioning phases of the energy infrastructure. This could change the local population dynamics and could alter the demand for services and facilities in the settlements nearest to the construction work (including community facilities and physical infrastructure such as energy, water, transport and waste). There could also be effects on social cohesion depending on how populations and service provision change as a result of the development. [Paragraph 5.13.4]	Social impacts are estimated within Volume 4, Annex 2.1: Socio-economics technical report of the ES, covering potential workforce on housing, accommodation and population (including local services). Effects associated with potential social impacts are assessed within **sections 2.11** and **2.12**.
The applicant's assessment should consider all relevant socio-economic impacts, which may include cumulative effects – if development consent were to be granted to 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. [Paragraph 5.13.4]	Potential cumulative effects associated with other projects are assessed within **section 2.14**.
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.	Existing baseline conditions within relevant sub-national geographies are set out within **section 2.6**.

Summary of NPS provision	How and where considered in the ES
[Paragraph 5.13.5]	Local planning policies – and how the Transmission Assets interacts with these – are set out within **section 2.2.2**.
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. [Paragraph 5.13.6]	Potential effects on tourism are assessed within **sections 2.11** and **2.12**. which includes consideration of how visual impacts may have an indirect impact on tourism. As accounted for by **paragraphs 4.2.11**–**4.2.12** of NPS EN-1, there is currently insufficient information at this stage of the application to demonstrate consideration of local suppliers within the supply chain.
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. [Paragraph 5.13.7]	Potential social impacts are estimated within Volume 4, Annex 2.1: Socio-economics technical report of the ES, covering potential workforce on housing, accommodation. Effects associated with potential social impacts are assessed within **sections 2.11** and **2.12**. An accommodation strategy is not appropriate for a development of this scale.
In considering any proposed development, in particular when weighing its adverse impacts against its benefits, the Secretary of State should take into account its potential benefits including its contribution to meeting the need for energy infrastructure, job creation, reduction of geographical disparities, environmental enhancements, and any long-term or wider benefits. [Paragraph 4.1.5]	Potential socio-economic impacts are estimated within Volume 4, Annex 2.1: Socio-economics technical report of the ES. To assist the Secretary of State in their decision making, effects resulting from potential socio-economic impacts are assessed within **sections 2.11** and **2.12**.
The Secretary of State should consider whether mitigation measures are necessary to mitigate any adverse socio-economic impacts of the development. For example, high quality design can improve the visual and environmental experience for visitors and the local community alike. [Paragraph 5.13.8]	To assist the Secretary of State in their decision making. measures adopted as part of the Transmission Assets are set out within **section 2.8**.
The Secretary of State should have regard to the potential socio-economic impacts of new energy infrastructure identified by the applicant and from any other sources that the Secretary of State considers to be both relevant and important to its decision. [Paragraph 5.13.9]	To assist the Secretary of State in their decision making, effects resulting from potential socio-economic impacts are assessed within **sections 2.11** and **2.12**.
The Secretary of State may conclude that limited weight is to be given to assertions of socio-economic impacts that are not supported by evidence (particularly in view of the need for energy infrastructure as set out in this NPS). [Paragraph 5.13.10]	Potential socio-economic impacts are estimated within Volume 4, Annex 2.1: Socio-economics technical report of the ES. The annex sets out a detailed methodology which aligns with industry best practice and the latest available guidance, including: • Marine Scotland (2022) Defining 'local area' for assessing impact of offshore renewables and other marine developments

Summary of NPS provision	How and where considered in the ES
	• Crown Estate and Offshore Renewable Energy (ORE) Catapult (2019) Guide to an offshore wind farm • Glasson, J. *et al.* (2020) Guidance on assessing the socio-economic impacts of offshore wind farms.
The Secretary of State should consider any relevant positive provisions the applicants have made or is proposing to make to mitigate impacts (for example through planning obligations) and any legacy benefits that may arise as well as any options for phasing development in relation to the socio-economic impacts. [Paragraph 5.13.11]	An Outline Employment and Skills Plan (document reference J31) is included in the DCO application. The actions presented within the Outline Plan will form the basis of two post-consent Employment and Skills Plans, which will be separately prepared and adopted by the Applicants to help develop and support the economic benefits associated with the Transmission Assets in relation to employment and skills within the offshore wind sector.
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. [Paragraph 5.13.12]	An Outline Employment and Skills Plan (document reference J31) is included in the DCO application. The actions presented within the Outline Plan will form the basis of two post-consent Employment and Skills Plans, which will be separately prepared and adopted by the Applicants to help develop and support the economic benefits associated with the Transmission Assets in relation to employment and skills within the offshore wind sector.
NPS EN-5	
Further detailed environmental and community impact assessments will be required in determining the precise location of cable routes and other infrastructure for the onshore network reinforcements needed to support the delivery of the Government's 2030 offshore wind ambition and net zero targets. This NPS recognises the needs case for the infrastructure identified in the NOA required to achieve the 50 GW ambition for offshore wind by 2030 and that this infrastructure will need to be subject to the appropriate environmental (including community/socio-economic) impact assessments. [Paragraph 2.13.2]	Potential socio-economic impacts are estimated within Volume 4, Annex 2.1: Socio-economics technical report of the ES. To assist the Secretary of State in their decision making, effects resulting from potential socio-economic impacts are assessed within **sections 2.11** and **2.12**.

The National Planning Policy Framework

2.2.2.6 The National Planning Policy Framework (NPPF) was published in 2012 and updated in 2018, 2019, 2021, 2023 and 2024 (Ministry of Housing, Communities and Local Government, 2024). The NPPF sets out the Government's planning policies for England.

2.2.2.7 The Government has published proposed reforms to the NPPF for consultation on 30 July 2024, with the consultation period ending on 24 September 2024 (Ministry of Housing, Communities and Local Government, 2024). Following consultation, the NPPF will be updated.

2.2.2.8 **Table 2.2** sets out a summary of the NPPF policies relevant to this chapter.

Table 2.2: Summary of NPPF requirements relevant to this chapter

Policy	Key provisions	How and where considered in the ES
Achieving sustainable development	Achieving sustainable development should include an economic objective to help build a strong, responsive and competitive economy and ensure effective use of land. [Paragraph 8a]	The potential impact on economic receptors including employment, GVA and supply chain demand has been assessed within **section 2.11.2**. Impacts are identified as beneficial. The potential impact of increased employment opportunities has been assessed within **section 2.11.3**. Impacts are identified as beneficial. Policy priority for potential beneficial socio-economics impacts relevant to offshore wind development are considered in the assessment of sensitivity of receptors (value and importance). See **sections 2.11** and **2.12**.
Building a strong, competitive economy	Planning policies and decisions should recognise and address the specific locational requirements of different sectors. This includes making provision for clusters or networks of knowledge and high technology industries; and for storage and distribution operations at a variety of scales and in suitably accessible locations. [Paragraph 87]	The potential impact on economic receptors including employment, GVA and supply chain demand has been assessed within **section 2.11.2**. Impacts are identified as beneficial. The potential impact of increased employment opportunities has been assessed within **section 2.11.3**. Impacts are identified as beneficial. Policy priority for potential beneficial socio-economics impacts relevant to the Transmission Assets are considered in the assessment of sensitivity of receptors (value and importance). See **sections 2.11** and **2.12**. An Outline Employment and Skills Plan is submitted as part of the DCO application (document reference J31), which will present a set of actions that will form the basis of the two post-consent Employment and Skills Plans to help develop and support the economic benefits associated with the Transmission Assets in relation to employment and skills within the offshore wind sector.
Building a strong, competitive economy	Planning policies and decisions should help create the conditions in which businesses can invest, expand and adapt. Significant weight should be placed on the need to support economic growth and productivity, taking into account both local business needs and wider opportunities for development. The approach taken should allow each area to build on its strengths, counter any weaknesses and address the challenges of the future. [Paragraph 85]	Policy priority for potential beneficial socio-economics impacts relevant to the Transmission Assets are considered in assessment of sensitivity of receptors (value and importance). See **sections 2.11** and **2.12**. The potential impact of increased employment opportunities is assessed for its significance in **sections 2.11.3 and 2.12.3.** An Outline Employment and Skills Plan is submitted as part of the DCO application (document reference J31), which will present a set of actions that will form the basis of the two post-consent Employment and Skills Plans to help develop and support the economic benefits associated with the

Policy	Key provisions	How and where considered in the ES
		Transmission Assets in relation to employment and skills within the offshore wind sector.
Meeting the challenge of climate change, flooding and coastal change	The planning system should support the transition to a low carbon future in a changing climate. It should help to: shape places in ways that contribute to radical reductions in greenhouse gas emissions, encourage the reuse of existing resources, and support renewable and low carbon energy and associated infrastructure. [Paragraph 157]	Policy priority for potential beneficial socio-economics impacts in support of transitioning to a low carbon future relevant to the Transmission Assets are considered in assessment of sensitivity of receptors (value and importance). See **section 2.11**.
Meeting the challenge of climate change, flooding and coastal change	To help increase the use and supply of renewable and low carbon energy, plans should consider identifying suitable areas for renewable and low carbon energy sources, and supporting infrastructure, where this would help secure their development [Paragraph 160b]	Policy priority for potential beneficial socio-economics impacts in support of transitioning to a low carbon future relevant to the Transmission Assets are considered in assessment of sensitivity of receptors (value and importance). See **section 2.11**.

2.2.2.9 The consultation draft includes similar provisions as the designated NPPF. The consultation draft NPPF has been reviewed and there are no material updates for socio-economics.

2.2.2.10 The Planning Practice Guidance (PPG) (DLUHC and Ministry of Housing, Communities and Local Government, 2023) supports the NPPF and provides guidance across a range of topic areas.

2.2.2.11 **Table 2.3** sets out a summary of the PPG requirements relevant to this chapter.

Table 2.3: Summary of PPG requirements relevant to this chapter

Policy	Key provisions	How and where considered in the ES
Renewable and low carbon energy. Paragraph: 001 Reference ID: 5-001-20140306 Revision date: 06 03 2014	The PPG notes that planning for renewable and low carbon energy is important to ensure the UK has a secure energy supply, reduces greenhouse gas emissions, and stimulates investment in new jobs and businesses.	The potential impact on economic receptors including employment, GVA and supply chain demand has been assessed within **section 2.11.2**. Impacts are identified as beneficial. The potential impact of increased employment opportunities has been assessed within **section 2.11.3**. Impacts are identified as beneficial. Policy priority for potential beneficial socio-economics impacts relevant to offshore wind development are considered in the assessment of sensitivity of receptors (value and importance). The potential impact on economic receptors including employment, GVA and supply chain demand has been assessed within **section 2.11.2**. Impacts are identified as beneficial. The potential impact of increased employment opportunities has been assessed within **section 2.11.3**. Impacts are identified as beneficial.

Marine policy

UK Marine Policy Statement

2.2.2.12 **Table 2.4** sets out a summary of the UK Marine Policy Statement relevant to this chapter.

Table 2.4: Summary of UK Marine Policy Statement relevant to this chapter

Policy	Key provisions	How and where considered in the ES
UK Marine Policy Statement (UK Government, 2011)	The UK Marine Policy Statement integrates a set of objectives and policies for sustainable development and sets out the approach to the management of the marine area, its resources, and the activities and interactions within it. (page 7). It aims to ensure oceans and seas are protected to support economic, social, cultural, and environmental objectives. The Statement recognises there are opportunities generated through offshore wind, such as the reduction of carbon emissions and the stimulation of investment in jobs and businesses both nationally and locally (page 16).	Policy priority for potential beneficial socio-economics impacts relevant to the Transmission Assets are considered in assessment of sensitivity of receptors (value and importance). See **sections 2.11** and **2.12**.

North West Inshore and North West Offshore Coast Marine Plans 2021

2.2.2.13 **Table 2.5** sets out a summary of the specific policies set out in the North West Inshore and North West Offshore Marine Plan (HM Government, 2021) relevant to this chapter.

Table 2.5: Summary of inshore and offshore marine plan policies relevant to this chapter

Policy	Key provisions	How and where considered in the ES
NW-REN-1: Proposals that enable the provision of renewable energy technologies and associated supply chains will be supported. This includes those which contribute to establishing a successful export market, particularly in relation to the emerging floating offshore wind industry. [Page 33]	Supply chains are recognised as important factors in harnessing the economic and social benefits of renewable energy in the UK. NWREN-1 will enable public authorities to support proposals that reduce costs, ensuring that businesses are operating competitively and with a long-term strategy. This will help develop stronger supply chains for renewable energy technology in the UK.	Volume 4, Annex 2.1: Socio-economics technical report of the ES provides an assessment of the direct, indirect and induced potential economic impacts (employment and GVA), which apply throughout the offshore wind supply chain.
NW-EMP-1: Proposals that result in a net increase in marine-related employment will be supported, particularly where they meet one or more of the following: 1) are aligned with local skills strategies and support the skills available 2) create a diversity of opportunities 3) create employment in locations identified as the most deprived 4) implement new technologies -in, and adjacent to, the north west marine plan areas. [Page 38]	NW-EMP-1 encourages decision-makers and proponents to deliver additional employment benefits from proposals, particularly those benefits associated with the listed policy criteria. NW-EMP-1 seeks to maximise sustainable economic activity, prosperity and opportunities for all, both now and in the future.	Volume 4, Annex 2.1: Socio-economics technical report of the ES provides an assessment of the direct, indirect and induced potential economic impacts (employment and GVA), which apply throughout the offshore wind supply chain. The potential impact on economic receptors including employment, GVA and supply chain demand is assessed for its significance in **sections 2.11** and **2.12**. The potential impact of increased employment opportunities is assessed for its significance in **sections 2.11** and **2.12**.
NW-TR-1: Proposals that promote or facilitate sustainable tourism and recreation activities, or that create appropriate opportunities to expand or diversify the current use of facilities, should be supported. Proposals that may have significant adverse impacts on tourism and recreation activities must demonstrate that they will, in order of preference: a) avoid b) minimise c) mitigate -adverse impacts so they are no longer significant. [Page 44]	The north west marine plan recognises tourism and recreation as important industries which provide economic and social benefits to coastal communities and visitors to the region. NW–TR-1 addresses the potential impact of proposals on existing tourism and recreation use to minimise stakeholder or future potential activities. Proposals that cannot avoid, minimise and mitigate significant adverse impacts on tourism and recreation activities are unlikely to be supported.	The potential impacts on tourism is assessed for its significance in **sections 2.11** and **2.12**. This assessment is informed by Volume 3, Chapter 10: Landscape and visual resources and Volume 2, Chapter 9: Other sea users of the ES.
NW-CE-1: Proposals which may have adverse cumulative effects with other existing, authorised, or reasonably foreseeable proposals must demonstrate that they will, in order of preference: a) avoid b)	This policy is intended to ensure all relevant effects are taken account of and addressed, including those that may seem less significant in their own right. This will help to ensure that the cumulative effect on the wider	**Section 2.14** Cumulative effects assessment considers the potential cumulative impacts of relevant major projects.

Policy	Key provisions	How and where considered in the ES
minimise c) mitigate -adverse cumulative and/or in-combination effects so they are no longer significant. [Page 52]	environment of the north west marine area and other relevant receptors are effectively managed.	
NW–INF-1: Proposals for appropriate marine infrastructure which facilitates land-based activities, or land-based infrastructure which facilitates marine activities (including the diversification or regeneration of sustainable marine industries), should be supported. [Page 21]	NW-INF-1 supports the integration of the marine and land based systems by encouraging proposals that improve existing or provide new, sustainable marine or land-based infrastructure that facilitates activity in the other system. Supporting infrastructure development, diversification and regeneration will provide socio-economic benefits and support marine businesses, including those that are land-based.	Volume 4, Annex 2.1: Socio-economics technical report of the ES provides an assessment of the direct, indirect and induced potential economic impacts (employment and GVA), which apply throughout the offshore wind supply chain.

UK strategic planning policy

2.2.2.14 The assessment of potential changes to socio-economics has also been made with consideration to the UK Government's strategic planning policy on the matter of economic growth and renewable energy. Key considerations are set out in **Table 2.6** along with details as to how these have been addressed within the assessment.

Table 2.6: UK strategic planning policies of relevance to socio-economics

Policy	Key provisions	How and where considered in the ES
British Energy Security Strategy, (UK Government, 2022).	The British Energy Security Strategy sets out the plan to achieve net zero carbon emissions from energy generation and reduce the UK's dependence on imported gas and oil. Offshore wind is identified as an important source of renewable energy and is anticipated to support 90,000 jobs in Britain by 2030, a proportion of which will be high skilled and high wage (page 17). The Strategy sets out the UK's ambitions to invest and deliver both fixed and floating offshore wind infrastructures, which will further contribute to energy security and net zero. A key measure for progress in the development of wind energy is the improvement of community benefits in areas with strategic network infrastructure. [Page 31]	The potential impact on economic receptors including employment, GVA and supply chain demand has been assessed within **section 2.11.2**. Impacts are identified as beneficial. The potential impact of increased employment opportunities has been assessed within **section 2.11.3**. Impacts are identified as beneficial. The potential impact on population, housing, and accommodation has been assessed with **section 2.11.4 and section 2.12.5**. Impacts are identified as neutral – population growth can have both beneficial and adverse effects, with the overall impact largely contingent on various factors such as infrastructure, resources and planning. The policy priority for potential beneficial socio-economics impacts relevant to offshore wind development are considered in the assessment of sensitivity throughout the assessment (value and importance). An Outline Employment and Skills Plan is submitted as part of the DCO application (document reference J31), which will present a set of actions that will form the basis of the two post-consent Employment and Skills Plans to help develop and support the economic benefits

Policy	Key provisions	How and where considered in the ES
		and local communities associated with the Transmission Assets in relation to employment and skills within the offshore wind sector.
Industrial Strategy: Offshore Wind Sector Deal (UK Government, 2019)	The Sector Deal establishes the shared ambitions and commitments of the offshore wind sector and the UK government to support the continued growth of offshore wind in the UK. It also establishes the shared ambition to bring forward floating offshore wind projects, whilst maximising the value for the UK economy and its consumers. [Page 19] The sector deal also sets out the importance of working with educational institutions for post 16-year-olds to build early stage skills and knowledge accessibility, working with the UK government to address identified skills gaps in relevant routes including construction, engineering and manufacturing. [Page 13]	As per **sections 2.11** and **2.12**. policy priority for potential beneficial socio-economics impacts relevant to the Transmission Assets are considered in assessment of sensitivity of receptors (value and importance). An Outline Employment and Skills Plan is submitted as part of the DCO application (document referenceJ31), which will present a set of actions that will form the basis of the two post-consent Employment and Skills Plans to help develop and support the economic benefits associated with the Transmission Assets in relation to employment and skills within the offshore wind sector. This includes working with educational institutions to develop skills and careers for the offshore wind sector.
Net Zero Strategy: Build Back Greener (UK Government, 2021).	This policy sets out policies and proposals for decarbonising all sectors of the UK economy to meet the net zero target by 2050. Achieving 40 GW of offshore wind and 1 GW of floating offshore wind by 2030 is a key policy for the UK government. There are aims to support this through investing in supply chains, infrastructure and offshore transmission networks to secure jobs and benefit communities across the UK (page 94). The UK government has committed to investing in two ports in the North of England to upgrade their capacity to support the UK offshore wind manufacturing sector. [Page 269]	As per **section 2.11** and **2.12**.policy priority for potential beneficial socio-economics impacts relevant to the Transmission Assets are considered in assessment of sensitivity of receptors (value and importance).
The Clean Growth Strategy (UK Government, 2017).	This strategy sets out the UK government's approach to reducing carbon emissions whilst supporting economic growth, which includes maximising the social and economic benefits from this transition. [Page 47]	Employment and GVA impacts and the potential associated impacts on local employment opportunities are considered in **sections 2.11.2**, **2.11.3**, **2.12.2** and **2.12.3**. As per **section 2.11** and **2.12**.policy priority for potential beneficial socio-economics impacts relevant to the Transmission Assets are considered in assessment of sensitivity of receptors (value and importance).

Local planning policy

2.2.2.15 The onshore elements of the Transmission Assets are located within the administrative areas of Fylde Council, Blackpool Council, South Ribble Borough Council and Preston City Council (and Lancashire County Council at the County level).

2.2.2.16 The relevant local planning policies applicable to socio-economics based on the extent of the study areas for this assessment are summarised in **Table 2.7**.

Table 2.7: Summary of local policies relevant to this chapter

Policy	Key provisions	How and where considered in the ES
Adopted Fylde Local Plan to 2032 (incorporating Partial Review) (Fylde Council, 2021)	The Local Plan sets out the strategic objectives of Fylde Council in facilitating sustainable development. The Plan sets out the ambition of building a strong, responsive, diverse, competitive economy, where local growth is supported by the provision of readily available sites in sustainable locations.	Policy priority for potential beneficial socio-economics impacts relevant to the Transmission Assets are considered in assessment of sensitivity of receptors (value and importance). See **sections 2.11** and **2.12**.
	Policy NP1: presumption in favour of sustainable development This policy notes that planning should proactively improve and support the economic, social, and environmental conditions in the area, and includes the delivery of infrastructure.	
	Strategic Policy EC2: Employment opportunities This policy aims to ensure employment opportunities are provided and accessible for the local people in the borough.	
	The Plan highlights that commercial scale wind provides the highest deployable potential in Fylde. [Page 174] *Strategic Policy CL3 – Renewable and Low Carbon Energy* This policy notes that opportunities for renewable and low carbon development should be maximised and should also be beneficial to the community, economy, and environment.	
	Strategic Policy EC4(a): Blackpool Airport Enterprise Zone The policy notes the designation of the Blackpool Airport Enterprise Zone will help create more businesses, jobs and attract international investment, with positive benefits across the wider economic area, through targeting the energy industry, advanced	Potential economic impacts associated with potential changes to aviation activities at Blackpool Airport and Blackpool Airport Enterprise Zone are assessed within **section 2.12.**

Policy	Key provisions	How and where considered in the ES
	manufacturing and engineering, food and drink manufacture and the digital and creative sector. Fylde Council supports the sustainable development of Blackpool Airport, including working to explore the potential to develop commercial aeronautical activity.	
	Strategic Policy T3: Blackpool Airport The policy notes that land designated within the airport will be safeguarded from non-airport related development, and the continuing operation and viability of the airport as a sub-regional facility will be supported. The Plan predominantly defers to the Blackpool Airport Enterprise Zone Masterplan 2018 (herein "2018 Masterplan") on matters relating to further development of the site.	
Blackpool Local Plan Part 1: Core Strategy (2012–2027) (Blackpool Council, 2016)	The Plan identifies Blackpool Airport as an important sub-regional asset, and sets out an intention to ensure that its economic potential is realised. The Plan predominantly defers to the 2018 Masterplan on matters relating to further development of the site.	Potential economic impacts associated with potential changes to aviation activities at Blackpool Airport and Blackpool Airport Enterprise Zone are assessed within **section 2.12.**
Economic Development Strategy and Action Plan 2012 to 2030 (Fylde Council, 2013)	The Economic Development Strategy and Action Plan aims to create a dynamic economy through the provision of economic growth and employment opportunities for Fylde's population. The Strategy set out aims to support and improve energy/electricity infrastructure to facilitate growth within the energy/renewables sector. The Strategy notes that natural resources should be utilised in a manner which maximises sustainable employment and encourages investment. [Page 59]	Policy priority for potential beneficial socio-economics impacts relevant to the Transmission Assets are considered in assessment of sensitivity of receptors (value and importance). See **sections 2.11** and **2.12**. .
South Ribble Local Plan 2012 – 2026 (South Ribble Borough Council, adopted 2015)	The Local Plan puts forward the ambition of securing economic growth by ensuring the infrastructure required to facilitate this growth is provided, benefitting the local community and building sustainability. The Plan notes that the long term sustainability of South Ribble will depend on developing the local economy and ensuring there are enough employment opportunities.	Policy priority for potential beneficial socio-economics impacts relevant to the Transmission Assets are considered in assessment of sensitivity of receptors (value and importance). See **sections 2.11** and **2.12**.

Policy	Key provisions	How and where considered in the ES
Central Lancashire Adopted Core Strategy – Local Development Framework (Preston City Council, South Ribble Borough Council and Chorley Council, 2012).	*Policy 15: Skills and Economic Inclusion* The Central Lancashire local authorities aim to improve skills and economic inclusion by working with existing and incoming employers to identify skills shortages and liaise with major employers to develop courses and increase access to training.	Policy priority for potential beneficial socio-economics impacts relevant to the Transmission Assets are considered in assessment of sensitivity of receptors (value and importance). See **sections 2.11** and **2.12**.
	Policy 28: Renewable and Low Carbon Energy Schemes Any significant adverse effects of the proposal are considered against the wider environmental, social and economic benefits, including scope for appropriate mitigation, adaptation and/or compensatory provisions.	
Lancashire Strategic Economic Plan (2014)	Blackpool Airport is not referenced as an economic asset in the Plan.	No further consideration required.

Blackpool Airport Enterprise Zone Masterplan

2.2.2.17 The initial Blackpool Airport Enterprise Zone Masterplan was published in 2018. The Blackpool Airport Enterprise Zone Masterplan is subject to intermittent revision – updates have taken place on average every two years since its original publication in 2018. Within this chapter, text referring to "the current Masterplan" relates to the Masterplan position as it stands, otherwise text referring to the Masterplan at a different stage of its development specifies the relevant version of the Masterplan being referenced (e.g. "the 2018 Masterplan").

2.2.2.18 The vision for the Blackpool Airport Enterprise Zone is to establish it as one of the premier business locations in North West England, offering high-quality commercial premises for businesses.

An updated Masterplan was published in 2020. This indicates a scaling down of the proposal, with the north east part of the site being removed from the 2020 Masterplan. Subsequent Masterplan updates in 2022 and 2024 have retained the reduced 2020 Masterplan.

2.2.2.19 'Silicon Sands' is the updated name given to the 'Knowledge Quarter' part of the current Masterplan. It is a proposal for a combination of internet connectivity, renewable power supplies and commercial land aimed at attracting inward investment to the Fylde coast. Across a 40-acre site north of Blackpool Airport, the primary opportunity from Silicon Sands will be renewably powered high performance data centres, alongside development land for businesses which could benefit from direct access to data centres.

How and where considered in the ES

2.2.2.20 Potential economic impacts associated with potential changes to aviation activities at Blackpool Airport and Blackpool Airport Enterprise Zone are assessed within **section 2.12.**

2.2.3 Relevant guidance

2.2.3.1 There is no official guidance governing the process of socio-economics assessment of the baseline environment. This chapter's approach is based on the most up-to-date and relevant methods available at the time of writing. This includes the following industry standard (non-statutory) guidance that is specific to the socio-economic baseline environment assessment.

- Glasson, J. et al. (2020). Guidance on assessing the socio-economic impacts of offshore wind farms, Oxford Brookes University.
- BVG Associates (2019). Guide to an Offshore Windfarm, prepared for the Crown Estate.
- Marine Scotland (2022). Defining 'Local Area' for assessing impact of offshore renewables and other marine developments.

2.3 Consultation

2.3.1 Scoping

2.3.1.1 On 28 October 2022, the Applicants submitted a Scoping Report to the Planning Inspectorate, which described the scope and methodology for the technical studies being undertaken to provide an assessment of any likely significant effects for the construction, operation and maintenance and decommissioning phases of the Transmission Assets.

2.3.1.2 Following consultation with the appropriate statutory bodies, the Planning Inspectorate (on behalf of the Secretary of State) adopted a Scoping Opinion on 8 December 2022.

2.3.2 Statutory consultation responses

2.3.2.1 The preliminary findings of the EIA process were published in the PEIR in October 2023. The PEIR was prepared to provide the basis for formal consultation under the Planning Act 2008. This included consultation with statutory bodies under section 42 and 47 of the Planning Act 2008.

2.3.3 Other relevant consultation

2.3.3.1 Consultation activities have previously been carried out during preparation of the Morgan Offshore Wind Project Generation Assets PEIR. Consultation workshops covered economic and social matters. The economy workshop considered support ports, supply chain, and labour market and skills. The social workshop considered local labour and skills, and local and community level impacts.

2.3.3.2 Participants in these consultations included stakeholders for North West England and North Wales, as well as industry bodies. The discussion during these workshops related broadly to the offshore wind sector and local labour market capacities to deliver an offshore wind farm in the Irish Sea – the assumption being throughout the workshops that this would include both generation and transmission assets. As such, the consultation findings which have been provided as part of the Morgan Offshore Wind Project Generation Assets PEIR are also applicable to the Transmission Assets ES chapter[2].

2.3.3.3 Relevant consultation activities undertaken during preparation of the Morgan Offshore Wind Project: Generation Assets PEIR are presented in **Table 2.8**, together with how these comments have been considered in the production of this ES chapter.

2.3.4 Summary of consultation responses received

2.3.4.1 A summary of the key items raised specific to socio-economics is presented in **Table 2.8**: together with how these have been considered in the production of this chapter.

[2] Non-statutory consultations were not carried out for the Morecambe Offshore Windfarm: Generation Assets and so there is no relevant consultation to Transmission Assets outside of the workshops carried out during the preparation of the Morgan Offshore Wind Project Generation Assets PEIR.

Table 2.8: Summary of key consultation comments raised during consultation activities undertaken for the Transmission Assets relevant to socio-economics

Date	Consultee and type of response	Comments raised	Response to comment raised and/or where considered in this chapter
12 August 2022	Planning Inspectorate Scoping response	It is understood from the EIA Scoping Report that likely port locations will not be confirmed prior to completion of the EIA. However, the ES should define them as far as possible, identify where uncertainty remains and assess the worst-case scenario, where possible.	**Section 2.2** sets out the issues informing port selection and how this matter is considered as part of study area definitions. This is considered in more detail in Volume 4, Annex 2.1 Technical Impact Report of the Environmental Assessment. Assessment of potential offshore effects in **section 2.11** and potential cumulative offshore impacts in **section 2.13** has been carried out on the basis of study areas informed by potential port locations.
		Part 2, Section 9.4 'Socio-economics and community' (Table 9.13) proposes to include an assessment of the impact of disruption on tourism and recreation receptors for all phases of the development, while Part 2, Section 8.2 'Land use and recreation' (Table 8.6) proposes to scope in an assessment of the impact of disruption and reduced access to recreational resources during construction and decommissioning. The Inspectorate recommends that the impact of disruption on land-based recreational receptors should be presented in one aspect chapter only, for a more streamlined approach. As per comment 3.15.2 in section 3.15 of this report, the Inspectorate considers that the potential impact on recreation resources during operation and maintenance is unlikely to result in significant effects and this matter can be scoped out of the ES.	The assessment of the impact of disruption on tourism is set out in **section 2.11**. The temporary impact (disruption or reduced access) to the recreational use of recreational resources landward of Mean Low Water Springs, including coastal recreational resources has been assessed in Volume 3, Chapter 6: Land use and recreation of the ES. **Section 2.7** sets out those potential impacts that have been scoped out of the assessment.
23 January 2023	Liverpool City Region Combined Authority Online consultation	Consider including Liverpool Port within North Wales impact area as it is closer to Mostyn.	This point was considered as part of identifying socio-economics regional study areas (**section 2.4** and Volume 4, Annex 2.1: Socio-economics technical report of the ES). There is a need to balance functional relationships alongside administrative and policy areas. It was determined that whilst there are interrelationships between the North Wales and North West England areas, the alignment to

Date	Consultee and type of response	Comments raised	Response to comment raised and/or where considered in this chapter
			policy and administrative boundaries was more appropriate in defining study areas.
23 January 2023	Barrow Port Online consultation	Consider capacity of ports and suitability of existing infrastructure in handling large scale construction.	This point was considered as part of selection of potential port locations to identify socio-economics regional study areas. Port capacity and the suitability of existing infrastructure in handling fabrication, marshalling, and operation and maintenance activities – giving due consideration to water depth, facilities, transport links, and labour market – is considered fully within Appendix A of Volume 4, Annex 2.1: Socio-economics technical report of the ES. The 'most likely' scenario (see **paragraphs 2.9.1.7–2.9.1.11**), which is assessed within this chapter, is based on a set of assumptions derived from evidence of impacts associated with existing conditions and capabilities in the offshore wind sector, and typical expenditure levels. The current capability scenario assumes that where the capability currently exists within the sector to deliver a certain supply chain category (as set out in Appendix B of Volume 4, Annex 2.1: Socio-economics technical report of the ES), the associated impacts are captured within sub-national content figures, where relevant.
23 January 2023	Barrow Port Liverpool City Region Combined Authority Online consultation	Investment into infrastructure at port locations required to provide support during construction phase.	This point was considered as part of selection of potential port locations to identify socio-economics regional study areas. Port capacity and the suitability of existing infrastructure in handling fabrication, marshalling, and operation and maintenance activities – giving due consideration to water depth, facilities, transport links, and labour market – is considered fully within Appendix A of Volume 4, Annex 2.1: Socio-economics technical report of the ES. The 'maximum' scenario (see **paragraphs 2.9.1.15–2.9.1.18**), would cover a situation where greater sector investment would lead to an increase in sub-national content. There is no information available at this stage to provide a basis for the assumptions that would be required to define a 'maximum' scenario. There is a risk

Date	Consultee and type of response	Comments raised	Response to comment raised and/or where considered in this chapter
			that assessing a 'maximum' scenario could overstate potentially beneficial economic impacts. In the case of socio-economics, the maximum scenario can therefore be considered an unhelpful scenario upon which to base an EIA. For this reason, the maximum scenario has not been assessed within this chapter. The 'most likely' scenario (see **paragraphs 2.9.1.7–2.9.1.11**), which is assessed within this chapter, is based on a set of assumptions derived from evidence of impacts associated with existing conditions and capabilities in the offshore wind sector, and typical expenditure levels. The current capability scenario assumes that where the capability currently exists within the sector to deliver a certain supply chain category (as set out in Appendix B of Volume 4, Annex 2.1: Socio-economics technical report of the ES), the associated impacts are captured within sub-national content figures, where relevant.
23 January 2023	Barrow Port Liverpool City Region Combined Authority Online consultation	Consider sharing work amongst ports across the Offshore Energy Alliance (North Wales and North West England) cluster to sustain capability.	This point was considered as part of selection of potential port locations to identify socio-economics regional study areas. Port capacity and the suitability of existing infrastructure in handling fabrication, marshalling, and operation and maintenance activities – giving due consideration to water depth, facilities, transport links, and labour market – is considered fully within Appendix A of Volume 4, Annex 2.1: Socio-economics technical report. The 'most likely' current capability scenario (see **paragraphs 2.9.1.7–2.9.1.11**), which is assessed within this chapter, is based on a set of assumptions derived from evidence of impacts associated with existing conditions and capabilities in the offshore wind sector, and typical expenditure levels. The current capability scenario assumes that where the capability currently exists within the sector to deliver a certain supply chain category (as set out in Appendix B of Volume 4, Annex 2.1: Socio-economics technical report of the ES), the associated impacts are captured within sub-national content figures, where relevant.

Date	Consultee and type of response	Comments raised	Response to comment raised and/or where considered in this chapter
			The current capability scenario assumes that no single port can deliver all activities associated with the construction phase of the Transmission Assets. Given the Offshore Energy Alliance cluster covers North Wales and North West England, this geography is also inherently considered as part of cumulative effects assessment (**section 2.14**).
23 January 2023	Barrow Port Online consultation	Potential in sub-station construction, less so in larger fabrication and staging processes of blades and foundations.	Port capacity and the suitability of existing infrastructure in handling fabrication, marshalling, and operation and maintenance activities – giving due consideration to water depth, facilities, transport links, and labour market – is considered fully within Appendix A of Volume 4, Annex 2.1: Socio-economics technical report. This assessment indicates that Barrow Port would not be suitable as a lead facility for the fabrication or marshalling of modern (much larger than previous) offshore substations. The current capability scenario assessed within this chapter assumes the maximum activity that could occur within a single sub-national social study area is the installation and marshalling of the export cable.
23 January 2023	Liverpool City Region Combined Authority Online consultation	Investment would be beneficial to upskill current businesses.	An Outline Employment and Skills Plan (document reference J31) is included as a requirement of the draft DCO which considers making provisions for training and apprenticeships relation to employment and skills within the offshore wind sector (**Table 2.29**).
23 January 2023	Barrow Port Cumbria Local Enterprise Partnership (Cumbria LEP) Online consultation	Barrow Port is a significant offshore wind supply base, especially with operation and maintenance, which could be increased.	This point was considered as part of selection of potential port locations to identify socio-economics regional study areas. Port capacity and the suitability of existing infrastructure in handling fabrication, marshalling, and operation and maintenance activities – giving due consideration to water depth, facilities, transport links, and labour market – is considered fully within Appendix A of Volume 4, Annex 2.1: Socio-economics technical report.

Date	Consultee and type of response	Comments raised	Response to comment raised and/or where considered in this chapter
			The 'most likely' current capability scenario (see **paragraphs 2.9.1.7–2.9.1.11**), which is assessed within this chapter, is based on a set of assumptions derived from evidence of impacts associated with existing conditions and capabilities in the offshore wind sector, and typical expenditure levels. The current capability scenario assumes that where the capability currently exists within the sector to deliver a certain supply chain category (as set out in Appendix B of Volume 4, Annex 2.1: Socio-economics technical report of the ES), the associated impacts are captured within sub-national content figures, where relevant.
23 January 2023	Barrow Port Cumbria LEP Liverpool City Region Combined Authority Online consultation	Consider building apprenticeship programmes and using skills and training facilities already in place.	Considered as part of assessment of significant effects (**section 2.11** and Table 2.29). Considered as part of cumulative effects assessment (**section 2.14**). An Outline Employment and Skills Plan (document reference J31) is included as a requirement of the draft DCO which considers making provisions for training and apprenticeships relation to employment and skills within the offshore wind sector (**Table 2.29**).
23 January 2023	Welsh Government (relevant representative) Online consultation	Consider how to make skills sustainable beyond construction of single offshore wind farm and understand time scales for demand.	An Outline Employment and Skills Plan (document reference J31) is included as a requirement of the draft DCO which considers making provisions for training and apprenticeships relation to employment and skills within the offshore wind sector (**Table 2.29**).
23 January 2023	Welsh Government (relevant representative) Online consultation	Transferability of skills in the region from a range of past and current projects that can be adapted and taken advantage of.	Direct employment opportunities could be filled through a number of routes including local workers transitioning from the offshore oil and gas sector and local resident entrants to the sector resulting from training activities. This informs the assessment of social effects within **section 2.11.** An Outline Employment and Skills Plan (document reference J31) is included as a requirement of the draft DCO which considers

Date	Consultee and type of response	Comments raised	Response to comment raised and/or where considered in this chapter
			making provisions for training and apprenticeships relation to employment and skills within the offshore wind sector (**Table 2.29**).
23 January 2023	Barrow Port Liverpool City Region Combined Authority Welsh Government (relevant representative) Online consultation	Consider what impact a temporary workforce may have on the region and how to negate any costs to the community.	Potential workforce impacts associated with the Transmission Assets have been estimated based on assumptions relating to the following variables: • maximum activities within a single socio-economics sub-national study area; • maximum vessel numbers; • vessel crew size; • share of non-local workers; • shift arrangements; • shifts per annum; and • nights of accommodation required per shift. Direct roles could be filled through a number of routes including: • local workers transitioning from the offshore oil and gas sector; • local resident entrants to the sector resulting from training activities; and • non-local commuting to the selected locality. Construction phase social impacts are assessed in terms of the maximum number of temporary overnight stays arising within the social impact study areas.
November 2023	Various stakeholders Section 42 Statutory Consultation response	Various stakeholders raised concerns around the potential impacts on the local amenity, and subsequent (indirect) impacts on residents and visitors.	Potential indirect impacts on tourism associated with potential changes to visual amenity of local areas has been assessed within this chapter. This relies on the assessment in Volume 3, Chapter 10: Landscape and visual resources of the ES. Other potential impacts on local amenity and indirect impacts on residents and visitors have been assessed in Volume 1, Annex 5.1: Human health of the ES, Volume 3, Chapter 7: Traffic and transport of the

Date	Consultee and type of response	Comments raised	Response to comment raised and/or where considered in this chapter
			ES, Volume 3, Chapter 8: Noise and vibration of the ES, Volume 3, Chapter 9: Air quality of the ES.
November 2023	Various stakeholders Section 42 Statutory Consultation response	Various stakeholders raised concerns around potential economic impacts of onshore infrastructure on local businesses, particularly on farming activity.	This assessment considers impacts of the associated expenditure of Transmission Assets on the economies of the economic study areas, focused on the economic receptors of employment, GVA and increased employment opportunities for local residents (see **section 2.11** and **2.12**.). On the basis of proportionality, an assessment of potential impacts individual businesses not been considered within this assessment. Potential land use impacts are assessed fully within Volume 3, Chapter 6: Land use and recreation of the ES.
21 November 2023	Landowners, occupiers and businesses Section 42/47 Statutory Consultation response	There is a need to consider alternative cable routes due to the potential impacts on the viability of the operating farm. Impacts surround employment, supply chain, wider use of the farm and wellbeing.	This assessment considers impacts of the associated expenditure of Transmission Assets on the economies of the socio-economic study areas, measured through receptors of employment, GVA and increased employment opportunities for local residents (see **section 2.11**). The viability of existing farming businesses is assessed in Volume 3, Chapter 6: Land use and recreation of the ES.
21 November 2023	Landowners, occupiers and businesses Section 42/47 Statutory Consultation response	Transmission Assets could cause ongoing impacts which may lead to closure of the business.	This assessment considers impacts of the associated expenditure of Transmission Assets on the economies of the economic study areas, focused on the economic receptors of employment, GVA and increased employment opportunities for local residents (see **section 2.11**). On the basis of proportionality, an assessment of potential impacts individual businesses not been considered within this assessment.
November 2023	Various stakeholders Section 42/47 Statutory	Various responses raise concerns over the potential impacts of construction phase noise on local businesses, particularly in tourism related industries.	Impacts of Transmission Assets on noise pollution have been assessed in Volume 3, Chapter 8: Noise and vibration of the ES.

Date	Consultee and type of response	Comments raised	Response to comment raised and/or where considered in this chapter
	Consultation response		
23 November 2023	Treales, Roseacre & Wharles Parish Council Section 42 Statutory Consultation response	Question over how individuals, communities and enterprises will see a net benefit from the project.	The potential impact on economic receptors including employment, GVA and supply chain demand has been assessed within **section 2.11.2**. Impacts are identified as beneficial. The potential impact of increased employment opportunities has been assessed within **section 2.11.3**. Impacts are identified as beneficial. The potential impact on population, housing, and accommodation. Impacts are identified as neutral – population growth can have both beneficial and adverse effects, with the overall impact largely contingent on various factors such as infrastructure, resources and planning (see **sections 2.12.5.15–2.12.5.19**). An Outline Employment and Skills Plan (document reference J31) is included in the DCO application. The actions presented within the Outline Plan will form the basis of two post-consent Employment and Skills Plans, which will be separately prepared and adopted by the Applicants to help develop and support the economic benefits associated with the Transmission in relation to employment and skills within the offshore wind sector. This process will involve engagement and consultation with relevant employment and skills stakeholders (stakeholders are likely to include local councils, key educational providers, skills partnerships, and other developments in the pipeline).
23 November 2023	Blackpool, Fylde & Wyre Trade Union Council Section 47 Statutory Consultation response	Requests for assurance of the pay, safety, quality, working conditions and training provision for workers involved in the Transmission Assets.	An Outline Employment and Skills Plan (document reference J31) is included in the DCO application. The actions presented within the Outline Plan will form the basis of two post-consent Employment and Skills Plans, which will be separately prepared and adopted by the Applicants to help develop and support the economic benefits associated with the Transmission in relation to employment and skills within the offshore wind sector. This process will involve engagement and

Date	Consultee and type of response	Comments raised	Response to comment raised and/or where considered in this chapter
			consultation with relevant employment and skills stakeholders. (stakeholders are likely to include local councils, key educational providers, skills partnerships, and other developments in the pipeline).
23 November 2023	Blackpool & The Fylde College Section 47 Statutory Consultation response	Will there be opportunities for local businesses to get involved in the project in terms of labour/construction/administration and would there be a requirement for upskilling those employees. There is potential to work with the College around training and provision of any apprentices. Consider the impact on the local community/area surrounding B&FC LEHQ (Energy) Campus based at the Blackpool Enterprise Zone, Squires Gate Lane. Consider opportunities for local business groups to be involved through Social Value – e.g., Schools, Colleges, Community Groups etc. Similarly in terms of local labour force etc and training.	An Outline Employment and Skills Plan (document reference J31) is included in the DCO application. The actions presented within the Outline Plan will form the basis of two post-consent Employment and Skills Plans, which will be separately prepared and adopted by the Applicants to help develop and support the economic benefits associated with the Transmission in relation to employment and skills within the offshore wind sector. This includes provision of training and apprenticeships. This process will involve engagement and consultation with relevant employment and skills stakeholders. (stakeholders are likely to include local councils, key educational providers, skills partnerships, and other developments in the pipeline). Potential economic impacts of the Transmission Assets on Blackpool Airport Enterprise Zone are considered within **section 2.12.2**.
23 November 2023	Blackpool Airport Section 47 Statutory Consultation response	Requires an understanding from the Applicants of the issues and intentions of the Enterprise Zone and Blackpool Council in respect of current operations and their future masterplan. The Applicants must understand the importance of delivering the development outline in the evolving masterplan to ensure the fundamental aims of the Enterprise Zone are achieved, namely the creation of a significant number of jobs and attracting private investment.	Potential economic impacts of the Transmission Assets on Blackpool Airport Enterprise Zone are considered within **section 2.12.2.**

2.4 Study area

2.4.1 Overall approach

2.4.1.1 A detailed explanation of the approach to the economic and social study area definitions can be found in Volume 4, Annex 2.1: Socio-economics technical report of the ES.

2.4.2 Economic study areas – employment and GVA

2.4.2.1 Volume 4, Annex 2.1: Socio-economics technical report of the ES estimates that potential economic impacts at the UK level are not anticipated to be of material consideration. To ensure the assessment remains proportional, economic impacts are not assessed at the UK level.

Economic study areas – offshore

2.4.2.2 Industry best practice guidance from Marine Scotland (2022) Defining 'Local Area' for assessing impact of offshore renewables and other marine developments sets out that economic impacts can be geographically linked to a range of 'epicentres', including construction and operation and maintenance ports and onshore substations. The locations of ports that are awarded contracts to deliver project components will largely determine these 'epicentres' of impact – locations from where potential localised impacts 'radiate'.

2.4.2.3 To ensure the assessment of impacts is proportionate, economic study area definitions concentrate on locations within England and Wales in proximity to the Irish Sea. Therefore, locations in North Wales and North West England are considered as part of the assessment of economic impacts[3].

2.4.2.4 Having identified potential port facilities within Volume 4, Annex 2.1: Socio-economics technical report of the ES, the following economic study areas have been defined for the purposes of assessing potential offshore economic impacts of the Transmission Assets.

- North Wales offshore study area[4]– consists of Isle of Anglesey, Gwynedd, Conwy, Denbighshire, Flintshire, and Wrexham local authorities.
- North West England offshore study area[5].

2.4.2.5 The economic offshore study areas are shown in Figure 2.1 (Volume 4, Figures).

[3] The selection process associated with the identification of ports, inputs, and services will not conclude until the post-consent phase for the Transmission Assets, which is typical for offshore wind farms. It is likely that fabrication and marshalling ports elsewhere in the UK and internationally will be utilised for the delivery of components.

[4] Does not meet the statistical definition of a UK region.

[5] Does meet the statistical definition of a UK region.

Economic study areas – onshore

2.4.2.6 As set out in **paragraph 2.4.2.2**, the location of the onshore substations will determine the onshore 'epicentre' of impact. Based on a 60 minute drive time catchment area from the onshore substations, the following study area has been identified:

- Onshore study area: the 60-minute drive time catchment covers the local authorities within Lancashire and the majority of Greater Manchester and Merseyside. The full list of local authority areas included within the onshore economic study area is presented in **Table 2.9**.

Table 2.9: Local authority areas within the onshore economic study area

Local authority areas		
Blackburn with Darwen	Lancaster	Salford
Blackpool	Liverpool	Sefton
Bolton	Manchester	South Ribble
Burnley	Oldham	St. Helens
Bury	Pendle	Trafford
Fylde	Preston	Warrington
Halton	Ribble Valley	West Lancashire
Hyndburn	Rochdale	Wigan
Knowsley	Rossendale	Wyre

2.4.2.7 The economic onshore study area is shown in Figure 2.2 (Volume 4, Figures).

2.4.3 Economic study area – Blackpool Airport and Enterprise Zone

2.4.3.1 Airports and Enterprise Zones play important roles in supporting local, regional, and sometimes national, economic development activities.

2.4.3.2 Paragraph 5.5.5 of NPS EN-1 states that aerodromes can have important economic and social benefits at the regional and local level.

2.4.3.3 Strategic Policy T3 of the adopted Fylde Local Plan described Blackpool Airport as a 'sub-regional' facility.

2.4.3.4 In general, most UK airports can be categorised as hub, international, and regional. Heathrow Airport is the UK's largest and only hub airport. International airports, such as Manchester, London Gatwick, and London Stansted, provide long and short haul scheduled commercial passenger services, as well as chartered domestic services. The definition of a regional airport can vary, but this assessment adopts a broad definition of regional airports as those which do not offer scheduled commercial passenger services.

2.4.3.5 Blackpool Airport can be categorised as a regional airport. It does not offer scheduled commercial passenger services. It supports specialised services such as offshore energy operations, chartered and executive flights, and

maintenance activities. The airport's economic contributions are linked to the broader economic landscape of the North West England region, including key industries such as energy and aerospace.

2.4.3.6 As a regional airport, which has regional economic linkages, it is appropriate and proportionate to assess potential impacts on Blackpool Airport at the regional level i.e., North West England.

2.4.3.7 Within its 2018 Masterplan, the Blackpool Airport Enterprise Zone states its intention to be 'one of the North West's Premier Business Locations'. Given the Enterprise Zones intention to play a regional economic role, it is appropriate and proportionate to assess potential impacts on Blackpool Airport Enterprise Zone at the regional level i.e., North West England.

2.4.4 Social study areas

Social study areas – offshore

2.4.4.1 The most likely cause of social impacts are related to the implications of economic impacts i.e. the movement of labour. Therefore, the theoretical underpinnings of the economic study areas – with a focus on epicentres of impact by way of potential port(s) and onshore infrastructure locations – are also applicable in defining suitable social study areas.

2.4.4.2 The same list of potential port facilities has been utilised in determining appropriate offshore social study area(s). The extent of the offshore social study areas has been determined on the basis of the same 60-minute drive catchments for the same long list of port facilities results in the same best fit social study areas, as follows.

- North Wales offshore study area.
- North West England offshore study area.

2.4.4.3 The offshore study areas are shown in Figure 2.1 (Volume 4, Figures).

Social study area – onshore

2.4.4.4 In line with the definition of onshore economic study areas, the same onshore substation locations have been utilised in determining appropriate onshore social study areas. The extent of the onshore economic study area was also determined on the basis of labour catchment areas using a 60 minute drive time catchment as a proxy.

2.4.4.5 Therefore, the same 60-minute drive catchments for the same potential onshore substation locations results in the same best fit social study area, as follows.

- Onshore sub-national study area, shown in Figure 1.2 (Volume 4, Figures).

2.4.5 Tourism study area

Tourism study areas – offshore assessment

2.4.5.1 Potential offshore impacts of the construction, operation and maintenance, and decommissioning of the Transmission Assets on tourism are scoped out of the assessment – see **Table 2.28** for more detail.

Tourism study area – onshore assessment

2.4.5.2 Potential onshore impacts of the construction, operation and maintenance, and decommissioning of the Transmission Assets on the wider tourism sector are indirect in nature. It is necessary to derive an assessment of significance of effects on the tourism sector from the findings elsewhere in the ES on the basis of visual amenity, overnight trips and accommodation, and recreation.

Visual amenity

2.4.5.3 It is necessary to derive an assessment of significance of effects on visual amenity from the findings of Volume 3, Chapter 10: Landscape and visual resources of the ES. The potential visual impacts of the construction, operation and maintenance, and decommissioning of the Transmission Assets is one of the most important considerations when assessing significance of effects on tourism.

2.4.5.4 On this basis, the onshore tourism study area(s) definition draws on the Zone of Theoretical Visibility set out in Volume 3, Chapter 10: Landscape and visual resources of the ES.

Overnight trips and accommodation

2.4.5.5 It is necessary to derive an assessment of significance of effects on overnight trips and accommodation from the findings of the assessment within this chapter of potential impacts on population, housing and accommodation.

2.4.5.6 On this basis, the tourism study area draws directly on the onshore social study areas within this chapter. This has been determined based on the potential location of onshore infrastructure which is the main consideration in relation to the impact on overnight trips and accommodation.

Recreation

2.4.5.7 It is necessary to derive an assessment of significance of effects on recreation from the findings of Volume 3, Chapter 6: Land use and recreation of the ES. The potential recreation impacts of the construction, operation and maintenance, and decommissioning of the Transmission Assets is an important consideration when assessing significance of effects on tourism.

2.4.5.8 On this basis, the onshore tourism study area definition considers the land use and recreation study area.

Overall

2.4.5.9 On the basis of the above considerations, one tourism study area has been identified. The tourism study area is defined as North West England.

2.5 Baseline methodology

2.5.1 Methodology for baseline studies

Desk studies

2.5.1.1 Information on socio-economics within the economic, social, and tourism study areas has been collected through a detailed desktop review of existing studies and datasets. These are summarised in **Table 2.10**:

Table 2.10: Summary of key desktop reports

Title	Source	Year
Economy		
Business Register and Employment Survey	Office for National Statistics (ONS)	2023a
Regional gross value added (balanced) by industry: local authorities	ONS	2023b
Regional gross value added (balanced) by industry: all International Territorial Levels (ITL) regions	ONS	2023c
Offshore Wind Skills Intelligence Report	Offshore Wind Industry Council (OWIC)	2023
Economic interactions with aviation activities at Blackpool Airport and Blackpool Airport Enterprise Zone		
Company information	Companies House	2024
Annual airport data 2023	UK Civil Aviation Authority (CAA)	2024
Blackpool Airport Enterprise Zone Masterplan	Blackpool, Fylde and Wyre Economic Development Company	2018
Blackpool Airport Enterprise Masterplan, update	Blackpool Council	2020
Silicon Sands announcement – news item	Blackpool Council	2024a
Solar Farm announcement – news item	Blackpool Council	2024b
Labour market		
Annual Population Survey	ONS	2023d
Annual Population Survey: model-based estimates of unemployment	ONS	2023e
Housing and accommodation		
Population estimates	ONS	2023f
Chargeable empty and second homes, by local authority	Statistics Wales	2023b
Dwelling stock estimates by local authority and tenure	Statistics Wales	2023a

Title	Source	Year
Table 109 Dwelling stock: by tenure and region	DLUHC6	2023a
Table 615 Vacant dwellings by local authority district: England	DLUHC	2023b
Tourism		
Great Britain Day Visits Survey (GBDVS)	Visit England	2023a
Great Britain Tourism Survey (GBTS) Estimates of the volume and value of overnight trips taken by British residents in Great Britain in 2021 (April- December)	Visit England	2022
Great Britain Tourism Survey (GBTS) Estimates of the volume and value of overnight trips taken by British residents in Great Britain in 2021 (April – December, revised data) and in 2022 (January – December)	Visit England	2023b
North West England and Domestic Tourism	Visit England	2015
The Great Britain Day Visitor 2019 Annual Report	Visit England, Visit Scotland, and Visit Wales	2019
Tourism assets informed by various webpages – listed in 18.15.1	Various	2022
Future		
Economic and fiscal outlook	Office for Budget Responsibility (OBR)	2023
Forecasts for the UK economy: a comparison of independent forecasts	HM Treasury	2023
The Skills Imperative 2035: Occupational Outlook – Long-run employment prospects for the UK, Baseline Projections – Working Paper 2a	National Foundation for Educational Research (NFER) and Nuffield Foundation	2022
Net Zero North Sea: A managed transition for oil and gas in Scotland and the UK after Covid-19	IPPR	2020
2020-based interim national population projections: year ending June 2022 estimated international migration variant	ONS	2023
Population projections for regions: Table 1	ONS	2020
Population projections by local authority and year	Statistics Wales	2021

[6] Department for Levelling Up, Housing and Communities.

Industry definitions

2.5.1.2 There is no widely agreed and accepted definition of the offshore wind industry. Enterprises within many sectors can be active within the offshore wind industry.

2.5.1.3 Data on employment and GVA in the offshore wind sector is very useful, however it does not capture the potential wider supply chain that could service the offshore wind sector. To this end, impact industries have been defined to represent employment and GVA in industries associated with the construction, operation and maintenance, and decommissioning of offshore energy infrastructure (i.e., not limited to offshore wind). These definitions can be found in Appendix C of Volume 4, Annex 2.1: Socio-economics technical report of the ES.

2.5.1.4 The definitions of terms utilised throughout the socio-economics chapter to define industry activity are as follows.

- All industries: this industry definition includes all Standard Industrial Classification 2007 (SIC07) codes and can be thought of as the 'whole' economy.
- Impact industries: various permutations of impact industries are utilised, each defined in Volume 4, Annex 2.1: Socio-economics technical report of the ES. These impact industries should not be seen as representing only activity that currently contributes to the offshore wind sector. Instead, these impact industries should be seen as representative activities in industries associated with the construction, operation and maintenance, and decommissioning of offshore energy infrastructure (i.e. not limited to offshore wind).
- Offshore wind: this industry definition represents activity that currently contributes to the offshore wind sector. The best available data on employment and GVA in the offshore wind sector is used to define existing baseline conditions in the offshore wind sector itself. Employment data is based on the Offshore Wind Skills Intelligence Report (OWIC, 2022). GVA data is based on The Economic Value of Offshore Wind (ORE Catapult, 2017).

Receptors and indicators

2.5.1.5 The summary of baseline conditions aligns with the socio-economic and tourism impacts set out in **Table 2.30**, and have therefore covered the receptors set out below, along with associated indicators.

- Economy (employment and GVA):
  - total employment in all industries;
  - employment change in all industries;
  - total employment in impact industries;
  - employment change in impact industries;
  - estimated employment in offshore wind sector;

  - total GVA in all industries;
  - GVA change in all industries;
  - GVA in impact industries; and
  - GVA change in impact industries.
- Labour market:
  - economic activity;
  - unemployment; and
  - economically inactive individuals that want a job.
- Housing and local services:
  - population;
  - dwellings;
  - unoccupied dwellings; and
  - dwellings within the private rented sector.
- Tourism and recreation:
  - employment in tourism sector;
  - GVA in tourism sector;
  - overnight stays and day visits; and
  - key tourist and visitor attractions.

2.5.1.6 These indicators have been analysed on the basis of publicly available desktop sources as set out in **Table 2.10**.

Site-specific surveys

2.5.1.7 No site-specific surveys have been undertaken to inform the socio-economics EIA. This is due to the availability of existing publicly accessible data for the identified study areas. Consultation has been undertaken with stakeholders across the identified economic, social and tourism study areas. The results of this consultation are set out in **section 2.3**.

2.6 Baseline environment

2.6.1 Desk study

2.6.1.1 Information on socio-economics within the study area was collected through a detailed review of existing studies and datasets. These are summarised in **Table 2.10**.

2.6.1.2 This section summarises relevant baseline data for the economic, social and tourism study areas under the following headings.

- Employment (economic).
- GVA (economic).

- Labour market (economic).
- Housing, accommodation and population (social).
- Tourism.

2.6.2 Economy

Employment and GVA

2.6.2.1 Employment is a measure obtained by adding the number of working owners (not paid via Pay as You Earn) to the number of full and part time employees. This is a measure of persons and not measured in full time equivalents (FTE).

2.6.2.2 GVA is the value generated by any unit engaged in the production of goods and services.

All industries

Onshore study area

2.6.2.3 All industries employment in the onshore study area in 2022 was approximately 2.6 million (ONS, 2023a). Between 2015 and 2022, employed persons in the onshore study area increased by 285,000 (ONS, 2023a). This equates to an annual average growth of 1.7%.

2.6.2.4 All industries GVA in the onshore study area in 2021 was £141 bn (ONS, 2023b). Between 2015 to 2021, GVA increased by £25 bn (ONS, 2023b). This equates to an average annual growth of 3.3%.

North Wales offshore study area

2.6.2.5 All industries employment in North Wales in 2022 was approximately 310,000 (ONS, 2023a). Between 2015 and 2022, the number of employed persons in North Wales increased by 3,000 (ONS, 2023a). This equates to an average annual growth of 0.1%.

2.6.2.6 All industries GVA in North Wales in 2021 was approximately £15.6 bn (ONS, 2023b). Between 2015 and 2021, GVA in North Wales increased by £2.5 bn (ONS, 2023b). This equates to an average annual growth of 2.9%.

North West England offshore study area

2.6.2.7 All industries employment in North West England in 2022 was approximately 3.6 million (ONS, 2023a). Between 2015 and 2022, the number of employed persons in North West England increased by 310,000 (ONS, 2023a). This equates to an average annual growth of 1.3%.

2.6.2.8 All industries GVA in North West England in 2021 was approximately £196 bn (ONS, 2023c). Between 2015 and 2021, GVA in North West England increased by £33 bn (ONS, 2023c). This equates to an average annual growth of 3.1%.

2.6.2.9 The figures for the onshore, North Wales, North West England study areas, and in GB/UK are presented in **Table 2.11**.

Table 2.11: All industries economy indicators (employment and GVA) – count and change

Source: Business Register and Employment Survey (BRES) (ONS, 2023a), Regional gross value added (balanced) by industry: local authorities (ONS, 2023b), and Regional gross value added (balanced) by industry: all ITL regions (ONS, 2023c).

Study area	Total employment (2022)	Employment change (2015 to 2022)	Total GVA (£m, 2021)	GVA change (£m, 2015 to 2021)
Onshore study area	2,630,000	+285,000	£141,000	+ £25,000
North Wales	310,000	+3,000	£15,600	+£2,500
North West England	3,600,000	+310,000	£196,000	+£32,900
GB/UK	31,900,000	2,100,000	£2,040,500	+£327,100

Construction impact industries

Onshore study area

2.6.2.10 Construction impact industries employment in the onshore study area in 2022 was approximately 41,000 (ONS, 2023a). Between 2015 to 2022, employed persons in construction impact industries in the onshore study area decreased by approximately 6,000 (ONS, 2023a). This equates to an average annual decrease of 1.9%.

2.6.2.11 Construction impact industries GVA in the onshore study area in 2021 was approximately £22 billion (ONS, 2023b). Between 2015 to 2021, GVA in construction impact industries in the onshore study area increased by £3.4 billion (ONS, 2023b). This equates to an average annual growth of 2.8%.

North Wales offshore study area

2.6.2.12 Construction impact industries employment in North Wales in 2022 was approximately 7,000 (ONS, 2023a). Between 2015 and 2022, the number of employed persons in construction impact industries in North Wales decreased by approximately 2,000 (ONS, 2023a). This equates to an average annual decrease of 3.5%.

2.6.2.13 Construction impact industries GVA in North Wales in 2021 was approximately £3.0 bn (ONS, 2023b). Between 2015 and 2021, GVA in construction impact industries in North Wales increased by £1.1 bn (ONS, 2023b). This equates to an average annual growth of 5.5%.

North West England offshore study area

2.6.2.14 Construction impact industries employment in North West England in 2022 was approximately 65,000 (ONS, 2023a). Between 2015 and 2022, the number of employed persons in construction impact industries in North West England decreased by approximately 4,000 (ONS, 2023a). This equates to an average annual decrease of 0.8%.

2.6.2.15 Construction impact industries GVA in North West England in 2021 was approximately £30 bn (ONS, 2023c). Between 2015 and 2021, GVA in construction impact industries in North West England increased by £3.9 bn (ONS, 2023c). This equates to an average annual growth of 2.4%.

2.6.2.16 The employment and GVA figures for the construction impact industries in the onshore, North Wales, North West England study areas, and in GB/UK are presented in **Table 2.12**.

Table 2.12: Construction impact industries economy indicators (employment and GVA) - count and change

Source: BRES (ONS, 2023a), Regional gross value added (balanced) by industry: local authorities (ONS, 2023b), Regional gross value added (balanced) by industry: all ITL regions (2023c).

Study area	Employment (2022)	Employment change (2015-2022)	GVA (£m, 2021)	GVA change (£m, 2015 to 2021)
Onshore study area	41,000	–6,000	£21,800	+£3,400
North Wales	7,000	–2,000	£4,200	+£1,100
North West England	65,000	–4,000	£30,100	+£3,900
GB/UK	594,000	–25,000	£308,000	+£32,700

Operation and maintenance impact industries

Onshore study area

2.6.2.17 Operation and maintenance impact industries employment in the onshore study area in 2022 was approximately 15,000 (ONS, 2023a). Between 2015 to 2022, employed persons in operation and maintenance impact industries in the onshore study area decreased by approximately 3,000 (ONS, 2023a). This equates to an average annual decrease of 2.6%.

2.6.2.18 Operation and maintenance impact industries GVA in the onshore study area in 2021 was approximately £13.1 billion (ONS, 2023b). Between 2015 to 2021, GVA in operation and maintenance impact industries in the onshore study area increased by £2.1 billion (ONS, 2023b). This equates to an average annual growth of 3.0%.

North Wales offshore study area

2.6.2.19 Operation and maintenance impact industries employment in North Wales in 2022 was approximately 2,500 (ONS, 2023a). Between 2015 and 2022, the number of employed persons in operation and maintenance impact industries in North Wales decreased by approximately 1,500 (ONS, 2023a). This equates to an average annual decrease of 6.5%.

2.6.2.20 Operation and maintenance impact industries GVA in North Wales in 2021 was approximately £1.9 bn (ONS, 2023b). Between 2015 and 2021, GVA in operation and maintenance impact industries in North Wales increased by £340 m (ONS, 2023b). This equates to an average annual growth of 3.3%.

North West England offshore study area

2.6.2.21 Operation and maintenance impact industries employment in North West England in 2022 was approximately 30,000 (ONS, 2023a). Between 2015 and 2022, the number of employed persons in operation and maintenance impact industries in North West England decreased by approximately 2,000 (ONS, 2023a). This equates to an average annual decrease of 0.9%.

2.6.2.22 Operation and maintenance impact industries GVA in North West England in 2021 was approximately £17 bn (ONS, 2023c). Between 2015 and 2021, GVA in operation and maintenance impact industries in North West England increased by £2.8 bn (ONS, 2023c). This equates to an average annual growth of 2.9%.

2.6.2.23 The employment and GVA figures for the operation and maintenance impact industry in the Onshore, North Wales and North West England study areas, and in GB/UK are presented in **Table 2.13**.

Table 2.13: Operation and maintenance impact industries economy indicators (employment and GVA) - count and change

Source: BRES (ONS, 2023a), Regional gross value added (balanced) by industry: local authorities (ONS, 2023b), Regional gross value added (balanced) by industry: all ITL regions (2023c).

Study area	Employment (2022)	Employment change (2015-2022)	GVA (£m, 2021)	GVA change (£m, 2015 to 2021)
Onshore study area	15,000	–3,000	£13,100	+£2,100
North Wales	2,500	–1,500	£1,900	+£300
North West England	30,000	+2,000	£17,500	+£2,800
GB/UK	274,000	–4,000	£202,000	+£22,000

Decommissioning impact industries

Onshore study area

2.6.2.24 Decommissioning impact industries employment in the onshore study area in 2022 was approximately 20,000 (ONS, 2023a). Between 2015 to 2022, employed persons in decommissioning impact industries in the onshore study area decreased by approximately 7,000 (ONS, 2023a). This equates to an average annual decrease of 4.2%.

2.6.2.25 Decommissioning impact industries GVA in the onshore study area in 2021 was approximately £15.7 billion (ONS, 2023b). Between 2015 to 2021, GVA in decommissioning impact industries in the onshore study area increased by £2.8 billion (ONS, 2023b). This equates to an average annual growth of 3.3%.

North Wales offshore study area

2.6.2.26 Decommissioning impact industries employment in North Wales in 2022 was approximately 3,000 (ONS, 2023a). Between 2015 and 2022, the number of employed persons in decommissioning impact industries in North Wales

decreased by approximately 2,000 (ONS, 2023a). This equates to an average annual decrease of 7.0%.

2.6.2.27 Decommissioning impact industries GVA in North Wales in 2021 was approximately £2.2 bn (ONS, 2023b). Between 2015 and 2021, GVA in decommissioning impact industries in North Wales increased by £420m (ONS, 2023b). This equates to an average annual growth of 3.7%.

North West England offshore study area

2.6.2.28 Decommissioning impact industries employment in North West England in 2022 was approximately 37,000 (ONS, 2023a). Between 2015 and 2022, the number of employed persons in decommissioning impact industries in North West England decreased by approximately 4,000 (ONS, 2023a). This equates to an average annual decrease of 1.5%.

2.6.2.29 Decommissioning impact industries GVA in North West England in 2021 was approximately £20 bn (ONS, 2023c). Between 2015 and 2021, GVA in decommissioning impact industries in North West England increased by £3.3 bn (ONS, 2023c). This equates to an average annual growth of 3.0%.

2.6.2.30 The employment and GVA figures for the decommissioning impact industries in the Onshore, North Wales, North West England study areas, and in GB/UK are presented in **Table 2.14**.

Table 2.14: Decommissioning impact industries economy indicators (employment and GVA) - count and change

Source: BRES (ONS, 2023a), Regional gross value added (balanced) by industry: local authorities (ONS, 2023b), Regional gross value added (balanced) by industry: all ITL regions (2023c).

Study area	Employment (2022)	Employment change (2015-2022)	GVA (£m, 2021)	GVA change (£m, 2015 to 2021)
Onshore study area	20,000	–7,000	£15,700	+£2,800
North Wales	3,000	–2,000	£2,200	+£420
North West England	37,000	–4,000	£20,000	+£3,300
GB/UK	306,000	-14,000	£226,600	+£25,800

Offshore wind

2.6.2.31 Whilst there is no agreed Standard Industrial Classification 2007 (SIC07) based sector definition for offshore wind, the OWIC provides an estimate of direct and indirect employment in the sector (OWIC, 2023). This was established through collecting detailed workforce data via an industry survey of the offshore wind sector, with robust extrapolation formulae, ratios, and government multipliers then used to estimate the total current workforce.

- Direct employment: refers to an FTE that is directly involved in the manufacturing, development, construction, or operation and maintenance of an offshore windfarm. This includes engineering, procurement, construction, and installation of any of the wind farm's finalised kit including wind turbines, foundations, substations and cables. OWIC

estimates there were 17,400 jobs directly supported by the offshore wind sector in the UK as of the start of 2023. Given the continuing growth of the offshore wind sector in terms of development since 2020, the current number of jobs in the sector is likely to be higher than the OWIC estimate.

- Indirect employment: refers to employment in industries that supply and support the core activities of offshore wind renewable energy deployment. Usually, these workers do not consider themselves as working in renewables; they produce steel, plastics, or other materials, or they provide financial and other services. These industries are not directly involved in renewable energy activities but produce intermediate inputs along the value chain of renewable energy technologies. OWIC's review of employment factors indicates the inclusion of indirect jobs typically increases overall employment numbers by anywhere from 50% to 100%. OWIC adopted a ratio of 83% for their analysis. OWIC estimates there were 14,900 jobs indirectly supported by the offshore wind sector as at the start of 2023.
- Total: OWIC estimates there were 32,300 jobs directly and indirectly supported by the offshore wind sector as of December 2020.

2.6.2.32 OWIC also provide a regional breakdown of the industry survey results, which shows extrapolated results from the survey results to the whole sector. The OWIC indicate 2,750 jobs based in North West England (10.5% of the UK total), and 118 jobs in Wales (0.5% of the UK total). No data is provided for North Wales and the onshore study area.

2.6.2.33 A summary of OWIC's offshore wind employment estimates is provided in **Table 2.15**.

Table 2.15: Offshore wind sector employment estimates

Source: OWIC (2021)

Note: some figures have been rounded and may not sum

Geography	Survey based employment	Estimated offshore wind sector employment
North Wales	-	–
North West England	868	3,387
UK	8,268	32,257

2.6.3 Labour market

Economic activity

2.6.3.1 Economic activity is a measure of those in employment or self-employment and those who are unemployed (actively seeking work). Economic inactivity is defined as people not in employment who have not sought work within the last four weeks and/or are unable to start work within the next two weeks. The ONS also report the rate of economically inactive individuals who want a job.

Onshore study area

2.6.3.2 The economic activity rate in the onshore study area in 2022 was 76% (ONS, 2023d). The number of economically active individuals increased by an annual average of 0.4% between 2015 and 2022 (ONS, 2023d).

2.6.3.3 The proportion of those who were economically inactive who wanted a job in 2022 was 18% (ONS, 2023d). The number of economically inactive individuals who want a job decreased at an annual rate of 5.2% between 2015 and 2022 (ONS, 2023d).

North Wales offshore study area

2.6.3.4 The economic activity rate in North Wales in 2022 was 77% (ONS 2023d). The number of economically active individuals increased by an annual average of 0.3% between 2015 and 2022 (ONS, 2023d).

2.6.3.5 The share of those who were economically inactive who wanted a job was 21% (ONS, 2022d). The number of economically inactive individuals who wanted a job decreased by an annual average of 2.7% between 2015 and 2022 (ONS, 2023d).

North West England offshore study area

2.6.3.6 The economic activity rate in North West England in 2022 was 77% (ONS 2023d). The number of economically active individuals increased by an annual average of 0.3% between 2015 and 2022 (ONS, 2023d).

2.6.3.7 The share of those who were economically inactive who wanted a job was 18% (ONS, 2023d). The number of economically inactive individuals who wanted a job decreased by 4.7% between 2015 and 2022 (ONS, 2023d).

2.6.3.8 Economic activity figures for the Onshore, North Wales and North West England study areas are presented in **Table 2.16**.

Table 2.16: Economic activity rate and economically inactive individuals that want a job

Source: Annual Population Survey (ONS, 2023d)

Study area	Economically active individuals (2022)	Economic activity rate (2022)	Economically inactive individuals that want a job (2022)	Share of economically inactive individuals that want a job (2022)
Onshore study area	2,474,000	76%	145,000	18.2%
North Wales	319,000	77%	19,000	21%
North West England	3,450,000	77%	187,000	18%
UK	32,510,000	78%	1,620,000	18%

Unemployment

2.6.3.9 The ONS Annual Population Survey uses the International Labour Organization's (ILO) definition of 'unemployment' as follows: individuals without a job who are able to start work in the two weeks following their participation in the survey, and who had either looked for worked in the four weeks prior to survey or were waiting to start a job they had already obtained. The unemployment rate is therefore the share of economically active individuals over the age of 16 years who are unemployed according to the ILO definition.

Onshore study area

2.6.3.10 The number of unemployed individuals in the onshore study area in 2022 was 107,300 (ONS, 2023e). The proportion of the total workforce that were unemployed was 4.2% in 2022 (ONS, 2023e). The number of unemployed individuals decreased by an annual average rate of 4.1% between 2015 and 2022 (ONS, 2023e).

North Wales offshore study area

2.6.3.11 The number of unemployed individuals in the North Wales offshore study area in 2022 was 9,000 (ONS, 2023e). The share of the total workforce that were unemployed was 2.7% in 2022 (ONS 2023e). The number of unemployed individuals decreased by an annual average of 7.1% between 2015 to 2022 (ONS, 2023e).

North West England offshore study area

2.6.3.12 The number of unemployed individuals in the North West England offshore study area in 2022 was 146,000 (ONS, 2023c). The share of the total workforce that were unemployed was 4.1% in 2022 (ONS, 2023e). The number of unemployed individuals decreased by an annual average of 3.4% between 2015 to 2022 (ONS, 2023e).

2.6.3.13 Unemployment figures for the onshore, North Wales and North West England study areas are presented in **Table 2.17**.

Table 2.17: Unemployed individuals and unemployed rate

Source: Annual Population Survey (ONS, 2022d) and Annual Population Survey: model-based estimates of unemployment (ONS,2023e).

Study area	Unemployed Individuals (2022)	Unemployment Rate (2022)	Change in unemployed individuals – per annum (2015-2022)
Onshore	107,300	4.2%	–4.1%
North Wales	9,000	2.7%	–7.1%
North West England	146,000	4.1%	–3.4%
UK	1,200,000	3.5%	–5.1%

2.6.4 Blackpool Airport and Blackpool Airport Enterprise Zone

Blackpool Airport

2.6.4.1 The following establishes an economic narrative related to aviation activities at airports to inform the assessment of potential impacts on economic impacts with aviation associated with the Transmission Assets.

The economic role of UK airports

2.6.4.2 In the UK, airports are an important part of the national transport infrastructure, complementing road, rail, and maritime networks. Airports facilitate the efficient movement of people and goods across regions. Airports also play a role in supporting the transport and economic policies by enabling regional development and linking remote areas with major urban centres. The integration of airports into the national infrastructure helps to ensure the UK remains connected, both internally and internationally, supporting the overall functioning of the economy.

Airport typologies

2.6.4.3 The activity that takes place at UK airports can vary.

2.6.4.4 Hubs are the largest and most significant airports, not only nationally, but internationally. They are characterised by their extensive range of international and domestic flight connections, handling a high volume of passenger and cargo traffic. Heathrow is generally regarded as the UK's only hub airport.

2.6.4.5 An international airport provides a range of scheduled commercial passenger services, including both long-haul and short-haul flights, as well as chartered domestic services. These airports serve as gateways connecting the UK to various international destinations, while also facilitating domestic travel across the country.

2.6.4.6 The definition of a regional airport can vary, but this assessment adopts a broad definition of regional airports as those which do not offer scheduled commercial passenger services. Regional airports typically provide a range of services, enabling businesses and passengers to reach national and sometimes international destinations.

Blackpool airport operations

2.6.4.7 In 2014, Blackpool Airport experienced a significant transition. The airport's terminal and Air Traffic Control operations ceased in October 2014, marking the end of scheduled commercial flights to destinations such as Dublin and the Isle of Man. Shortly thereafter, in November 2014, Squires Gate Airport Operations Ltd was established, leading to the reopening of the airport in December 2014, though it resumed operations primarily for non-commercial purposes.

2.6.4.8 Blackpool Airport's current operations are focused on a range of general aviation services: chartered and executive flights, helicopter services, air ambulance, maintenance, and training.

Chartered and executive flights

2.6.4.9 Hangar 3 Blackpool Ltd operates chartered and executive flights and manages a private aircraft hangar. This facility includes a flight briefing room and lounge amenities, catering to private and corporate aviation needs.

2.6.4.10 These activities generate revenue through fees for aircraft storage, management, and flight-related services. Executive aviation typically serves a niche market and involves fewer passengers and flights compared to larger commercial airports.

Helicopter services

2.6.4.11 NHV Helicopters runs operations from the airport, providing helicopter services to offshore oil and gas facilities in the Irish Sea. This includes the use of two Agusta Westland helicopters from a dedicated helicopter terminal.

2.6.4.12 The economic contribution of helicopter services includes employment for operational and support staff, revenue from flight services, and indirect benefits associated with maintaining offshore energy operations.

Air Ambulance

2.6.4.13 The North West Air Ambulance service operates from Blackpool Airport. This helicopter, along with others based at Manchester Barton, serves emergency medical transport needs across the region.

2.6.4.14 The economic contribution includes operational costs and support for emergency medical services. The primary value of this service is in its role in emergency response.

Maintenance

2.6.4.15 UK Aviation Services, formerly J-Max Air Services, specialises in the maintenance and repair of various types of helicopters. The maintenance services provided ensure the operational readiness and safety of corporate and commercially owned helicopters.

2.6.4.16 The economic impact of maintenance services includes revenue from repair contracts, employment for maintenance personnel, and support for helicopter operational readiness.

Training

2.6.4.17 Blackpool Airport hosts several companies dedicated to aviation training. These facilities offer a range of services, including flying lessons and pilot training. The training services are designed to support both novice and experienced aviators, providing instruction on flying techniques, navigation, and other essential skills required for safe and efficient flying.

2.6.4.18 Blackpool Airport's current operations are focused on a range of general aviation services: chartered and executive flights, helicopter services, air ambulance, maintenance, and training. **Table 2.18** sets out aircraft movements to and from Blackpool Airport in 2023, as recorded by CAA data.

2.6.4.19 Around 14% of aircraft movements at Blackpool Airport in 2023 were categorised as commercial, with the remaining 86% categorised as non-commercial. Whilst CAA categorises aircraft movements as commercial and non-commercial. Nevertheless, every aircraft movement category results in some level of economic activity (direct, indirect, or induced), whether or not that is the primary purpose of the movement.

2.6.4.20 For the purposes of this assessment, however, it is assumed that all 'commercial' categories, plus other flights, private flights, and business aviation represent the aircraft movements which can reasonably be characterised as having a primarily economic purpose ('economic' aircraft movements). Conversely, the test and training, aero club, official, and military categories are assumed to represent aircraft movements which take place regardless of economic factors ('non-economic' aircraft movements).

Table 2.18: Blackpool Airport aircraft movements, 2023

Source: HJA analysis of CAA data

	Movement type	Total	Share of total Blackpool Airport movements	Share of North West England movements (in category)
Commercial	Air transport	4,030	10%	2%
	Air taxi	1,098	3%	54%
	Positioning flights	323	1%	8%
	Local movements	-	0%	0%
Non-commercial	Test and training	1,088	3%	76%
	Other flights	-	0%	0%
	Aero club	23,092	59%	70%
	Private flights	8,286	21%	71%
	Official	1	0%	20%
	Military	256	1%	0%
	Business aviation	744	2%	8%
Total		**38,918**		**14%**

2.6.4.21 On this basis, the majority (63%) of aircraft movements at Blackpool Airport in 2023 were non-economic – the substantial share being aero club activities. The remaining aircraft movements (37%) were economic, the substantial majority of which relate to chartered and executive flights and offshore energy helicopter movements.

2.6.4.22 Flightradar24 data indicates that NHV Helicopters account for around 2,000 movements per annum[7] – around 5% of aircraft movements at Blackpool Airport based on 2023 data. It is therefore assumed the remaining economic aircraft movements at Blackpool Airport relate to chartered and executive flights – around 32% of aircraft movements at Blackpool Airport.

2.6.4.23 On this basis, Blackpool Airport accounted for around 6% of economic aircraft movements in North West England in 2023, and around 73% of non-economic aircraft movements[8].

Overall

2.6.4.24 Blackpool Airport's various operations – chartered and executive flights, helicopter services, air ambulance, maintenance, and training – each contribute to specific aspects of aviation and local services. However, in the broader context of the North West England economy, the overall economic impact of these activities is limited. Whilst each activity supports local employment and services to varying degrees, their collective influence on the North West England economy is very modest, especially compared to larger airports such as Manchester and Liverpool John Lennon.

Blackpool Airport Enterprise Zone

2.6.4.25 In the UK context, Enterprise Zones are designated areas that provide a range of benefits to businesses, including tax incentives, simplified planning regulations, and infrastructure improvements. The primary aim of Enterprise Zones is to stimulate economic growth and attract investment by offering financial and operational advantages to businesses located within these zones. These zones often target specific industries or sectors, fostering economic development in targeted areas. The proximity of Enterprise Zones to airports can influence business operations, particularly for companies involved in logistics, transport, and other aviation-dependent sectors.

2.6.4.26 Blackpool Airport was awarded Enterprise Zone status in 2016 until 2041. The Enterprise Zone is a 144-hectare site that includes Blackpool Airport and Blackpool Business Park and surrounding land up to the border of Common Edge Road.

2.6.4.27 The Enterprise Zone straddles the boundary between the Borough of Fylde (55%) and Blackpool (45%).

[7] Flightradar24 data is available for the previous 365 days. As such, NHV Helicopter flight records for flights NHZ22 and NHZ34 for the period September 2023–September 2024 have been analysed to provide an indication of NHV Helicopter movements at Blackpool Airport during a one-year span.

[8] CAA data is limited to recording data for 60 airports in the UK. The North West England airports reported within the CAA data are Manchester Airport, Liverpool John Lennon Airport, and Blackpool Airport. As such, the reported CAA data does not include aircraft movements taking place at smaller aerodromes in North West England e.g. Warton, Walney, Carlisle.

2.6.4.28 **Table 2.19** sets out the occupier profile of Blackpool Airport Enterprise Zone[9] in 2024, as recorded by Companies House (2024) data.

Table 2.19: Blackpool Airport Enterprise Zone business profile

Source: HJA analysis of Companies House data

Sector	Businesses	Share
AB: Primary Industries	-	0%
C: Manufacturing	20	5%
D: Energy	1	0%
E: Water and waste	-	0%
F: Construction	52	13%
G (part): Wholesale trade	29	7%
G (part): Retail trade	27	7%
H: Transportation and storage	8	2%
I: Accommodation and food services	11	3%
J: Information and communication	22	5%
K: Financial and insurance activities	29	7%
L: Real estate activities	45	11%
M: Professional, scientific and technical activities	57	14%
N: Administrative and support service activities	41	10%
O: Public administration and defence	-	0%
P: Education	5	1%
Q: Human health and social work activities	14	3%
R: Arts, entertainment and recreation	3	1%
S: Other service activities	23	6%
T: Activities of households as employers	3	1%
U: Activities of extraterritorial organisations and bodies	14	3%
Total	**404**	

2.6.4.29 The Enterprise Zone is home to the Lancashire Energy HQ, a new purpose-built facility to support training and skills development in the energy sector. Developed by Blackpool and the Fylde College and funded by the Lancashire Enterprise Partnership, Lancashire Energy HQ supports training for engineers and technicians to gain skills in renewable energy, as well as traditional nuclear, oil and gas.

[9] The following postcodes have been used to search Companies House data for Blackpool Airport Enterprise Zone occupiers: FY4 2DP, FY4 2FB, FY4 2RL, FY4 2RP, FY4 3RL, FY4 3RN, FY4 3RS.

2.6.4.30 **Table 2.20** sets out the employment profile of Blackpool Airport Enterprise Zone[10] in 2024, as recorded by ONS (2024) data.

Table 2.20: Blackpool Airport Enterprise Zone employment profile

Source: HJA analysis of BRES data.

Note: some figures may not sum due to rounding.

Sector	Emp.	Share of EZ emp.	Share of North West England emp.
AB: Primary Industries	-	0%	0%
C: Manufacturing	815	16%	4%
D: Energy	-	0%	0%
E: Water and waste	30	1%	0%
F: Construction	205	4%	0%
G (part): Wholesale trade	530	10%	1%
G (part): Retail trade	620	12%	0%
H: Transportation and storage	160	3%	1%
I: Accommodation and food services	330	6%	0%
J: Information and communication	85	2%	1%
K: Financial and insurance activities	70	1%	0%
L: Real estate activities	50	1%	0%
M: Professional, scientific and technical activities	650	12%	1%
N: Administrative and support service activities	355	7%	1%
O: Public administration and defence	50	1%	0%
P: Education	170	3%	0%
Q: Human health and social work activities	790	15%	1%
R: Arts, entertainment and recreation	125	2%	0%
S: Other service activities	175	3%	1%
T : Activities of households as employers	-	0%	0%
U : Activities of extraterritorial organisations and bodies	-	0%	0%
Total	**5,210**		**0.1%**

2.6.4.31 Overall, the Enterprise Zone accounts for around 0.1% of employment in North West England.

[10] The following Lower Super Output Areas have been used to search ONS data for Blackpool Airport Enterprise Zone employment: E01012730 (Blackpool 018C); E01012731 (Blackpool 018D); and E01025024 (Fylde 004D).

Airport interdependencies – baseline conditions

2.6.4.32 The profile of businesses occupying units within the Enterprise Zone is set out at **Table 2.19**, and the employment profile of the Enterprise Zone is set out at **Table 2.20**. Considering the activities identified at Blackpool Airport – chartered and executive flights, helicopter services, air ambulance operations, maintenance, and training – the SIC07 sectors that are likely to have the greatest interdependencies with the airport operations are set out below (in alphabetical order).

C: Manufacturing

2.6.4.33 This sector is relevant in the context of aircraft maintenance and repair services. These activities involve manufacturing processes, including the assembly and repair of aircraft components.

2.6.4.34 It is estimated that approximately 5% of Enterprise Zone businesses are directly active in manufacturing, accounting for around 815 jobs (16% of Enterprise Zone employment). It is estimated a small proportion of these business (equating to ~0.7% of all businesses) are active in the assembly and repair of aircraft components, however the precise number is uncertain.

2.6.4.35 In the event of alterations to key flight activity in poor weather conditions of low cloud or visibility (for a period of a few hours to a day in duration), manufacturing businesses are assumed to experience no discernible change to their own operations.

D: Electricity, gas, steam, and air conditioning supply i.e. energy

2.6.4.36 This sector represents energy production and distribution activities, including those related to offshore wind farms and other energy infrastructure. Based on Companies House data, it is estimated there are no Enterprise Zone businesses directly active in the offshore energy sector.

2.6.4.37 Whilst there are no Companies House registered businesses located within the Enterprise Zone, the Lancashire Energy HQ is a flagship tenant. This facility might also straddle section P: Education. This occupier represents around 0.2% of all businesses based at the Enterprise Zone.

2.6.4.38 In the event of alterations to key flight activity in poor weather conditions of low cloud or visibility (for a period of a few hours to a day in duration), it is assumed the Lancashire Energy HQ would experience minimal discernible change to their own operations.

H: Transportation and storage

2.6.4.39 This sector has the potential to directly interact with the airport's core activities. The operation of an airport is fundamentally tied to transportation services, and this section would be expected to include all logistical and support activities related to aviation.

2.6.4.40 It is estimated that approximately 2% of Enterprise Zone businesses are directly active in transportation and storage, accounting for around 160 jobs (3% of Enterprise Zone employment). It is estimated a proportion of these

business (equating to ~0.5% of all businesses) are active in logistical and support activities related to aviation, however the precise number is uncertain.

2.6.4.41 In the event of alterations to key flight activity in poor weather conditions of low cloud or visibility (for a period of a few hours to a day in duration), transportation and storage businesses are assumed to experience a substantial change to their own operations.

M: Professional, scientific, and technical activities

2.6.4.42 This sector covers the professional and technical services associated with aviation maintenance operations at the airport. Activities such as aircraft engineering and technical consulting are assumed to fall within this section.

2.6.4.43 It is estimated that approximately 14% of Enterprise Zone businesses are directly active in professional, scientific, and technical activities, accounting for around 650 jobs (12% of Enterprise Zone employment). It is estimated a very small proportion of these business (equating to ~0.2% of all businesses) are active in engineering and technical consulting activities related to aviation, however the precise number is uncertain.

2.6.4.44 In the event of alterations to key flight activity in poor weather conditions of low cloud or visibility (for a period of a few hours to a day in duration), professional, scientific, and technical activities businesses are assumed to experience no discernible change to their own operations.

N: Administrative and support service activities

2.6.4.45 This sector includes services that support airport operations, such as security, cleaning, and management of rental and leasing services related to aircraft and hangar space. The administrative functions tied to the airport's executive flight services and overall operational support are also assumed to fall within this section.

2.6.4.46 It is estimated that approximately 10% of Enterprise Zone businesses are directly active in administrative and support service activities, accounting for around 355 jobs (7% of Enterprise Zone employment). It is estimated that none of these business are active in administrative functions tied to the airport's executive flight services and overall operational support, however the precise number is uncertain.

Overall

2.6.4.47 It is estimated there are businesses located within the Enterprise Zone whose activities relate to the aviation industry, and therefore have a degree of interdependency with the airport’s operations.

2.6.4.48 With respect to SIC07 sections which are likely to have the strongest interdependences, it is estimated that around 31% of businesses within the Enterprise Zone are active in these sections, accounting for around 1,980 jobs (38% of Enterprise Zone employment). This represents around 0.1% of employment in North West England.

2.6.4.49 However, the proportion of these businesses with direct linkages to the airport's operations is estimated to be much lower – closer to 1.7% of all Enterprise Zone businesses. This proportion represents single figures of businesses i.e. fewer than 10. Furthermore, the extent to which these businesses would experience a change in their operations in the event of alterations to key flight activity in poor weather conditions of low cloud or visibility (for a period of a few hours to a day in duration) varies. Some would experience no discernible change, some may experience a modest change, and some may experience a substantial change.

2.6.4.50 Overall, it is estimated that a very small number of businesses located within the Enterprise Zone itself would experience a modest or substantial change.

Airport interdependencies – Masterplan ambitions

2.6.4.51 Large parts of the Enterprise Zone are not included within the 2020 Masterplan and are therefore anticipated to continue to operate in a 'business as usual' manner.

2.6.4.52 It is anticipated that some temporal overlap is likely between the construction of the Transmission Assets and delivery of individual development proposals which form part of plans under Phases 1 and 2 (as presented in the 2018 Masterplan).

2.6.4.53 During the lifetime of the Masterplan since 2018, it is evident that both the design and phasing of the current Masterplan are adaptable. The delivery of Phase 1 is not yet complete, having originally been set for delivery by 2023. Similarly, the design of the current Masterplan has changed significantly since the 2018 original, with a substantial reduction in the development footprint.

2.6.4.54 A key part of the current Masterplan is the development of Silicon Sands. The primary offer of Silicon Sands is access to internet connectivity, renewable power supplies, and large site availability. This offer is expected to attract businesses active in knowledge-based sectors such as data centres, and sectors reliant on large scale data processing such as Artificial Intelligence, telehealth, advanced manufacturing and gaming.

2.6.4.55 The independencies between Blackpool Airport's operations and occupiers at Silicon Sands are assumed to be negligible. It is likely that a majority of occupiers at Silicon Sands will locate at the Enterprise Zone for reasons other that its proximity to the airport – there is a much greater likelihood of their choice being driven by access to internet connectivity, renewable power supplies, and large site availability.

2.6.5 Social

Population

Onshore study area

2.6.5.1 The population of the onshore study area in 2021 was approximately 5.3 million (ONS, 2023f). The population increased by 139,000 between 2015 and 2021, equal to an annual average rate of 0.6% (ONS, 2023f).

North Wales offshore study area

2.6.5.2 The population of the North Wales study area in 2021 was approximately 688,000 (ONS, 2023f). This decreased by approximately 6,000 over the period 2015 to 2021, at an annual average rate of -0.2%.

North West England offshore study area

2.6.5.3 The population of the North West England study area in 2021 was approximately 7.4 million (ONS, 2023f). This increased by approximately 247,000 over the period 2015 to 2021, at an annual average rate of 0.6%.

2.6.5.4 Population figures for the onshore, North Wales Offshore and North West England offshore study areas are presented in **Table 2.21**.

Table 2.21 Total population and population change

Source: analysis of Population Estimates (ONS, 2023f).

Study area	Total population (2021)	Total population change (2015-2021)	Change in population – per annum (2015-2021)
Onshore study area	5,318,000	+184,000	+0.6%
North Wales	688,000	-6,000	-0.2%
North West England	7,420,000	+247,000	+0.6%
UK	67,026,000	+1,916,000	+0.6%

Total dwellings

Onshore study area

2.6.5.5 In 2021, there were 2.4 million dwellings in the onshore study area (ONS, 2023g). This had increased by approximately 115,000 between 2015 and 2021, equal to an annual average rate of 0.8% (ONS,2023g).

North Wales offshore study area

2.6.5.6 Statistics Wales provides data on dwelling stock estimates by local authority and tenure in Wales. The dwelling stock estimates provide annual baseline information on the overall amount of housing stock at a Wales and local authority level. It is used as evidence for policy making by both central and

local government. The data is used by the Welsh Government, local authorities and other housing organisations to help monitor trends in the overall level of Welsh housing stock, as well as any changes in its tenure distribution over time. Dwelling stock estimates are also used by the private and third sectors to help develop a picture of demographic trends.

2.6.5.7 In 2022, North Wales had approximately 340,000 dwellings (Statistics Wales, 2023a). This increased by approximately 14,300 over the period 2015 to 2022, at an average annual rate of 0.6%.

North West England offshore study area

2.6.5.8 The Department for Levelling Up, Housing and Communities (DLUHC) (formerly Ministry of Housing, Communities and Local Government (MHCLG)) provides live tables on dwelling stock (including vacant).

2.6.5.9 In 2022, North West England had approximately 3.4 million dwellings (DLUHC, 2023a). This increased by approximately 188,000 over the period 2015 to 2022, at an average annual rate of 0.8%.

2.6.5.10 The figures for each social study area are presented in **Table 2.22**.

Table 2.22 Total dwellings

Source: Subnational estimates of dwellings by tenure, England (ONS, 2023g), Dwelling stock estimates by local authority and tenure (Statistics Wales, 2023a) and Table 109 Dwelling stock: by tenure and region (DLUHC, 2023a).

Study area	Total dwellings 2021/22	Total dwellings change (2015 to 2021/22)	Average annual dwellings change (2015 to 2021/22)
Onshore study area	2,375,200	+115,400	+0.8%
North Wales	340,000	+14,300	+0.6%
North West England	3,390,000	+188,000	+0.8%
England	25,160,000	+1,593,000	+0.9%

Private rented sector

2.6.5.11 It is useful to understand the profile of the private rented accommodation sector the onshore study area and the UK as there is potential for this type of accommodation to be used by temporary workers relocating to participate in the construction phase activities.

Onshore study area

2.6.5.12 In 2021, there were 461,000 private rented dwellings in the onshore study area. This represents 19% of the total stock of dwellings in the study area. The number of privately rented dwellings had increased by 12,000 between 2015 and 2021, at an average annual rate of 0.4% (ONS, 2023g).

North Wales offshore study area

2.6.5.13 In 2022, 42,000 dwellings were recorded within the private rented sector within North Wales (Statistics Wales, 2023a). This represented 12% of the total dwelling stock.

North West England offshore study area

2.6.5.14 In 2022, 577,000 dwellings were recorded within the private rented sector within North West England (DLUHC, 2023a). This represented 17% of the total dwelling stock.

Table 2.23: Private rented dwellings

Source: Subnational estimates of dwellings by tenure, England (ONS, 2023a), Dwelling stock estimates by local authority and tenure (Stats Wales, 2023a) and Table 109 Dwelling stock: by tenure and region (DLUHC, 2023a).

Study area	Total dwellings in private rented sector	Private rented sector as share of total dwellings
Onshore (2021)	461,600	19.4%
North Wales (2022)	42,000	12.3%
North West England (2022)	577,000	17.0%
England (2022)	4,885,200	19.4%

Vacant dwellings

2.6.5.15 It is useful to understand an area's stock of unoccupied dwellings to gauge how easily it might accommodate workers relocating to participate in construction, operation and maintenance or decommissioning activities.

Onshore study area

2.6.5.16 In 2021, there were 73,000 unoccupied dwellings in the onshore study area (DLUHC, 2023b). Of these, there were 29,000 long term vacant dwellings, representing 1.2% of total dwellings in the study area.

North Wales offshore study area

2.6.5.17 Stats Wales provides data on chargeable empty and second homes, by local authority (number of dwellings) in Wales.

2.6.5.18 In the statistical period 2023 to 2024[11], North Wales has approximately 4,700 total chargeable[12] long term empty dwellings (Statistics Wales, 2023b). This represents 1.4% of the total dwelling stock.

[11] Council Tax dwellings data collection for 2023 to 2024 council tax financial year

[12] i.e. liable to pay Council Tax, whether at a discounted rate, a premium rate, or a standard rate.

North West England offshore study area

2.6.5.19 In 2022, the North West England offshore study area has approximately 41,000 long term vacant dwellings (DLUHC, 2023b). This represents 1.2% of the total dwelling stock.

2.6.5.20 Long term vacant dwellings figures in the Onshore, North Wales and North West England study areas are presented in **Table 2.24**.

Table 2.24 Unoccupied dwellings

Source: Table 615 Vacant dwellings by local authority district: England (DLUHC, 2023b), Chargeable empty and second homes, by local authority (number of dwellings) (Stats Wales, 2023b)

Study area	Total unoccupied dwellings	Unoccupied dwellings as share of total dwellings[13]	Unoccupied dwellings change[14]	Average annual vacant dwellings change[15]
Onshore study area (2022)	29,300	1.2%	+1,100	+0.6%
North Wales (2023)[16]	4,700	1.5%	–3,200	–19%
North West England (2022)	41,000	1.2%	+420	+0.1%
England (2022)	653,000	3%	+76,000	+1.4%

2.6.6 Tourism

Visitor economy

Onshore study area

2.6.6.1 The onshore study area falls within the North West England offshore study area. Key attractions in the onshore study area include the Imperial War Museum, Merseyside Maritime Museum, Lancaster City Museum, Liverpool Cathedral and Lancaster Castle. The area will also include the Eden Project Morecambe, once construciton is complete in 2026. The North West England offshore study area is assumed to equally apply to the onshore study area.

[13] North Wales unoccupied dwellings as share of total dwellings for 2023 to 2024, onshore study area and North West England unoccupied dwellings as share of total dwellings for 2022

[14] North Wales total unoccupied dwellings change 2017/2018 to 2023/2024, onshore study area and North West England total unoccupied dwellings change 2015 to 2022

[15] North Wales average annual unoccupied dwellings change 2017/2018 to 2023/2024, onshore study area and North West England average annual unoccupied dwellings change 2015 to 2022

[16] Due to the unavailability of Stats Wales data pre 2017, the change in unoccupied dwellings between 2017 and 2023 is presented.

Visual amenity

Onshore study area

2.6.6.2 Table 10.11 within Volume 3, Chapter 10: Landscape and visual resources of the ES identifies the list of agreed representative viewpoints assessed.

2.6.6.3 As per Volume 3, Chapter 10: Landscape and visual resources of the ES, the visual receptor categories considered in the LVIA that are relevant to tourism include:

- impacts experienced by people using local footpaths and bridleways within 1 km of the onshore substations;
- impacts experienced by people using the beach for leisure and recreation;
- impacts experienced by people using National Trails/long distance paths;
- impacts experienced by people using local footpaths and bridleways within 1 km of the corridor route;
- users of public open space; and
- impacts experienced by people using local footpaths and bridleways within 1 km of the corridor route.

Recreation

Onshore study area

2.6.6.4 North West England has a wide range of tourist attractions to offer, with a mixture of rural and urban landscapes. With access to the coast and the Cumbrian lands as well as large urban centres, such as Liverpool and Manchester, the region is able to draw a great number of visitors each year (England's Coast, 2022; English Heritage, 2022; The Beach Guide, 2022; Visit England, 2022b; Visit North West, 2022).

- Walking: the region is home to the famous national parks the Lake District and Peak District, as well as the Cumbria Coastal Way – a continuous walking route of 182 miles from the Solway Firth to Morecambe Bay. These landscapes provide an opportunity to enjoy natural sceneries and work to expose visitors to the heritage and cultural attractions that can be found within the regions' towns and cities.
- Cycling and mountain biking: popular outdoor activities, with trails that follow North West England's coastline, such as an 81-mile 'Bay Cycleway' going through Arnside and Silverdale, or up Cumbrian mountains, such as Penrith.
- Beaches and Seaside Towns: St Bees (Cumbria), Blackpool Beach, New Brighton (Wallasey) Beach, St Annes Pier, Southport Pier and South Pier (Blackpool) are popular destinations to visit.

- Golf: running 22 miles from Liverpool to Southport is England's Golf Coast. There are numerous courses across the area, including Royal Liverpool, Royal Birkdale and Royal Lytham and St Annes that have collectively hosted the Open Championships 32 times since 1897.
- Sports culture: popular Premier League football teams, famously Manchester United, Manchester City, Liverpool FC and Everton. Manchester is also home to the National Football Museum. Chester Racecourse is the oldest racecourse in England.
- Culture and arts: Liverpool, which was awarded as the City of Culture 2008, offers more museums and galleries than any other city outside of London, including Albert Dock, the Walker Art Gallery and Tate Gallery. The Lowry, located on the waterfront at Salford Quays, is popular tourist destination, hosting a variety of performing and visual arts.
- Music: located in the urban centres of the North West are multiple music venues, such as Blackpool Opera House, Echo Arena, Manchester Arena and Bridgewater Hall. These provide venues to host some of the biggest names in the music industry. Liverpool is also renowned for its legacy of The Beatles.

2.6.6.5 With regards to site-specific examples of recreational activities, Volume 3, Chapter 6: Land use and recreation of the ES lists the following categories.

- Beaches.
- Public Rights of Way.
- Open green space.
- Canals and River Trust waterways.
- Blackpool Airport.
- Caravan and holiday parks.
- Livery yards and stables.

2.6.7 Future baseline conditions

2.6.7.1 The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 requires that *'an outline of the likely evolution thereof without implementation of the development as far as natural changes from the baseline scenario can be assessed with reasonable effort on the basis of the availability of environmental information and scientific knowledge'* is included within the ES. This section provides an outline of the likely future baseline conditions in the absence of the Transmission Assets.

Economic

Employment and GVA

2.6.7.2 Analysis by the Office for Budget Responsibility sets out forecasts for the UK economy to 2028. This indicates that GDP recovered to near pre-pandemic

levels during 2022. GDP is expected to return to growth in 2024, and output is set to recover to its pre-pandemic levels in the middle of 2024 (OBR, 2023).

2.6.7.3 The NFER and Nuffield Foundation have published long-run employment prospects for the UK (NFER and Nuffield Foundation, 2022). The report is an update of the labour market assessments produced by the Institute for Employment Research and Cambridge Econometrics in their Working Futures series of reports – such assessments have been conducted on a regular basis for many years. They include detailed quantitative assessments about the future size and composition of the labour market, focussing in particular on the patterns of employment by industry and occupation.

2.6.7.4 The 'baseline' projections presented in the report are based on the macroeconomic, multi-sectoral model, developed by Cambridge Econometrics (one of the most well-regarded forecasting agencies in the UK). They include detailed sectoral employment forecasts and underlying labour market projections. These baseline projections take account of existing technological trends (assuming that innovation, automation, as well as energy and environmental transitions, continue at a similar pace in the future). They also include the impact of other labour market factors, including demographic changes (such as population growth, migration and the current demographic structure of the workforce), as well as the impact of Brexit and the pandemic. In addition, they take account of any changes to the policy landscape which have been made or announced. The model focuses on how the sectoral structure of the economy will change.

2.6.7.5 Within the UK economy, overall employment and GVA is forecast to grow. Employment in manufacturing is forecast to decline, whereas GVA in manufacturing is forecast to increase, which points to increased productivity as the driver of growth in manufacturing. Employment and GVA in construction is forecast to see strong growth.

2.6.7.6 Research by OWIC (2023) estimates the offshore wind sector could directly and indirectly support almost 104,401 jobs by 2030 (up from 32,257 in 2023).This is likely to involve some transition from declining energy industries such as offshore oil and gas. The Institute for Public Policy Research (IPPR) suggests that 68% of jobs in oil and gas sectors have skills that are at least partially transferable to low-carbon industries (IPPR, 2020). However, the IPPR also found that many fewer jobs (28%) have 'good' skills overlap with low carbon industries. There is therefore a need for 'upskilling' in order to successful transition workers from carbon intensive to low carbon sectors.

Labour market

2.6.7.7 In the UK Government monthly comparison of independent economic forecasts, the average unemployment rate is forecast at 4.6% for the UK in 2024 (HM Treasury, 2023). In the context of historic unemployment rates (see **sections 2.6.3.10** to **2.6.3.13**), there are long term trends of high unemployment rates in the North West England offshore and onshore study areas. Although this may fluctuate from year to year, the general trend is of stubborn, high levels of unemployment compared to UK levels.

Blackpool Airport Enterprise Zone

2.6.7.8 Delivery of the proposals set out within the current Masterplan (2024) would support business and employment growth in data centres, and knowledge-based sectors reliant on large scale data processing such as Artificial Intelligence, telehealth, advanced manufacturing and gaming.

2.6.7.9 The Silicon Sands masterplan material indicates an intent to commence delivery in 2025.

2.6.7.10 Initial proposals (screening stage) for a solar farm on land south of Blackpool Airport's main runway have been submitted to Fylde Council in August 2024. The proposed 20 MVA solar farm could enable the airport to generate its own renewable electricity, reducing energy bills and its carbon footprint. Additional renewable energy would also support plans for Silicon Sands.

Social

Population

2.6.7.11 The ONS and other statistics authorities regularly produce population projections which estimate the future size and age structure of the population of the UK, its regions, and local authorities.

2.6.7.12 Data for the North West England is available via the 2018-based interim set of projections (ONS, 2020). Data for North Wales is available via the 2018-based edition (Statistics Wales, 2021). A summary of population projections for the relevant social study areas is presented in **Table 2.25**.

2.6.7.13 The population in North Wales is expected to increase by approximately 0.2% per annum over the period 2022–2040. The population in North West England is expected to increase by approximately 0.3% per annum over the same period.

Table 2.25: Population projections

Source: various.

Study area	Population 2022	Population 2040	Change 2022–2040 (total)	Change per annum (total)	Change per annum (%)
North Wales	700,000	720,000	+14,000	+800	+0.2%
North West England	7,400,000	7,800,000	+420,000	+23,000	+0.3%

Tourism

Visual amenity

2.6.7.14 As per Volume 3, Chapter 10: Landscape and visual resources of the ES, the underlying landscape characteristics are predicted to remain broadly constant for the period assessed in the ES. Consequently, excluding building/infrastructure development, the future landscape character baseline,

and the related visual baseline, would be essentially the same as the current baseline situation.

2.6.7.15 It is not possible to accurately predict future changes in building/infrastructure development, but an intensification of offshore wind development within the cumulative assessment study area is highly likely in the future based on the consent of the Awel Y Môr offshore windfarm in 2024, and other schemes in planning within the Irish Sea.

Recreation

2.6.7.16 As per Volume 3: Chapter 6 Land use and recreation of the ES, no significant changes to the baseline are anticipated in relation recreation resources. New recreational resources may be developed in the future, but it is not possible to anticipate what the nature and location of these resources is likely to be.

2.6.8 Data limitations

2.6.8.1 Specific data on employment and GVA within offshore wind activities is not available across economic study areas on a consistent basis.

2.6.8.2 Conventional modelling of economic impacts for most industrial sectors relies on government statistics, for example, those based on SIC07 codes. SIC07 data is most appropriate for traditional industries. The development of new codes for a maturing sector such as offshore wind, however, takes time. At this stage, there are currently no SIC07 codes specific to the offshore wind sector. This means that conventional SIC analyses of offshore wind and related activities needs to map existing SIC07 data onto offshore wind and related activities, which is not straightforward. Analyses using SIC07 codes also rely on generalised data. This means that, either intentionally or unintentionally, some activities relevant to offshore wind and related activities might be excluded, and other activity unrelated to offshore wind and related activities might be included. There is no officially agreed definition to be used when assessing the offshore wind related industry based on SIC07 codes.

2.6.8.3 Data on economic activity rates and resident-based employment are collected via the Annual Population Survey. As this is a survey, data from smaller areas (e.g., local authority level) can exhibit greater volatility than data from larger areas due to smaller sample sizes. These limitations are not deemed to be of sufficient scale to undermine the validity of the assessment and remain the best available data.

2.6.8.4 Some data on tourism baseline conditions (**paragraphs 2.6.6.1** to **2.6.6.4**) is not available at the North Wales level. It has therefore been necessary to make assumptions on the application of national (Wales) data at a lower geography – where data assumptions have been made, these have been described within Volume 4, Annex 2.1: Socio-economics technical report of the ES.

2.6.9 Key receptors

2.6.9.1 **Table 2.26** identifies the receptors taken forward into the assessment.

Table 2.26: Key receptors taken forward to assessment

Receptor	Description
The potential impact on economic receptors including employment, GVA, and supply chain demand.	Potential expenditure on activities associated with the Transmission Assets could support employment and GVA output in companies that are directly engaged in the supply chain.
The potential impact of increased employment opportunities.	Direct and indirect employment associated with the Transmission Assets could increase the range and supply of employment opportunities that are accessible to residents of the area.
The potential impact on population, housing, and accommodation.	Direct and indirect employment generated during the construction phase could increase population, and demand for housing and accommodation.
The potential impact on tourism.	Potential effects on visual receptors, overnight accommodation, and recreation associated with the Transmission Assets could impact tourism receptors.

2.7 Scope of the assessment

2.7.1.1 The scope of this ES has been developed in consultation with relevant statutory and non-statutory consultees as detailed in **section 2.3**.

2.7.1.2 Taking into account the scoping and consultation process, **Table 2.27** summarises the issues considered as part of this assessment.

Table 2.27: Potential effects considered within this assessment

Phase	Potential effects scoped into the assessment
Construction phase	
Offshore and onshore	The potential impact on economic receptors including employment and GVA.
Offshore and onshore	The potential impact of increased employment opportunities.
Onshore	The potential economic impact of potential changes to aviation activities at Blackpool Airport and Blackpool Airport Enterprise Zone
Offshore and onshore	The potential impact on population, housing and accommodation.
Onshore	The potential impact on tourism.
Operation and maintenance phase	
Offshore and onshore	The potential impact on economic receptors including employment and GVA.
Offshore and onshore	The potential impact of increased employment opportunities.
Onshore	The potential impact on tourism.
Decommissioning phase	
Onshore	The potential impact on tourism.

2.7.1.3 Effects which are not considered likely to be significant have been scoped out of the assessment.

2.7.1.4 Some of impacts scoped out of this assessment were scoped in for PEIR. The rationale for scoping out of this assessment is predicated on an updated

approach to estimating economic impacts. All potential impacts are estimated within Volume 4, Annex 2.1: Socio-economics technical report of the ES. Technical impact reporting has identified that some potential impacts are of a sufficiently negligible scale to justify scoping out of the assessment of significant effects on the basis of preparing a proportionate assessment. For more information, please refer to Volume 4, Annex 2.1: Socio-economics technical report of the ES.

2.7.1.5 A summary of the effects scoped out, together with justification for scoping them out, is presented in in **Table 2.28**.

Table 2.28: Potential effects scoped out of the assessment

Potential effects	Phase	Justification
Isle of Man interactions with lifeline ferry services	All	Potential socio-economic impacts to the Isle of Man resulting from interactions with lifeline ferry services are anticipated to be negligible the Transmission Assets. Potential impacts on this receptor arising from the Morgan Offshore Wind Project and Morecambe Offshore Windfarm are considered within Morgan Offshore Wind Project: Generation Assets and Morecambe Offshore Windfarm: Generation Assets socio-economic assessments.
The potential impact on tourism	All (offshore)	As per Volume 3, Chapter 10: Landscape and visual resources of the ES, no above sea-level structures or elements of sea surface-piercing infrastructure form part of the application for development consent for the Transmission Assets. Therefore, no potential impacts are expected to give rise to likely significant effects on seascape resources. The significance of potential effects on overnight accommodation in North Wales and North West England is predicted to be negligible. The significance of potential effects resulting from possible displacement of offshore recreational activities identified in Volume 2, Chapter 9: Other sea users of the ES are assessed as negligible. Therefore, negligible offshore tourism effects are predicted in North Wales and North West England, to the extent the potential impact can be scoped out of the assessment.
Operation and maintenance phase		
The potential impact on population, housing and accommodation.	Offshore and onshore	These potential effects were scoped in at PEIR stage. However, the updated method at ES stage has allowed for a more detailed estimate of economic impacts. As per Volume 4, Annex 2.1: Socio-economics technical report of the ES, potential offshore and onshore economic impacts during the operation and maintenance phase are anticipated to be so low that employment roles associated with the Transmission Assets are anticipated to be filled entirely by workers transitioning from the oil and gas sector, or local resident entrants to the sector resulting from training activities

Potential effects	Phase	Justification
		(see also the Outline Employment and Skills Plan (document reference J31)). The estimated offshore impacts would result in no change to the receiving environment. The very low level of estimated onshore impacts would result in negligible effects on the receiving environment. As such, it is proportionate and reasonable to scope out the identified potential effects.
The potential economic impact of potential changes to aviation activities (at Blackpool Airport and Blackpool Airport Enterprise Zone)	Onshore	Potential construction phase impacts on Blackpool Airport's operations are anticipated to be entirely reversible. Some access for maintenance purposes is anticipated during the operations and maintenance phase. It is anticipated this would result in approximately one additional vehicle (car) movement per month on site, utilising an existing access road. The potential impact of one additional vehicle movement per month is anticipated to be negligible. Therefore, no significant impacts are anticipated during the operation and maintenance phase. As such, it is proportionate and reasonable to scope out the identified potential effects.
Decommissioning		
The potential impact on economic receptors including employment and GVA.	Onshore and offshore	**Onshore** No supply chain category within the framework (Appendix B contained in Volume 4, Annex 2.1: Socio-economics technical report of the ES) can be categorised as onshore expenditure given the associated descriptions within the guidance. Given the exclusion of onshore decommissioning activities from the guidance, onshore decommissioning phase economic impacts have not been assessed within this chapter. However, as per Volume 1, Chapter 3: Project description of the ES, decommissioning of onshore infrastructure is expected to be similar to the construction and in reverse order. It is estimated that onshore decommissioning activities will create no greater impacts on the receptors of employment and GVA than construction activities, which are assessed in **section 2.12** as being minor beneficial significance, which is not significant in EIA terms. **Offshore** As per CoT55 within Volume 1, Annex 5.3: Commitments register of the ES, the Offshore Decommissioning Programme will be developed prior to decommissioning and will include information on the consideration of recycling of materials, where practicable, and if opportunities are available. As per CoT108 within Volume 1, Annex 5.3: Commitments register of the ES, The Outline Offshore Cable Specification and Installation Plan (CSIP) submitted as part of the application for development consent, includes for all external cable protection used within the Fylde MCZ to be designed to be removable on decommissioning. Detailed CSIP(s) will be developed in accordance with the Outline Offshore CSIP.

Potential effects	Phase	Justification
		As per CoT109 within Volume 1, Annex 5.3: Commitments register of the ES, the requirement for removal of cable protection within the Fylde MCZ will be agreed with stakeholders and regulators at the time of decommissioning. Removal of cable protection will be in accordance with the Offshore Decommissioning Programme. Overall, it is assumed that offshore decommissioning activities will result in minimal employment and GVA impacts.
The potential impact of increased employment opportunities.	Onshore and offshore	**Onshore** No supply chain category within the framework (Appendix B contained in Volume 4, Annex 2.1: Socio-economics technical report of the ES) can be categorised as onshore expenditure given the associated descriptions within the guidance. Given the exclusion of onshore decommissioning activities from the guidance, onshore decommissioning phase economic impacts have not been assessed within this chapter. However, as per Volume 1, Chapter 3: Project description of the ES, decommissioning of onshore infrastructure is expected to be similar to the construction and in reverse order. It is estimated that onshore decommissioning activities will create no greater impacts on the receptors of employment and GVA (and subsequent employment opportunities) than construction activities, which are assessed in **section 2.12** as negligible significance, which is not significant in EIA terms. **Offshore** As per Volume 1, Chapter 3: Project description of the ES, the current preferred approach is that offshore cables and any offshore cable protection is left *in situ*, to minimise environmental impacts associated with their removal. Therefore, offshore decommissioning activities will not impact the potential for increased employment opportunities.
The potential impact on population, housing and accommodation.	Onshore and offshore	**Onshore** As per Volume 1, Chapter 3: Project description of the ES, decommissioning of onshore infrastructure is expected to be similar to the construction and in reverse order. It is estimated that onshore decommissioning activities will create no greater impacts on the receptors of population, housing and accommodation than construction activities, which are assessed in **section 2.12** as negligible significance, which is not significant in EIA terms. **Offshore** As per Volume 1, Chapter 3: Project description of the ES, the current preferred approach is that offshore cables and any offshore cable protection is left *in situ*, to minimise environmental impacts associated with their removal. Therefore, offshore decommissioning activities will not impact employment and GVA

Potential effects	Phase	Justification
		receptors, and subsequently population, housing and accommodation.
The potential economic impact of potential changes to aviation activities (at Blackpool Airport and Blackpool Airport Enterprise Zone)	Onshore	As per Volume 1, Chapter 3: Project description of the ES, decommissioning of onshore infrastructure is expected to be similar to the construction and in reverse order. It is estimated that onshore decommissioning activities will create lesser impacts on aviation, which is assessed fully in **section 2.12**.

2.8 Measures adopted as part of the Transmission Assets (Commitments)

2.8.1.1 For the purposes of the EIA process, the term 'measures adopted as part of the project' is used to include the following measures (adapted from Institute of Environmental Management and Assessment (IEMA), 2016). These measures are set out in the Commitments Register (Volume 1, Annex 5.3: Commitments register of the ES).

- Embedded mitigation. This includes the following.
  - Primary (inherent) mitigation - measures included as part of the project design. IEMA describes these as 'modifications to the location or design of the development made during the pre-application phase that are an inherent part of the project and do not require additional action to be taken'. This includes modifications arising through the iterative design process. These measures will be secured through the consent itself through the description of the project and the parameters secured in the DCO and/or Marine Licences. For example, a reduction in footprint or height.
  - Tertiary (inexorable) mitigation. IEMA describes these as 'actions that would occur with or without input from the EIA feeding into the design process. These include actions that will be undertaken to meet other existing legislative requirements, or actions that are considered to be standard practices used to manage commonly occurring environmental effects'. It may be helpful to secure such measures through a Code of Construction Practice or similar.
- Secondary (foreseeable) mitigation. IEMA describes these as '*actions that will require further activity in order to achieve the anticipated outcome'*. These include measures required to reduce the significance of environmental effects (such as lighting limits) and may be secured through an environmental management plan.

2.8.1.2 In addition, where relevant, measures have been identified that may result in enhancement of environmental conditions. Such measures are clearly identified within the Commitments Register (Volume 1, Annex 5.3:

Commitments register of the ES). The measures relevant to this chapter are summarised in **Table 2.29**.

2.8.1.3 Embedded measures that will form part of the final design (and/or are established legislative requirements/good practice) have been taken into account as part of the initial assessment presented in **section 2.11** and **section 2.12** (i.e., the initial determination of potential impact magnitude and significance of effects assumes implementation of these measures). This ensures that the measures that the Applicants are committed to are taken into account in the assessment of effects.

2.8.1.4 Where an assessment identifies likely significant adverse effects, further or secondary mitigation measures may be applied. These are measures that could further prevent, reduce and, where possible, offset these effects. They are defined by IEMA as actions that will require further activity in order to achieve the anticipated outcome and may be imposed as part of the planning consent, or through inclusion in the ES (referred to as secondary mitigation measures in IEMA, 2016). For further or secondary measures both pre-mitigation and residual effects are presented.

Table 2.29: Measures (commitments) adopted as part of the Transmission Assets

Commitment number	Measure adopted	How the measure will be secured
Enhancement measures		
CoT57	Employment and Skills Plan(s) will be produced prior to construction, in accordance with the Outline Employment and Skills Plan prepared and submitted with the application for development consent. Detailed Employment and Skills Plan(s) will detail how the Applicants will engage with local workers and training providers for anticipated employment opportunities associated with the Transmission Assets.	DCO Schedules 2A & 2B, Requirement 19 (Employment and Skills Plan)

2.9 Key parameters for assessment

2.9.1 Maximum design scenario

2.9.1.1 The maximum design scenarios (MDS) identified in **Table 2.30** have been selected as those having the potential to result in the greatest effect on an identified receptor or receptor group. These scenarios have been selected from the Project Design Envelope provided in Volume 1, Chapter 3: Project description of the ES. Effects of greater adverse significance are not predicted to arise should any other development scenario, based on details within the Project Design Envelope (e.g., different infrastructure layout), to that assessed here be taken forward in the final design.

2.9.1.2 The significance of effects on **economic receptors** (employment and GVA) are assessed on the basis of 'peak' impacts. This represents the maximum impact that is estimated to occur in any given year of the construction phase. The maximum impact on economic receptors (employment and GVA) is therefore estimated to occur under a concurrent construction scenario.

2.9.1.3 The significance of effects on **economic receptors** (Blackpool Airport and Blackpool Airport Enterprise Zone) are assessed on the basis of greatest impact duration. The maximum impact on economic receptors (Blackpool Airport and Blackpool Airport Enterprise Zone) is therefore estimated to occur under a sequential construction scenario.

2.9.1.4 The significance of effects on **social receptors** are assessed on the basis of 'peak' impacts. This represents the maximum impact that is estimated to occur in any given year of the construction phase. The maximum impact on social receptors is therefore estimated to occur under a concurrent construction scenario.

2.9.1.5 The significance of effect on **tourism** receptors is assessed on the basis of the greatest impact duration. The maximum impact on tourism receptors is therefore estimated to occur under a sequential construction scenario.

Economic impact scenarios - offshore

2.9.1.6 With reference to paragraph 4.2.12 of NPS EN-1 (see **Table 2.1**), for the topic of socio-economics the 'most likely', 'maximum' and 'worst case' scenarios are not necessarily the same. These can be explained as follows:

Most likely – 'current capability' scenario

2.9.1.7 This assessment considers a 'current capability' scenario to represent the 'most likely' potential economic and social impacts, in accordance with NPS EN-1.

2.9.1.8 The current capability scenario is based on a set of assumptions derived from evidence of impacts associated with existing conditions and capabilities in the offshore wind sector, and typical expenditure levels.

2.9.1.9 The current capability scenario assumes that where the capability currently exists within the sector to deliver a certain supply chain category (as set out in Appendix B of Volume 4, Annex 2.1: Socio-economics technical report of the ES), the associated impacts are captured within sub-national content figures, where relevant.

2.9.1.10 The current capability scenario has been quantitatively assessed to represent the 'most likely' economic and social impacts associated with the Transmission Assets under current sector conditions.

2.9.1.11 This approach is consistent with Glasson et al. (2020), which recommends specifying the '*more likely*' scenario in order to avoid wide ranges of economic impact estimates which can '*make life very difficult for decision makers and host authorities*'.

Minimum – 'low' scenario

2.9.1.12 This assessment considers a 'low' scenario to represent the 'worst case' potential economic impacts. The low scenario considers a situation where no contracts are secured with a Tier 1 supplier (a direct supplier of a product or service) within North Wales and North West England for the delivery of development, fabrication, or marshalling activities.

2.9.1.13 The low scenario has been qualitatively assessed to represent the 'minimum' – or 'worst case' – economic impact associated with the Transmission Assets.

2.9.1.14 As it would result in no change to receiving environment, the low scenario is not assessed for social impacts.

Maximum scenario

2.9.1.15 A 'maximum' scenario would cover a situation where greater sector investment would lead to an increase in sub-national content.

2.9.1.16 There is no information available at this stage to provide a basis for the assumptions that would be required to define a 'maximum' scenario.

2.9.1.17 Assessing a maximum scenario would provide a set of impact estimates above the current capability scenario. There is a risk that assessing a 'maximum' scenario could overstate potentially beneficial economic impacts.

2.9.1.18 In the case of socio-economics, the maximum scenario can therefore be considered an unhelpful scenario upon which to base an EIA. For this reason, the maximum scenario has not been assessed within this chapter.

Port selection

2.9.1.19 Should ports within North Wales or North West England be selected, the associated economic impacts are captured within the assessment of sub-national economic impacts under the 'current capability' scenario.

2.9.1.20 Should no port within North Wales or North West England be selected, the associated economic impacts are captured within the assessment of sub-national economic impacts under the 'low' (or worst-case) scenario.

Economic impact scenarios - onshore

2.9.1.21 For socio-economics, with respect to potential onshore economic and social impacts, there is greater certainty with regards to the location of the epicentre of impact (i.e. onshore substations sites), therefore the application of the scenarios is not necessary.

Table 2.30: Maximum design scenario considered for the assessment of potential offshore impacts on socio-economics

Impact	Phase[a]			Maximum Design Scenario	Justification
	C	O	D		
Economic					
The potential impact on economic receptors including employment and GVA.	✓	✓	×	**Construction phase** • MDS assumes infrastructure to meet the transmission requirements of the Morgan and Morecambe Offshore Wind Farms with a combined approximate 1,980 MW installed capacity. This is an assumption that is necessary for the purposes of applying industry guidance to the assessment of economic impacts. • MDS assumes a similar delivery model to previous offshore wind farm infrastructure developed in the UK. Detailed assumptions are set out within Volume 4, Annex 2.1: Socio-economics technical report of the ES. • MDS assumes offshore construction phase of 21 months (concurrent). • MDS assumes some offshore construction phase activities to be delivered from a port (or more than one port) located in North Wales or North West England. • MDS assumes the maximum activity, and associated vessel numbers, located at any single potential port within North Wales or North West England at any one time will be linked to the marshalling of export cabling. **Operation and maintenance phase** • MDS assumes infrastructure to meet the transmission requirements of the Morgan and Morecambe Offshore Wind Farms with a combined approximate 1,980 MW installed capacity. This is an assumption that is necessary for the purposes of applying industry guidance to the assessment of economic impacts.	The MDS is informed by analysis within Volume 4, Annex 2.1: Socio-economics technical report of the ES setting out the estimated offshore economic impacts in terms of employment and GVA. **Construction phase** Potential expenditure on offshore activities associated with the Transmission Assets could support direct, indirect and induced employment and GVA impacts within the economy. The significance of effects on economic receptors are assessed on the basis of 'peak' impacts. This represents the maximum impact that is estimated to occur in any given year of the construction phase. The maximum impact on economic receptors is estimated to occur under a concurrent construction scenario. The current capability scenario has been quantitively assessed to provide a fair assessment of the potential 'most likely' economic impacts. The low impact scenario has been qualitatively assessed to provide a fair assessment of the potential 'worst case' economic impacts. **Operation and maintenance phase** Potential expenditure on the following activities associated with the Transmission Assets could support direct, indirect and induced employment and GVA impacts within the economy.

Impact	Phase[a]			Maximum Design Scenario	Justification
	C	O	D		
				• MDS assumes a similar delivery model to previous offshore wind farm infrastructure developed in the UK. Detailed assumptions are set out within Volume 4, Annex 2.1: Socio-economics technical report of the ES. • MDS assumes operation and maintenance phase of 35 years. • MDS assumes operation and maintenance support facility to be located in North Wales or North West England	The current capability scenario has been quantitively assessed to provide a fair assessment of the potential 'most likely' economic impacts. The low impact scenario has been qualitatively assessed to provide a fair assessment of the potential 'worst case' economic impacts.
The potential impact of increased employment opportunities.	✓	✓	×	**Construction phase** • As per the impact on economic receptors including employment and GVA **Operation and maintenance phase** • As per the impact on economic receptors including employment and GVA	**Construction phase** Potential offshore employment impacts associated with the construction phase could increase the range and supply of employment opportunities that are accessible to residents. The significance of effects on economic receptors are assessed on the basis of 'peak' impacts. This represents the maximum impact that is estimated to occur in any given year of the construction phase. The maximum impact on economic receptors is estimated to occur under a concurrent construction scenario. The current capability scenario has been quantitively assessed to provide a fair assessment of the potential 'most likely' economic impacts. The low impact scenario has been qualitatively assessed to provide a fair assessment of the potential 'worst case' economic impacts. **Operation and maintenance phase** Potential employment impacts associated with the operation and maintenance phase could increase the range and supply of employment opportunities that are accessible to residents.

Impact	Phase[a]			Maximum Design Scenario	Justification
	C	O	D		
					The current capability scenario has been quantitively assessed to provide a fair assessment of the potential 'most likely' economic impacts. The low impact scenario has been qualitatively assessed to provide a fair assessment of the potential 'worst case' economic impacts.
Social					
The potential impact on population, housing, and accommodation.	✓	×	✓	**Construction phase** • MDS assumes infrastructure to meet the transmission requirements of the Morgan and Morecambe Offshore Wind Farms with a combined approximate 1,980 MW installed capacity. • MDS assumes a similar delivery model to previous offshore wind farms developed in the UK – detailed assumptions are set out within Volume 4, Annex 2.1: Socio-economics technical report of the ES. • MDS assumes the maximum activity, and associated vessel numbers, located at any single potential port within North Wales or North West England at any one time will be linked to the marshalling of export cabling. • MDS assumes offshore construction phase of 21 months (concurrent).	The MDS is informed by analysis within Volume 4, Annex 2.1: Socio-economics technical report of the ES setting out the likely source of workforce associated with onshore infrastructure, and likely demand for overnight, short term (temporary) and long term (permanent) accommodation. **Construction phase** Direct offshore employment generated during the construction phase could increase population, and demand for housing and accommodation (during the construction phase). Particularly mobile installation and commissioning workforces. The significance of effect on social receptors is assessed on the basis of 'peak' impacts. This represents the maximum impact that is estimated to occur in any given year of the construction phase. The maximum impact on social receptors is estimated to occur under a concurrent construction scenario. The current capability scenario has been quantitively assessed to provide a fair assessment of the potential 'most likely' economic impacts.

[a] C=construction, O=operation and maintenance, D=decommissioning

Table 2.31: Maximum design scenario considered for the assessment of potential onshore impacts on socio-economics

Impact	Phase[a]			Maximum Design Scenario	Justification
	C	O	D		
Economic					
The potential impact on economic receptors including employment and GVA.	✓	✓	×	**Construction phase** • MDS assumes infrastructure to meet the transmission requirements of the Morgan and Morecambe Offshore Wind Farms with a combined approximate 1,980 MW installed capacity. This is an assumption that is necessary for the purposes of applying industry guidance to the assessment of economic impacts. • MDS assumes a similar delivery model to previous offshore wind farm infrastructure developed in the UK. Detailed assumptions are set out within Volume 4, Annex 2.1: Socio-economics technical report of the ES. • MDS assumes onshore construction period of 30 months (concurrent). • Two onshore substations are required, one substation for the Morgan Offshore Wind Project and one for the Morecambe Offshore Windfarm. **Operation and maintenance phase** • MDS assumes infrastructure to meet the transmission requirements of the Morgan and Morecambe Offshore Wind Farms with a combined approximate 1,980 MW installed capacity. This is an assumption that is necessary for the purposes of applying industry guidance to the assessment of economic impacts. • MDS assumes a similar delivery model to previous offshore wind farm infrastructure developed in the UK. Detailed assumptions are set out within Volume 4, Annex 2.1: Socio-economics technical report of the ES.	The MDS is informed by analysis within Volume 4, Annex 2.1: Socio-economics technical report of the ES setting out the estimated offshore economic impacts in terms of employment and GVA. **Construction phase** Potential expenditure on onshore activities associated with the Transmission Assets could support direct, indirect and induced employment and GVA impacts within the economy. The significance of effects on economic receptors are assessed on the basis of 'peak' impacts. This represents the maximum impact that is estimated to occur in any given year of the construction phase. The maximum impact on economic receptors is estimated to occur under a concurrent construction scenario. **Operation and maintenance phase** Potential expenditure on the following activities associated with the Transmission Assets could support direct, indirect and induced employment and GVA impacts within the economy. The current capability scenario has been quantitively assessed to provide a fair assessment of the potential 'most likely' economic impacts. The low impact scenario has been qualitatively assessed to provide a fair assessment of the potential 'worst case' economic impacts.

Impact	Phase[a]			Maximum Design Scenario	Justification
	C	O	D		
				• MDS assumes operation and maintenance phase of 35 years. • MDS assumes operation and maintenance support facility to be located in North Wales or North West England. • Two onshore substations are required to allow a connection to the National Grid substation at Penwortham, Lancashire.	
The potential impact of increased employment opportunities.	✓	✓	×	**Construction phase** • As per the impact on economic receptors including employment and GVA **Operation and maintenance phase** • As per the impact on economic receptors including employment and GVA	**Construction phase** Potential employment impacts associated with the construction phase could increase the range and supply of employment opportunities that are accessible to residents. The significance of effects on economic receptors are assessed on the basis of 'peak' impacts. This represents the maximum impact that is estimated to occur in any given year of the construction phase. The maximum impact on economic receptors is estimated to occur under a concurrent construction scenario. **Operation and maintenance phase** Potential employment impacts associated with the operation and maintenance phase could increase the range and supply of employment opportunities that are accessible to residents.
The potential economic impact of potential changes to aviation activities (at Blackpool Airport and Blackpool Airport Enterprise Zone)	✓	×	×	**Construction** MDS assumes onshore construction period for the onshore export cables (in the vicinity of Blackpool Airport) of 5.5 months over 6 months (sequential). As per Volume 3, Chapter 11: Aviation of the ES (Table 11.12), MDS assumes the following:	**Construction phase** The greatest number of structures (compounds, bays and equipment) and sequential trenching of either of the cable routes would result in the greatest extent of interference on Blackpool Airport's operations, thereby resulting in the greatest extent of indirect economic impacts on the airport and the Enterprise Zone.

Impact	Phase[a]			Maximum Design Scenario	Justification
	C	O	D		
				• Daytime works – open cut trenching – would have the maximum effect to concurrent runway/aerodrome operations with regard to flight activity. • Nighttime works, open trench, (over 38 weeks) would have no effect to concurrent runway/aerodrome operations (2130 – 0600 local time) with regard to flight activity.	
Social					
The potential impact on population, housing, and accommodation.	✓	x	x	**Construction phase** • MDS assumes a similar delivery model to previous offshore wind farms developed in the UK – detailed assumptions are set out within Volume 4, Annex 2.1: Socio-economics technical report of the ES. • MDS assumes onshore construction phase of 30 months (concurrent). • Two onshore substations are required, one substation for the Morgan Offshore Wind Project and one for the Morecambe Offshore Windfarm.	The MDS is informed by analysis within Volume 4, Annex 2.1: Socio-economics technical report of the ES setting out the likely source of workforce associated with onshore infrastructure, and likely demand for overnight, short term (temporary) and long term (permanent) accommodation. **Construction phase** Direct onshore employment generated during the construction phase could increase population, and demand for housing and accommodation (during the construction phase). Particularly mobile installation and commissioning workforces. Workers associated with construction of onshore infrastructure will be based onshore. The significance of effect on social receptors is assessed on the basis of 'peak' impacts. This represents the maximum impact that is estimated to occur in any given year of the construction phase. The maximum impact on social receptors is estimated to occur under a concurrent construction scenario.
Tourism					
The potential impact on tourism.	✓	✓	✓	**All phases**	Potential onshore impacts of the construction, operation and maintenance, and decommissioning of the

Impact	Phase[a]			Maximum Design Scenario	Justification
	C	O	D		
				MDS assumes onshore construction phase of 66 months (sequential). **Visual amenity** • As per Volume 3, Chapter 10: Landscape and visual resources of the ES (Table 10.18), MDS assumes the following: – Landfall: open cut trenching between Mean Low Water Springs and Mean High Water Springs represents the maximum design scenario. – Onshore substations: the largest temporary and permanent footprint and greatest height/density of buildings and associated infrastructure represents the maximum design scenario. – Sequential construction of the Transmission Assets (rather than concurrent) represents the maximum design scenario, and a 35 year operation and maintenance phase. **Overnight trips and accommodation** • As per the potential impact on population, housing and accommodation (above). **Recreation** • As per Volume 3, Chapter 6: Land use and recreation of the ES (Table 6.18), the MDS considers the greatest geographical extent and longest duration of temporary and permanent impact on the recreational use of recreational resources during construction, operation and maintenance and decommissioning of the Transmission Assets.	Transmission Assets on tourism are indirect in nature. It is necessary to derive an assessment of significance of effects on tourism from the findings elsewhere in the ES as follows. The significance of effect on tourism receptors is assessed on the basis of the maximum duration of the construction phase. The maximum impact on tourism receptors is estimated to occur under a sequential construction scenario. **Visual amenity** It is necessary to derive an assessment of significance of effects on onshore visual amenity from the findings of Volume 4, Chapter 1: Landscape and visual resources of the ES. On this basis, the MDS for the impact on visual amenity in this chapter draws directly on the MDS for Volume 3, Chapter 10: Landscape and visual resources. **Overnight trips and accommodation** It is necessary to derive an assessment of significance of effects on overnight trips and accommodation from the findings of the assessment within this chapter of potential impacts on population, housing and accommodation. On this basis, the MDS for the impact on overnight trips and accommodation draws directly on the MDS for the impacts on population, housing and accommodation (above). **Recreation** It is necessary to derive an assessment of significance of effects on recreation from the findings in Volume 3, Chapter 6: Land use and recreation of the ES.

Impact	Phase[a]			Maximum Design Scenario	Justification
	C	O	D		
					On this basis, the MDS for the impact on recreation draws directly on the MDS for Volume 3, Chapter 6: Land use and recreation of the ES.

[a] C=construction, O=operation and maintenance, D=decommissioning

2.10 Assessment methodology

2.10.1 Overview

2.10.1.1 Specific to the socio-economic and tourism EIA, the following (non-statutory) guidance documents have been considered:

- Glasson, J. et al (2020). Guidance on assessing the socio-economic impacts of offshore wind farms, Oxford Brookes University;
- Crown Estate and Offshore Renewable Energy (ORE) Catapult (2019) Guide to an offshore wind farm; and
- BVG Associates (2019). Guide to an offshore wind farm, The Crown Estate and Catapult Offshore Renewable Energy.

2.10.1.2 Project data and inputs utilised in preparation of economic impact estimates at PEIR stage have since changed. As such, the approach for estimating potential economic impacts of the Transmission Assets has been updated in preparation of this assessment to accommodate the latest available project data and information.

2.10.1.3 The socio-economics impact assessment has followed the methodology set out in Volume 1, Chapter 5: Environmental assessment methodology of the ES.

2.10.1.4 There is no official guidance or legislation governing the process of socio-economics EIA. This chapter's approach is based on the best available and latest industry guidance and evidence at the time of writing.

2.10.1.5 The criteria for determining the significance of effects is a two-stage process that involves defining the magnitude of the impacts and the sensitivity of the receptors. This section describes the criteria applied in this chapter to assign values to the magnitude of potential impacts and the sensitivity of the receptors. The terms used to define magnitude and sensitivity are based on those which are described in further detail in Volume 1, Chapter 5: Environmental assessment methodology of the ES.

2.10.1.6 As this assessment sets out magnitude, sensitivity and significance for multiple study areas across multiple categories (economic, social and tourism), the assessment has been tabulated for ease of interpretation. In addition, for each potential impact pathway, the baseline conditions against which magnitude and sensitivity are assessed are presented within the specific impact pathway assessment.

2.10.2 Receptor sensitivity/value

2.10.2.1 The sensitivity of receptors can be assessed on the basis of a number of factors –tolerance, recoverability and value/importance (as per Volume 1, Chapter 5: Environmental assessment methodology of the ES).

- Tolerance: the degree to which a receptor can accommodate a temporary or permanent change.

- Recoverability: the ability of a receptor to be able to return to a state close to that which existed before an activity or event occurred.
- Value and importance: the importance of the receptor in terms of social/community and/or economic value. In this chapter the receptor's value is based on:
  - reference to best practice guidance;
  - reference to policy objectives; and
  - outcomes of consultation to date.

2.10.2.2 The criteria for defining sensitivity in this chapter are outlined in **Table 2.32** below. Professional judgement has been utilised in the application of the following criteria.

Table 2.32: Definition of terms relating to sensitivity of the receptor

Sensitivity	Definition
Very high	• Very high value – the receptor is identified as a national policy priority. • Very low tolerance – the receptor is identified as being very responsive to changes in conditions, and the receptor is very unlikely to be able to accommodate any of the impacts of the Transmission Assets. • Very low recoverability – the receptor is highly unlikely to return to a state comparable with the conditions that existed before delivery of the Transmission Assets.
High	• High value – the receptor is identified as a sub-national policy priority. • Low tolerance – the receptor is identified as being highly responsive to changes in conditions, and the receptor is highly unlikely to be able to accommodate most of the impacts of the Transmission Assets. • Low recoverability – the receptor is highly unlikely to return to a state comparable with the conditions that existed before delivery of the Transmission Assets.
Medium	• Medium value – the receptor is identified as a local policy priority. • Medium tolerance – the receptor is identified as being responsive to changes in conditions, and the receptor may be able to accommodate some impacts of the Transmission Assets, but is unlikely to be able to fully accommodate all impacts. • Medium recoverability – the receptor is unlikely to return to the same conditions that existed before delivery of the Transmission Assets.
Low	• Low value – the receptor is not identified as a policy priority. • High tolerance – the receptor is identified as being unresponsive to changes in conditions, and the receptor is highly likely to able to accommodate most impacts of the Transmission Assets, and may be able to fully accommodate all impacts. • High recoverability – The receptor is likely to return to the same (or very similar) conditions that existed before delivery of the Transmission Assets.
Negligible	• The receptor is deemed not important at any policy level. • There is evidence of complete tolerance to the Transmission Assets.

2.10.3 Magnitude of impact

2.10.3.1 The magnitude of socio-economic impacts is assessed on the basis of the expected degree of change relative to baseline conditions (i.e., 'scale' of impact). For each socio-economic impact under consideration, the scale of

potential impacts is assessed against multiple baseline conditions and aggregated to a single scale level as appropriate. The average value across baseline conditions is then calculated and used to determine the overall scale of impact. The assessment for 'scale' of impact in describing the magnitude for an impact is tailored for socio-economics.

2.10.3.2 The magnitude of impact is characterised on the basis of spatial extent, duration and frequency (as per Volume 1, Chapter 5: Environmental assessment methodology of the ES). Within the topic of socio-economics, these factors are considered as follows.

- Spatial extent: geographical area over which the impact may occur.
- Duration: the time over which an impact occurs. An impact may be described as short, medium or long-term, and permanent or temporary. This chapter assesses potential impacts predicted to last for more than five years as 'long term', potential impacts predicted to last between one year and five years as 'medium term', and potential impacts predicted to last less than one year as 'short term'. As such, construction phase and decommissioning phase impacts are predicted to be medium term and therefore temporary. Operation and maintenance phase impacts are predicted to be long term (35 years) and therefore permanent.
- Frequency: the number of times an impact occurs across the relevant phase/lifetime of a project. Construction phase and decommissioning phase impacts are predicted to be intermittent[17]. Operation and maintenance phase impacts are predicted to be continuous.

2.10.3.3 The criteria for defining magnitude in this chapter are outlined in **Table 2.33** below.

[17] Potential employment impacts during the construction phase are measured in FTE years. The term 'FTE year' in employment terms is often used in construction labour reporting, in which one construction FTE year represents the work done by one full-time employee in a year comprising a standard number of working days.

This method of measuring jobs created accounts for both the duration and intensity of employment, providing a more comprehensive understanding of job impacts. It is especially valuable in industries like construction, where workforce requirements vary over time as many development and construction workers working on the Transmission Assets will work for a fixed period, or be involved in other projects in parallel.

Consequently, construction phase economic impacts are assessed as intermittent

Table 2.33: Impact magnitude criteria

Magnitude of potential impact		Definition
High	Adverse	Scale: major worsening of socio-economic conditions compared to the baseline. Spatial extent: impact occurs at a national geography. Duration: impact is of long term duration (more than five years). Frequency: impact is continuous.
	Beneficial	Scale: major improvement of socio-economic conditions compared to the baseline. Spatial extent: impact occurs at a national geography. Duration: impact is of long term duration (more than five years). Frequency: impact is continuous.
Medium	Adverse	Scale: moderate worsening of socio-economic conditions compared to the baseline. Spatial extent: impact occurs at a regional geography. Duration: impact is of medium term duration (more than five years). Frequency: impact is continuous, or frequent intermittency.
	Beneficial	Scale: moderate improvement of socio-economic conditions compared to the baseline. Spatial extent: impact occurs at a regional geography. Duration: impact is of medium term duration (more than five years). Frequency: impact is continuous, or frequent intermittency.
Low	Adverse	Scale: minor worsening of socio-economic conditions compared to the baseline. Spatial extent: impact occurs at a local geography. Duration: impact is of short term duration (under one year). Frequency: impact is intermittent.
	Beneficial	Scale: minor improvement of socio-economic conditions compared to the baseline. Spatial extent: impact occurs at a local geography. Duration: impact is of short term duration (under one year). Frequency: impact is intermittent.
Negligible	Adverse	Scale: very minor worsening of socio-economic conditions compared to the baseline. Spatial extent: impact occurs at a neighbourhood geography. Duration: impact is of very short term duration (under one month). Frequency: infrequent intermittency.
	Beneficial	Scale: very minor improvement of socio-economic conditions compared to the baseline. Spatial extent: impact occurs at a neighbourhood geography. Duration: impact is of very short term duration (under one month). Frequency: infrequent intermittency.

Magnitude of potential impact	Definition
No change	The potential impact would result in no change of socio-economic conditions.

2.10.4 Significance of effect

2.10.4.1 The significance of effect upon socio-economic receptors has been determined by taking into account the sensitivity of the receptor and the magnitude of the potential impact. The method employed for this assessment is presented in **Table 2.34.** Where a range is presented for significance of effect (e.g., minor or moderate), the final assessment for each effect is based upon professional judgement.

2.10.4.2 In all cases, the evaluation of receptor sensitivity, potential impact magnitude and significance of effect has been informed by professional judgement and is underpinned by narrative to explain the conclusions reached.

2.10.4.3 For the purpose of this assessment, any effects with a significance level of minor or less are not considered to be significant in terms of the EIA Regulations.

Table 2.34: Assessment matrix

Sensitivity of Receptor	Magnitude of Impact			
	Negligible	Low	Medium	High
Negligible	Negligible	Negligible or Minor	Negligible or Minor	Minor
Low	Negligible or Minor	Negligible or Minor	Minor	Minor or Moderate
Medium	Negligible or Minor	Minor	Moderate	Moderate or Major
High	Minor	Minor or Moderate	Moderate or Major	Major
Very High	Minor	Moderate or Major	Major	Major

2.10.4.4 Where the magnitude of a potential impact is ‘no change’, no effect would arise.

2.10.4.5 The definitions for significance of effect levels are described as follows.

- Major: These beneficial or adverse effects are considered to be very important considerations and are likely to be material in the decision-making process. These effects are generally, but not exclusively, associated with sites or features of international, national or regional importance that are likely to suffer a most damaging potential impact and loss of resource integrity or experience the most beneficial potential impact. However, a major change in a site or feature of local importance may also enter this category. Effects upon human receptors may also be attributed this level of significance.
- Moderate: These beneficial or adverse effects have the potential to be important and may influence the key decision-making process. The cumulative effects of such factors may influence decision-making if they

lead to an increase in the overall adverse or beneficial effect on a particular resource or receptor.

- Minor: These beneficial or adverse effects are generally, but not exclusively, raised as local factors. They are unlikely to be critical in the decision-making process but are important in enhancing the subsequent design of the project.
- Negligible: No effects or those that are beneath levels of perception, within normal bounds of variation or within the margin of forecasting error.

2.11 Assessment of effects - offshore

2.11.1 Overview

2.11.1.1 The potential impacts of the construction, operation and maintenance, and decommissioning phases of the Transmission Assets have been assessed.

2.11.1.2 The potential impacts arising from the construction, operation and maintenance, and decommissioning phases of the Transmission Assets are listed in **Table 2.30** along with the MDS against which each potential impact has been assessed. As per **paragraph 2.1.1.5**, this section's approach is focused on the 'source' of the impact. As such, if physical infrastructure and civil works are located offshore, any resulting impacts are categorised as offshore.

2.11.2 The potential impact on economic receptors including employment, GVA and supply chain demand

2.11.2.1 The assessment draws on the employment and GVA potential impacts as set out in Volume 4, Annex 2.1: Socio-economics technical report of the ES.

2.11.2.2 A description of the potential offshore effects on socio-economics receptors caused by each identified impact is given below.

Magnitude (scale) of impact - assessment approach

2.11.2.3 The scale of potential offshore employment and GVA impacts is assessed against the following baseline conditions.

- Share of employment and GVA across all industries (2021): this gives an indication of the scale of the impact in the context of the receiving environment's employment and GVA base.
- Share of employment and GVA in impact industries (2021): this gives an indication of the scale of the impact in the context of the receiving environment's impact industries employment and GVA base.
- Share of employment (2021) in offshore wind sector: this gives an indication of the scale of the impact in the context of the receiving environment's offshore wind sector employment base.

2.11.2.4 The criteria against which magnitude of potential economic impacts are assessed can be found in **Table 2.35**.

Table 2.35: Magnitude of employment and GVA impacts assessment criteria

Magnitude of Impact	Share of Relevant Baseline Conditions
High	>1.0%
Medium	0.5%–1.0%
Low	0.1%–0.5%
Negligible	<0.1%

2.11.2.5 These thresholds have been established on the basis of comparison with previously consented major infrastructure projects of national significance, and the scale of their predicted employment and GVA impacts in comparison with the economy.

Construction phase

Current capability scenario

2.11.2.6 The current capability scenario has been quantitatively assessed to represent the 'most likely' construction phase employment and GVA impacts associated with the Transmission Assets under current sector conditions.

2.11.2.7 The potential offshore impacts of the Transmission Assets on employment and GVA in development and construction activities under the current capability scenario are set out in **Table 2.36**. These impacts will create opportunities to both safeguard existing economic activities, and facilitate new economic growth and development within the offshore wind sector at local, regional and national levels.

Table 2.36: Potential offshore impacts (current capability scenario) of the Transmission Assets on employment and GVA in development and construction activities

	North Wales	North West England
Employment (FTE years)	260	370
GVA	£35 m	£45 m

Sensitivity of the receptor

2.11.2.8 As per **section 2.10.2**, receptor sensitivity to potential construction phase offshore employment and GVA impacts is assessed on the basis of tolerance, recoverability, and value and importance.

Value and importance

2.11.2.9 Whether an economic study area's policy position has the aim of making the offshore wind sector part of its approach to economic development is a key consideration. This can also be through providing jobs, skills, education and training for local residents to work in the offshore wind sector. Policy aims to provide the same opportunity in the renewable energy sector will also be considered as important. General policy aims to provide jobs, skills, education and training for local residents in any sector are also considered.

2.11.2.10 Increasing employment in the renewable energy sector, including offshore wind activities specifically, is a policy objective at the UK, Wales and North West England level. The offshore wind sector is identified as a growth opportunity within a more broadly defined energy sector which is forecast to experience employment decline.

2.11.2.11 As such, the value and importance of the receptor is assessed as high.

Tolerance

2.11.2.12 According to **section 2.6.2.14**, between 2015 to 2022 employed persons in construction impact industries decreased by approximately 2,000 in North Wales (–3.5% per annum) and 4,000 in North West England (–0.8% per annum), (ONS, 2023a). This suggests there is potential across both economic study areas to accommodate an increase in development and construction activities in the offshore wind sector – although this would likely require a degree of 'upskilling' and transitioning for firms and workers.

2.11.2.13 The future baseline conditions set out in **section 2.6.7** indicates there is likely to be potential capacity in the utilities and manufacturing sectors due to a decreasing employment base up to 2035. This again indicates there is potential to accommodate an increase in similar activities in the offshore wind sector. It is forecast that employment in the construction sector will increase over the period to 2035 – this suggests the sector is in a strong position of growth, although it may lead to tighter labour market conditions in construction activities.

2.11.2.14 Overall, the tolerance of the receptor is assessed as high – as per **Table 2.32** this corresponds to a low sensitivity.

Recoverability

2.11.2.15 It is not possible to confidently determine whether or not the receptor would return to a state close to that which existed before any activity occurs. However, there are anticipated to be ongoing beneficial legacy effects, which would be part of positioning infrastructure, supply chain capabilities and labour market conditions to compete to deliver further activity in the offshore wind sector. As the impact is expected to be beneficial, it would be desirable to retain any impacts.

2.11.2.16 Even in the absence of ongoing legacy beneficial effects linked to direct expenditure, it is unlikely that offshore economic impacts resulting from indirect and induced expenditure would be entirely reversed following the construction phase. As such, the recoverability of the receptor is assessed as medium.

Overall

2.11.2.17 The value and importance of the receptor is assessed as high, the tolerance of the receptor is assessed as low, and the recoverability of the receptor is assessed as medium. The overall sensitivity of the receptor is therefore assessed as **medium**.

Magnitude of potential impact

2.11.2.18 A comparison of the potential offshore employment and GVA impacts associated with development and construction phase activities, compared to the relevant baseline conditions for each economic study area, is set out in **Table 2.37.**

Table 2.37: Potential construction phase offshore employment and GVA impacts compared to baseline conditions

Study area	All industries emp.	Impact industries emp.	Offshore wind sector emp.	All industries GVA	Impact industries GVA
North Wales	<0.1%	3.7%	159.1%	<0.1%	<0.1%
North West England	<0.1%	0.6%	11.1%	<0.1%	<0.1%

2.11.2.19 This results in an assessment of impact magnitude as set out in **Table 2.38**.

Table 2.38: Magnitude of impact - potential construction phase offshore employment and GVA impacts

Study area	Magnitude	Spatial extent	Duration	Frequency
North Wales	Low (beneficial)	Sub-national	Medium term (temporary)	Intermittent
North West England	Low (beneficial)	Sub-national	Medium term (temporary)	Intermittent

Significance of the effect

North Wales

2.11.2.20 Overall, the sensitivity of the receptor is **medium** and the magnitude of the impact is **low beneficial**. The effect will, therefore, be of **minor beneficial significance**, which is not significant.

North West England

2.11.2.21 Overall, the sensitivity of the receptor is **medium** and the magnitude of the impact is **low beneficial**. The effect will, therefore, be of **minor beneficial significance**, which is not significant.

Low scenario

2.11.2.22 The low scenario has been qualitatively assessed to represent the ‘minimum’ or ‘worst case’ employment and GVA impacts associated with the construction phase of the Transmission Assets.

2.11.2.23 This scenario considers a situation where no Tier 1 contracts are secured within North Wales and North West England for the delivery of development, fabrication, or marshalling activities.

2.11.2.24 Under this scenario, no direct employment and GVA impacts are anticipated to be retained within North Wales and North West England. There may be

some indirect and induced impacts in these economic study areas, assuming a proportion of supply chain expenditure is retained in these locations.

2.11.2.25 The significance of the effect for each economic study area under the low scenario is set out in **Table 2.39**.

Table 2.39: Significance of construction phase offshore employment and GVA impacts (low scenario)

Study area	Magnitude	Sensitivity	Significance	Significant in EIA terms
North Wales	Negligible	Medium	Negligible	No
North West England	Negligible	Medium	Negligible	No

Operation and maintenance

2.11.2.26 This assessment assumes a 35-year operation and maintenance period (see Volume 1, Chapter 3: Project description of the ES).

Current capability scenario

2.11.2.27 The current capability scenario has been quantitatively assessed to represent the 'most likely' operation and maintenance phase offshore employment and GVA impacts associated with the Transmission Assets under current sector conditions.

2.11.2.28 The potential impacts of the Transmission Assets on offshore employment and GVA in operation and maintenance activities under the current capability scenario are set out in **Table 2.40**. These impacts will create opportunities to both safeguard existing economic activities and facilitate new economic growth and development within the offshore wind sector at local, regional and national levels.

Table 2.40: Potential offshore impacts (current capability scenario) of the Transmission Assets on employment and GVA in operation and maintenance activities

	North Wales	North West England
Employment (FTE years)	40	45
GVA	£5.2 m	£5.6 m

Sensitivity of the receptor

2.11.2.29 As per **section 2.10.2**, receptor sensitivity to potential operation and maintenance phase offshore employment and GVA impacts is assessed on the basis of tolerance, recoverability, and value and importance.

Value and importance

2.11.2.30 As set out in **paragraph 2.11.2.17**, the value and importance of employment and GVA growth – both generally and within the renewable energy and offshore wind sectors specifically – is assessed as high.

Tolerance

2.11.2.31 The future baseline conditions set out in **section 2.6.7** indicates there is likely to be capacity in the utilities sector due to a decreasing employment base up to 2035. This indicates there is likely to be potential to accommodate an increase in operation and maintenance activities in the offshore wind sector.

2.11.2.32 As such, the tolerance of the receptor is assessed as high – this corresponds to a low sensitivity.

Recoverability

2.11.2.33 The duration of the impact is assessed as long term and permanent. As such, the recoverability of the receptor is assessed as low – as per **Table 2.32** this corresponds to a high sensitivity.

Overall

2.11.2.34 The sensitivity of the receptor for all economic study areas is set out in **Table 2.41**.

Table 2.41: Sensitivity of receptor – operation and maintenance phase offshore employment and GVA

	Sensitivity level
Value and importance	High
Tolerance	Low
Recoverability	High
Sensitivity	**High**

Magnitude of impact

2.11.2.35 As per **section 2.10.3**, the magnitude of impact is assessed on the basis of scale, spatial extent, duration and frequency.

2.11.2.36 A comparison of the potential offshore employment and GVA impacts associated with operation and maintenance phase activities, compared to the relevant baseline conditions for each economic study area, is set out **Table 2.42**.

Table 2.42: Potential operation and maintenance phase offshore employment and GVA impacts compared to baseline conditions

Study area	All industries emp.	Impact industries emp.	Offshore wind sector emp.	All industries GVA	Impact industries GVA
North Wales	<0.1%	1.7%	26.0%	<0.1%	0.3%
North West England	<0.1%	0.2%	1.4%	<0.1%	<0.1%

2.11.2.37 This results in an assessment of impact magnitude as set out in **Table 2.43**.

Table 2.43: Magnitude of impact – potential operation and maintenance phase offshore employment and GVA impacts

Study area	Magnitude	Spatial extent	Duration	Frequency
North Wales	Low (beneficial)	Sub-national	Long term (permanent)	Continuous
North West England	Low (beneficial)	Sub-national	Long term (permanent)	Continuous

Significance of the effect

North Wales

2.11.2.38 Overall, the sensitivity of the receptor is **high** and the magnitude of the impact is **low beneficial**. The effect will, therefore, be of **minor beneficial significance**, which is not significant.

North West England

2.11.2.39 Overall, the sensitivity of the receptor is **high** and the magnitude of the impact is **low beneficial**. The effect will, therefore, be of **minor beneficial significance**, which is not significant.

Low scenario

2.11.2.40 The low scenario has been qualitatively assessed to represent the 'minimum' or 'worst case' employment and GVA impacts associated with the operation and maintenance phase of the Transmission Assets.

2.11.2.41 This scenario considers a situation where the primary operations facility is not located at a port within North Wales or North West England for the delivery of operation and maintenance activities.

2.11.2.42 Under this scenario, no direct employment and GVA impacts are anticipated to be retained within North Wales and North West England. There may be some indirect and induced impacts in these economic study areas, assuming a proportion of supply chain expenditure is retained in these locations.

2.11.2.43 The significance of the effect for each economic study area under the low scenario is set out in **Table 2.44**.

Table 2.44: Significance of operation and maintenance phase offshore employment and GVA impacts (low scenario)

Study area	Magnitude	Sensitivity	Significance	Significant in EIA terms
North Wales	Negligible	Medium	**Negligible**	No
North West England	Negligible	Medium	**Negligible**	No

2.11.3 The potential impact of increased employment opportunities

2.11.3.1 The construction, operation and maintenance, and decommissioning of the Transmission Assets may lead to potential offshore impacts on economic receptors including employment opportunities for local residents. The assessment draws on the estimates of potential impacts as set out in Volume 4, Annex 2.1: Socio-economics technical report of the ES.

Magnitude (scale) of impact - assessment approach

2.11.3.2 The scale of potential employment opportunities for local residents is assessed against the following baseline conditions.

- Economic activity: this is a measure of whether or not a person is an active participant in the labour market. Using the current economically active population as a benchmark provides an indication of the scale of impact on the currently available workforce.
- Economically inactive individuals that want a job, and the unemployed population: the is a measure of whether or not a person is out of work, and whether they are seeking employment. Using this measure as a benchmark provides an indication of the scale of employment impacts in the context of the potentially available workforce within an area.

2.11.3.3 The criteria against which magnitude of potential economic impacts are assessed can be found in **Table 2.45**.

Table 2.45: Magnitude of employment opportunities for local residents assessment criteria

Magnitude of impact	Share of relevant baseline conditions	
	Employment impact as share of economically active individuals	Employment impact as share of available labour market
High	>1.0%	>10%
Medium	0.5%–1.0%	5%–10%
Low	0.1%–0.5%	1%–5%
Negligible	<0.1%	<1%

2.11.3.4 The expenditure in all study areas may create a range of employment opportunities for residents within the respective locations. This will include supporting existing workforces within the supply chain as well as the creation of new roles where expansion of the sector is facilitated.

2.11.3.5 This potential impact is applicable to the construction, operation and maintenance, and decommissioning phases.

Construction phase

Current capability scenario

2.11.3.6 The current capability scenario has been quantitatively assessed to represent the 'most likely' construction phase offshore labour market impacts associated with the Transmission Assets under current sector conditions.

2.11.3.7 The potential impacts of the Transmission Assets on offshore employment opportunities for local residents in development and construction activities under the current capability scenario are set out in **Table 2.46**.

Table 2.46: Potential offshore impacts (current capability scenario) of the Transmission Assets on employment opportunities for local residents in development and construction activities

	North Wales	North West England
Employment (FTE years)	260	370

Sensitivity of the receptor

2.11.3.8 As per **section 2.10.2** receptor sensitivity to potential construction phase labour market impacts is assessed on the basis of tolerance, recoverability, and value and importance.

Value and importance

2.11.3.9 Increasing employment in the renewable energy sector, including offshore wind activities specifically, is a policy objective at the national level. The offshore wind sector is identified as a growth opportunity within a more broadly defined energy sector which is forecast to experience employment decline. Providing high quality employment opportunities for residents is also a policy priority at every geographical level.

2.11.3.10 As such, the value and importance of the receptor is assessed as high.

Tolerance

2.11.3.11 The number of economically inactive individuals that wanted a job was 19,000 in North Wales, and 187,000 in North West England in 2022 (ONS, 2023b). In 2022 the number of unemployed individuals was 9,000 in North Wales and 146,000 in North West England (ONS, 2023c). This suggests there are a significant number of residents across all economic study areas looking to enter the workforce.

2.11.3.12 As such, the tolerance of the receptor is assessed as high – as per **Table 2.32** this corresponds to a low sensitivity.

Recoverability

2.11.3.13 There are anticipated to be ongoing beneficial legacy effects, which would be part of positioning a local workforce to compete to deliver further activity in the offshore wind sector. As the potential impact is expected to be beneficial, it would be desirable to retain these.

2.11.3.14 Even in the absence of ongoing legacy beneficial effects linked to direct expenditure, it is unlikely that labour market impacts resulting from indirect and induced expenditure would be entirely reversed following the construction phase. As such, the recoverability of the receptor is assessed as medium.

Overall

2.11.3.15 The sensitivity of the receptor for all economic study areas is assessed as in **Table 2.47**.

Table 2.47: Sensitivity of receptor – potential construction phase offshore employment opportunities for local residents

	Sensitivity level
Value and importance	High
Tolerance	Low
Recoverability	Medium
Sensitivity	**Medium**

Magnitude of impact

2.11.3.16 As per **section 2.10.3**, the magnitude of potential impacts is assessed on the basis of scale, spatial extent, duration and frequency.

2.11.3.17 A comparison of the potential offshore labour market impacts associated with development and construction phase activities, compared to the relevant baseline conditions for each economic study area, is set out in **Table 2.48**.

Table 2.48: Potential construction phase offshore employment opportunities for local residents compared to baseline conditions

Study area	Employment impact as share of economically active individuals	Employment impact as share of available labour market
North Wales	0.1%	1.4%
North West England	<0.1%	0.2%

2.11.3.18 This results in an assessment of impact magnitude as set out in **Table 2.49**.

Table 2.49: Magnitude of impact – potential construction phase offshore employment opportunities for local residents

Study area	Magnitude	Spatial extent	Duration	Frequency
North Wales	Low (beneficial)	Sub-national	Medium term (temporary)	Intermittent
North West England	Negligible	Sub-national	Medium term (temporary)	Intermittent

Significance of the effect

North Wales

2.11.3.19 Overall, the sensitivity of the receptor is **medium** and the magnitude of the impact is **low beneficial**. The effect will, therefore, be of **minor beneficial significance**, which is not significant.

North West England

2.11.3.20 Overall, the sensitivity of the receptor is **medium** and the magnitude of the impact is **negligible**. The effect will, therefore, be of **negligible significance**, which is not significant.

Low scenario

2.11.3.21 The low scenario has been qualitatively assessed to represent the 'minimum' or 'worst case' labour market impacts associated with the construction phase of the Transmission Assets.

2.11.3.22 This scenario considers a situation where no Tier 1 contracts are secured within North Wales or North West England for the delivery of development, fabrication, or marshalling activities.

2.11.3.23 Under this scenario, no direct employment opportunities for local residents are anticipated to be retained within North Wales and North West England. There may be some indirect and induced impacts in these economic study areas, assuming a proportion of supply chain expenditure is retained in these locations.

2.11.3.24 The significance of the effect for each economic study area under the low scenario is set out in **Table 2.50**.

Table 2.50: Significance of construction phase offshore employment opportunities for local residents (low scenario)

Study area	Magnitude	Sensitivity	Significance	Significant in EIA terms
North Wales	Negligible	Medium	**Negligible**	No
North West England	Negligible	Medium	**Negligible**	No

Operation and maintenance phase

2.11.3.25 This assessment assumes a 35-year operation and maintenance period (see Volume 1, Chapter 3: Project description of the ES).

Current capability scenario

2.11.3.26 The current capability scenario has been quantitatively assessed to represent the 'most likely' operation and maintenance phase offshore labour market impacts associated with the Transmission Assets under current sector conditions.

2.11.3.27 The potential impacts of the Transmission Assets on offshore employment opportunities for local residents in operation and maintenance activities under the current capability scenario are set out in **Table 2.51**.

Table 2.51: Potential offshore impacts (current capability scenario) of the Transmission Assets on employment opportunities for local residents in operation and maintenance activities

	North Wales	North West England
Employment (FTE years)	40	45

Sensitivity of the receptor

2.11.3.28 As per **section 2.10.2**, receptor sensitivity to potential labour market impacts is assessed on the basis of tolerance, recoverability, and value and importance.

Value and importance

2.11.3.29 As per **paragraph 2.11.2.17**, the value the value and importance of employment opportunities for local employment growth – both generally and within the renewable energy and offshore wind sectors specifically – is assessed as high.

Tolerance

2.11.3.30 As per **paragraph 2.11.2.31**, the tolerance of the receptor is assessed as high – as per **Table 2.32** this corresponds to a low sensitivity.

Recoverability

2.11.3.31 The duration of the impact is assessed as long term and permanent. As such, the recoverability of the receptor is assessed as low – as per **Table 2.32** this corresponds to a high sensitivity.

Overall

2.11.3.32 The sensitivity of the receptor for all economic study areas is set out in **Table 2.52**.

Table 2.52: Sensitivity of receptor – operation and maintenance phase offshore employment opportunities for local residents

	Sensitivity level
Value and importance	High
Tolerance	Low
Recoverability	High
Sensitivity	**High**

Magnitude of impact

2.11.3.33 As per **section 2.10.3**, the magnitude of potential impacts is assessed on the basis of scale, spatial extent, duration and frequency.

2.11.3.34 A comparison of the potential offshore labour market impacts associated with operation and maintenance phase activities, compared to the relevant baseline conditions for each economic study area, is set out in **Table 2.53.**

Table 2.53: Potential operation and maintenance phase offshore employment opportunities for local residents compared to baseline conditions

Study area	Employment impact as share of economically active individuals	Employment impact as share of available labour market
North Wales	<0.1%	0.2%
North West England	<0.1%	<0.1%

2.11.3.35 This results in an assessment of impact magnitude as set out in **Table 2.54**.

Table 2.54: Magnitude of impact – potential operation and maintenance phase offshore employment opportunities for local residents

Study area	Magnitude	Spatial extent	Duration	Frequency
North Wales	Negligible	Sub-national	Long term (permanent)	Continuous
North West England	Negligible	Sub-national	Long term (permanent)	Continuous

Significance of the effect

North Wales

2.11.3.36 Overall, the sensitivity of the receptor is **high** and the magnitude of the impact is **negligible**. The effect will, therefore, be of **minor beneficial significance**, which is not significant.

North West England

2.11.3.37 Overall, the sensitivity of the receptor is **high** and the magnitude of the impact is **negligible**. The effect will, therefore, be of **minor beneficial** significance, which is not significant.

Low scenario

2.11.3.38 The low scenario has been qualitatively assessed to represent the 'minimum' or 'worst case' offshore labour market impacts associated with the operation and maintenance phase of the Transmission Assets.

2.11.3.39 This scenario considers a situation where the primary operations facility is not located at a port within North Wales or North West England for the delivery of operation and maintenance activities.

2.11.3.40 Under this scenario, no direct employment opportunities for local residents are anticipated to be retained within North Wales and North West England. There may be some indirect and induced impacts in these economic study areas, assuming a proportion of supply chain expenditure is retained in these locations.

2.11.3.41 The significance of the effect for each economic study area under the low scenario is set out in **Table 2.55**.

Table 2.55: Significance of operation and maintenance phase offshore employment opportunities for local residents (low scenario)

Study area	Magnitude	Sensitivity	Significance	Significant in EIA terms
North Wales	Negligible	High	Minor (beneficial)	No
North West England	Negligible	High	Minor (beneficial)	No

2.11.4 The potential impact on population, housing, and accommodation

2.11.4.1 The potential offshore impacts on population, housing and accommodation have the potential to arise through the overnight, short term (temporary), or long term (permanent) relocation of workers into social study areas.

2.11.4.2 'Overnight' is defined for this assessment as a period generally measured in nights that would typically be accommodated within a hotel, hostel, guesthouse or bed and breakfast type environment. The worker would be expected to travel alone without family.

2.11.4.3 'Short term (temporary)' relocation is defined as a period generally measured in months that would typically be accommodated within rented housing. The worker would be expected to travel alone without family.

2.11.4.4 'Long term (permanent)' relocation is defined as a period generally measured in years that would result in the worker relocating to the relevant area with a long-term housing solution alongside their family.

2.11.4.5 This impact is applicable to the construction, operation and maintenance, and decommissioning phases. The assessment draws on the assessment of social impacts and discussion of workforce issues as set out in the supporting Volume 4, Annex 2.1: Socio-economics technical report of the ES.

Magnitude (scale) of impact - assessment approach

2.11.4.6 The magnitude of impacts is assessed against the following baseline conditions (and are shown in **Table 2.56**):

- potential overnight stays:
  - Total number of overnight stays: comparison with total number of overnight stays (in nights per annum) to provide indication of scale relative to existing market.
- potential long term (permanent) relocations;
- total population: comparison with total population to give an indication of the scale of the impact of labour migration on the resident population;
- total dwellings stock: comparison with overall dwellings stock to give an indication of the scale of the impact of labour migration on the housing market; and
- total unoccupied dwellings stock: comparison with unoccupied dwellings stock to give an indication of the scale of the impact of labour migration on the housing market.

Table 2.56: Magnitude of potential impacts on accommodation

Magnitude of Impact	Share of baseline overnight accommodation
High	>10%
Medium	5%–10%
Low	1%–5%
Negligible	<1%

Construction phase

Current capability scenario

2.11.4.7 The current capability scenario has been quantitatively assessed to represent the 'most likely' construction phase social impacts associated with the Transmission Assets under current sector conditions.

2.11.4.8 Under the current capability scenario it is assumed that procurement decisions are taken in line with current conditions within the UK offshore wind sector. Employment related to fabrication is assumed to draw on the standing workforces of existing enterprises. This will not have any impact on the demand for housing, accommodation and local services above current baseline activity.

2.11.4.9 There will be a range of installation and commissioning roles filled by mobile workers, as is typical of all offshore wind projects. These roles will be largely offshore with workers accommodated within Installation Support Vessels (ISVs). It is assumed that offshore workers will be mobilised out of a single transfer port. These workers have the potential to give rise to demand for overnight accommodation at the start and end of typical four-week shift periods at sea.

2.11.4.10 It is anticipated there will be no material long term (permanent) or short term (temporary) relocation of workers into any of the social study areas.

2.11.4.11 As such, potential impacts on population – and any associated potential impacts on local services such as healthcare and education – are anticipated to be negligible and do not require further assessment.

2.11.4.12 Similarly, potential impacts on the demand for other services and facilities including community facilities, energy, water, transport and waste, are anticipated to be negligible and do not require further assessment.

2.11.4.13 The potential demand for overnight accommodation, as measured in nights per annum, arising from the Transmission Assets are set out in **Table 2.57**.

Table 2.57: Potential offshore impact on overnight accommodation (current capability scenario)

Study area	Maximum temporary overnight stays (nights per annum)
North Wales	24,200
North West England	24,200

Sensitivity of the receptor

2.11.4.14 As per **section 2.10.2**, receptor sensitivity to potential construction phase social impacts is assessed on the basis of tolerance, recoverability, and value and importance.

Value and importance

2.11.4.15 The overnight accommodation sector forms part of the wider tourism sector which is a policy priority across each social study area.

2.11.4.16 As such, the value and importance of the receptor is assessed as high.

Tolerance

2.11.4.17 There will be a range of installation and commissioning roles filled by mobile workers, as is typical of all offshore wind farm projects. These roles will be largely offshore with workers accommodated within ISVs. However, these workers have the potential to give rise to demand for overnight accommodation at the start and end of typical two week shift periods at sea.

2.11.4.18 Occupancy rates of overnight accommodation are subject to variations from month-to-month and year-to-year. This is particularly so following the pandemic, where occupancy rates were significantly reduced compared to pre-pandemic levels. Normal fluctuation is substantially greater than the assessed scale of impact.

2.11.4.19 There is excess capacity within the overnight accommodation sector based on annual average and peak month occupancy data.

2.11.4.20 There is potential for offshore works to be seasonal, with some activities concentrated during times of the year with better weather. This is likely to

coincide with times of the year experiencing higher occupancy rates in overnight accommodation.

2.11.4.21 Consideration of the above factors leads to the tolerance of the receptor being assessed as medium.

Recoverability

2.11.4.22 As stated above, occupancy rates of overnight accommodation are subject to wide variations from month-to-month and year-to-year i.e. they are not static. As such, conditions are unlikely to be reversed following the construction phase – however this would be the case regardless of whether or not the Transmission Assets is consented.

2.11.4.23 The recoverability of the receptor is therefore assessed as medium.

Overall

2.11.4.24 The sensitivity of the receptor for each social study area is assessed as in **Table 2.58**.

Table 2.58: Sensitivity of construction phase housing, accommodation and local services receptor

	Sensitivity level
Value and importance	High
Tolerance	Medium
Recoverability	Medium
Sensitivity	**Medium**

Magnitude of impact

2.11.4.25 Potential offshore impacts compared to overnight accommodation capacity are estimated based on average unutilised hotel room occupancy. This is a proxy indicator. There is substantial unutilised capacity across a variety of overnight accommodation types.

2.11.4.26 Potential offshore impacts are assessed as beneficial, creating demand for overnight accommodation within identified levels of available capacity in each study area. Additional demand for overnight stays has a number of benefits. Firstly, this leads to increased revenue for overnight accommodation businesses. Secondly, maximising occupancy rates improves the efficiency of overnight accommodation providers by virtue of increased resource utilisation (staff, utilities, facilities). Finally, it increases spending in local businesses, resulting in local economic multiplier effects.

2.11.4.27 As per **Table 2.57**, a maximum number of 24,200 overnight stays will be required during construction activities of the offshore Transmission Assets. Compared with the baseline conditions, this equates to 0.4% and 0.2% of total overnight stays in North Wales offshore study area and North West England offshore study area, respectively.

2.11.4.28 The magnitude of impact, relative to the baseline for each social study area, is set out in **Table 2.59**.

Table 2.59: Potential construction phase offshore overnight accommodation demand compared to baseline conditions

Study area	Share of baseline overnight accommodation
North Wales	0.4%
North West England	0.2%

2.11.4.29 This results in an assessment of impact magnitude as set out in **Table 2.60**.

Table 2.60: Magnitude of offshore overnight accommodation demand, current capability scenario

Study area	Magnitude	Spatial extent	Duration	Frequency
North Wales	Negligible	Sub-national	Medium term (temporary)	Intermittent
North West England	Negligible	Sub-national	Medium term (temporary)	Intermittent

Significance of the effect

North Wales

2.11.4.30 Overall, the sensitivity of the receptor is **medium** and the magnitude of the impact is **negligible**. The effect will, therefore, be of **negligible significance**, which is not significant.

North West England

2.11.4.31 Overall, the sensitivity of the receptor is **medium** and the magnitude of the impact is **negligible**. The effect will, therefore, be of **negligible significance**, which is not significant.

2.11.5 Future monitoring

2.11.5.1 The assessment of impacts on socio-economics as a result of the construction, operation and maintenance and decommissioning phases of the Transmission Assets are predicted to be not adversely significant in EIA terms. Based on the predicted impacts it is concluded that no specific monitoring to test the predictions made within the impact assessment is required.

2.12 Assessment of effects – onshore

2.12.1 Overview

2.12.1.1 As per **paragraph 2.1.1.5**, this chapter's approach is focused on the 'source' of the impact. As such, if physical infrastructure and civil works are located onshore, any resulting impacts are categorised as onshore.

2.12.1.2 The potential impacts of the construction, operation and maintenance, and decommissioning phases of the Transmission Assets have been assessed on socio-economics receptors. The potential impacts arising from the onshore construction, operation and maintenance and decommissioning phases of the Transmission Assets are listed in **Table 2.31**, along with the MDS against which each impact has been assessed.

2.12.1.3 A description of the potential onshore effects on socio-economics receptors caused by each identified impact is given below.

2.12.2 The potential impact on economic receptors including employment and GVA

2.12.2.1 The construction, operation and maintenance, and decommissioning of the Transmission Assets may lead to potential onshore impacts on economic receptors including employment and GVA. The assessment draws on the estimates of potential onshore employment and GVA impacts as set out in Volume 4, Annex 2.1: Socio-economics technical report of the ES.

Magnitude (scale) of impact - assessment approach

2.12.2.2 The scale of potential employment and GVA impacts is assessed against the same conditions and criteria set out for offshore assessment at **paragraphs 2.11.2.3–2.11.2.5**.

Construction phase

2.12.2.3 The potential onshore impacts of the Transmission Assets on employment and GVA in development and construction activities are set out in **Table 2.61**. These impacts will create opportunities to both safeguard existing economic activities, and facilitate new economic growth and development within the offshore wind sector at local, regional and national levels.

Table 2.61: Potential onshore impacts of the Transmission Assets on employment and GVA in development and construction activities

	Onshore economic study area
Employment (FTE years)	260
GVA	£17.9 m

Sensitivity of the receptor

2.12.2.4 As per **section 2.10.2**, receptor sensitivity to potential construction phase employment and GVA impacts is assessed on the basis of tolerance, recoverability, and value and importance.

2.12.2.5 The value and importance, tolerance, and recoverability are assessed on the same basis as the offshore assessment (**paragraphs 2.11.2.9– 2.11.2.17**).

2.12.2.6 The sensitivity of the receptor for the onshore economic study area is set out in **Table 2.62**.

Table 2.62: Sensitivity of receptor – potential construction phase onshore employment and GVA impacts

	Sensitivity level
Value and importance	High
Tolerance	Low
Recoverability	Medium
Sensitivity	**Medium**

Magnitude of impact

2.12.2.7 As per **section 2.10.3**, the magnitude of potential onshore impacts is assessed on the basis of scale, spatial extent, duration and frequency.

2.12.2.8 A comparison of the potential onshore employment and GVA impacts associated with development and construction phase activities, compared to the relevant baseline conditions for each economic study area, is set out in **Table 2.63**.

Table 2.63: Potential construction phase onshore employment and GVA impacts compared to baseline conditions

Study area	All industries emp.	Impact industries emp.	Offshore wind sector emp.	All industries GVA	Impact industries GVA
Onshore economic study area	<0.1%	0.6%	158.4%	<0.1%	0.1%

2.12.2.9 This results in an assessment of impact magnitude as set out in **Table 2.64**.

Table 2.64: Magnitude of impact – potential construction phase onshore employment and GVA impacts

Study area	Magnitude	Spatial extent	Duration	Frequency
Onshore economic study area	**Low (beneficial)**	Sub-national	Medium term (temporary)	Intermittent

Significance of the effect

Onshore economic study area

2.12.2.10 Overall, the sensitivity of the receptor is **medium** and the magnitude of the impact is **low beneficial**. The effect will, therefore, be of **minor beneficial significance**, which is not significant.

Operation and maintenance

2.12.2.11 This assessment assumes a 35-year operation and maintenance period (see Volume 1, Chapter 3: Project description of the ES).

Current capability scenario

2.12.2.12 The current capability scenario has been quantitatively assessed to represent the 'most likely' operation and maintenance phase onshore employment and GVA impacts associated with the Transmission Assets under current sector conditions.

2.12.2.13 The potential impacts of the Transmission Assets on onshore employment and GVA in operation and maintenance activities under the current capability scenario are set out in **Table 2.65**. These impacts will create opportunities to both safeguard existing economic activities, and facilitate new economic growth and development within the offshore wind sector at local, regional and national levels.

Table 2.65: Potential onshore impacts (current capability scenario) of the Transmission Assets on employment and GVA in operation and maintenance activities

	Onshore study area
Employment (FTE years)	50
GVA	£3.4 m

Sensitivity of the receptor

2.12.2.14 As per **section 2.10.2**, receptor sensitivity to potential operation and maintenance phase onshore employment and GVA impacts is assessed on the basis of tolerance, recoverability, and value and importance.

Value and importance

2.12.2.15 As set out in **paragraph 2.11.2.17**, whether an economic study area's policy position has the aim of making the offshore wind sector part of its approach to economic development is a key consideration. This can also be through providing jobs, skills, education and training for local residents to work in the offshore wind sector. Policy aims to provide the same opportunity in the renewable energy sector will also be considered as important. General policy aims to provide jobs, skills, education and training for local residents in any sector are also considered.

2.12.2.16 Increasing employment in the renewable energy sector, including offshore wind activities specifically, is a policy objective within the onshore study area (**section 2.2.2.16**), as well as the UK and North West England. The offshore wind sector is identified as a growth opportunity within a more broadly defined energy sector which is forecast to experience employment decline.

2.12.2.17 As such, the value and importance of the receptor is assessed as high.

Tolerance

2.12.2.18 The future baseline conditions set out in **section 2.6.7** indicates there is likely to be capacity in the utilities sector due to a decreasing employment base up to 2035. This indicates there is likely to be potential to accommodate an increase in operation and maintenance activities in the offshore wind sector.

2.12.2.19 As such, the tolerance of the receptor is assessed as high – this corresponds to a low sensitivity.

Recoverability

2.12.2.20 The duration of the impact is assessed as long term and permanent. As such, the recoverability of the receptor is assessed as low – as per **Table 2.32** this corresponds to a high sensitivity.

Overall

2.12.2.21 The sensitivity of the receptor for the onshore study area is set out in **Table 2.66**.

Table 2.66: Sensitivity of receptor – operation and maintenance phase offshore employment and GVA

	Sensitivity level
Value and importance	High
Tolerance	Low
Recoverability	High
Sensitivity	**High**

Magnitude of impact

2.12.2.22 As per **section 2.10.3**, the magnitude of impact is assessed on the basis of scale, spatial extent, duration and frequency.

2.12.2.23 A comparison of the potential onshore employment and GVA impacts associated with operation and maintenance phase activities, compared to the relevant baseline conditions for each economic study area, is set out in **Table 2.67**.

Table 2.67: Potential operation and maintenance phase onshore employment and GVA impacts compared to baseline conditions

Study area	All industries emp.	Impact industries emp.	Offshore wind sector emp.	All industries GVA	Impact industries GVA
Onshore economic study area	<0.1%	0.1%	31.1%	<0.1%	<0.1%

2.12.2.24 This results in an assessment of impact magnitude as set out in **Table 2.68**.

Table 2.68: Magnitude of impact – potential operation and maintenance phase onshore employment and GVA impacts

Study area	Magnitude	Spatial extent	Duration	Frequency
Onshore study area	Low (beneficial)	Sub-national	Long term (permanent)	Continuous

Significance of the effect

2.12.2.25 Overall, the sensitivity of the receptor is **high** and the magnitude of the impact is **low beneficial**. The effect will, therefore, be of **minor beneficial significance** to the onshore study area, which is not significant in EIA terms.

2.12.3 The potential impact of increased employment opportunities

2.12.3.1 The construction, operation and maintenance, and decommissioning of the Transmission Assets may lead to potential onshore impacts on economic receptors including employment opportunities for local residents. The assessment draws on the estimates of potential impacts as set out in Volume 4, Annex 2.1: Socio-economics technical report of the ES.

Magnitude (scale) of impact - assessment approach

2.12.3.2 The scale of potential labour market impacts is assessed against the same conditions and criteria set out for offshore assessment at **paragraphs 2.11.3.2–2.11.3.3**.

Construction phase

2.12.3.3 The potential onshore impacts of the Transmission Assets on employment opportunities for local residents in development and construction activities are set out in **Table 2.69**. These impacts will create opportunities to both safeguard existing jobs, and facilitate new jobs growth.

Table 2.69: Potential onshore impacts of the Transmission Assets on employment opportunities for local residents in development and construction activities

	Onshore economic study area
Employment (FTE years)	255

Sensitivity of the receptor

2.12.3.4 Receptor sensitivity to potential construction phase labour market impacts is assessed on the basis of tolerance, recoverability, and value and importance, as per **paragraphs 2.11.2.9– 2.11.2.17**.

2.12.3.5 The sensitivity of the receptor for the onshore economic study area is set out in **Table 2.70**.

Table 2.70: Sensitivity of receptor – potential construction phase onshore employment opportunities for local residents

	Sensitivity level
Value and importance	High
Tolerance	Low
Recoverability	Medium
Sensitivity	**Medium**

Magnitude of impact

2.12.3.6 As per **section 2.10.3**, the magnitude of potential impacts is assessed on the basis of scale, spatial extent, duration and frequency.

2.12.3.7 A comparison of the potential onshore labour market impacts associated with development and construction phase activities, compared to the relevant baseline conditions for the onshore economic study area, is set out in **Table 2.71**.

Table 2.71: Potential construction phase onshore employment opportunities for local residents compared to baseline conditions

Study area	Employment impact as share of economically active individuals	Employment impact as share of available labour market
Onshore economic study area	0.0%	0.2%

2.12.3.8 This results in an assessment of impact magnitude as set out in **Table 2.72**.

Table 2.72: Magnitude of impact – potential construction phase onshore employment opportunities for local residents

Study area	Magnitude	Spatial extent	Duration	Frequency
Onshore economic study area	**Negligible**	Sub-national	Medium term (temporary)	Intermittent

Significance of the effect

Onshore economic study area

2.12.3.9 Overall, the sensitivity of the receptor is **medium** and the magnitude of the impact is **negligible**. The effect will, therefore, be of **negligible significance**, which is not significant.

Operation and maintenance phase

2.12.3.10 This assessment assumes a 35-year operation and maintenance period (see Volume 1, Chapter 3: Project description of the ES).

2.12.3.11 The potential onshore impacts of the Transmission Assets on employment opportunities for local residents in operation and maintenance activities are

set out in **Table 2.73**. Local employment opportunities will be created through the facilitation of new jobs growth and through safeguarding existing jobs.

Table 2.73: Potential onshore impacts (current capability scenario) of the Transmission Assets on employment opportunities for local residents in operation and maintenance activities

	Onshore study area
Per annum	
Employment (FTE years)	50

Sensitivity of the receptor

2.12.3.12 As per **section 2.10.2**, receptor sensitivity to potential labour market impacts is assessed on the basis of tolerance, recoverability, and value and importance.

Value and importance

2.12.3.13 Employment associated with the operation and maintenance activities are anticipated to increase employment opportunities within the onshore study area. Ensuring local employment opportunities are created by renewable energy developments is identified as a policy priority within local policy (set out in **section 2.2.2.16**). In recognition of the value and importance of these impacts being retained within the local area, the Applicants have committed to an Outline Employment and Skills Plan (document reference J31) which will detail how the Applicants will engage with local workers and training providers for anticipated employment opportunities associated with the Transmission Assets.

2.12.3.14 The issue of whether employment opportunities would be retained within the onshore study area was a common response to consultations undertaken to date (see **Table 2.8**).

2.12.3.15 The value and importance of employment opportunities for local employment growth is therefore assessed as very high.

Tolerance

2.12.3.16 As per **paragraph 2.11.2.31**, the tolerance of the receptor is assessed as high – as per **Table 2.32** this corresponds to a low sensitivity.

Recoverability

2.12.3.17 The duration of the impact is assessed as long term and permanent. As such, the recoverability of the receptor is assessed as low – as per Table 2.32, this corresponds to a high sensitivity.

Overall

2.12.3.18 The sensitivity of the receptor for all economic study areas is set out in **Table 2.74**.

Table 2.74: Sensitivity of receptor – operation and maintenance phase offshore employment opportunities for local residents

	Sensitivity level
Value and importance	Very High
Tolerance	Low
Recoverability	High
Sensitivity	**High**

Magnitude of impact

2.12.3.19 As per **section 2.10.3**, the magnitude of potential impacts is assessed on the basis of scale, spatial extent, duration and frequency.

2.12.3.20 A comparison of the potential onshore labour market impacts associated with operation and maintenance phase activities, compared to the relevant baseline conditions for each economic study area, is set out in **Table 2.75**.

Table 2.75: Potential operation and maintenance phase onshore employment opportunities for local residents compared to baseline conditions

Study area	Employment impact as share of economically active individuals	Employment impact as share of available labour market
Onshore economic study area	<0.1%	<0.1%

2.12.3.21 This results in an assessment of impact magnitude as set out in **Table 2.76**.

Table 2.76: Magnitude of impact – potential operation and maintenance phase offshore employment opportunities for local residents.

Study area	Magnitude	Spatial extent	Duration	Frequency
Onshore study area	Negligible	Sub-national	Long term (permanent)	Continuous

Significance of the effect

North Wales

2.12.3.22 Overall, the sensitivity of the receptor is **high** and the magnitude of the impact is **negligible**. The effect will, therefore, be of **minor beneficial significance**, which is not significant.

2.12.4 The potential economic impact of potential changes to aviation activities (at Blackpool Airport and Blackpool Airport Enterprise Zone)

2.12.4.1 Following from Volume 3, Chapter 11: Aviation and radar of the ES, potential aviation impacts could result in alterations to key flight activity in poor weather conditions of low cloud or visibility (for a period of a few hours to a day in duration). These potential impacts on aviation may indirectly result in

adverse economic impacts where impacts result in disruption to economic activities at Blackpool Airport and/or Blackpool Airport Enterprise Zone.

Construction phase

Sensitivity of receptor

Value and importance

2.12.4.2 The North West England economy is a significant and diverse regional economy within the UK. The region includes major urban centres such as Manchester and Liverpool, and has numerous infrastructure assets, including ports, rail networks, and airports.

2.12.4.3 The importance of the receptor is therefore assessed as high.

Tolerance

2.12.4.4 The North West England economy is relatively robust and diversified, with multiple sectors contributing to its overall stability.

2.12.4.5 Blackpool Airport does not serve as a primary economic driver for North West England. The airport's role is relatively specialised and localised, supporting specific industries.

2.12.4.6 Specific activities relying on the airport may experience disruptions in the event of alterations to key flight activity in poor weather conditions of low cloud or visibility (for a period of a few hours to a day in duration), to varying degrees:

- **Chartered and executive flights**: accounted for around 12,500 aircraft movements at Blackpool Airport in 2023 – around 32% of all aircraft movements at Blackpool Airport. In poor weather conditions of low cloud or visibility, chartered and executive flights would typically utilise the ILS to maintain service. In the event of alterations to the availability of the ILS, executive flight activity would have three primary options – proceed with the journey via an alternative airport, delay the journey, or cancel the journey. In each instance, the vulnerability is anticipated to be low.
- **Offshore energy helicopter services**: accounted for around 2,000 aircraft movements at Blackpool Airport – which equates to around 5% of all aircraft movements at Blackpool. In poor weather conditions of low cloud or visibility, NHV helicopter services would typically utilise the ILS to maintain service. In the event of alterations to the availability of the ILS, NHV helicopter services would have two primary options – delay the journey or cancel the journey. It is not expected they would proceed with the journey via an alternative airport. In each instance, the vulnerability is anticipated to be low.
- **Air ambulance**: in poor weather conditions of low cloud or visibility, air ambulance helicopter aircraft moving to and from Blackpool airport would not typically utilise the ILS. For any very infrequent instances where the ILS might be required by air ambulance services, there are alternative aerodromes the service can utilise, specifically Warton, Liverpool, and

Manchester Barton. Alterations to the availability of the ILS are therefore assumed not to impact air ambulance services i.e. negligible vulnerability.

- **Maintenance**: in poor weather conditions of low cloud or visibility, aircraft moving to and from Blackpool airport for maintenance purposes would not typically utilise the ILS. These journeys are assumed to be delayed for the short period of hours or days during spells of poor weather conditions that are sufficiently bad to require utilisation of the ILS. Alterations to the availability of the ILS are therefore assumed not to impact maintenance activities i.e., negligible vulnerability.
- **Training and recreation**: accounted for around 24,000 aircraft movements at Blackpool Airport in 2023 – around 62% of all aircraft movements at Blackpool Airport. In poor weather conditions of low cloud or visibility, training and recreational flights would not typically utilise the ILS. These journeys are assumed to be delayed for the short period of hours or days during spells of poor weather conditions that are sufficiently bad to require utilisation of the ILS. Alterations to the availability of the ILS are therefore assumed not to impact training and recreation activities i.e. negligible vulnerability.

2.12.4.7 The capacity of the broader regional economy to accommodate these disruptions is high, given its diversification and reliance on more significant transport and economic hubs. Therefore, while very specific localised aviation activities may be impacted, the overall North West England economy is likely to exhibit low vulnerability.

2.12.4.8 The Enterprise Zone characterises itself as a regionally significant contributor economic development. It is therefore assumed the North West England economy would exhibit some vulnerability to disruption Enterprise Zone's operations. As set out at **paragraphs 2.6.4.32–2.6.4.55**, the interdependencies between the Enterprise Zone and Blackpool Airport are very modest.

2.12.4.9 Whilst the Enterprise Zone can be characterised as a regionally significant contributor to economic development, given its economic strength and diversity, the vulnerability of the North West England economy to the level of potential disruption to current occupiers is low.

2.12.4.10 The delivery of the Masterplan so far suggests there is potential for adjustment to both the scope of the development proposals within each phase, and the programme for delivery of each phase.

2.12.4.11 It is therefore assumed the current Masterplan delivery would exhibit a low vulnerability to alterations to key flight activity at the Airport in poor weather conditions of low cloud or visibility (for a period of a few hours to a day in duration).

2.12.4.12 Negligible interdependencies are anticipated between Silicon Sands occupiers and Blackpool Airport's operations. In the event the construction phase of the Transmission Assets overlaps with the operational phase of the Silicon Sands development proposal, it is assumed that Silicon Sands occupiers would exhibit negligible vulnerability to alterations to key flight

activity at the Airport in poor weather conditions of low cloud or visibility (for a period of a few hours to a day in duration).

Recoverability

2.12.4.13 The recoverability of the North West England economy from the potential impacts associated with the Transmission Assets is high. The potential alterations to Blackpool Airport operations during poor weather conditions are periodic and reversible, with no expected long-term impact on either the airport's infrastructure and operational capacity, current and future Enterprise Zone occupiers, or the deliverability of the current Masterplan.

2.12.4.14 The North West England economy's recoverability is high, particularly given the temporary nature of the construction impacts.

Sensitivity of the Receptor

2.12.4.15 Overall, the value and importance of the receptor is assed as high, the vulnerability of the receptor is assessed as negligible, and the recoverability of the receptor is assessed as high. Therefore, the sensitivity of the receptor is assessed as low.

Magnitude of impact

2.12.4.16 The potential for alterations to key flight activity at Blackpool Airport in poor weather conditions of low cloud or visibility (for a period of a few hours to a day in duration) is considered for its impact on Blackpool Airport's operations, and the Enterprise Zone current and future activities.

2.12.4.17 Blackpool Airport's various operations – chartered and executive flights, helicopter services, air ambulance, maintenance, and training – each contribute to specific aspects of aviation and local services.

2.12.4.18 Whilst each activity supports local employment and services to varying degrees, the scale of their collective influence on the North West England economy is negligible.

2.12.4.19 The majority (an estimated 98.3%) of current occupiers within the Enterprise Zone are unlikely to experience a discernible change in their own operations in the event of alterations to key flight activity at the Airport in poor weather conditions of low cloud or visibility (for a period of a few hours to a day in duration). It is assumed that a similarly high proportion of future occupiers e.g., Silicon Sands, would be unlikely to experience a discernible change in their operations.

2.12.4.20 The scale of the impact on Enterprise Zone occupiers is therefore estimated to be negligible.

2.12.4.21 The Onshore Order Limits avoid interactions with the Enterprise Zone boundary, and remove the potential for direct impacts.

2.12.4.22 A comparison of the potential economic impact of potential changes to aviation activities (at Blackpool Airport and Blackpool Airport Enterprise Zone) results in an assessment of impact magnitude as set out in **Table 2.77**.

Table 2.77: Magnitude of impact – potential economic impact of potential changes to aviation activities (at Blackpool Airport and Blackpool Airport Enterprise Zone) compared to baseline conditions

Study area	Magnitude	Spatial extent	Duration	Frequency
North West England	**Negligible**	Sub-national	Medium term (temporary)	Intermittent

Significance of effect

2.12.4.23 Overall, the sensitivity of the receptor is assessed as **low** and the magnitude of the impact is **negligible**. The effect will, therefore, be of **negligible significance**, which is not significant.

2.12.5 The potential impact on population, housing and accommodation.

2.12.5.1 The potential onshore impact on population, housing and accommodation has the potential to arise through the overnight, short term (temporary), or long term (permanent) relocation of workers into the onshore study area.

2.12.5.2 The terms 'overnight', 'short term (temporary)', and 'long term (permanent)' are defined as per the offshore assessment (**paragraphs 2.11.4.2–2.11.4.4**).

2.12.5.3 This impact is assessed for the construction phase. Onshore employment impacts during the operation and maintenance phase are not considered to have a material impact on demand for long term (permanent) accommodation. Onshore employment impacts during the decommissioning phase are not considered to have a material impact on demand for overnight accommodation.

2.12.5.4 The assessment draws on the assessment of social impacts and discussion of workforce issues as set out in the supporting Volume 4, Annex 2.1: Socio-economics technical report of the ES.

Magnitude (scale) of impact - assessment approach

2.12.5.5 The scale of potential impacts on population, housing and accommodation is assessed against the following baseline conditions.

- Potential overnight stays.
- Total number of overnight stays: comparison with total number of overnight stays (in nights per annum) to provide indication of scale relative to existing market.
- Potential short term (temporary) housing demand.
- Total population: comparison with total population to give an indication of the scale of the impact of labour migration on the resident population.
- Private rented accommodation: comparison with the total number of private rented dwellings as an indication of the scale of impact on labour migration on the rental housing market.

Construction phase

2.12.5.6 Potential expenditure on onshore activities associated with the construction phase of the Transmission Assets could support overnight trips into social study areas.

2.12.5.7 In order to assess the 'worst case' potential social impacts, it is assumed that direct employment impacts will predominantly draw on labour from outside the onshore economic study area. These workers have the potential to give rise to demand for overnight accommodation during 'shifts', or for short term (temporary) housing during longer periods of activity. Both options are tested in order to assess the potential 'most likely' impacts on population, housing, and accommodation.

2.12.5.8 It is anticipated there will be no material long term (permanent) relocation of workers into the onshore study area.

2.12.5.9 The potential demand for overnight accommodation and short term (temporary) housing arising from the Transmission Assets are set out in **Table 2.78**.

Table 2.78: Potential onshore impacts on overnight accommodation and short term (temporary) housing

Study area	Maximum overnight stays – nights per annum	Maximum short term (temporary) housing demand – units required per annum
Onshore study area	49,700	191

Sensitivity of the receptor

2.12.5.10 As per **section 2.10.2**, receptor sensitivity to potential construction phase social impacts is assessed on the basis of tolerance, recoverability, and value and importance.

Value and importance

2.12.5.11 As per the offshore assessment (**paragraphs 2.11.4.15** and **2.11.4.24**), the value and importance of the receptor is assessed as high.

Tolerance

2.12.5.12 As per the offshore assessment (**paragraphs 2.11.4.18**–**2.11.4.21**), the tolerance of the receptor is assessed as medium.

Recoverability

2.12.5.13 Occupancy rates of both overnight accommodation and short term (temporary) housing are subject to variations from month-to-month and year-to-year i.e. they are not static. As such, conditions are unlikely to be reversed following the construction phase – however this would be the case regardless of whether or not the Transmission Assets is consented.

2.12.5.14 The recoverability of the receptor is therefore assessed as medium.

Table 2.79: Sensitivity of construction phase housing, accommodation and local services receptor

	Sensitivity level
Value and importance	High
Tolerance	Medium
Recoverability	Medium
Sensitivity	**Medium**

Magnitude of impact

2.12.5.15 Population growth can have both beneficial and adverse effects, with the overall impact largely contingent on various factors such as infrastructure, resources and planning.

2.12.5.16 On the one hand, population growth can stimulate economic activity and development. An increased population can lead to higher demand for goods and services, which can attract businesses, create jobs, and generate revenue for the local authority. Additionally, a growing population can contribute to cultural diversity, enriching the social fabric and fostering a vibrant community.

2.12.5.17 On the other hand, population growth can place a strain on resources and infrastructure where appropriate planning is lacking. Sufficient transportation, healthcare and educational capacity can become more challenging to provide as a population expands.

2.12.5.18 Effective planning for these factors is a key determinant of whether effects associated with population growth should be considered beneficial or adverse in nature. Investment in infrastructure and sustainable development approaches are necessary to ensure the benefits of population growth are maximised while minimising potentially adverse effects. Collaboration between developers, local authorities, community stakeholders and public bodies is essential to create a well-managed environment that accommodates growth while maintaining the quality of life for residents.

2.12.5.19 For the purposes of this assessment, population impacts are considered to be 'neutral' (as opposed to beneficial or adverse).

2.12.5.20 As per **Table 2.69,** a maximum number of 191 units per annum and 49,700 overnight stays will be required during construction activities of the onshore Transmission Assets. Compared with the baseline conditions set out in **section 2.6.5.12** and **2.6.6.1**, this equates to 0.04% total private rented sector dwellings and 0.4% of overnight stays per annum.

2.12.5.21 The magnitude of impact, relative to the baseline for onshore economic study area, is set out in **Table 2.80**.

Table 2.80: Construction phase onshore social impacts, compared to baseline conditions

Study area	Share of private rented sector accommodation	Number of overnight stays (per annum) as share of total
Onshore economic study area	<0.1%	0.4%

2.12.5.22 This results in an assessment of impact magnitude as set out in **Table 2.81**.

Table 2.81: Magnitude of social impacts, onshore

Study area	Magnitude	Spatial extent	Duration	Frequency
Onshore economic study area	**Negligible**	Sub-national	Medium term (temporary)	Intermittent

2.12.5.23 Given that potential impacts on population – and any associated potential impacts on local services such as healthcare and education – are anticipated to be negligible, impacts on local services do not require further assessment.

2.12.5.24 Similarly, potential impacts on the demand for other services and facilities including community facilities, energy, water, transport and waste, are anticipated to be negligible and do not require further assessment.

Significance of the effect

Onshore economic study area

2.12.5.25 Overall, the sensitivity of the receptor is **medium** and the magnitude of the impact is **negligible**. The effect will, therefore, be of **negligible significance**, which is not significant.

2.12.6 The potential impact on tourism

2.12.6.1 The Transmission Assets has the potential to cause both positive and adverse impacts on tourism. This impact is applicable to the construction, operation and maintenance, and decommissioning phases.

2.12.6.2 In assessing any potential onshore impacts upon tourism activity, the following indirect impacts have been considered.

- Visual amenity: the indirect impact of potential visual impacts on tourism – based on Volume 3, Chapter 10: Landscape and visual resources of the ES.
- Recreation: the direct or indirect impact on recreation – based on Volume 3, Chapter 6: Land use and recreation of the ES.

Magnitude of impact

2.12.6.3 Each indirect impact is considered here in turn, followed by an overall assessment of the impact on tourism.

Visual amenity

2.12.6.4 Volume 3, Chapter 10: Landscape and visual resources of the ES assesses the potential impacts of the construction, operation and maintenance, and decommissioning phases of the Transmission Assets on visual resources. This chapter draws on Volume 3, Chapter 10: Landscape and visual resources of the ES to assess the potential indirect impact of potential visual impacts on tourism.

2.12.6.5 Volume 3, Chapter 10: Landscape and visual resources of the ES assesses the potential impacts on landscape character, and visual resources. Visual receptors are concerned with the individuals and/or defined groups of people who have the potential to be affected by the Transmission Assets. As such, visual resources are relevant to this chapter. The assessment of landscape character receptors is not considered relevant to this chapter.

2.12.6.6 Overall, it is concluded that there will be the following significant effects relevant to tourism arising from the Transmission Assets (see section 10.17 of Volume 3, Chapter 10).

- Effects on visual amenity as a result of substations.
  - Viewpoint 1 bridleway south of Morgan site - construction and operation year 1.
  - Viewpoint 3 bridleway BW0505016 – construction and operation year 1.
  - Viewpoint 6 footpath south of Morecambe site - construction and operation year 1.
- Effects on visual amenity as a result of onshore cable/landfall.
  - People using the beach – construction phase.
  - People using Blackpool Road Recreation Ground – construction.
  - People using National Cycle Route 62 at Hillock Lane – construction.
  - People using Public Rights of Way – construction.
- There will be no significant long term operational effects on landscape character as a result of the Transmission Assets.
- The only long term significant effects on visual amenity would be sequential effects on equestrians and walkers using the linked PRoW immediately adjacent and near to the Morgan and Morecambe onshore substation sites.

2.12.6.7 Within the context of the North West England visitor economy, the magnitude of impact on visual receptors is considered to be negligible.

2.12.6.8 On the basis of this assessment, there are no likely significant adverse indirect impacts on tourism in North West England associated with visual amenity.

Recreation

2.12.6.9 This assessment the considers potential indirect impacts on tourism associated with direct or indirect impacts on recreation. This part of the assessment is based on Volume 3, Chapter 6: Land use and recreation of the ES.

2.12.6.10 Volume 3, Chapter 6: Land use and recreation of the ES assesses the significance of the following potential impacts during the construction phase.

- The temporary impact on the recreational use of coastal areas.
- Other Public Rights of Way.
- The temporary impact on the recreational use of recreational resources.

2.12.6.11 The assessment concludes that during the construction phase, operation and maintenance and decommissioning phases, potential effects will be of no more than minor adverse significance, which is not significant in EIA terms.

2.12.6.12 There are therefore unlikely to be any significant impacts on tourism in North West England associated with impacts on recreation as a result of the Transmission Assets.

Overall

Construction phase

2.12.6.13 Based on a consideration of the pathways by which tourism activities might be impacted by the Transmission Assets during the construction phase, the magnitude of the impact in North West England is deemed to be negligible.

Operation and maintenance phase

2.12.6.14 Based on a consideration of the pathways by which tourism activities might be impacted by the Transmission Assets during the operation and maintenance phase, the magnitude of the impact in North West England is deemed to be negligible.

Decommissioning phase

2.12.6.15 Based on a consideration of the pathways by which tourism activities might be impacted by the Transmission Assets during the decommissioning phase, the magnitude of the impact in North West England is deemed to be negligible.

Sensitivity of receptor

2.12.6.16 Each relevant tourism receptor is considered here in turn, followed by an overall assessment of the sensitivity of the tourism receptor.

Visual amenity

2.12.6.17 The visual amenity of a location is subject to constant change. This can be due to natural causes e.g. seasonal weather, or human causes e.g. physical

development. Natural changes can be short term, or long term. These impacts are also harder to predict and control. Physical development typically causes long term (year-to-year) impacts. For the purposes of this assessment, only long term impacts from physical development are considered in the assessment of sensitivity.

2.12.6.18 Following long term changes to visual amenity, any changes are anticipated to become part of the baseline conditions following a period of fewer than five years. The vulnerability of the visual amenity receptor is therefore assessed as low.

2.12.6.19 In the event that physical development is removed, the visual amenity baseline is anticipated to revert to its previous condition. The reversibility of the visual amenity receptor is therefore assessed as high.

2.12.6.20 The value of the visual amenity receptor is assessed as high.

2.12.6.21 Overall, the vulnerability of the visual amenity receptor is assessed as low, recoverability is assessed as high, and value is assessed as high. The sensitivity of the visual amenity receptor is therefore assessed as low.

Recreation

2.12.6.22 Following long term changes to recreation conditions, participants are anticipated to adapt their behaviour in a manner that accommodates any changes to conditions e.g. change of location. Any changes are therefore anticipated to become part of the baseline conditions following a period of fewer than five years. The vulnerability of the recreation receptor is therefore assessed as low.

2.12.6.23 In the event that physical development is removed, the recreation baseline is anticipated to revert to its previous. The reversibility of the recreation receptor is therefore assessed as high.

2.12.6.24 The value of the recreation receptor is assessed as high.

2.12.6.25 Overall, the vulnerability of the recreation receptor is assessed as low, recoverability is assessed as high, and value is assessed as high. The sensitivity of the recreation receptor is therefore assessed as low.

Overall

Construction phase

2.12.6.26 Based on a consideration of the pathways by which tourism activities might be impacted by the Transmission Assets during the construction phase, the sensitivity of the tourism receptor in North West England is assessed as low.

Operation and maintenance phase

2.12.6.27 Based on a consideration of the pathways by which tourism activities might be impacted by the Transmission Assets during the operation and maintenance phase, the sensitivity of the tourism receptor in North West England is assessed as low.

Decommissioning phase

2.12.6.28 Based on a consideration of the pathways by which tourism activities might be impacted by the Transmission Assets during the decommissioning phase, the sensitivity of the tourism receptor in North West England is assessed as low.

Significance of effect

Construction phase

2.12.6.29 The magnitude of the impact in North West England is deemed to be negligible. The sensitivity of the tourism receptor is assessed to be low. The significance of the effect on tourism in North West England is therefore assessed as negligible. This is not significant in EIA terms.

Operation and maintenance phase

2.12.6.30 The magnitude of the impact in North West England is deemed to be negligible. The sensitivity of the tourism receptor is assessed to be low. The significance of the effect on tourism in North West England is therefore assessed as negligible. This is not significant in EIA terms.

Decommissioning phase

2.12.6.31 The magnitude of the impact in North West England is deemed to be negligible. The sensitivity of the tourism receptor is assessed to be low. The significance of the effect on tourism in North West England is therefore assessed as negligible. This is not significant in EIA terms.

2.13 Cumulative effect assessment methodology

2.13.1 Introduction

2.13.1.1 The Cumulative Effects Assessment (CEA) takes into account the potential impact associated with the Transmission Assets together with other projects and plans. The projects and plans selected as relevant to the CEA presented within this chapter are based upon the results of a screening exercise (see Volume 1, Annex 5.5: Cumulative screening matrix and location plan of the ES). Each project has been considered on a case-by-case basis for screening in or out of this chapter's assessment based upon data confidence, effect-receptor pathways and the spatial/temporal scales involved.

2.13.1.2 The socio-economics CEA methodology has followed the methodology set out in Volume 1, Chapter 5: Environmental assessment methodology of the ES. The cumulative assessment considers three scenarios; Transmission Assets together with Morecambe Offshore Windfarm: Generation Assets only, Transmission Assets together with Morgan Offshore Wind Project: Generation Assets only and Transmission Assets together with Morgan Offshore Wind Project: Generation Assets and Morecambe Offshore Windfarm: Generation Assets. These cumulative scenarios are followed by the cumulative assessment of all projects, plans and activities allocated into

'tiers' reflecting their current stage within the planning and development process. This tiered approach is adopted to provide a clear assessment of the Transmission Asses alongside other projects, plans and activities.

2.13.1.3 The cumulative assessment has been undertaken as follows.

- Scenario 1: Transmission Assets together with Morecambe Offshore Windfarm: Generation Assets.
- Scenario 2: Transmission Assets together with Morgan Offshore Wind Project: Generation Assets.
- Scenario 3: Transmission Assets together with Morgan Offshore Wind Project: Generation Assets and Morecambe Offshore Windfarm: Generation Assets.
- Scenario 4: Scenario 3 together with Tier 1, Tier 2 and Tier 3 projects, plans and activities, defined as follows.
  - Scenario 4a: Transmission Assets and Generation Assets (Scenario 3) with Tier 1 projects, plans and activities which are:
    - under construction;
    - permitted application;
    - submitted application; or
    - those currently operational that were not operational when baseline data were collected, and/or those that are operational but have an ongoing impact.
  - Scenario 4b: Transmission Assets, Generation Assets and Tier 2 projects, plans and activities for which a:
    - scoping report has been submitted in the public domain.
  - Scenario 4c: Transmission Assets and Tier 3 projects, plans and activities which are:
    - where a scoping report has not been submitted and it is not in the public domain;
    - identified in the relevant Development Plan; or
    - identified in other plans and programmes.

2.13.1.4 This assessment is followed by all other relevant projects, identified by tier.

2.13.1.5 The cumulative assessment considers the Generation Assets and Transmission Assets together. The assessment for Morecambe Offshore Windfarm: Generation Assets encompasses this project cumulatively with the Transmission Assets. The assessment for Morgan Offshore Wind Project: Generation Assets encompasses this project cumulatively with the Transmission Assets.

2.13.1.6 The Tier 1 assessment considers the Transmission Assets alongside those projects defined within Tier 1, unless otherwise stated. The Tier 2 assessment includes the Transmission Assets, the Generation Assets, Tier 1 and other Tier 2 projects unless otherwise stated. The Tier 3 assessment is

based upon less definitive parameters due to the limited nature of the information available for projects of this Tier and is subject to qualitative assessment cumulatively with the Transmission Assets only. There are no Tier 3 projects screened into the assessment of cumulative effects.

2.13.1.7 This tiered approach is adopted to provide a clear assessment of the Transmission Assets alongside other projects, plans and activities.

2.13.1.8 The specific projects, plans and activities scoped into the offshore CEA, are outlined in **Table 2.82** and onshore CEA in **Table 2.83**.

2.13.1.9 No cumulative projects have been identified that present a risk of significant adverse economic impacts to aviation activities at Blackpool Airport.

2.13.1.10 The delivery of cumulative projects of relevance to the Blackpool Airport Enterprise Zone are those which are planned to enhance the operations of Blackpool Airport Enterprise Zone businesses. As such, no cumulative projects have been identified that would result in adverse economic impacts to the operations of Blackpool Airport Enterprise Zone businesses.

2.13.1.11 Therefore, the potential cumulative economic impact of potential changes to aviation activities at Blackpool Airport and Blackpool Airport Enterprise Zone is scoped out of the cumulative effects assessment.

2.13.2 Projects, plans and activities considered within the offshore and onshore CEA

2.13.2.1 The specific projects, plans and activities scoped into the offshore CEA, are outlined in **Table 2.82** and onshore CEA in **Table 2.83**.

Table 2.82: List of other projects, plans and activities considered within the offshore CEA

Project/Plan	Status	Distance from the Transmission Assets (nearest point, km)	Description of project/plan	Dates of construction (if applicable)	Dates of operation (if applicable)	Overlap with the Transmission Assets
Morgan Offshore Wind Project (Generation Assets)	Application submitted	0.0	Application for the generation assets of the 1.5GW Morgan Offshore wind project in the east Irish Sea	2026–2030	2030–2065	• Spatial overlap: project is located in close proximity to the Transmission Assets. • Temporal overlap: construction and operation and maintenance phases anticipated to overlap • Conceptual overlap: energy infrastructure project, therefore effect-receptor pathway overlaps.
Morecambe Offshore Wind Farm (Generation Assets)	Application submitted	0.0	480 MW offshore wind farm	2026-2029	2029-2065	
Tier 1						
Awel y Môr Offshore Wind Farm	Permitted but not yet implemented	28.87	500 MW offshore wind farm.	2026–2029	2030–onwards	
Mona Offshore Wind Project	Application submitted	5.2	Application for the Mona Offshore Wind Project in the east Irish Sea.	2026–2030	2030–2065	
Tier 2						
Mooir Vannin Offshore Wind Farm	EIA scoping report published	2.59	Proposed offshore wind farm comprising up to 100 wind turbines	2030–2032	2032-onwards	No

Table 2.83: List of other projects, plans and activities considered within the onshore CEA

Project/Plan	Status	Distance from the Transmission Assets (nearest point, km)	Description of project/plan	Dates of construction (if applicable)	Dates of operation (if applicable)	Overlap with the Transmission Assets
Tier 1						
LCC/2022/0049 Construction of new railway station at Cottam	Pending	1.4	Construction of a new railway station at Cottam, including; station building and forecourt, 2 platforms, footbridge over the railway, associated parking and infrastructure, new public highway access road (0.75km from the Cottam link road to Lea Road).	2023 - unknown	unknown	• Spatial overlap: project is located in close proximity to the Transmission Assets. • Temporal overlap: construction and operation and maintenance phases anticipated to overlap. • Conceptual overlap: effect-receptor pathway overlap due to interaction with construction sector.
LCC/2016/0046 Preston Western Distributor and East West Link Road	Under construction	2.1	Construction of a four-lane dual carriageway. The road would be approximately 2.5 miles long and 30 metres wide.	Unknown	Unknown	
06/2020/0888 Preston Western Relief Road and residential development up to 1,100 dwellings	Permitted	3.4	Full planning permission for new roundabout junction on Preston Western Relief Road with two spur road accesses off roundabout (east and west stubs), related highway infrastructure, associated works and landscaping; and outline planning permission for residential development up to 1,100 dwellings.	Unknown	Unknown	
06/2021/0174	Permitted	8.1	Proposed development of an employment park comprising	Unknown	Unknown	

Project/Plan	Status	Distance from the Transmission Assets (nearest point, km)	Description of project/plan	Dates of construction (if applicable)	Dates of operation (if applicable)	Overlap with the Transmission Assets
Proposed employment park and associated infrastructure			up to 80,000 sqm industrial and/or logistics building(s) (Class B2/B8)			
22/00019/DIS Erection of buildings, engineering operations and related development, within the curtilage of existing Class B2 production complex.	Permitted	7.2	Erection of buildings, engineering operations and related development to create a Combined Heat and Power Plant (CHP), odour abatement plant comprising wet scrubber and biobed, Anaerobic Digestion Plant, offices and car park, River Douglas embankment repairs, 5m high acoustic fencing within the complex.	Unknown	Unknown	
LCC/2019/0029 Energy recovery facility (erf) fuelled by household, commercial and industrial waste.	Under construction	8.2	Development of an energy recovery facility with various ancillary structures and infrastructure	Unknown	Unknown	
LCC/2020/0014 Improvement of existing a582 and b5253 in Leyland to four lane dual carriageway.	Pending	3.5	Improvement of existing A582 and B5253 in Leyland to four lane dual carriageway with combined cycle track between Broad Oak roundabout and the Stanifield Lane / Watkin Lane roundabout (A582) and Flensberg Way roundabout to Longmeanygate junction (B5253).	Unknown	Unknown	

Project/Plan	Status	Distance from the Transmission Assets (nearest point, km)	Description of project/plan	Dates of construction (if applicable)	Dates of operation (if applicable)	Overlap with the Transmission Assets
LCC/2016/0046 Development of new highways including Preston Western Distributor, Cottam link road and east west link road.	Under construction	2.1	Development includes a new motorway junction to the M55 together with temporary soil storage and contractor areas, cycle track alongside all highways, water attenuation ponds, diversion/stopping up of public rights of way, landscaping and ecology mitigation areas, construction of two bridges, two viaducts, two underpasses and a cattle creep.	Unknown	Unknown	
A585 Windy Harbour to Skippool Improvement Scheme (No planning application reference number)	Under construction	8.1	Up to 5km of new two lane dual carriageway road connecting Windy Harbour Junction to Skippool Junction	Unknown	Unknown	
23/0739 Scoping opinion in respect of a 49.9mw solar farm (Note: this is not the planned solar farm at Blackpool Airport Enterprise Zone)	Pending	0.1	The proposed development as a whole comprises the construction and operation of a 49.9 MW solar farm development and the associated infrastructure.	Unknown	Unknown	
07/2024/00013/VAR Development of a 49.99 MW Battery Storage Facility, with	Under construction	0.0	Development of a 49.99 MW Battery Storage Facility, with associated infrastructure and landscaping.	Unknown	Unknown	

Project/Plan	Status	Distance from the Transmission Assets (nearest point, km)	Description of project/plan	Dates of construction (if applicable)	Dates of operation (if applicable)	Overlap with the Transmission Assets
associated infrastructure and landscaping.						
24/0003 Erection of a new waste treatment building, siting of portacabin style offices and welfare facilities and installation of a soil washing plant for waste processing to treat up to 250,000 tonnes of construction, demolition and excavation waste per annum to produce recycled aggregates with associated access, parking, electrical vehicle charging points and cycle store.	Pending	2.5	Change of use of the site for waste processing to treat construction, demolition and excavation waste to produce recycled aggregates; including construction of a new waste treatment building, siting of portacabin style offices and welfare facilities and installation of a soil washing plant	Unknown	Unknown	
Blackpool Airport Enterprise Zone (No planning application reference number)	Operational	0.0	Enterprise Zone Delivery Plan sets out aim to attract over 280 no. new businesses and create circa. 5,000 no. new jobs over its lifespan, in addition to the existing businesses and employees already based on the site.	Not known	Not known	

2.13.3 Scope of cumulative effects assessment

2.13.3.1 The impacts identified in **Table 2.84** have been selected as those having the potential to result in the greatest effect on an identified receptor or receptor group. The cumulative effects presented and assessed in this section have been selected from the Project Design Envelope provided in Volume 1, Chapter 3: Project description of the ES as well as the information available on other projects and plans. Effects of greater adverse significance are not predicted to arise should any other development scenario, based on details within the Project Design Envelope (e.g., different foundation type or substation layout), to that assessed here, be taken forward in the final design scheme.

Table 2.84: Scope of the assessment of offshore cumulative effects

Cumulative effect	Phase[a]			Projects considered	Justification
	C	O	D		
The impact on economic receptors including employment and GVA.	✓	✓	×	**Scenario 1** MDS as described for the Transmission Assets (**Table 2.30**) assessed cumulatively with Morecambe Offshore Windfarm: Generation Assets. **Scenario 2** MDS as described for the Transmission Assets (**Table 2.30**) assessed cumulatively with Morgan Offshore Wind Project: Generation Assets. **Scenario 3** MDS as described for the Transmission Assets (**Table 2.30**) assessed cumulatively with Morecambe Offshore Windfarm: Generation Assets and Morgan Offshore Wind Project: Generation Assets. **Scenario 4a** Scenario 3 assessed cumulatively with the following Tier 1 projects: • Awel y Môr Offshore Wind Farm; and • Mona Offshore Wind Project.	Outcome of the CEA is greatest when the greatest number of other projects, (which could impact on economic, social and tourism receptors) are delivered within the same study area.
The potential impact of increased employment opportunities.	✓	✓	×	**Scenario 1** MDS as described for the Transmission Assets (**Table 2.30**) assessed cumulatively with Morecambe Offshore Windfarm: Generation Assets. **Scenario 2**	Outcome of the CEA is greatest when the greatest number of other projects, (which could impact on economic, social and tourism receptors) are delivered within the same study area.

Cumulative effect	Phase[a]			Projects considered	Justification
	C	O	D		
				MDS as described for the Transmission Assets (**Table 2.30**) assessed cumulatively with Morgan Offshore Wind Project: Generation Assets. **Scenario 3** MDS as described for the Transmission Assets (**Table 2.30**) assessed cumulatively with Morecambe Offshore Windfarm: Generation Assets and Morgan Offshore Wind Project: Generation Assets. **Scenario 4a** Scenario 3 assessed cumulatively with the following Tier 1 projects: • Awel y Môr Offshore Wind Farm; and • Mona Offshore Wind Project. **Scenario 4b** Scenario 4a assessed cumulatively with the following Tier 2 project: • Mooir Vannin Offshore Wind Farm.	
The potential impact on population, housing, and accommodation.	✓	×	×	**Scenario 1** MDS as described for the Transmission Assets (**Table 2.30**) assessed cumulatively with Morecambe Offshore Windfarm: Generation Assets. **Scenario 2** MDS as described for the Transmission Assets (**Table 2.30**) assessed cumulatively with Morgan Offshore Wind Project: Generation Assets. **Scenario 3**	Outcome of the CEA is greatest when the greatest number of other projects, (which could impact on economic, social and tourism receptors) are delivered within the same study area.

Cumulative effect	Phase[a]			Projects considered	Justification
	C	O	D		
				MDS as described for the Transmission Assets (**Table 2.30**) assessed cumulatively with Morecambe Offshore Windfarm: Generation Assets and Morgan Offshore Wind Project: Generation Assets. **Scenario 4a** Scenario 3 assessed cumulatively with the following Tier 1 projects: • Awel y Môr Offshore Wind Farm; and • Mona Offshore Wind Project. **Scenario 4b** Scenario 4a assessed cumulatively with the following Tier 2 project: • Mooir Vannin Offshore Wind Farm	

[a] C=construction, O=operation and maintenance, D=decommissioning

Table 2.85: Scope of the assessment of onshore cumulative effects

Cumulative effect	Phase[a]			Projects considered	Justification
	C	O	D		
The impact on economic receptors including employment and GVA.	✓	✓	×	**Scenario 1 - 3** No assessment is undertaken for scenarios 1-3 as Morecambe Offshore Windfarm: Generation Assets and Morgan Offshore Wind Project: Generation Assets have no onshore assets. **Scenario 4a** Transmission Assets assessed cumulatively with the Tier 1 projects listed in **Table 2.83**.	Outcome of the CEA is greatest when the greatest number of other projects, (which could impact on economic, social and tourism receptors) are delivered within the same study area.
The potential impact of increased employment opportunities.	✓	✓	×	**Scenario 1 - 3** No assessment is undertaken for scenarios 1-3 as Morecambe Offshore Windfarm: Generation Assets and Morgan Offshore Wind Project: Generation Assets have no onshore assets. **Scenario 4a** Transmission Assets assessed cumulatively with the Tier 1 projects listed in **Table 2.83**.	Outcome of the CEA is greatest when the greatest number of other projects, (which could impact on economic, social and tourism receptors) are delivered within the same study area.
The potential impact on population, housing, and accommodation.	✓	×	×	**Scenario 1 - 3** No assessment is undertaken for scenarios 1-3 as Morecambe Offshore Windfarm: Generation Assets and Morgan Offshore Wind Project: Generation Assets have no onshore assets. **Scenario 4a**	Outcome of the CEA is greatest when the greatest number of other projects, (which could impact on economic, social and tourism receptors) are delivered within the same study area.

Cumulative effect	Phase[a]			Projects considered	Justification
	C	O	D		
				Transmission Assets assessed cumulatively with the Tier 1 projects listed in Table 2.83	
The potential impact on tourism.	✓	✓	✓	MDS as described for the Transmission Assets (Table 2.31) assumed cumulatively with the following other projects/plans: **Scenario 1 - 3** No assessment is undertaken for scenarios 1-3 as Morecambe Offshore Windfarm: Generation Assets and Morgan Offshore Wind Project: Generation Assets have no onshore assets. **Scenario 4a** Transmission Assets assessed cumulatively with the Tier 1 projects listed in Table 2.83	Outcome of the CEA is greatest when the greatest number of other projects, (which could impact on economic, social and tourism receptors) are delivered within the same study area.

2.14 Offshore cumulative effects assessment

2.14.1 Introduction

2.14.1.1 A description of the significance of cumulative effects upon socio-economics receptors arising from each identified potential impact is given below.

2.14.1.2 The CEA is presented in a series of tables (one for each potential cumulative impact) and considers the following.

- Scenario 1: Transmission Assets together with Morecambe Offshore Windfarm: Generation Assets.
- Scenario 2: Transmission Assets together with Morgan Offshore Wind Project: Generation Assets.
- Scenario 3: Transmission Assets together with Morgan Offshore Wind Project: Generation Assets and Morecambe Offshore Windfarm: Generation Assets.
- Scenario 4a to 4c: Transmission Assets together with Morgan Offshore Wind Project: Generation Assets and Morecambe Offshore Windfarm: Generation Assets and other relevant projects and plans.

Table 2.86: The potential impact on economic receptors including employment and GVA

	Scenario 1	Scenario 2	Scenario 3	Scenario 4a to 4c
Construction phase				
Sensitivity of receptor	Receptor sensitivity to potential construction phase employment and GVA impacts is assessed on the basis of tolerance, recoverability, plus value and importance, as per **paragraphs 2.11.2.9 - 2.11.2.17**. Across both economic study areas the receptor is deemed to be of high tolerance, medium recoverability and high value. The sensitivity of the receptor is therefore, considered to be medium.	As per Scenario 1, the sensitivity of the receptor across both economic study areas is considered to be medium.	As per Scenario 1, the sensitivity of the receptor across both economic study areas is considered to be medium.	As per Scenario 1, the sensitivity of the receptor across both economic study areas is considered to be medium.
Magnitude of impact	The cumulative effects assessment for Scenario 1 considers the following: • Transmission Assets • Morecambe Offshore Windfarm: Generation Assets The cumulative effects assessment for Scenario 1 is primarily assessed on the basis of the expected degree of change relative to baseline conditions (i.e., 'scale' of impact) according to the current capability scenario. For each socio-economic impact under consideration, the scale of potential impacts is assessed against multiple baseline	The cumulative effects assessment for Scenario 2 considers the following: • Transmission Assets • Morgan Offshore Wind Project: Generation Assets The cumulative effects assessment for Scenario 2 is assessed on the basis of the expected degree of change relative to baseline conditions (i.e. 'scale' of impact) according to the current capability scenario. For each socio-economic impact under consideration, the scale of potential impacts is assessed against multiple baseline	The cumulative effects assessment for Scenario 3 considers the following: • Transmission Assets • Morgan Offshore Wind Project: Generation Assets • Morecambe Offshore Windfarm: Generation Assets The cumulative effects assessment for Scenario 3 is assessed on the basis of the current capability scenario. Cumulative effects associated with delivery of the Morgan Offshore Wind Project: Generation Assets and Transmission Assets in combination with the Morecambe	The cumulative effects assessment for Scenario 4 is assessed on the basis of the current capability scenario. Cumulative effects associated with delivery of the Transmission Assets in combination with the Generation Assets and with any other Tier 1, Tier 2 and Tier 3 cumulative projects is dependent on the selection of primary construction ports for multiple projects within the same economic study area. Consideration must be given to port capabilities and capacities. Within North Wales and North West England, port capacities and capabilities make it unlikely that

	Scenario 1	Scenario 2	Scenario 3	Scenario 4a to 4c
	conditions and aggregated to a single scale level as appropriate. The average value across baseline conditions is then calculated and used to determine the overall scale of impact. Cumulative effects associated with delivery of the Transmission Assets and Morecambe Offshore Windfarm: Generation Assets in combination is dependent on the selection of construction ports for multiple projects within the same economic study area. There is a possibility that construction activities for these projects will be co-located in order to deliver project efficiencies. For each economic study area, the cumulative effect is predicted to be: • **North West England**: low scale, regional spatial extent, medium term duration, and intermittent. It is predicted that the impact will affect the receptor directly. The magnitude is considered to be low (beneficial). • **North Wales**: low scale, regional spatial extent, medium term duration, and intermittent. It is predicted that the impact will affect the receptor directly. The	conditions and aggregated to a single scale level as appropriate. The average value across baseline conditions is then calculated and used to determine the overall scale of impact. Cumulative effects associated with delivery of the Transmission Assets in combination with Morgan Offshore Wind Project: Generation Assets is dependent on the selection of construction ports for multiple projects within the same economic study area. There is a possibility that construction activities for these projects will be co-located in order to deliver project efficiencies. As the data for both projects is available to the Applicants, a consistent and comparable assessment of potential cumulative effects has been carried out on this basis. For each economic study area, the cumulative effect is predicted to be: • **North West England**: regional spatial extent, medium term duration, and intermittent. It is predicted that the impact will affect the receptor directly. The magnitude is considered to be low (beneficial)	Offshore Windfarm Generation Assets is dependent on the selection of primary construction ports for multiple projects within the same economic study area. The Morgan Offshore Wind Project: Generation Assets and the Morecambe Offshore Windfarm Generation Assets are being developed by separate Applicants. However, whilst there are strong conceptual linkages between the projects by virtue of their combined Transmission Assets, there is no greater likelihood of economic effects being combined on the basis of construction port selection than with other cumulative projects being promoted by other Applicants. For the purposes of the CEA, it is assumed that project impacts combine to deliver the greatest level of impact. On this basis, for each economic study area, the cumulative effect is predicted to be: • **North West England**: medium scale, regional spatial extent, medium term duration, and intermittent. It is predicted that the impact will affect the receptor directly. The magnitude is considered to be medium (beneficial). • **North Wales**: medium scale, regional spatial extent, medium term duration, and intermittent.	delivery of project components would take place out of the same port at the same time. There are essentially capacity limits for the amount of construction activity that can take place out of any single port and any single economic study area at any one time. As a result, there are three likely outcomes: • **Programme staggering**: delivery of more than one project by separate Applicants from the same construction port could require a staggering of programmes. This would result in no concurrent cumulative effects. Any beneficial cumulative effects would be as a result of an investment pipeline of offshore wind sector activity supporting long-term employment and GVA impacts, as opposed to the medium-term impact of individual projects. • **Alternative location selection**: delivery of more than one project by separate Applicants simultaneously could require a construction port outside North Wales and North West England to be selected for delivery of the relevant activities. As a result, no cumulative effects would

	Scenario 1	Scenario 2	Scenario 3	Scenario 4a to 4c
	magnitude is considered to be low (beneficial).	• **North Wales**: regional spatial extent, medium term duration, and intermittent. It is predicted that the impact will affect the receptor directly. The magnitude is considered to be low (beneficial)	It is predicted that the impact will affect the receptor directly. The magnitude is considered to be medium (beneficial).	occur within the economic study areas. • **Alternative port selection (within same economic study area)**: delivery of more than one project by separate Applicants simultaneously could require separate construction ports within North Wales or North West England to be selected. As a result, cumulative effects could occur within the sub-national economic study area in question. This is assessed as the MDS for North Wales and North West England. There is a possibility that construction activities for some projects being delivered by the same applicants will be co-located in order to deliver project efficiencies. However, commercial procurement, contracting, and decision-making relating to construction port selection will not take place until post-consent for all projects, and is therefore not available for inclusion within the CEA. Detailed data on economic impacts associated with Tier 1, Tier 2 and Tier 3 projects, which would allow for a consistent and comparable quantitative assessment of potential cumulative effects, is for the most part not available.

	Scenario 1	Scenario 2	Scenario 3	Scenario 4a to 4c
				Whilst there are capacity limits for the amount of construction activity that can take place out of any single port and any single economic study area at any one time, there remains a possibility that a cumulative project being promoted by different applicants could be delivered from a different port within the same sub-national economic study area. As a result, cumulative effects could occur within the sub-national economic study area in question. To allow for this possibility, an uplift is applied to the assessment of Scenario 3. For each economic study area, the cumulative effect is therefore predicted to be: • **North West England**: regional spatial extent, medium term duration, and intermittent. It is predicted that the impact will affect the receptor directly. The magnitude is considered to be medium to high (beneficial) • **North Wales**: regional spatial extent, medium term duration, and intermittent. It is predicted that the impact will affect the receptor directly. The magnitude is considered to be medium to high (beneficial).
Significance of effect	Overall, the magnitude of the cumulative impact is deemed to be **low beneficial** and the	Overall, the magnitude of the cumulative impact is deemed to be **low (beneficial)** and the	Overall, the magnitude of the cumulative impact is deemed to be **moderate (beneficial)** and the	Overall, the magnitude of the cumulative impact is deemed to be **high (beneficial)** and the

	Scenario 1	Scenario 2	Scenario 3	Scenario 4a to 4c
	sensitivity of the receptor is considered to be **medium**. The cumulative effect will, therefore, be of **minor (beneficial) significance**, which is not significant in EIA terms.	sensitivity of the receptor is considered to be **medium**. The cumulative effect will, therefore, be of **minor (beneficial)** significance, which is not significant in EIA terms.	sensitivity of the receptor is considered to be **medium**. The cumulative effect will, therefore, be of **moderate (beneficial)** significance, which is significant in EIA terms.	sensitivity of the receptor is considered to be **medium**. The cumulative effect will, therefore, be of **moderate (beneficial)** significance, which is significant in EIA terms.
Further mitigation and residual significance	There is no further mitigation proposed beyond existing commitments. The residual cumulative effect will, therefore remain unchanged across all economic study areas i.e., not significant in EIA terms.	There is no further mitigation proposed beyond existing commitments. The residual cumulative effect will, therefore remain unchanged across all economic study areas i.e., not significant in EIA terms.	There is no further mitigation proposed beyond existing commitments. The residual cumulative effect will, therefore remain unchanged across all economic study areas i.e., significant in EIA terms.	There is no further mitigation proposed beyond existing commitments. The residual cumulative effect will, therefore remain unchanged across all economic study areas i.e., significant in EIA terms.
Operation and maintenance phase				
Sensitivity of receptor	Receptor sensitivity to potential construction phase employment and GVA impacts is assessed on the basis of tolerance, recoverability, plus value and importance, as per **paragraphs 2.11.2.9 - 2.11.2.17**. Across both economic study areas the receptor is deemed to be of high tolerance, low recoverability and high value. The sensitivity of the receptor is therefore, considered to be high.	As per Scenario 1, the sensitivity of the receptor across both economic study areas is considered to be high.	As per Scenario 1, the sensitivity of the receptor across both economic study areas is considered to be high.	As per Scenario 1, the sensitivity of the receptor across both economic study areas is considered to be high.
Magnitude of impact	The cumulative effects assessment for Scenario 1 is assessed as per the construction phase, set out above. The magnitude of impact is characterised on the basis of spatial extent, duration and	The cumulative effects assessment for Scenario 2 is assessed as per the construction phase, set out above. The magnitude of impact is characterised on the basis of	The cumulative effects assessment for Scenario 3 is assessed on the basis of the current capability scenario. Cumulative effects associated with the operation and maintenance of the Transmission Assets in	The cumulative effects assessment for Scenario 4 is assessed on the basis of the current capability scenario. Cumulative effects associated with the operation and maintenance of the Transmission Assets and

	Scenario 1	Scenario 2	Scenario 3	Scenario 4a to 4c
	frequency (as per Volume 1, Chapter 5: Environmental assessment methodology of the ES). For each economic study area, the cumulative effect is predicted to be: • **North West England**: low scale, regional spatial extent, long term duration, and intermittent. It is predicted that the impact will affect the receptor directly. The magnitude is considered to be low (beneficial) • **North Wales**: low scale, regional spatial extent, long term duration, and intermittent. It is predicted that the impact will affect the receptor directly. The magnitude is considered to be low (beneficial).	spatial extent, duration and frequency (as per Volume 1, Chapter 5: Environmental assessment methodology of the ES). For each economic study area, the cumulative effect is predicted to be: • **North West England**: low scale, regional spatial extent, long term duration, and intermittent. It is predicted that the impact will affect the receptor directly. The magnitude is considered to be low (beneficial) • **North Wales**: low scale, regional spatial extent, long term duration, and intermittent. It is predicted that the impact will affect the receptor directly. The magnitude is considered to be low (beneficial).	combination with Morgan Offshore Wind Project: Generation Assets and the Morecambe Offshore Windfarm Generation Assets is dependant on the selection of primary operation and maintenanceoperation and maintenance ports for all projects within the same economic study area. The Morgan Offshore Wind Project: Generation Assets and the Morecambe Offshore Windfarm Generation Assets are being developed by separate Applicants. However, whilst there are strong conceptual linkages between the projects by virtue of their combined Transmission Assets, there is no greater likelihood of economic effects being combined on the basis of operation and maintenanceoperation and maintenance port selection than with other cumulative projects. Consideration must be given to port capabilities and capacities. Within North Wales and North West England, port capacities and capabilities make it unlikely that operation and maintenance of all projects would take place out of the same port at the same time. There is essentially a ceiling for the amount of operation and maintenance activity that can take	Generation Assets with any other cumulative project is dependant on the selection of primary operation and maintenance ports for multiple projects within the same economic study area. The highest likelihood of operation and maintenance port selection leading to cumulative effects between projects is where projects are being delivered by the same applicants. There is a possibility that operation and maintenance activities for these projects could be aligned in order to deliver project efficiencies. Commercial procurement, contracting, and decision-making relating to operation and maintenance port selection will not take place until post-consent for all projects, and is therefore not available for inclusion within the CEA. Detailed data on economic impacts associated with projects being promoted by other Applicants, which would allow for a consistent and comparable quantitative assessment of potential cumulative effects, is not available. Whilst there are capacity limits for the amount of operation and maintenance activity that can take place out of any single port and any single economic study area at any one time, there remains a

	Scenario 1	Scenario 2	Scenario 3	Scenario 4a to 4c
			place out of any single port at any one time. As a result, it is likely that operation and maintenance ports for cumulative projects will be based at a variety of locations, either within the same sub-national economic study area or elsewhere in the UK. Delivery of multiple projects by separate applicants simultaneously could require operation and maintenance ports outside North Wales and North West England to be selected for delivery of the relevant activities. Commercial procurement, contracting, and decision-making relating to operation and maintenance port selection will not take place until post-consent for all projects, and is therefore not available for inclusion within the CEA. On this basis, for each economic study area, the cumulative effect is predicted to be: • **North West England**: low scale, regional spatial extent, long term duration, and intermittent. It is predicted that the impact will affect the receptor directly. The magnitude is considered to be low (beneficial) • **North Wales**: medium scale, regional spatial extent, long	possibility that a cumulative project being promoted by different applicants could be operated from a different port within the same sub-national economic study area. As a result, cumulative effects could occur within the sub-national economic study area in question. To allow for this possibility, an uplift is applied to the quantitative assessment of Scenario 3. For each economic study area, the cumulative effect is predicted to be of: • **North West England**: medium scale, regional spatial extent, long term duration, and intermittent. It is predicted that the impact will affect the receptor directly. The magnitude is considered to be low to medium (beneficial) • **North Wales**: high scale, regional spatial extent, long term duration, and intermittent. It is predicted that the impact will affect the receptor directly. The magnitude is considered to be medium to high (beneficial).

	Scenario 1	Scenario 2	Scenario 3	Scenario 4a to 4c
			term duration, and intermittent. It is predicted that the impact will affect the receptor directly. The magnitude is considered to be medium (beneficial).	
Significance of effect	Overall, the magnitude of the cumulative impact is deemed to be **low (beneficial)** and the sensitivity of the receptor is considered to be **high**. The cumulative effect will, therefore, be of **minor (beneficial)** significance, which is not significant in EIA terms.	Overall, the magnitude of the cumulative impact is deemed to be **low (beneficial)** and the sensitivity of the receptor is considered to be **high**. The cumulative effect will, therefore, be of **minor (beneficial)** significance, which is not significant in EIA terms.	Overall, for each economic study area: • **North West England**: the magnitude of the cumulative impact is deemed to be **low (beneficial)** and the sensitivity of the receptor is considered to be **high**. The cumulative effect will, therefore, be of **minor (beneficial)** significance, which is not significant in EIA terms • **North Wales**: the magnitude of the cumulative impact is deemed to be **medium (beneficial)**, and the sensitivity of the receptor is considered to be **high**. The cumulative effect will, therefore, be of **moderate (beneficial)** significance, which is significant in EIA terms.	Overall, for each economic study area: • **North West England**: the magnitude of the cumulative impact is deemed to be **medium (beneficial)** and the sensitivity of the receptor is considered to be **high**. The cumulative effect will, therefore, be of **moderate (beneficial)** significance, which is significant in EIA terms • **North Wales**: the magnitude of the cumulative impact is deemed to be **high (beneficial)**, and the sensitivity of the receptor is considered to be **high**. The cumulative effect will, therefore, be of **major (beneficial)** significance, which is significant in EIA terms.
Further mitigation and residual significance	There is no further mitigation proposed beyond existing commitments. The residual cumulative effect will, therefore remain unchanged across all economic study areas i.e., not significant in EIA terms.	There is no further mitigation proposed beyond existing commitments. The residual cumulative effect will, therefore remain unchanged across all economic study areas i.e., not significant in EIA terms.	There is no further mitigation proposed beyond existing commitments. The residual cumulative effect will, therefore remain unchanged across all economic study areas: • **North West England**: not significant in EIA terms	There is no further mitigation proposed beyond existing commitments. The residual cumulative effect will, therefore remain unchanged across all economic study areas i.e. significant in EIA terms.

	Scenario 1	Scenario 2	Scenario 3	Scenario 4a to 4c
			• **North Wales**: significant in EIA terms.	

Table 2.87: The potential impact of increased employment opportunities

	Scenario 1:	Scenario 2:	Scenario 3:	Scenario 4a to 4c:
Construction phase				
Sensitivity of receptor	Receptor sensitivity to potential increased employment opportunities is assessed on the basis of tolerance, recoverability, plus value and importance, as per paragraphs **2.11.2.9** - **2.11.2.17**. Across both economic study areas the receptor is deemed to be of high tolerance, medium recoverability and high value. The sensitivity of the receptor is therefore, considered to be medium.	As per Scenario 1, the sensitivity of the receptor across both economic study areas is considered to be medium.	As per Scenario 1, the sensitivity of the receptor across both economic study areas is considered to be medium.	As per Scenario 1, the sensitivity of the receptor across both economic study areas is considered to be medium.
Magnitude of impact	The cumulative effects assessment for Scenario 1 is assessed on the same basis as that set out within **Table 2.86**. The magnitude of impact is characterised on the basis of spatial extent, duration and frequency (as per Volume 1, Chapter 5: Environmental assessment methodology of the ES). For each economic study area, the cumulative effect is predicted to be: • **North West England**: negligible scale, regional spatial extent, medium term duration, and intermittent. It is predicted that the impact will	The cumulative effects assessment for Scenario 2 is assessed on the same basis as that set out within **Table 2.86**. The magnitude of impact is characterised on the basis of spatial extent, duration and frequency (as per Volume 1, Chapter 5: Environmental assessment methodology of the ES). For each economic study area, the cumulative effect is predicted to be: • **North West England**: negligible scale, regional spatial extent, medium term duration, and intermittent. It is predicted that the impact will	Cumulative effects associated with delivery of the Transmission Assets and Generation Assets are assessed on the same basis as that set out within **Table 2.86**. For each economic study area, the cumulative effect is predicted to be: • **North West England**: negligible scale, regional spatial extent, medium term duration, and intermittent. It is predicted that the impact will affect the receptor directly. The magnitude is considered to be negligible • **North Wales**: low scale, regional spatial extent, medium term duration, and	Cumulative effects associated with delivery of the Transmission Assets and Generation Assets with any other Tier 1, Tier 2 and Tier 3 cumulative project are assessed on the same basis as that set out within **Table 2.86**. For each economic study area, the cumulative effect is predicted to be: • **North West England**: low scale, regional spatial extent, medium term duration, and intermittent. It is predicted that the impact will affect the receptor directly. The magnitude is considered to be low (beneficial)

	Scenario 1:	Scenario 2:	Scenario 3:	Scenario 4a to 4c:
	affect the receptor directly. The magnitude is considered to be negligible • **North Wales**: negligible scale, regional spatial extent, medium term duration, and intermittent. It is predicted that the impact will affect the receptor directly. The magnitude is considered to be negligible.	affect the receptor directly. The magnitude is considered to be negligible • **North Wales**: negligible scale, regional spatial extent, medium term duration, and intermittent. It is predicted that the impact will affect the receptor directly. The magnitude is considered to be negligible.	intermittent. It is predicted that the impact will affect the receptor directly. The magnitude is considered to be low (beneficial).	• **North Wales**: medium scale, regional spatial extent, medium term duration, and intermittent. It is predicted that the impact will affect the receptor directly. The magnitude is considered to be low to medium (beneficial).
Significance of effect	Overall, the magnitude of the cumulative impact is deemed to be **negligible** and the sensitivity of the receptor is considered to be **medium**. The cumulative effect will, therefore, be of **negligible** significance, which is not significant in EIA terms.	Overall, the magnitude of the cumulative impact is deemed to be **negligible** and the sensitivity of the receptor is considered to be **medium**. The cumulative effect will, therefore, be of **negligible** significance, which is not significant in EIA terms.	Overall, for each economic study area: • **North West England**: the magnitude of the cumulative impact is deemed to be **negligible** and the sensitivity of the receptor is considered to be **medium**. The cumulative effect will, therefore, be of **negligible** significance, which is not significant in EIA terms • **North Wales**: the magnitude of the cumulative impact is deemed to be **low (beneficial)**, and the sensitivity of the receptor is considered to be **medium**. The cumulative effect will, therefore, be of **minor (beneficial)** significance, which is not significant in EIA terms.	Overall, for each economic study area: • **North West England**: the magnitude of the cumulative impact is deemed to be **low (beneficial)**, and the sensitivity of the receptor is considered to be **medium**. The cumulative effect will, therefore, be of **minor (beneficial)** significance, which is not significant in EIA terms • **North Wales**: the magnitude of the cumulative impact is deemed to be **low to medium (beneficial)**, and the sensitivity of the receptor is considered to be **medium**. The cumulative effect will, therefore, be of **minor (beneficial)** significance, which is not significant in EIA terms.

	Scenario 1:	Scenario 2:	Scenario 3:	Scenario 4a to 4c:
Further mitigation and residual significance	There is no further mitigation proposed beyond existing commitments. The residual cumulative effect will, therefore remain unchanged across all economic study areas i.e., not significant in EIA terms.	There is no further mitigation proposed beyond existing commitments. The residual cumulative effect will, therefore remain unchanged across all economic study areas i.e., not significant in EIA terms.	There is no further mitigation proposed beyond existing commitments. The residual cumulative effect will, therefore remain unchanged across all economic study areas i.e., not significant in EIA terms.	There is no further mitigation proposed beyond existing commitments. The residual cumulative effect will, therefore remain unchanged across all economic study areas i.e., not significant in EIA terms.
Operation and maintenance phase				
Sensitivity of receptor	Receptor sensitivity to potential increased employment opportunities is assessed on the basis of tolerance, recoverability, plus value and importance, as per **paragraphs 2.11.2.9 - 2.11.2.17**. Across both economic study areas the receptor is deemed to be of high tolerance, low recoverability and high value. The sensitivity of the receptor is therefore, considered to be high.	As per Scenario 1, the sensitivity of the receptor across both economic study areas is considered to be high.	As per Scenario 1, the sensitivity of the receptor across both economic study areas is considered to be high.	As per Scenario 1, the sensitivity of the receptor across both economic study areas is considered to be high.
Magnitude of impact	The cumulative effects assessment for Scenario 1 is assessed on the same basis as that set out within **Table 2.86**. The magnitude of impact is characterised on the basis of spatial extent, duration and frequency (as per Volume 1, Chapter 5: Environmental assessment methodology of the ES). Within the topic of socio-economics, magnitude is assessed as per **paragraph 2.10.3.1.**	The cumulative effects assessment for Scenario 2 is assessed on the same basis as that set out within **Table 2.86**. The magnitude of impact is characterised on the basis of spatial extent, duration and frequency (as per Volume 1, Chapter 5: Environmental assessment methodology of the ES). Within the topic of socio-economics, magnitude is assessed as per paragraph 2.10.3.1.	The cumulative effects assessment for Scenario 3 is assessed on the basis of the current capability scenario. For each economic study area, the cumulative effect is predicted to be: • **North West England**: negligible scale, regional spatial extent, long term duration, and intermittent. It is predicted that the impact will affect the receptor directly.	The cumulative effects assessment for Scenario 4 is assessed on the basis of the current capability scenario. For each economic study area, the cumulative effect is predicted to be: • **North West England**: low scale, regional spatial extent, long term duration, and intermittent. It is predicted that the impact will affect the receptor directly. The

	Scenario 1:	Scenario 2:	Scenario 3:	Scenario 4a to 4c:
	For each economic study area, the cumulative effect is predicted to be: • **North West England**: negligible scale, regional spatial extent, long term duration, and intermittent. It is predicted that the impact will affect the receptor directly. The magnitude is considered to be negligible • **North Wales**: low scale, regional spatial extent, long term duration, and intermittent. It is predicted that the impact will affect the receptor directly. The magnitude is considered to be low (beneficial).	For each economic study area, the cumulative effect is predicted to be: • **North West England**: negligible scale, regional spatial extent, long term duration, and intermittent. It is predicted that the impact will affect the receptor directly. The magnitude is considered to be negligible • **North Wales**: low scale, regional spatial extent, long term duration, and intermittent. It is predicted that the impact will affect the receptor directly. The magnitude is considered to be low (beneficial).	The magnitude is considered to be negligible • **North Wales**: low scale, regional spatial extent, long term duration, and intermittent. It is predicted that the impact will affect the receptor directly. The magnitude is considered to be low (beneficial).	magnitude is considered to be low (beneficial) • **North Wales**: medium scale, regional spatial extent, long term duration, and intermittent. It is predicted that the impact will affect the receptor directly. The magnitude is considered to be low to medium (beneficial).
Significance of effect	Overall, for each economic study area: • **North West England**: the magnitude of the cumulative impact is deemed to be **negligible**, and the sensitivity of the receptor is considered to be **high**. The cumulative effect will, therefore, be of **minor (beneficial)** significance, which is not significant in EIA terms • **North Wales**: the magnitude of the cumulative impact is deemed to be **low (beneficial)**, and the sensitivity of the receptor is	Overall, for each economic study area: • **North West England**: the magnitude of the cumulative impact is deemed to be **negligible**, and the sensitivity of the receptor is considered to be **high**. The cumulative effect will, therefore, be of **minor (beneficial)** significance, which is not significant in EIA terms • **North Wales**: the magnitude of the cumulative impact is deemed to be **low (beneficial)**, and the sensitivity of the receptor is	Overall, for each economic study area: • **North West England**: the magnitude of the cumulative impact is deemed to be **negligible**, and the sensitivity of the receptor is considered to be **high**. The cumulative effect will, therefore, be of **minor (beneficial)** significance, which is not significant in EIA terms • **North Wales**: the magnitude of the cumulative impact is deemed to be **low (beneficial)**, and the sensitivity of the receptor is	Overall, for each economic study area: • **North West England**: the magnitude of the cumulative impact is deemed to be low (beneficial), and the sensitivity of the receptor is considered to be **high**. The cumulative effect will, therefore, be of minor (beneficial) significance, which is not significant in EIA terms • **North Wales**: the magnitude of the cumulative impact is deemed to be low to **medium (beneficial)**, and the sensitivity of the receptor is

	Scenario 1:	Scenario 2:	Scenario 3:	Scenario 4a to 4c:
	considered to be **high**. The cumulative effect will, therefore, be of **minor (beneficial)** significance, which is not significant in EIA terms.	considered to be **high**. The cumulative effect will, therefore, be of **minor (beneficial)** significance, which is not significant in EIA terms.	considered to be **high**. The cumulative effect will, therefore, be of **minor (beneficial)** significance, which is not significant in EIA terms.	considered to be **high**. The cumulative effect will, therefore, be of **minor (beneficial)** significance, which is not significant in EIA terms.
Further mitigation and residual significance	There is no further mitigation proposed beyond existing commitments. The residual cumulative effect will, therefore remain unchanged across all economic study areas i.e., not significant in EIA terms.	There is no further mitigation proposed beyond existing commitments. The residual cumulative effect will, therefore remain unchanged across all economic study areas i.e., not significant in EIA terms.	There is no further mitigation proposed beyond existing commitments. The residual cumulative effect will, therefore remain unchanged across all economic study areas i.e., not significant in EIA terms.	There is no further mitigation proposed beyond existing commitments. The residual cumulative effect will, therefore remain unchanged across all economic study areas i.e., not significant in EIA terms.

Table 2.88: The potential impact on population, housing and accommodation

	Scenario 1	Scenario 2	Scenario 3	Scenario 4a to 4c
Construction phase				
Sensitivity of receptor	Receptor sensitivity to potential impact on population, housing and accommodation is assessed on the basis of tolerance, recoverability, plus value and importance, as per **paragraphs 2.11.2.9 - 2.11.2.17**. Across both economic study areas the receptor is deemed to be of medium tolerance, medium recoverability and high value. The sensitivity of the receptor is therefore, considered to be medium.	As per Scenario 1, the sensitivity of the receptor across both economic study areas is considered to be medium.	As per Scenario 1, the sensitivity of the receptor across both economic study areas is considered to be medium.	As per Scenario 1, the sensitivity of the receptor across both economic study areas is considered to be medium.
Magnitude of impact	The cumulative effects assessment for Scenario 1 is assessed on the same basis as that set out within **Table 2.86**. For each economic study area, the cumulative effect is predicted to be: • **North West England**: negligible scale, regional spatial extent, medium term duration, and intermittent. It is predicted that the impact will affect the receptor directly. The magnitude is considered to be negligible. • **North Wales**: negligible scale, regional spatial extent, medium term duration, and	The cumulative effects assessment for Scenario 2 is assessed on the same basis as that set out within **Table 2.86**. For each economic study area, the cumulative effect is predicted to be: • **North West England**: negligible scale, regional spatial extent, medium term duration, and intermittent. It is predicted that the impact will affect the receptor directly. The magnitude is considered to be negligible. • **North Wales**: negligible scale, regional spatial extent, medium term duration, and	The cumulative effects assessment for Scenario 3 is assessed on the basis of the current capability scenario. For each economic study area, the cumulative effect is predicted to be: • **North West England**: negligible scale, regional spatial extent, medium term duration, and intermittent. It is predicted that the impact will affect the receptor directly. The magnitude is considered to be negligible. • **North Wales**: low scale, regional spatial extent, medium term duration, and	The cumulative effects assessment for Scenario 4 is assessed on the basis of the current capability scenario. For each economic study area, the cumulative effect is predicted to be: • **North West England**: low scale, regional spatial extent, medium term duration, and intermittent. It is predicted that the impact will affect the receptor directly. The magnitude is considered to be low (beneficial). • **North Wales**: low scale, regional spatial extent, medium term duration, and

	Scenario 1	Scenario 2	Scenario 3	Scenario 4a to 4c
	intermittent. It is predicted that the impact will affect the receptor directly. The magnitude is considered to be negligible.	intermittent. It is predicted that the impact will affect the receptor directly. The magnitude is considered to be negligible.	intermittent. It is predicted that the impact will affect the receptor directly. The magnitude is considered to be low (beneficial).	intermittent. It is predicted that the impact will affect the receptor directly. The magnitude is considered to be low (beneficial)
Significance of effect	Overall, the magnitude of the cumulative impact is deemed to be **negligible** and the sensitivity of the receptor is considered to be **medium**. The cumulative effect will, therefore, be of **negligible** significance, which is not significant in EIA terms.	Overall, the magnitude of the cumulative impact is deemed to be **negligible** and the sensitivity of the receptor is considered to be **medium**. The cumulative effect will, therefore, be of **negligible** significance, which is not significant in EIA terms.	Overall, for each economic study area: • **North West England**: the magnitude of the cumulative impact is deemed to be **negligible**, and the sensitivity of the receptor is considered to be **medium**. The cumulative effect will, therefore, be of **negligible** significance, which is not significant in EIA terms. • **North Wales**: the magnitude of the cumulative impact is deemed to be **low (beneficial)**, and the sensitivity of the receptor is considered to be **high**. The cumulative effect will, therefore, be of **minor (beneficial)** significance, which is not significant in EIA terms.	Overall, the magnitude of the cumulative impact is deemed to be **low (beneficial)** and the sensitivity of the receptor is considered to be **medium**. The cumulative effect will, therefore, be of **minor (beneficial)** significance, which is not significant in EIA terms.
Further mitigation and residual significance	There is no further mitigation proposed beyond existing commitments. The residual cumulative effect will therefore, remain unchanged across all economic study areas i.e., not significant in EIA terms.	There is no further mitigation proposed beyond existing commitments. The residual cumulative effect will therefore, remain unchanged across all economic study areas i.e., not significant in EIA terms.	There is no further mitigation proposed beyond existing commitments. The residual cumulative effect will therefore, remain unchanged across all economic study areas i.e., not significant in EIA terms.	There is no further mitigation proposed beyond existing commitments. The residual cumulative effect will therefore, remain unchanged across all economic study areas i.e., not significant in EIA terms.

	Scenario 1	Scenario 2	Scenario 3	Scenario 4a to 4c
Operation and maintenance phase				
Sensitivity of receptor	Receptor sensitivity to potential impact on population, housing and accommodation is assessed on the basis of tolerance, recoverability, plus value and importance, as per **paragraphs 2.11.2.9 - 2.11.2.17**. Across both economic study areas, the receptor is deemed to be of high tolerance, low recoverability and high value. The sensitivity of the receptor is therefore, considered to be high.	As per Scenario 1, the sensitivity of the receptor across both economic study areas is considered to be high.	As per Scenario 1, the sensitivity of the receptor across both economic study areas is considered to be high.	As per Scenario 1, the sensitivity of the receptor across both economic study areas is considered to be high.
Magnitude of impact	The cumulative effects assessment for Scenario 1 is assessed as per the construction phase, set out above. For each economic study area, the cumulative effect is predicted to be: • **North West England**: negligible scale, regional spatial extent, long term duration, and intermittent. It is predicted that the impact will affect the receptor directly. The magnitude is considered to be negligible. • **North Wales**: negligible scale, regional spatial extent, long term duration, and intermittent. It is predicted that the impact will affect the receptor directly. The	The cumulative effects assessment for Scenario 2 is assessed on the same basis as that set out within **Table 2.86**. For each economic study area, the cumulative effect is predicted to be: • **North West England**: negligible scale, regional spatial extent, long term duration, and intermittent. It is predicted that the impact will affect the receptor directly. The magnitude is considered to be negligible. • **North Wales**: negligible scale, regional spatial extent, long term duration, and intermittent. It is predicted that the impact will affect the receptor directly. The	The cumulative effects assessment for Scenario 3 is assessed on the basis of the current capability scenario. For each economic study area, the cumulative effect is predicted to be: • **North West England**: negligible scale, regional spatial extent, long term duration, and intermittent. It is predicted that the impact will affect the receptor directly. The magnitude is considered to be negligible. • **North Wales**: low scale, regional spatial extent, long term duration, and intermittent. It is predicted that the impact will affect the receptor directly. The	The cumulative effects assessment for Scenario 4 is assessed on the basis of the current capability scenario. For each economic study area, the cumulative effect is predicted to be: • **North West England**: low scale, regional spatial extent, long term duration, and intermittent. It is predicted that the impact will affect the receptor directly. The magnitude is considered to be low (neutral). • **North Wales**: low scale, regional spatial extent, long term duration, and intermittent. It is predicted that the impact will affect the receptor directly. The

	Scenario 1	Scenario 2	Scenario 3	Scenario 4a to 4c
	magnitude is considered to be negligible.	magnitude is considered to be negligible.	magnitude is considered to be low (neutral).	magnitude is considered to be low (neutral).
Significance of effect	Overall, for each economic study area: • **North West England**: the magnitude of the cumulative impact is deemed to be **negligible**, and the sensitivity of the receptor is considered to be **high**. The cumulative effect will, therefore, be of **minor (neutral)** significance, which is not significant in EIA terms. • **North Wales**: the magnitude of the cumulative impact is deemed to be **negligible**, and the sensitivity of the receptor is considered to be **high**. The cumulative effect will, therefore, be of **minor (neutral)** significance, which is not significant in EIA terms.	Overall, for each economic study area: • **North West England**: the magnitude of the cumulative impact is deemed to be **negligible**, and the sensitivity of the receptor is considered to be **high**. The cumulative effect will, therefore, be of **minor (neutral)** significance, which is not significant in EIA terms. • **North Wales**: the magnitude of the cumulative impact is deemed to be **negligible**, and the sensitivity of the receptor is considered to be **high**. The cumulative effect will, therefore, be of **minor (neutral)** significance, which is not significant in EIA terms.	Overall, for each economic study area: • **North West England**: the magnitude of the cumulative impact is deemed to be **negligible**, and the sensitivity of the receptor is considered to be **high**. The cumulative effect will, therefore, be of **minor (neutral)** significance, which is not significant in EIA terms. • **North Wales**: the magnitude of the cumulative impact is deemed to be **low (neutral)**, and the sensitivity of the receptor is considered to be **high**. The cumulative effect will, therefore, be of **minor (neutral)** significance, which is not significant in EIA terms.	Overall, for each economic study area: • **North West England**: the magnitude of the cumulative impact is deemed to be **low (neutral)**, and the sensitivity of the receptor is considered to be **high**. The cumulative effect will, therefore, be of **minor (neutral)** significance, which is not significant in EIA terms. • **North Wales**: the magnitude of the cumulative impact is deemed to be low (neutral), and the sensitivity of the receptor is considered to be **high**. The cumulative effect will, therefore, be of **minor (neutral)** significance, which is not significant in EIA terms.
Further mitigation and residual significance	There is no further mitigation proposed beyond existing commitments. The residual cumulative effect will therefore, remain unchanged across all economic study areas i.e., not significant in EIA terms.	There is no further mitigation proposed beyond existing commitments. The residual cumulative effect will therefore, remain unchanged across all economic study areas i.e., not significant in EIA terms.	There is no further mitigation proposed beyond existing commitments. The residual cumulative effect will therefore, remain unchanged across all economic study areas i.e., not significant in EIA terms.	There is no further mitigation proposed beyond existing commitments. The residual cumulative effect will therefore, remain unchanged across all economic study areas i.e., not significant in EIA terms.

2.15 Onshore cumulative effects assessment

2.15.1.1 For the onshore assessment, only scenarios 4a to 4c are assessed, as Morecambe Offshore Windfarm: Generation Assets and Morgan Offshore Wind Project: Generation Assets contain offshore assets only.

Table 2.89: The potential impact on economic receptors including employment and GVA

	Scenario 4a to 4c:
Construction phase	
Sensitivity of receptor	Receptor sensitivity to potential economic impacts is assessed on the basis of tolerance, recoverability, plus value and importance, as per **paragraphs 2.12.2.4–2.12.2.17**. Across both economic study areas, the receptor is deemed to be of low tolerance, medium recoverability and high value. The sensitivity of the receptor is therefore, considered to be medium.
Magnitude of impact	The cumulative effects assessment for Scenario 4 considers the following: • Transmission Assets • All Tier 1 and Tier 2 projects Along with the Transmission Assets, the identified cumulative developments would provide additional capital expenditure that would support further jobs for construction workers, engineers, project managers, and other associated trades. This is expected to increase demand for local goods and services, increasing benefits to local businesses, and generating a greater positive multiplier effect across the economy. One potential adverse effect associated with delivery of multiple developments within the same area during the same period of time is an increase in demand for construction materials, labour, and services. This increased demand could lead to material shortages and increased costs, potentially delaying delivery of concurrent projects within the study area. However, the construction sector at large operates in a manner that can typically respond flexibly to changes in conditions. Construction sector demand supports an industry characterised by a mobile workforce that moves from project to project as required, sometimes involved in the delivery of multiple concurrent projects. If a scheme is brought forward where labour and supply chain demands cannot immediately be met from within the local construction sector, there are steps that can be taken by the construction industry. • Construction firms can engage in planning and forecasting to ensure the timely availability of materials and labour. This is typically achieved via Resource Management Plans, which includes sourcing strategies, phased development plans, and measures to ensure steady supply without disrupting local market. • Construction firms can diversify their supply chains. This involves sourcing materials from multiple suppliers – locally, nationally, and internationally – to ensure a reliable supply and competitive pricing. Establishing long-term contracts with suppliers can also provide price stability and priority access to materials.

	Scenario 4a to 4c:
	• In response to labour shortages, construction firms can recruit from a broader geographic area, including regional, national, or even international recruitment. Additionally, investing in local training programs and apprenticeships can build a skilled workforce over time, reducing dependency on external labour markets and supporting local employment. • Construction firms can collaborate with local authorities, national governments, key stakeholders, and other construction projects to coordinate labour and material requirements. Potential challenges with resourcing multiple projects should not be a barrier to the development – this would overlook the potentially significant economic and environmental benefits of a strong development pipeline. Instead, a comprehensive approach that includes appropriate mitigation measures, stakeholder engagement, and adaptive management can address any challenges effectively. Consenting decisions should balance consideration of both the potential adverse effects (which can be mitigated), and the long-term benefits to the area. Each cumulative project should aim to make a positive economic contribution while ensuring sustainable and manageable delivery approaches via Resource Management Plans (or similar). In a situation where each individual project incorporates such an approach into its development proposal, the magnitude of any potential adverse cumulative impacts associated with construction sector demand are assumed to be negligible. Therefore, cumulative effects on economic receptors are deemed to be beneficial, overall. For the onshore study area, cumulative effects are predicted to be of low scale, regional spatial extent, medium term duration, and intermittent. It is predicted that the impact will affect the receptor directly. The magnitude is considered to be low (beneficial).
Significance of effect	Overall, the magnitude of the cumulative impact is deemed to **be low (beneficial)**, and the sensitivity of the receptor is considered to be **medium**. The cumulative effect will, therefore, be of **minor (beneficial)** significance, which is not significant in EIA terms
Further mitigation and residual significance	There is no further mitigation proposed beyond existing commitments. The residual cumulative effect will therefore, remain unchanged across all economic study areas i.e., not significant in EIA terms.
Operation and maintenance phase	
Sensitivity of receptor	Receptor sensitivity to potential economic impacts is assessed on the basis of tolerance, recoverability, plus value and importance, as per **paragraphs 2.12.2.14–2.12.2.21**. Across both economic study areas, the receptor is deemed to be of low tolerance, high recoverability and high value. The sensitivity of the receptor is therefore, considered to be high.
Magnitude of impact	The cumulative effects assessment for Scenario 4 considers the following: • Transmission Assets • LCC/2019/0029: Energy recovery facility fuelled by household, commercial and industrial waste • 23/0739: Scoping opinion in respect of a 49.9 MW solar farm

	Scenario 4a to 4c:
	• 07/2024/00013/VAR • Development of a 49.99 MW Battery Storage Facility, with associated infrastructure and landscaping Along with the Transmission Assets, the identified cumulative projects would provide additional energy infrastructure, which would support further jobs across the energy sector. This is expected to increase demand for local goods and services, increasing benefits to local businesses, and generating a greater positive multiplier effect across the economy. For the onshore study area, cumulative effects are predicted to be of low scale, regional spatial extent, long term duration, and continuous. It is predicted that the impact will affect the receptor directly. The magnitude is considered to be low (beneficial).
Significance of effect	Overall, the magnitude of the cumulative impact is deemed to be **low (beneficial)**, and the sensitivity of the receptor is considered to be **high**. The cumulative effect will, therefore, be of **minor (beneficial)** significance, which is not significant in EIA terms
Further mitigation and residual significance	There is no further mitigation proposed beyond existing commitments. The residual cumulative effect will therefore, remain unchanged across all economic study areas i.e., not significant in EIA terms.

Table 2.90: The potential impact of increased employment opportunities

	Scenario 4a to 4c:
Construction phase	
Sensitivity of receptor	Receptor sensitivity to potential economic impacts is assessed on the basis of tolerance, recoverability, plus value and importance, as per **paragraphs 2.12.3.4–2.12.3.5**. The receptor is deemed to be of low tolerance, medium recoverability and high value. The sensitivity of the receptor is therefore, considered to be medium.
Magnitude of impact	The cumulative effects assessment for Scenario 4 is assessed on the same basis as that set out within **Table 2.89**. For the onshore study area, cumulative effects are predicted to be of negligible scale, regional spatial extent, medium term duration, and intermittent. It is predicted that the impact will affect the receptor directly. The magnitude is considered to be negligible.
Significance of effect	Overall, the magnitude of the cumulative impact is deemed to be **negligible**, and the sensitivity of the receptor is considered to be **medium**. The cumulative effect will, therefore, be of **negligible significance**, which is not significant in EIA terms.
Further mitigation and residual significance	There is no further mitigation proposed beyond existing commitments. The residual cumulative effect will therefore, remain unchanged across all economic study areas i.e., not significant in EIA terms.
Operation and maintenance phase	
Sensitivity of receptor	Receptor sensitivity to potential economic impacts is assessed on the basis of tolerance, recoverability, plus value and importance, as per **paragraphs 2.12.3.12–2.12.3.18**. The receptor is deemed to be of low tolerance, high recoverability and very high value. The sensitivity of the receptor is therefore, considered to be high.
Magnitude of impact	The cumulative effects assessment for Scenario 4 is assessed on the same basis as that set out within **Table 2.89**. For the onshore study area, cumulative effects are predicted to be of negligible scale, regional spatial extent, long term duration, and continuous. It is predicted that the impact will affect the receptor directly. The magnitude is considered to be negligible.
Significance of effect	Overall, the magnitude of the cumulative impact is deemed to be **negligible**, and the sensitivity of the receptor is considered to be **high**. The cumulative effect will, therefore, be of **minor (beneficial)** significance, which is not significant in EIA terms.

	Scenario 4a to 4c:
Further mitigation and residual significance	There is no further mitigation proposed beyond existing commitments. The residual cumulative effect will therefore, remain unchanged across all economic study areas i.e., not significant in EIA terms.

Table 2.91: The potential impact on population, housing and accommodation

	Scenario 4a to 4c:
Construction phase	
Sensitivity of receptor	Receptor sensitivity to potential economic impacts is assessed on the basis of tolerance, recoverability, plus value and importance, as per **paragraphs 2.12.5.10–2.12.5.14**. The receptor is deemed to be of medium tolerance, medium recoverability and high value. The sensitivity of the receptor is therefore, considered to be medium.
Magnitude of impact	The cumulative effects assessment for Scenario 4 is assessed on the same basis as that set out within **Table 2.89**. For the onshore study area, cumulative effects are predicted to be of negligible scale, regional spatial extent, medium term duration, and intermittent. It is predicted that the impact will affect the receptor directly. The magnitude is considered to be negligible.
Significance of effect	Overall, the magnitude of the cumulative impact is deemed to be **negligible**, and the sensitivity of the receptor is considered to be **medium**. The cumulative effect will, therefore, be of **negligible** significance, which is not significant in EIA terms.
Further mitigation and residual significance	There is no further mitigation proposed beyond existing commitments. The residual cumulative effect will therefore, remain unchanged across all economic study areas i.e., not significant in EIA terms.

Table 2.92: The potential impact on tourism

	Scenario 4a to 4c:
Construction, operation and maintenance, and decommissioning phases	
Sensitivity of receptor	The receptor is deemed to be of medium tolerance, medium recoverability and high value. The sensitivity of the receptor is therefore, considered to be high.
Magnitude of impact	The Transmission Assets has the potential to cause both beneficial and adverse cumulative impacts on tourism. This cumulative impact is applicable to the construction, operation and maintenance, and decommissioning phases. In assessing any potential cumulative onshore impacts upon tourism activity, the following receptors have been considered: visual amenity, overnight trips and accommodation, and recreation. Each receptor is considered here in turn, followed by an overall assessment of the impact on tourism. The cumulative effects assessment for Scenario 4 relies on the cumulative assessments set out within Volume 3, Chapter 10: Landscape and visual resources, **section 2.12.4**, and Volume 3, Chapter 6: Land use and recreation. **Visual amenity** Volume 3, Chapter 10: Landscape and visual resources of the ES assess the potential significant cumulative effects on people using Public Rights of Way as a result of the Transmission Assets onshore cable routes, alongside other projects/plans: Within the context of the North West England visitor economy, the significance of effect on visual receptors during construction, operation and maintenance, or decommissioning phases is considered to be negligible. On the basis of this assessment, there are no likely significant adverse indirect cumulative effects on tourism in North West England associated with visual amenity. **Overnight trips and accommodation** The assessment of cumulative effects on population, housing and accommodation set out in Table 2.91 assessed the potential significance of effects during the construction phase as negligible. Potential onshore impacts during the operation and maintenance and decommissioning have been scoped out of the assessment and are therefore considered to be negligible. On the basis of this assessment, there are no likely significant indirect cumulative effects on tourism in North West England associated with cumulative demand for overnight accommodation. **Recreation** As per Volume 3, Chapter 6: Land use and recreation of the ES, there is potential for adverse cumulative effects between the Transmission Assets and the identified cumulative developments.

	Scenario 4a to 4c:
	Within the context of the North West England visitor economy, the significance of effect on the identified recreation resources during construction, operation and maintenance, or decommissioning phases is considered to be negligible. This consideration of potential indirect cumulative effects on recreation indicates there are unlikely to be any material indirect cumulative impacts on tourism in North West England associated with impacts on recreation as a result of the Transmission Assets in combination with other cumulative projects. **Overall** Based on a consideration of the pathways by which tourism activities might be impacted by the Transmission Assets in combination with cumulative projects during the construction, operation and maintenance, and decommissioning phases, the magnitude of the impact in North West England is deemed to be negligible, and the sensitivity of the receptor is considered to be high. The effect on the onshore tourism study area will, therefore, be of negligible significance, which is not significant in EIA terms.
Significance of effect	Overall, the magnitude of the cumulative impact is deemed to be **negligible**, and the sensitivity of the receptor is considered to be **high**. The cumulative effect will, therefore, be of **minor (adverse)** significance, which is not significant in EIA terms.
Further mitigation and residual significance	There is no further mitigation proposed beyond existing commitments. The residual cumulative effect will therefore, remain unchanged across all economic study areas i.e., not significant in EIA terms.
Construction phase	
Magnitude of impact	The cumulative effects assessment for Scenario 4 is assessed on the same basis as that set out within **Table 2.89**. For the onshore study area, cumulative effects are predicted to be of negligible scale, regional spatial extent, medium term duration, and intermittent. It is predicted that the impact will affect the receptor directly. The magnitude is considered to be negligible.
Sensitivity of receptor	Receptor sensitivity to potential economic impacts is assessed on the basis of tolerance, recoverability, plus value and importance, as per **paragraphs 2.12.3.4–2.12.3.5**. Across both economic study areas the receptor is deemed to be of low tolerance, medium recoverability and high value. The sensitivity of the receptor is therefore, considered to be medium.
Significance of effect	Overall, the magnitude of the cumulative impact is deemed to be negligible, and the sensitivity of the receptor is considered to be medium. The cumulative effect will, therefore, be of negligible significance, which is not significant in EIA terms.
Further mitigation and residual significance	There is no further mitigation proposed beyond existing commitments. The residual cumulative effect will, therefore remain unchanged across all economic study areas i.e. not significant in EIA terms.
Operation and maintenance phase	

	Scenario 4a to 4c:
Magnitude of impact	The cumulative effects assessment for Scenario 4 is assessed on the same basis as that set out within **Table 2.89**. For the onshore study area, cumulative effects are predicted to be of negligible scale, regional spatial extent, long term duration, and continuous. It is predicted that the impact will affect the receptor directly. The magnitude is considered to be negligible.
Sensitivity of receptor	Receptor sensitivity to potential economic impacts is assessed on the basis of tolerance, recoverability, plus value and importance, as per **paragraphs 2.12.3.12–2.12.3.18**. Across both economic study areas the receptor is deemed to be of low tolerance, high recoverability and very high value. The sensitivity of the receptor is therefore, considered to be high.
Significance of effect	Overall, the magnitude of the cumulative impact is deemed to be negligible, and the sensitivity of the receptor is considered to be high. The cumulative effect will, therefore, be of minor (beneficial) significance, which is not significant in EIA terms.
Further mitigation and residual significance	There is no further mitigation proposed beyond existing commitments. The residual cumulative effect will, therefore remain unchanged across all economic study areas i.e. not significant in EIA terms.

2.16 Transboundary effects

2.16.1.1 A screening of transboundary impacts has been carried out and any potential for significant transboundary effects with regard to socio-economics from the Transmission Assets upon the interests of other states has been assessed as part of this ES.

2.16.1.2 The potential transboundary impacts are assessed within Volume 1, Annex 5.4: Transboundary screening of the ES. These are summarised below.

2.16.1.3 Potential transboundary socio-economics impacts upon other states may arise through the purchase of project components, equipment and the sourcing of labour from companies based outside the UK. The sourcing of materials and labour from other states is assumed to provide beneficial effects to the economies of said states, and so the consideration of measures envisaged to reduce or eliminate such effects is not relevant in the context of potential transboundary impacts.

2.16.1.4 The consideration of potentially significant indirect transboundary effects that has been made with respect to linkages between Socio-economics and transboundary effects assessed in other topic chapters are set out in **Table 2.93**.

Table 2.93: Linkages between socio-economics and transboundary effects in other topic chapters

Topic	Assessment of transboundary effects	Linkages to socio-economics
Volume 2, Chapter 7: Shipping and Navigation of the ES.	A screening of transboundary impacts has been carried out and any potential for significant transboundary effects with regard to shipping and navigation from the Transmission Assets upon the interests of other states has been assessed as part of this ES. Each individual vessel may be internationally owned or operating between ports in different states. These impacts have been captured and assessed within this shipping and navigation chapter and navigation risk assessment (Volume 2, Annex 7.1). Therefore, no additional transboundary impacts are anticipated.	No significant indirect transboundary effects.
Volume 2, Chapter 9: Other Sea Users of the ES	A screening of transboundary impacts has been carried out and has identified that there was no potential for significant transboundary effects with regard to other sea users from the Transmission Assets upon the interests of other states.	No significant indirect transboundary effects.
Volume 3, Chapter 6: Land use and recreation of the ES	A screening of transboundary impacts has been carried out and has identified that there was no potential for significant transboundary effects with regard to land use and recreation from the Transmission Assets upon the interests of other states.	No significant indirect transboundary effects.

2.16.1.5 Having considered the assessment of transboundary effects in other topic chapters, it is likely that no indirect transboundary effects on socio-economics receptors are significant in EIA terms.

2.16.1.6 The screening of potential transboundary impacts therefore identifies no potential for significant effects with regards to socio-economics.

2.17 Inter-related effects

2.17.1.1 Inter-relationships are the potential impacts and associated effects of different aspects of the Transmission Assets on the same receptor. These are as follows.

- Project lifetime effects: Assessment of the scope for effects that occur throughout more than one phase of the Transmission Assets (construction, operation and maintenance, and decommissioning), to interact to potentially create a more significant effect on a receptor than if just assessed in isolation in these three phases (e.g., construction noise effects from piling, operational substation noise, and decommissioning disturbance).
- Receptor led effects: Assessment of the scope for all effects (including inter-relationships between environmental topics) to interact, spatially and temporally, to create inter-related effects on a receptor. As an example, all effects on socio-economics, such as the potential impact of employment on population, and demand for housing and accommodation may interact to produce a different, or greater effect on this receptor than when the effects are considered in isolation. Receptor-led effects may be short term, temporary or transient effects, or incorporate longer term effects.

2.17.1.2 A description of the likely interactive effects arising from the Transmission Assets on socio-economics is provided in Volume 4, Chapter 3: Inter-relationships of the ES.

2.18 Summary of potential impacts, mitigation measures and monitoring

2.18.1.1 **Table 2.94, Table 2.95, Table 2.98** and **Table 2.99** show a summary of the impacts as part of the Transmission Assets and residual effects in respect to socio-economics. The potential impacts assessed include:

- the potential impact on economic receptors including employment and GVA;
- the potential impact of increased employment opportunities;
- the potential economic impact of changes to aviation activities (at Blackpool Airport and Blackpool Airport Enterprise Zone);
- the potential impact on population, housing, and accommodation; and
- the potential impact on tourism.

2.18.1.2 Overall, it is assessed that there are no significant effects arising from the Transmission Assets during the construction, operation and maintenance or decommissioning phases.

2.18.1.3 **Table 2.96, Table 2.97** and **Table 2.100** present a summary of the potential cumulative impacts, mitigation measures and residual effects. The potential cumulative impacts assessed include those listed above.

2.18.1.4 Overall, it is concluded that there are the following significant cumulative effects from the Transmission Assets alongside other cumulative projects.

Construction phase

- The significance of effect for the potential impact on economic receptors including employment and GVA for Scenario 3 and 4a to 4c for North Wales (offshore study area) are assessed to be moderate (beneficial) which is significant in EIA terms.
- The significance of effect for the potential impact on economic receptors including employment and GVA for Scenario 3 for North West England (offshore study area) is assessed to be moderate (beneficial) which is significant in EIA terms.

Operation and maintenance phase

- The significance of effect for the potential impact on economic receptors including employment and GVA for Scenario 4a to 4c for North Wales (offshore study area) is assessed to be major (beneficial) which is significant in EIA terms.
- The significance of effect for the potential impact on economic receptors including employment and GVA for Scenario 4a to 4c for North West England (offshore study area) is assessed to be moderate (beneficial) which is significant in EIA terms.

2.18.1.5 No potential transboundary impacts have been identified in regard to effects of the Transmission Assets.

2.18.2 Offshore

Table 2.94: Summary of environmental effects, mitigation and monitoring – North Wales offshore study area

Description of potential impact	Phase[a]			Commitment number	Magnitude of potential impact	Sensitivity of the receptor	Significance of effect	Further mitigation	Residual significant effect	Proposed monitoring
	C	O	D							
The potential impact on economic receptors including employment, GVA, and supply chain demand.	✓	✓	x	N/A	C: Low (beneficial) O: Low (beneficial)	C: Medium O: High	C: Minor (beneficial) O: Minor (beneficial)	N/A	C: Minor (beneficial) O: Minor (beneficial)	None required
The potential impact of increased employment opportunities.	✓	✓	x	N/A	C: Negligible O: Negligible	C: Medium O: High	C: Negligible O: Minor (beneficial)	N/A	C: Negligible O: Minor (beneficial)	None required
The potential impact on population, housing, and accommodation.	✓	x	x	N/A	C: Negligible	C: Medium	C: Negligible	N/A	C: Negligible	None required

[a] C=construction, O=operation and maintenance, D=decommissioning

Table 2.95: Summary of environmental effects, mitigation and monitoring – North West England offshore area

Description of potential impact	Phase[a]			Commitment number	Magnitude of potential impact	Sensitivity of the receptor	Significance of effect	Further mitigation	Residual effect	Proposed monitoring
	C	O	D							
The potential impact on economic receptors including employment, GVA, and supply chain demand.	✓	✓	x	N/A	C: Low (beneficial) O: Low (beneficial)	C: Medium O: High	C: Minor (beneficial) O: Minor (beneficial)	N/A	C: Minor (beneficial) O: Minor (beneficial)	None required
The potential impact of increased employment opportunities.	✓	✓	x	N/A	C: Negligible O: Negligible	C: Medium O: High	C: Negligible O: Minor (beneficial)	N/A	C: Negligible O: Minor (beneficial)	None required
The potential impact on population, housing, and accommodation.	✓	x	x	N/A	C: Negligible	C: Medium	C: Negligible	N/A	C: Negligible	None required

[a] C=construction, O=operation and maintenance, D=decommissioning

Table 2.96: Summary of cumulative environmental effects, mitigation and monitoring – North Wales offshore study area

Description of potential impact	Phase[a]			Commitment number	Magnitude of potential impact	Sensitivity of the receptor	Significance of effect	Further mitigation	Residual effect	Proposed monitoring
	C	O	D							
Scenario 1										
The potential impact on economic receptors including employment and GVA.	✓	✓	x	N/A	C: Low (beneficial) O: Low (beneficial)	C: Medium O: High	C: Minor (beneficial) O: Minor (beneficial)	None proposed beyond existing commitments.	C: Minor (beneficial) O: Minor (beneficial)	None required
The potential impact of increased employment opportunities.	✓	✓	x	N/A	C: Negligible O: Low (beneficial)	C: Medium O: High	C: Negligible O: Minor (beneficial)	None proposed beyond existing commitments.	C: Negligible O: Minor (beneficial)	None required
The potential impact on population, housing, and accommodation.	✓	✓	x	N/A	C: Negligible O: Negligible	C: Medium O: High	C: Negligible O: Minor (neutral)	None proposed beyond existing commitments	C: Negligible O: Minor (neutral)	None required
Scenario 2										
The potential impact on economic receptors including employment and GVA.	✓	✓	x	N/A	C: Low (beneficial) O: Low (beneficial)	C: Medium O: High	C: Minor (beneficial) O: Minor (beneficial)	None proposed beyond existing commitments.	C: Minor (beneficial) O: Minor (beneficial)	None required
The potential impact of increased employment opportunities.	✓	✓	x	N/A	C: Negligible O: Low (beneficial)	C: Medium O: High	C: Negligible O: Minor (beneficial)	None proposed beyond existing commitments.	C: Negligible O: Minor (beneficial)	None required
The potential impact on population,	✓	✓	x	N/A	C: Negligible O: Negligible	C: Medium O: High	C: Negligible O: Minor (neutral)	None proposed beyond existing commitments	C: Negligible O: Minor (neutral)	None required

Description of potential impact	Phase[a]			Commitment number	Magnitude of potential impact	Sensitivity of the receptor	Significance of effect	Further mitigation	Residual effect	Proposed monitoring
	C	O	D							
housing, and accommodation.										
Scenario 3										
The potential impact on economic receptors including employment and GVA.	✓	✓	x	N/A	C: Moderate (beneficial) O: Moderate (beneficial)	C: Medium O: High	C: Moderate (beneficial) O: Moderate (beneficial)	None proposed beyond existing commitments.	C: Moderate (beneficial) O: Moderate (beneficial)	None required
The potential impact of increased employment opportunities.	✓	✓	x	N/A	C: Low (beneficial) O: Low (beneficial)	C: Medium O: High	C: Minor (beneficial) O: Minor (beneficial)	None proposed beyond existing commitments.	C: Minor (beneficial) O: Minor (beneficial)	None required
The potential impact on population, housing, and accommodation.	✓	✓	x	N/A	C: Low (beneficial) O: Low (neutral)	C: High O: High	C: Minor (beneficial) O: Minor (neutral)	None proposed beyond existing commitments	C: Minor (beneficial) O: Minor (neutral)	None required
Scenario 4a-4c										
The potential impact on economic receptors including employment and GVA.	✓	✓	x	N/A	C: High (beneficial) O: High (beneficial)	C: Medium O: High	C: Moderate (beneficial) O: Major (beneficial)	None proposed beyond existing commitments.	C: Moderate (beneficial) O: Major (beneficial)	None required
The potential impact of increased employment opportunities.	✓	✓	x	N/A	C: Low to medium (beneficial) O: Low to medium (beneficial)	C: Medium O: High	C: Minor (beneficial) O: Minor (beneficial)	None proposed beyond existing commitments.	C: Minor (beneficial) O: Minor (beneficial)	None required

Description of potential impact	Phase[a]			Commitment number	Magnitude of potential impact	Sensitivity of the receptor	Significance of effect	Further mitigation	Residual effect	Proposed monitoring
	C	O	D							
The potential impact on population, housing, and accommodation.	✓	✓	x	N/A	C: Low (beneficial) O: Low (neutral)	C: Medium O: High	C: Minor (beneficial) O: Minor (neutral)	None proposed beyond existing commitments	C: Minor (beneficial) O: Minor (neutral)	None required

[a] C=construction, O=operation and maintenance, D=decommissioning

Table 2.97: Summary of cumulative environmental effects, mitigation and monitoring – North West England offshore study area

Description of potential impact	Phase[a]			Commitment number	Magnitude of potential impact	Sensitivity of the receptor	Significance of effect	Further mitigation	Residual effect	Proposed monitoring
	C	O	D							
Scenario 1										
The potential impact on economic receptors including employment and GVA.	✓	✓	x	N/A	C: Low (beneficial) O: Low (beneficial)	C: Medium O: High	C: Minor (beneficial) O: Minor (beneficial)	None proposed beyond existing commitments.	C: Minor (beneficial) O: Minor (beneficial)	None required
The potential impact of increased employment opportunities.	✓	✓	x	N/A	C: Negligible O: Negligible	C: Medium O: High	C: Negligible O: Minor (beneficial)	None proposed beyond existing commitments.	C: Negligible O: Minor (beneficial)	None required
The potential impact on population, housing, and accommodation.	✓	✓	x	N/A	C Negligible O: Negligible	C: Medium O: High	C: Negligible O: Minor (neutral)	None proposed beyond existing commitments	C: Negligible O: Minor (neutral)	None required
Scenario 2										
The potential impact on economic receptors including employment and GVA.	✓	✓	x	N/A	C: Low (beneficial) O: Low (beneficial)	C: Medium O: High	C: Minor (beneficial) O: Minor (beneficial)	None proposed beyond existing commitments.	C: Minor (beneficial) O: Minor (beneficial)	None required
The potential impact of increased employment opportunities.	✓	✓	x	N/A	C: Negligible O: Negligible	C: Medium O: High	C: Negligible O: Minor (beneficial)	None proposed beyond existing commitments.	C: Negligible O: Minor (beneficial)	None required

Description of potential impact	Phase[a]			Commitment number	Magnitude of potential impact	Sensitivity of the receptor	Significance of effect	Further mitigation	Residual effect	Proposed monitoring
	C	O	D							
The potential impact on population, housing, and accommodation.	✓	✓	x	N/A	C: Negligible O: Negligible	C: Medium O: High	C: Negligible O: Minor (neutral)	None proposed beyond existing commitments	C: Negligible O: Minor (neutral)	None required
Scenario 3										
The potential impact on economic receptors including employment and GVA.	✓	✓	x	N/A	C: Medium (beneficial) O: Low (beneficial)	C: Medium O: High	C: Moderate (beneficial) O: Minor (beneficial)	None proposed beyond existing commitments.	C: Moderate (beneficial) O: Minor (beneficial)	None required
The potential impact of increased employment opportunities.	✓	✓	x	N/A	C: Negligible O: Negligible	C: Medium O: High	C: Negligible O: Minor (beneficial)	None proposed beyond existing commitments.	C: Negligible O: Minor (beneficial)	None required
The potential impact on population, housing, and accommodation.	✓	✓	x	N/A	C: Negligible O: Negligible	C: Medium O: High	C: Negligible O: Minor (neutral)	None proposed beyond existing commitments	C: Negligible O: Minor (neutral)	None required
Scenario 4a-4c										
The potential impact on economic receptors including employment and GVA.	✓	✓	x	N/A	C: High (beneficial) O: Medium (beneficial)	C: Medium O: High	C: Moderate (beneficial) O: Moderate (beneficial)	None proposed beyond existing commitments.	C: Moderate (beneficial) O: Moderate (beneficial)	None required
The potential impact of increased employment opportunities.	✓	✓	x	N/A	C: Low (beneficial) O: Low (beneficial)	C: Medium O: High	C: Minor (beneficial) O: Minor (beneficial)	None proposed beyond existing commitments.	C: Minor (beneficial) O: Minor (beneficial)	None required

Description of potential impact	Phase[a]			Commitment number	Magnitude of potential impact	Sensitivity of the receptor	Significance of effect	Further mitigation	Residual effect	Proposed monitoring
	C	O	D							
The potential impact on population, housing, and accommodation.	✓	✓	x	N/A	C: Low (beneficial) O: Low (neutral)	C: Medium O: High	C: Minor (beneficial) O: Minor (neutral)	None proposed beyond existing commitments	C: Minor (beneficial) O: Minor (neutral)	None required

[a] C=construction, O=operation and maintenance, D=decommissioning

2.18.3 Onshore

Table 2.98: Summary of environmental effects, mitigation and monitoring – onshore study area

Description of potential impact	Phase[a]			Commitment number	Magnitude of potential impact	Sensitivity of the receptor	Significance of effect	Further mitigation	Residual effect	Proposed monitoring
	C	O	D							
The potential impact on economic receptors including employment, GVA, and supply chain demand.	✓	✓	x	N/A	C: Low (beneficial) O: Low (beneficial)	C: Medium O: High	C: Minor (beneficial) O: Minor (beneficial)	N/A	C: Minor (beneficial) O: Minor (beneficial)	None required
The potential impact of increased employment opportunities.	✓	✓	x	N/A	C: Negligible O: Negligible	C: Medium O: High	C: Negligible O: Minor (beneficial)	N/A	C: Negligible O: Minor (beneficial)	None required
The potential impact on population, housing, and accommodation.	✓	x	x	N/A	C: Negligible	C: Medium	C: Negligible	N/A	C: Negligible	None required
The potential impact on tourism	✓	✓	✓	N/A	C: Negligible O: Negligible D: Negligible	C: Low O: Low D: Low	C: Negligible O: Negligible D: Negligible	N/A	C: Negligible O: Negligible D: Negligible	None required

[a] C=construction, O=operation and maintenance, D=decommissioning

Table 2.99: Summary of environmental effects, mitigation and monitoring – North West England

Description of potential impact	Phase[a]			Commitment number	Magnitude of potential impact	Sensitivity of the receptor	Significance of effect	Further mitigation	Residual effect	Proposed monitoring
	C	O	D							
The potential economic impact of potential changes to aviation activities (at Blackpool Airport and Blackpool Airport Enterprise Zone)	✓	x	x	N/A	C: Negligible	C: Low	C: Negligible	N/A	C: Negligible	None required

Table 2.100: Summary of cumulative environmental effects, mitigation and monitoring – onshore study area

Description of potential impact	Phase[a]			Commitment number	Magnitude of potential impact	Sensitivity of the receptor	Significance of effect	Further mitigation	Residual effect	Proposed monitoring
	C	O	D							
Scenario 4a to 4c										
The potential impact on economic receptors including employment and GVA	✓	✓	x	N/A	C: Low (beneficial) O: Low (beneficial)	C: Medium O: high	C: Minor (beneficial) O: Minor (beneficial)	None proposed beyond existing commitments	C: Minor (beneficial) O: Minor (beneficial)	None required
The potential impact of increased employment opportunities.	✓	✓	x	N/A	C: Negligible O: Negligible	C: Medium O: High	C: Negligible O: Minor (beneficial)	None proposed beyond existing commitments	C: Negligible O: Minor (beneficial)	None required
The potential impact on population, housing, and accommodation.	✓	x	x	N/A	C: Negligible	C: Medium	C Negligible	None proposed beyond existing commitments	C: Negligible	None required
The potential impact on Tourism.	✓	✓	✓	N/A	C: Negligible O: Negligible D: Negligible	C: High O: High D: High	C: Minor (adverse) O: Minor (adverse) D: Minor (adverse)	None proposed beyond existing commitments	C: Minor (adverse) O: Minor (adverse) D: Minor (adverse)	None required

[a] C=construction, O=operation and maintenance, D=decommissioning

2.19 References

Ambition North Wales (2023) Providing recognition to tourism skills in North Wales. Available: [redacted] Accessed September 2024.

BBC (2023) Isle of Man TT: Visitor numbers rise to 43,000. Available: [redacted] Accessed September 2024.

BBC (2023) Isle of Man TT: Visitor numbers rise to 43,000. Available: [redacted] cessed September 2024.

Biggar Economics (2020) Offshore Wind Farm Construction and Tourism. Available: [redacted] March 2024.

Biosphere Isle-Man and Visit Isle of Man (2022) Our Island, Our Future, Isle of Man Visitor Economy Strategy 2022-2032. Available: https://www.gov.im/media/1377909/isle-of-man-visitor-economy-strategy-2022-2032.pdf. Accessed September 2024.

Blackpool Council (2020) Blackpool Airport Master Planning – Masterplan 2020 (10217-P102 Presentation Plan. Available: https://www.blackpool.gov.uk/Residents/Planning-environment-and-community/Documents/10217-P102-Masterplan-2020-Plan.pdf. Accessed August 2024.

Blackpool Council (2024a) Silicon Sands masterplan launched to make Blackpool a new home for data centre development. Available: https://www.blackpool.gov.uk/news/silicon-sands-masterplan-launched-to-make-blackpool-a-new-home-for-data-centre-development.aspx?date=22-05-2024. Accessed August 2024.

Blackpool Council (2024b) Solar farm proposed to support Blackpool Airport. Available: https://www.blackpool.gov.uk/news/solar-farm-proposed-to-support-blackpool-airport.aspx?date=29-08-2024. Accessed August 2024.

Blackpool, Fylde and Wyre Economic Development Company (2018) Blackpool Airport Enterprise Zone Masterplan. Available: https://www.blackpool.gov.uk/Residents/Planning-environment-and-community/Documents/Masterplan-September-2018.pdf. Accessed August 2024.

Companies House (2024) Get information about a company. Available: https://www.gov.uk/get-information-about-a-company. Accessed August 2024.

Conwy.com (2022) Homepage. [redacted]/. Accessed September 2024.

Cronin, Y., Cummins, V. and Wolsztynski, E. (2021) Public perception of offshore wind farms in Ireland. Marine Policy, 134.

Crown Estate and ORE Catapult (2019) Guide to an offshore wind farm. Available: https://ore.catapult.org.uk/app/uploads/2019/04/BVGA-5238-Guide-r2.pdf. Accessed September 2024.

Department for Energy Security and Net Zero (DESNZ) (2024a2023a) Overarching NPS for Energy (NPS EN-1). Available: https://assets.publishing.service.gov.uk/media/655dc190d03a8d001207fe33/overarching-

nps-for-energy-en1.pdfhttps://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1147380/NPS_EN-1.pdf. Accessed February 2024.

Department for Energy Security and Net Zero (DESNZ) (2024b2023b) NPS for Renewable Energy Infrastructure (NPS EN-3). Available: https://assets.publishing.service.gov.uk/media/655dc352d03a8d001207fe37/nps-renewable-energy-infrastructure-en3.pdf. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1147382/NPS_EN-3.pdf. Accessed February 2024.

Department for Energy Security and Net Zero (DESNZ) (2024c2023c) NPS for Electricity Networks Infrastructure (NPS EN-5). Available: https://assets.publishing.service.gov.uk/media/655dc25e046ed400148b9dca/nps-electricity-networks-infrastructure-en5.pdf. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1147384/NPS_EN-5.pdf. Accessed February 2024.

Department for Transport (2023a) UK domestic sea passenger movements, by type of route. Available: https://www.gov.uk/government/statistical-data-sets/sea-passenger-statistics-spas. Accessed September 2024.

Department for Transport (2023b) PORT0706: Domestic UK major port freight traffic by coastwise or one port traffic, cargo group and UK country (filter by direction and year) [Note 4]. Available: https://www.gov.uk/government/statistical-data-sets/port-and-domestic-waterborne-freight-statistics-port. Accessed September 2024.

Discover Anglesey (2022) Land Activities. Available: [redacted]d September 2024.

DLUHC (2023a) Table 109 Dwelling stock: by tenure and region. Available: https://www.gov.uk/government/statistical-data-sets/live-tables-on-dwelling-stock-including-vacants. Accessed September 2023.

DLUHC (2023b) Table 615 Vacant dwellings by local authority district: England. Available: https://www.gov.uk/government/statistical-data-sets/live-tables-on-dwelling-stock-including-vacants. Accessed September 2024.

England's Coast (2022) North West. [redacted] 2024.

English Heritage (2022) Hadrian's Wall. Available: [redacted]Accessed September 2024.

Eryri National Park (2022) Homepage. Available: https://snowdonia.gov.wales/. Accessed September 2024.

Flintshire County Council (2022) Welcome to Flintshire. Available: https://www.flintshire.gov.uk/en/LeisureAndTourism/Tourism/Welcome-to-Flintshire.aspx. Accessed September 2024.

Glasson, J., Durning, B., Olorundami, T. and Welch, K. (2020) Guidance on assessing the socio-economic impacts of offshore wind farms (OWFs). Available: [redacted] September 2024.

HM Government (2023) Offshore Wind Net Zero Investment Roadmap. Available: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1167856/offshore-wind-investment-roadmap.pdf. Accessed: September 2024.

HM Treasury (2023) Forecasts for the UK economy: a comparison of independent forecasts. Available: https://www.gov.uk/government/statistics/forecasts-for-the-uk-economy-august-2023. Accessed September 2024.

IEMA (2016) Environmental Impact Assessment. Guide to Delivering Quality Development. Available: [redacted]: September 2024.

IPPR (2020) Net Zero North Sea: A managed transition for oil and gas in Scotland and the UK after Covid-19. [redacted]

Isle of Man Government (2012) Passenger Survey Annual Report 2012. Available: https://www.gov.im/about-the-government/departments/cabinet-office/statistics-isle-of-man/passenger-survey/. Accessed September 2024.

Isle of Man Government (2015, amended 2017) Employment Land Review. Available: https://www.gov.im/about-the-government/departments/enterprise/employment-land-review/#:~:text=The%20Review%20provides%20an%20evidence,the%20preparation%20of%20Area%20Plans. Accessed September 2024.

Isle of Man Government (2016) 2016 Isle of Man Census Report. Available: https://www.gov.im/about-the-government/departments/cabinet-office/statistics-isle-of-man/census/. Accessed September 2024.

Isle of Man Government (2018) Isle of Man Passenger Survey 2018. Available: https://www.gov.im/media/1365787/2019-02-22-passenger-survey-annual-report-2018.pdf. Accessed September 2024.

Isle of Man Government (2018a) Isle of Man Ferry Services Survey 2018. Available: https://www.gov.im/media/1367418/isle-of-man-ferry-services-survey-2018-results-report.pdf. Accessed September 2024.

Isle of Man Government (2019) Passenger Survey Annual Report 2018. Available: https://www.gov.im/about-the-government/departments/cabinet-office/statistics-isle-of-man/passenger-survey/. Accessed September 2024.

Isle of Man Government (2021a) Smarter Movement Strategy. Available: https://www.gov.im/media/1373908/smarter-movement-final-130821.pdf. Accessed September 2024.

Isle of Man Government (2021b) 2021 Isle of Man Census Report Part 1 and 2. Available: https://www.gov.im/about-the-government/departments/cabinet-office/statistics-isle-of-man/census/. Accessed September 2024.

Isle of Man Government (2022a) National Income 2020/21. Available: https://www.gov.im/about-the-government/departments/cabinet-office/statistics-isle-of-man/national-income/. Accessed September 2024.

Isle of Man Government (2022b) Our Island, Our Future: Isle of Man Economic Strategy. Available: https://www.gov.im/categories/business-and-industries/our-island-our-future-isle-of-man-economic-

strategy/#:~:text=In%20November%202022%2C%20Tynwald%20approved,for%20the%20Isle%20of%20Man. Accessed September 2024.

Isle of Man Government (2023a) Our Island Plan. Available: [redacted]ccessed September 2024.

Isle of Man Government (2023b) Isle of Man May 2023 Monthly Harbour Traffic Summary. Available: https://www.gov.im/about-the-government/departments/infrastructure/harbours-information/harbour-traffic-information/. Accessed September 2024.

Isle of Man Government (2023c) Isle of Man January 2023 Monthly Harbour Traffic Summary. Available: https://www.gov.im/about-the-government/departments/infrastructure/harbours-information/harbour-traffic-information/. Accessed September 2024.

KPMG (2022) Our Big Picture Strategic Economic Framework: Phase 3 Report. Available: https://www.gov.im/media/1377116/our-big-picture-phase-3-report-final-public.pdf. Accessed September 2024.

Marine Scotland (2022) Defining 'Local Area' for assessing impact of offshore renewables and other marine developments Guidance Principles. Available: https://www.gov.scot/publications/defining-local-area-assessing-impact-offshore-renewables-marine-developments-guidance-principles/documents/. Accessed September 2024.

Ministry of Housing, Communities and Local Government (2024) National Planning Policy Framework: Consultation Draft. Available at: Proposed reforms to the National Planning Policy Framework and other changes to the planning system - GOV.UK (www.gov.uk) Accessed September 2024.

MMO (2021) North West Inshore and North West Offshore Marine Plan, June 2021.

NFER and Nuffield Foundation (2022). The Skills Imperative 2035: Occupational Outlook – Long-run employment prospects for the UK, Baseline Projections – Working Paper 2a. Available: [redacted]

OBR (2023) Economic and fiscal outlook. [redacted]3.

ONS (2020) Population projections for regions: Table 1. Available: https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationprojections/datasets/regionsinenglandtable1. Accessed March 2023.

ONS (2023a) Business Register and Employment Survey. Available: [redacted].

ONS (2023b) Regional gross value added (balanced) by industry: local authorities. Available: https://www.ons.gov.uk/economy/grossdomesticproductgdp/datasets/regionalgrossvalueaddedbalancedbyindustrylocalauthoritiesbyitl1region. Accessed September 2024.

ONS (2023c) Regional gross value added (balanced) by industry: all ITL regions. Available: https://www.ons.gov.uk/economy/grossvalueaddedgva/datasets/nominalandrealregionalgrossvalueaddedbalancedbyindustry. Accessed September 2024.

ONS (2023d) Annual Population Survey. Available: [redacted].

ONS (2023e) Annual Population Survey: model-based estimates of unemployment. [redacted] September 2024.

ONS (2023f) Population estimates. A[redacted] Accessed September 2024.

ONS (2024) Business Register and Employment Survey. Available: [redacted] Accessed September 2024.

Scottish Government (2008) Economic impacts of wind farms on Scottish tourism: research findings. Available: https://www.gov.scot/publications/economic-research-findings-economic-impacts-wind-farms-scottish-tourism/documents/. Accessed March 2024.

Scottish Government (2022) Public Perceptions of Offshore Wind farm Developments in Scotland. Available: https://www.gov.scot/publications/public-perceptions-offshore-wind-farm-developments-scotland/documents/. Accessed March 2024.

Statistics Wales (2021) Population projections by local authority and year. Available: https://statswales.gov.wales/Catalogue/Population-and-Migration/Population/Projections/Local-Authority/2018-based/populationprojections-by-localauthority-year. Accessed September 2024.

Statistics Wales (2023a) Dwelling stock estimates by local authority and tenure. Available: https://statswales.gov.wales/Catalogue. Accessed September 2024.

Statistics Wales (2023b) Chargeable empty and second homes, by local authority (number of dwellings). Available: https://statswales.gov.wales/Catalogue. Accessed September 2024.

The Beach Guide (2022) North West.[redacted]

UK Civil Aviation Authority (2024) Annual airport data 2023. Available: [redacted] Accessed August 2024.

UK Government (2011) UK Marine Policy Statement. Available: https://www.gov.uk/government/publications/uk-marine-policy-statement. Accessed September 2024.

UK Government (2017) The Clean Growth Strategy. Available: https://www.gov.uk/government/publications/clean-growth-strategy. Accessed September 2024.

UK Government (2019) Industrial Strategy: Offshore Wind Sector Deal. Available: https://www.gov.uk/government/publications/offshore-wind-sector-deal. Accessed September 2024.

UK Government (2021) Net Zero Strategy: Build Back Greener. Available: https://www.gov.uk/government/publications/net-zero-strategy. Accessed September 2024.

UK Government (2022) British Energy Security Strategy. Available: https://www.gov.uk/government/publications/british-energy-security-strategy. Accessed September 2024.

UNESCO (2022) United Kingdom of Great Britain and Northern Ireland. Available [redacted] 2024.

Visit England (2015) NorthwestNorth West England and Domestic Tourism. Available: [redacted] September 2024.

Visit England (2022a) Great Britain Tourism Survey (GBTS) Estimates of the volume and value of overnight trips taken by British residents in Great Britain in 2021 (April-December). [redacted].

Visit England (2022b) NorthwestNorth West England. Available: [redacted]. Accessed September 2024.

Visit England (2023a) Great Britain Day Visits Survey (GBDVS) Estimates of the volume and value of domestic day visits taken by British residents in Great Britain in 2021 and 2022. Available: [redacted]ed September 2024.

Visit England (2023b) Great Britain Tourism Survey (GBTS) Estimates of the volume and value of overnight trips taken by British residents in Great Britain in 2021 (April – December, revised data) and in 2022 (January – December). Available: [redacted]

Visit England, Visit Scotland, and Visit Wales (2019) The Great Britain Day Visitor 2019 Annual Report. Available: [redacted]f. Accessed September 2024.

Visit North West (2022) Homepage. [redacted]ccessed September 2024.

Visit Snowdonia (2022) Homepage. [redacted] Accessed September 2024.

Visit Wales (2022a) Homepage. [redacted]/. Accessed September 2024.

Visit Wales (2022b) Search results: “North Wales”. Available: [redacted] Accessed September 2024.

Wales Tourism Alliance (2023) Homepage. Available: [redacted]

Welsh Government (2014) Technical Advice Note (TAN) 23 – Economic Development. Available: https://www.gov.wales/technical-advice-note-tan-23-economic-development. Accessed September 2024.

Welsh Government (2018) Future Potential for Offshore Wind in Wales. Available: https://www.gov.wales/sites/default/files/publications/2019-07/future-potential-for-offshore-wind.pdf. Accessed September 2024.

Welsh Government (2019) Welsh National Marine Plan. Available: https://www.gov.wales/welsh-national-marine-plan. Accessed October 2023.

Welsh Government (2021) Future Wales: The National Plan 2040. Available: https://gov.wales/future-wales-national-plan-2040-0. Accessed September 2024.

Welsh Government (2022) All Wales Plan 2021 – 2025, Working together to reach Net Zero. Available: https://www.gov.wales/sites/default/files/publications/2021-10/working-together-to-reach-net-zero-all-wales-plan.pdf. Accessed October 2023.

Welsh Government (2023a) Domestic GB Tourism Statistics (day trips in Wales): 2022. Available: https://www.gov.wales/domestic-gb-tourism-statistics-day-trips-wales-2022-html. Accessed September 2023.

Welsh Government (2023b) Domestic GB Tourism Statistics (overnight trips in Wales): 2022. Available: https://www.gov.wales/domestic-gb-tourism-statistics-overnight-trips-wales-2022-html#130306. Accessed September 2023.