

MONA OFFSHORE WIND PROJECT

Environmental Statement

Volume 4, Chapter 3: Socio-economics

Reference Number: MOCNS-J3303-RPS-10063

Document Reference: F.4.3

APFP Regulations: 5(2)(a)

February 2024

F01



Image of an offshore wind farm

MONA OFFSHORE WIND PROJECT

Document status

Version	Purpose of document	Authored by	Reviewed by	Approved by	Review date
FO1	Application	HJA	Mona Offshore Wind Ltd.	Mona Offshore Wind Ltd.	Feb 2024
Prepared by:		Prepared for:			
HJA		Mona Offshore Wind Ltd.			

MONA OFFSHORE WIND PROJECT

Contents

3	SOCIO-ECONOMICS	1
3.1	Introduction	1
3.1.1	Overview	1
3.2	Legislative and policy context.....	4
3.2.1	Planning policy context.....	4
3.2.2	National Policy Statements	4
3.2.3	Welsh National Marine Plan.....	9
3.2.4	National planning policy	9
3.2.5	North West Inshore and North West Offshore Marine Plans	13
3.2.6	Isle of Man policies	15
3.2.7	Local Planning Policies	16
3.3	Consultation.....	19
3.3.1	Key issues raised during consultation.....	19
3.3.2	Evidence plan.....	19
3.4	Baseline methodology	32
3.4.1	Relevant guidance.....	32
3.4.2	Scope of the assessment	32
3.4.3	Study area(s)	34
3.4.4	Desktop study.....	40
3.4.5	Site-specific surveys.....	43
3.5	Baseline environment	43
3.5.1	Overview	43
3.5.2	Economic.....	43
3.5.3	Social.....	52
3.5.4	Tourism	55
3.5.5	Isle of Man socio-economic context and interaction with lifeline ferry services	62
3.5.6	Future baseline scenario	70
3.5.7	Data limitations	72
3.6	Impact assessment methodology	73
3.6.1	Overview	73
3.6.2	Impact assessment criteria	73
3.6.3	Economic and social impacts.....	77
3.7	Key parameters for assessment.....	77
3.7.1	Maximum design scenario – Offshore.....	77
3.7.2	Maximum design scenario – Onshore.....	84
3.8	Measures adopted as part of the Mona Offshore Wind Project	87
3.9	Assessment of significant effects – offshore	87
3.9.1	Overview	87
	Economic	88
3.9.2	The potential impact on economic receptors including employment and GVA.....	88
3.9.3	The potential impact of increased employment opportunities.....	98
	Social Impacts.....	106
3.9.4	The potential impact on population, housing and accommodation.	106
	Tourism	114
3.9.5	The potential impact on tourism	114
	Isle of Man	119
3.9.6	The potential impact on the Isle of Man associated with potential adverse effects on lifeline ferry services	119
3.10	Assessment of significant effects – Onshore	138
3.10.1	Overview	138
	Economic	138
3.10.2	The potential impact on economic receptors including employment and GVA.....	138
3.10.3	The potential impact of increased employment opportunities.....	140
	Social Impacts.....	142

MONA OFFSHORE WIND PROJECT

3.10.4	The potential impact on population, housing and accommodation.....	142
Tourism		144
3.10.5	The potential impact on tourism	144
3.11	Cumulative effect assessment methodology	147
3.11.1	Methodology	147
3.11.2	Maximum design scenario	154
3.12	Cumulative effects assessment – offshore	161
3.12.1	Overview	161
Economic		161
3.12.2	The potential impact on economic receptors including employment and GVA.....	161
3.12.3	The potential impact of increased employment opportunities.....	164
Social 166		
3.12.4	The potential impact on the population, housing and accommodation	166
Tourism		168
3.12.5	The potential impact on tourism.	168
Isle of Man		173
3.12.6	The potential impact on the Isle of Man associated with potential adverse effects on lifeline ferry services.	173
3.13	Cumulative effects assessment – onshore	176
3.13.1	Overview	176
Economic		176
3.13.2	The potential impact on economic receptors including employment and GVA.....	176
3.13.3	The potential impact of increased employment opportunities.....	177
Social 178		
3.13.4	The potential impact on the population, housing and accommodation	178
Tourism		179
3.13.5	The potential impact on tourism.	179
3.14	Inter-related effects.....	181
3.15	Summary of impacts, mitigation measures and monitoring.....	183
3.16	References	196

Tables

Table 3.1:	Summary of the NPS EN-1 provisions relevant to socio-economics.	5
Table 3.2:	Summary of NPS EN-1 policy on decision making relevant to socio-economics.	8
Table 3.3:	Welsh National Marine Plan summary.	9
Table 3.4:	Wales planning policies of relevance to socio-economics.	10
Table 3.5:	UK strategic planning policies of relevance to socio-economics.....	12
Table 3.6:	North West Inshore and North West Offshore Marine Plan policies of relevance to socio-economics.....	14
Table 3.7:	Isle of Man strategic policy – summary	15
Table 3.8:	Local Planning Policy of relevant to socio-economics.....	17
Table 3.9:	Summary of key issues raised during statutory and non-statutory consultation activities undertaken for the Mona Offshore Wind Project relevant to socio-economics.	20
Table 3.10:	Socio-economics stakeholder consultation participation.....	31
Table 3.11:	Issues considered within this assessment.	32
Table 3.12:	Impacts scoped out of the assessment for socio-economics.	33
Table 3.13:	Summary of key desktop reports.....	40
Table 3.14:	All industries economy indicators (employment and GVA) – count and change.	44
Table 3.15:	Construction impact industries economy indicators (employment and GVA) – count and change.	45
Table 3.16:	Operations and maintenance impact industries economy indicators (employment and GVA) – count and change.	47
Table 3.17:	Decommissioning impact industries economy indicators (employment and GVA) – count and change.	48
Table 3.18:	Offshore wind sector employment estimates.	49

MONA OFFSHORE WIND PROJECT

Table 3.19: Economic activity rate and economically inactive individuals that want a job.	50
Table 3.20: Unemployed individuals and unemployed rate.	52
Table 3.21: Total population and population change.	52
Table 3.22: Total dwellings.	53
Table 3.23: Private rented sector dwellings (2022).	53
Table 3.24: Unoccupied dwellings.	54
Table 3.25: Monthly occupancy figures for serviced accommodation, Wales (2017 to 2021).	55
Table 3.26: Monthly occupancy figures for serviced accommodation, England (2017 to 2023).	56
Table 3.27: Income in year at factor cost, at current prices (£'000s)	63
Table 3.28: Employment by sector, Isle of Man (resident-based)	64
Table 3.29: Ferry routes and annual crossings to the Isle of Man – lifeline services.	67
Table 3.30: IoMSPC service variance data by vessel (2018–2022).	67
Table 3.31: Douglas ferry passenger arrivals, GB only	68
Table 3.32: Departures and visits to the Isle of Man	69
Table 3.33: Visitor expenditure on the Isle of Man – sea passengers.	70
Table 3.34: Population projections.	72
Table 3.35: Definition of terms relating to the magnitude of an impact.	74
Table 3.36: Definition of terms relating to the sensitivity of the receptor.	75
Table 3.37: Matrix used for the assessment of the significance of the effect.	76
Table 3.38: Maximum design scenario considered for the assessment of potential offshore impacts on socio-economics.	79
Table 3.39: Maximum design scenario considered for the assessment of potential onshore impacts on socio-economics.	85
Table 3.40: Measures adopted as part of the Mona Offshore Wind Project.	87
Table 3.41: Magnitude of employment and GVA impacts assessment criteria.	88
Table 3.42: Potential offshore impacts (current capability scenario) of the Mona Offshore Wind Project on employment and GVA in development and construction activities.	89
Table 3.43: Magnitude of impact – potential construction phase offshore employment and GVA impacts compared to baseline conditions.	90
Table 3.44: Sensitivity of receptor – potential construction phase offshore employment and GVA impacts.	91
Table 3.45: Significance of construction phase offshore employment and GVA impacts (current capability scenario).	91
Table 3.46: Significance of construction phase offshore employment and GVA impacts (low scenario).	92
Table 3.47: Potential offshore impacts (current capability scenario) of the Mona Offshore Wind Project on employment and GVA in operation and maintenance activities.	92
Table 3.48: Magnitude of impact – potential operations and maintenance phase offshore employment and GVA impacts compared to baseline conditions.	93
Table 3.49: Sensitivity of receptor – operation and maintenance phase offshore employment and GVA.	94
Table 3.50: Significance of operation and maintenance phase offshore employment and GVA impacts (current capability scenario).	94
Table 3.51: Significance of operations and maintenance phase offshore employment and GVA impacts (low scenario).	94
Table 3.52: Potential offshore impacts (current capability scenario) of the Mona Offshore Wind Project on employment and GVA in decommissioning activities.	95
Table 3.53: Magnitude of impact – potential decommissioning phase offshore employment and GVA impacts compared to baseline conditions.	96
Table 3.54: Sensitivity of receptor – potential decommissioning phase offshore employment and GVA impacts.	97
Table 3.55: Significance of decommissioning phase offshore employment and GVA impacts (current capability scenario).	97
Table 3.56: Significance of decommissioning phase offshore employment and GVA impacts (low scenario).	97
Table 3.57: Magnitude of employment opportunities for local residents assessment criteria.	98
Table 3.58: Potential offshore impacts (current capability scenario) of the Mona Offshore Wind Project on employment opportunities for local residents in development and construction activities.	99

MONA OFFSHORE WIND PROJECT

Table 3.59: Magnitude of impact – potential construction phase offshore employment opportunities for local residents compared to baseline conditions.	99
Table 3.60: Sensitivity of receptor – potential construction phase offshore employment opportunities for local residents.	100
Table 3.61: Significance of construction phase offshore employment opportunities for local residents (current capability scenario).	100
Table 3.62: Significance of construction phase offshore employment opportunities for local residents (low scenario).	101
Table 3.63: Potential offshore impacts (current capability scenario) of the Mona Offshore Wind Project on employment opportunities for local residents in operation and maintenance activities.	101
Table 3.64: Magnitude of impact – potential operations and maintenance phase offshore employment opportunities for local residents compared to baseline conditions.	102
Table 3.65: Sensitivity of receptor – operation and maintenance phase offshore employment opportunities for local residents.	102
Table 3.66: Significance of operation and maintenance phase offshore employment opportunities for local residents (current capability scenario).	103
Table 3.67: Significance of operations and maintenance phase offshore employment opportunities for local residents (low scenario).	103
Table 3.68: Potential offshore impacts (current capability scenario) of the Mona Offshore Wind Project on employment opportunities for local residents in decommissioning activities.	104
Table 3.69: Magnitude of impact – potential decommissioning phase offshore employment opportunities for local residents compared to baseline conditions.	104
Table 3.70: Sensitivity of receptor – potential decommissioning phase offshore employment opportunities for local residents.	105
Table 3.71: Significance of decommissioning phase offshore employment opportunities for local residents (current capability scenario).	105
Table 3.72: Significance of decommissioning phase offshore employment opportunities for local residents (low scenario).	106
Table 3.73: Magnitude of potential impacts on population, housing and accommodation.	107
Table 3.74: Potential offshore impact on overnight accommodation (current capability scenario).	108
Table 3.75: Magnitude of offshore overnight accommodation demand, current capability scenario.	108
Table 3.76: Sensitivity of construction phase housing, accommodation and local services receptor.	109
Table 3.77: Significance of construction phase offshore employment impacts on the demand for housing, accommodation and local services, current capability scenario.	109
Table 3.78: Potential itinerant employment impacts on population, housing and accommodation, current capability scenario.	110
Table 3.79: Magnitude of operations and maintenance phase employment impacts on population, housing and accommodation, current capability scenario.	111
Table 3.80: Sensitivity of operations and maintenance phase housing, accommodation and local services receptor.	112
Table 3.81: Significance of operations and maintenance phase employment impacts on population, housing and accommodation, current capability scenario.	113
Table 3.82: Significance of decommissioning phase employment impacts on the demand for housing, accommodation and local services, current capability scenario.	113
Table 3.83: Significance of offshore employment impacts on population, housing and accommodation, current capability scenario.	117
Table 3.84: IoMSPC service variance – for use in assessment.	122
Table 3.85: Impact of lifeline ferry service cancellations on freight to and from the Isle of Man under current conditions.	128
Table 3.86: Impact of lifeline ferry service cancellations on visits to the Isle of Man under current conditions.	131
Table 3.87: Potential onshore impacts of the Mona Offshore Wind Project on employment and GVA in development and construction activities.	139
Table 3.88: Magnitude of impact – potential construction phase onshore employment and GVA impacts compared to baseline conditions.	139

MONA OFFSHORE WIND PROJECT

Table 3.89: Sensitivity of receptor – potential construction phase onshore employment and GVA impacts.	139
Table 3.90: Significance of construction phase onshore employment and GVA impacts.	140
Table 3.91: Potential onshore impacts of the Mona Offshore Wind Project on employment opportunities for local residents in development and construction activities.	140
Table 3.92: Magnitude of impact – potential construction phase onshore employment opportunities for local residents compared to baseline conditions.	141
Table 3.93: Sensitivity of receptor – potential construction phase onshore employment opportunities for local residents.	141
Table 3.94: Significance of construction phase onshore employment opportunities for local residents.	141
Table 3.95: Potential onshore impacts on overnight accommodation and short term (temporary) housing.	143
Table 3.96: Magnitude of overnight accommodation demand, onshore impacts.	143
Table 3.97: Sensitivity of operations and maintenance phase housing, accommodation and local services receptor.	144
Table 3.98: Significance of construction phase employment impacts on the demand for housing, accommodation and local services, current capability scenario.	144
Table 3.99: Significance of construction phase onshore employment impacts on population, housing and accommodation, current capability scenario.	146
Table 3.100: List of other projects, plans and activities considered within the CEA.	149
Table 3.101: Maximum design scenario considered for the assessment of potential offshore cumulative effects on socio-economics.	155
Table 3.102: Maximum design scenario considered for the assessment of potential onshore cumulative effects on socio-economics.	158
Table 3.103: Magnitude of cumulative construction phase employment and GVA impacts.	162
Table 3.104: Significance of cumulative construction phase offshore employment and GVA impacts.	162
Table 3.105: Magnitude of cumulative operations and maintenance phase offshore employment and GVA impacts.	163
Table 3.106: Significance of cumulative operation and maintenance offshore phase employment and GVA impacts.	163
Table 3.107: Magnitude of cumulative construction phase offshore employment opportunity impacts.	164
Table 3.108: Significance of cumulative construction phase offshore employment opportunity impacts.	165
Table 3.109: Magnitude of cumulative operation and maintenance phase offshore employment opportunity impacts.	165
Table 3.110: Significance of cumulative operation and maintenance phase offshore employment opportunity impacts.	166
Table 3.111: Magnitude of cumulative construction phase offshore impacts on the demand for housing, accommodation and local services.	167
Table 3.112: Significance of cumulative construction phase offshore impacts on housing, accommodation and local services.	167
Table 3.113: Magnitude of cumulative operation and maintenance phase impacts on the demand for housing, accommodation and local services.	168
Table 3.114: Significance of cumulative operation and maintenance phase impacts on housing, accommodation and local services.	168
Table 3.115: Significance of offshore employment impacts on population, housing and accommodation, current capability scenario.	170
Table 3.116: Significance of cumulative construction phase onshore employment and GVA impacts.	177
Table 3.117: Significance of cumulative construction phase onshore employment and GVA impacts.	177
Table 3.118: Magnitude of cumulative construction phase onshore employment opportunity impacts.	178
Table 3.119: Significance of cumulative construction phase onshore employment opportunity impacts.	178
Table 3.120: Magnitude of cumulative construction phase onshore impacts on the demand for housing, accommodation and local services.	179
Table 3.121: Significance of cumulative construction phase onshore impacts on housing, accommodation and local services.	179
Table 3.122: Summary of likely significant inter-related effects on the environment for individual effects occurring across the construction, operations and maintenance, and decommissioning	

MONA OFFSHORE WIND PROJECT

phases of the Mona Offshore Wind Project and from multiple effects interacting across all phases (receptor-led effects).....	182
Table 3.123: Summary of potential offshore environmental effects, mitigation and monitoring – North Wales.....	185
Table 3.124: Summary of potential offshore environmental effects, mitigation and monitoring – North West England.....	186
Table 3.125: Summary of potential offshore environmental effects, mitigation and monitoring – Wales.....	187
Table 3.126: Summary of potential offshore environmental effects, mitigation and monitoring – UK.....	187
Table 3.127: Summary of potential onshore environmental effects, mitigation and monitoring – North Wales.....	188
Table 3.128: Summary of potential onshore environmental effects, mitigation and monitoring – Wales.....	189
Table 3.129: Summary of potential onshore environmental effects, mitigation and monitoring – UK.....	189
Table 3.130: Summary of potential cumulative offshore environmental effects, mitigation and monitoring – North Wales.....	190
Table 3.131: Summary of potential cumulative offshore environmental effects, mitigation and monitoring – North West England.....	191
Table 3.132: Summary of potential cumulative offshore environmental effects, mitigation and monitoring – Wales.....	192
Table 3.133: Summary of potential cumulative offshore environmental effects, mitigation and monitoring – UK.....	192
Table 3.134: Summary of potential cumulative offshore environmental effects, mitigation and monitoring – Isle of Man.....	193
Table 3.135: Summary of potential cumulative onshore environmental effects, mitigation and monitoring – North Wales.....	194
Table 3.136: Summary of potential cumulative onshore environmental effects, mitigation and monitoring – Wales.....	195
Table 3.137: Summary of potential cumulative onshore environmental effects, mitigation and monitoring – UK.....	195

Figures

Figure 3.1: Economic, social, and tourism study areas for the topic of socio-economics.....	39
Figure 3.2: Isle of Man resident age profile, five-year intervals (2021).....	65
Figure 3.3: Assessment of lifeline ferry service impacts on the Isle of Man – logic diagram.	121

Annexes

Volume 8, Annex 4.1: Socio-economics technical impact report

MONA OFFSHORE WIND PROJECT

Glossary

Term	Meaning
Bodelwyddan National Grid Substation	This is the Point of Interconnection (POI) selected by the National Grid for the Mona Offshore Wind Project.
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 a part-time employee with hours equivalent to half a full-time worker.
FTE years	The term 'FTE year' in employment terms is often used in construction labour reporting, in which one construction full-time equivalent (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 is important, as many workers working on the Mona Offshore Wind Project will work for a fixed period or be involved in other projects in parallel.
International Territorial Level 1	Geocode standard for referencing the subdivisions of the United Kingdom for statistical purposes, used by the Office for National Statistics (ONS). International Territorial Level 1 (ITL1) statistical regions correspond with the regions of the UK as used by the ONS.
Local Impact Area	'Local Impact Area' is a term used in Mona Offshore Wind Farm scoping report to describe potential sub-national study areas. This term is now superseded by 'sub-national study area', however it still appears in some statutory consultation responses in Table 3.9.
Mona Array Area	The area within which the wind turbines, foundations, inter-array cables, interconnector cables, offshore export cables and offshore substation platforms (OSPs) forming part of the Mona Offshore Wind Project will be located.
Marine Character Area	Each marine character area has its own individual character and identity, even though it can share the same generic characteristics as other areas. The use of MCAs provides a good framework within which to draw out patterns of local distinctiveness and those factors influencing sense of place. They can be used to develop more tailored policies or strategies, reflecting the things that make a particular area different, distinctive or special. Character areas may also be more recognisable and identifiable for non-specialists (than 'character types').
Mona 400kV Grid Connection Cable Corridor	The corridor from the Mona onshore substation to the National Grid substation at Bodelwyddan.
Mona Offshore Cable Corridor	The corridor located between the Mona Array Area and the landfall up to MHWS, in which the offshore export cables will be located.
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.
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.
Tier 1 supplier	Direct suppliers of a product or service

MONA OFFSHORE WIND PROJECT

Acronyms

Acronym	Description
AONB	Area of Outstanding Natural Beauty
B&B	Bed and Breakfast
BRES	Business Register and Employment Survey
CEA	Cumulative Effects Assessment
Cumbria LEP	Cumbria Local Enterprise Partnership
DCO	Development Consent Order
DECEX	Decommissioning Expenditure
DESNZ	Department for Energy Security and Net Zero
DLUHC	The Department for Levelling Up, Housing and Communities
EIA	Environmental Impact Assessment
FTE	Full-time equivalent
GB	Great Britain
GDP	Gross Domestic Product
GVA	Gross Value Added
ILO	International Labour Organization
IoMSPC	Isle of Man Steam Packet Company
IPPR	The Institute for Public Policy Research
ITL1	International Territorial Level 1
LDP	Local Development Plan
MDS	Maximum Design Scenario
MCA	Marine Character Area
NIA	National Impact Area
NFER	National Foundation for Educational Research
NLCA	National Landscape Character Area
NPS	National Policy Statements
OBR	Office for Budget Responsibility
ONS	Office for National Statistics
ORE Catapult	Offshore Renewable Energy Catapult
OWIC	Offshore Wind Industry Council
PEIR	Preliminary Environmental Information Report
PPW	Planning Policy Wales
RYA	Royal Yachting Association
SIC	Standard Industrial Classification
SIC07	Standard Industrial Classification 2007

MONA OFFSHORE WIND PROJECT

Acronym	Description
SLVIA	Seascape and Landscape Visual Impact Assessment
SOV	Service Operation Vessel
SSZ	Seascape Sensitivity Zone
TAN	Technical Advice Note
UK	United Kingdom
WTA	Wales Tourism Alliance

Units

Unit	Description
%	Percentage
£	Pound Sterling
£ m	Million pounds
£ bn	Billion pounds
GW	Gigawatt
km	Kilometre
kV	Kilovolt

3 Socio-economics

3.1 Introduction

3.1.1 Overview

3.1.1.1 This chapter of the Environmental Statement presents the assessment of the potential impact of the Mona Offshore Wind Project on socio-economics (including tourism).

3.1.1.2 Specifically, this chapter considers the potential impact of the Mona Offshore Wind Project seaward of Mean High Water Springs (MHWS) and onshore receptors (landward of Mean Low Water Springs (MLWS)) during the construction, operations and maintenance and decommissioning phases.

3.1.1.3 With respect to the Mona Offshore Wind Project (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
- Onshore: if physical infrastructure and civil works are located onshore, any resulting impacts are categorised as onshore.

3.1.1.4 The assessment presented is informed by the following Environmental Statement chapters:

- Volume 2, Chapter 7: Shipping and navigation of the Environmental Statement
- Volume 2, Chapter 8: Seascape and visual resources of the Environmental Statement
- Volume 2, Chapter 10: Other sea users of the Environmental Statement
- Volume 3, Chapter 6: Landscape and visual resources of the Environmental Statement
- Volume 3, Chapter 7: Land use and recreation of the Environmental Statement.

3.1.1.5 This chapter also draws upon information contained within Volume 8, Annex 3.1: Socio-economics technical impact report of the Environmental Statement.

3.1.1.6 This chapter considers socio-economic receptors within the following categories:

- **Economic:** assessing the potential employment and GVA impacts associated with the Mona Offshore Wind Project and the associated impacts on local employment opportunities
- **Social:** assessing the potential impacts of the workforce associated with the Mona Offshore Wind Project on housing, accommodation and population (including local services)
- **Tourism:** assessing the potential indirect impacts associated with visual amenity, overnight accommodation and recreation on tourism.

MONA OFFSHORE WIND PROJECT

- **Isle of Man interactions with lifeline ferry services:** assessing potential socio-economic impacts on the Isle of Man associated with potential lifeline ferry rescheduling¹.

3.1.1.7 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

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

3.1.1.9 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.

3.1.1.10 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.

3.1.1.11 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.

3.1.1.12 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.

3.1.1.13 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.

3.1.1.14 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

¹ Volume 2, Chapter 7: Shipping and navigation of the Environmental Statement has assessed potentially significant cumulative effects on commercial operators including strategic routes and lifeline ferries, and potentially significant cumulative effects on adverse weather routeing.

MONA OFFSHORE WIND PROJECT

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.

3.1.1.15 It is therefore important to assess the potential economic and social impacts associated with the Mona Offshore Wind Project in order to understand the extent to which the general population might be impacted.

3.1.1.16 Within this assessment the economic impacts are assessed in terms of jobs and Gross Value Added (GVA). These impacts represent the overall benefits associated with economic growth described here.

Tourism

3.1.1.17 There are also 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.

3.1.1.18 It is therefore important to assess the potential tourism impacts associated with the Mona Offshore Wind Project in order to understand the extent to which the visitor economy might be impacted.

Isle of Man interactions with lifeline ferry services

3.1.1.19 Potential impacts on Isle of Man lifeline ferry services have been assessed within Volume 2, Chapter 7: Shipping and navigation of the Environmental Statement, which assesses potentially significant cumulative effects on commercial operators including strategic routes and lifeline ferries, and potentially significant cumulative effects on adverse weather routing.

3.1.1.20 National Policy Statement EN-3 defines a lifeline ferry as follows: "*Lifeline ferries* provide an essential service between islands or an island and the mainland on which the occupiers of the island rely for transportation of passengers and goods."

3.1.1.21 Lifeline ferry services are distinctive due to their contribution to making island communities 'viable' by prioritising essential requirements for the sustainable functioning of an island community. Volume 2, Chapter 7: Shipping and navigation of the Environmental Statement categorises the Douglas to Liverpool and Douglas to Heysham crossings as a lifeline ferry services.

3.1.1.22 The Isle of Man utilises ferry services for:

- Residents who need to access mainland services, employment, social, and leisure opportunities
- Businesses and public services which move goods on and off the Island, generate business travel, and require connectivity for visitors and staff
- Tourists who want to visit the Island, contributing to the Island's visitor economy.

3.1.1.23 As well as their role in supporting essential requirements for Island life, lifeline ferries serve an important economic role in connecting Island-based businesses with mainland markets.

MONA OFFSHORE WIND PROJECT

- 3.1.1.24 It is therefore important to assess the potential socio-economic impacts associated with potential lifeline ferry rescheduling in order to understand the extent to which the Isle of Man might be impacted.

3.2 Legislative and policy context

3.2.1 Planning policy context

- 3.2.1.1 The Mona Offshore Wind Project will be located in Welsh offshore waters (beyond 12 nautical miles (nm) from the Welsh coast) and inshore waters, with the onshore infrastructure located wholly within Wales. As set out in Volume 1, Chapter 1: Introduction of this Environmental Statement, as the Mona Offshore Wind Project is an offshore generating station with a capacity of greater than 350 MW located in Welsh waters, it is a Nationally Significant Infrastructure Project as defined by Section 15(3) of the Planning Act 2008 (the 2008 Act). As such, there is a requirement to submit an application for a Development Consent Order (DCO) to the Planning Inspectorate to be decided by the Secretary of State for the Department for Energy Security and Net Zero (DESNZ).
- 3.2.1.2 The relevant consenting jurisdiction to be considered within the assessment is, therefore, England and Wales. Planning policies within separate consenting jurisdictions (Scotland, Northern Ireland) are therefore not considered within the assessment.

3.2.2 National Policy Statements

- 3.2.2.1 There are currently six energy National Policy Statements (NPSs), three of which contain policy relevant to offshore wind development and the Mona Offshore Wind Project, specifically:
- Overarching NPS for Energy (NPS EN-1) which sets out the UK Government's policy for the delivery of major energy infrastructure (DESNZ, 2024a)
 - NPS for Renewable Energy Infrastructure (NPS EN-3) (DESNZ, 2024b)
 - NPS for Electricity Networks Infrastructure (NPS EN-5) (DESNZ, 2024c).
- 3.2.2.2 NPS EN-1 includes guidance on what matters are to be considered in the assessment. These are summarised in Table 3.1. 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 Table 3.2. There are no provisions within NPS EN-3 and NPS EN-5 that are relevant to the topic of socio-economics.

MONA OFFSHORE WIND PROJECT

Table 3.1: Summary of the NPS EN-1 provisions relevant to socio-economics.

Summary of NPS EN-1 provision	How and where considered in the Environmental Statement
<p>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 (emphasis added).</p> <p>[Paragraph 4.3.4]</p>	<p>As per paragraph 3.1.1.6, economic and social impacts are assessed within their own category.</p> <p>Potential economic impacts are estimated within Volume 8, Annex 3.1: Socio-economics technical impact report of the Environmental Statement, covering employment and GVA impacts and the potential associated impacts on local employment opportunities.</p> <p>Potential social impacts are estimated within Volume 8, Annex 3.1: Socio-economics technical impact report of the Environmental Statement, covering potential workforce on housing, accommodation and population.</p>
<p>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.</p> <p>[Paragraph 4.3.5]</p>	<p>Potential impacts during project development i.e. pre-construction, are included within the economic impact estimates presented in Volume 8, Annex 3.1: Socio-economics technical impact report of the Environmental Statement.</p> <p>Potential economic and social impacts during construction, operation and maintenance, and decommissioning phases are presented in Volume 8, Annex 3.1: Socio-economics technical impact report of the Environmental Statement.</p> <p>Effects resulting from potential economic and social impacts are assessed within section 3.9 and section 3.10.</p>
<p>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.</p> <p>[Paragraph 4.3.12]</p>	<p>The 'most likely' (current capacity) and 'worst case' (low) scenarios have been considered in the assessment of both economic and social effects within section 3.9. See also section 3.7 for further details on how the 'most likely' and 'worst case' scenarios have been considered for the topic of socio-economics.</p>
<p>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.</p> <p>[Paragraph 5.13.2]</p>	<p>As per section 3.9 and section 3.10, potential socio-economic impacts are assessed at both national (Wales, UK) and sub-national (North Wales, North West England) geographies (where relevant).</p> <p>Economic and social impacts are assessed within Volume 8, Annex 3.1: Socio-economics technical impact report of the Environmental Statement.</p>
<p>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.</p> <p>[Paragraph 5.13.3]</p>	<p>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 3.3).</p> <p>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 3.3.</p>

MONA OFFSHORE WIND PROJECT

Summary of NPS EN-1 provision	How and where considered in the Environmental Statement
<p>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.</p> <p>[Paragraph 5.13.4]</p>	<p>Potential economic impacts are estimated within Volume 8, Annex 3.1: Socio-economics technical impact report of the Environmental Statement, 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).</p> <p>The Applicant has committed to the provision of a Skills and Employment Plan, secured as a requirement in the DCO, and in accordance with the Outline Skills and Employment Plan (Document Reference J.24).</p> <p>The actions presented within the Outline Plan will form the basis of a post-consent Skills and Employment Strategy, which will be adopted by the Applicant to help develop and support the economic benefits associated with the Mona Offshore Wind Project in relation to skills and employment within the offshore wind sector.</p>
<p>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.</p> <p>[Paragraph 5.13.4]</p>	<p>Potential economic impacts are estimated within Volume 8, Annex 3.1: Socio-economics technical impact report of the Environmental Statement, covering employment and GVA impacts and the potential associated impacts on local employment opportunities.</p> <p>The significance of effects associated with potential economic impacts (employment and GVA) are assessed within section 3.9 and section 3.10 according to existing baseline conditions, which includes consideration of the offshore wind sector (see section 3.3.2.2).</p>
<p>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.</p> <p>[Paragraph 5.13.4]</p>	<p>Potential social impacts are estimated within Volume 8, Annex 3.1: Socio-economics technical impact report of the Environmental Statement, covering potential workforce impacts on housing, accommodation and population (including local services).</p> <p>The Applicant has committed to the provision of a Skills and Employment Plan, secured as a requirement in the DCO, and in accordance with the Outline Skills and Employment Plan (Document Reference J.24).</p> <p>The actions presented within the Outline Plan will form the basis of a post-consent Skills and Employment Strategy, which will be adopted by the Applicant to help develop and support the economic benefits associated with the Mona Offshore Wind Project in relation to skills and employment within the offshore wind sector.</p> <p>The Applicant has considered the provision of visitor facilities and concluded the inclusion of such facilities as part of the Mona Offshore Wind Project is not appropriate.</p>
<p>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.</p> <p>[Paragraph 5.13.4]</p>	<p>Potential economic impacts are estimated within Volume 8, Annex 3.1: Socio-economics technical impact report of the Environmental Statement, covering employment and GVA impacts and the potential associated impacts on local employment opportunities.</p> <p>This includes an estimate of potential direct, indirect (i.e. supply chain) and induced (i.e. household expenditure) economic impacts.</p>

MONA OFFSHORE WIND PROJECT

Summary of NPS EN-1 provision	How and where considered in the Environmental Statement
<p>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.</p> <p>[Paragraph 5.13.4]</p>	<p>Potential effects on tourism are assessed within section 3.9 and section 3.10.</p>
<p>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.</p> <p>[Paragraph 5.13.4]</p>	<p>Potential social impacts are estimated within Volume 8, Annex 3.1: Socio-economics technical impact report of the Environmental Statement, covering potential workforce on housing, accommodation and population (including local services).</p> <p>Effects associated with potential social impacts are assessed within section 3.9 and section 3.10.</p>
<p>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.</p> <p>[Paragraph 5.13.4]</p>	<p>Potential cumulative effects associated with other projects are assessed within section 3.12 and section 3.12.6.</p>
<p>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.</p> <p>[Paragraph 5.13.5]</p>	<p>Existing baseline conditions within relevant national and sub-national geographies are set out within section 3.3.2.2.</p> <p>Local planning policies – and how the Mona Offshore Wind Project interacts with these – are set out within section 3.2.</p>
<p>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.</p> <p>[Paragraph 5.13.6]</p>	<p>Potential effects on tourism are assessed within section 3.9 and section 3.10, which includes consideration of how visual impacts may have an indirect impact on tourism.</p> <p>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.</p>
<p>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.</p> <p>[Paragraph 5.13.7]</p>	<p>Potential social impacts are estimated within Volume 8, Annex 3.1: Socio-economics technical impact report of the Environmental Statement, covering potential workforce on housing, accommodation.</p> <p>Effects associated with potential social impacts are assessed within section 3.9 and section 3.10.</p> <p>The Applicant has considered the development of an accommodation strategy. With reference to the assessment of potential workforce migration impacts assessed within subsection 3.9.4, negligible impacts are identified during the construction and operations and maintenance phases. As a result, an accommodation strategy is not appropriate.</p>

MONA OFFSHORE WIND PROJECT

Table 3.2: Summary of NPS EN-1 policy on decision making relevant to socio-economics.

Summary of NPS EN-1 provision	How and where considered in the Environmental Statement
<p>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.</p> <p>[Paragraph 4.1.5]</p>	<p>Potential socio-economic impacts are estimated within Volume 8, Annex 3.1: Socio-economics technical impact report of the Environmental Statement.</p> <p>To assist the Secretary of State in their decision making, effects resulting from potential socio-economic impacts are assessed within sections 3.9 and 3.10.</p>
<p>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.</p> <p>[Paragraph 5.13.8]</p>	<p>To assist the Secretary of State in their decision making, measures adopted as part of the Mona Offshore Wind Project are set out within section 3.8.</p>
<p>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.</p> <p>[Paragraph 5.13.9]</p>	<p>To assist the Secretary of State in their decision making, effects resulting from potential socio-economic impacts are assessed within sections 3.9 and 3.10.</p>
<p>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).</p> <p>[Paragraph 5.13.10]</p>	<p>Potential socio-economic impacts are estimated within Volume 8, Annex 3.1: Socio-economics technical impact report of the Environmental Statement. The annex sets out a detailed methodology which aligns with industry best practice and the latest available guidance, including:</p> <ul style="list-style-type: none"> • Marine Scotland (2022) Defining 'local area' for assessing impact of offshore renewables and other marine developments • Crown Estate and 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.
<p>The Secretary of State should consider any relevant positive provisions the applicant has 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.</p> <p>[Paragraph 5.13.11]</p>	<p>The Applicant has committed to the provision of a Skills and Employment Plan, secured as a requirement in the DCO, and in accordance with the Outline Skills and Employment Plan (Document Reference J.24).</p> <p>The actions presented within the Outline Plan will form the basis of a post-consent Skills and Employment Strategy, which will be adopted by the Applicant to help develop and support the economic benefits associated with the Mona Offshore Wind Project in relation to skills and employment within the offshore wind sector.</p>

MONA OFFSHORE WIND PROJECT

Summary of NPS EN-1 provision	How and where considered in the Environmental Statement
<p>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.</p> <p>[Paragraph 5.13.12]</p>	<p>The Applicant has committed to the provision of a Skills and Employment Plan, secured as a requirement in the DCO, and in accordance with the Outline Skills and Employment Plan (Document Reference J.24).</p> <p>The actions presented within the Outline Plan will form the basis of a post-consent Skills and Employment Strategy, which will be adopted by the Applicant to help develop and support the economic benefits associated with the Mona Offshore Wind Project in relation to skills and employment within the offshore wind sector.</p>

3.2.3 Welsh National Marine Plan

- 3.2.3.1 The socio-economics impact assessment has been made with consideration to the specific policies set out in the Welsh National Marine Plan (Welsh Government, 2019). Key provisions are set out in Table 3.3 along with details as to how these have been addressed within the assessment.

Table 3.3: Welsh National Marine Plan summary.

Policy	Key provisions	How and where considered in the Environmental Statement
Welsh National Marine Plan (Welsh Government, 2019)	<p>The Welsh National Marine Plan integrates a set of objectives and policies for sustainable development and the management of inshore and offshore marine areas. It aims to ensure oceans and seas are protected to support economic, social, cultural and environmental objectives.</p> <p>The Plan has ambitions to support further commercial deployment of offshore wind technologies to contribute to energy security, reduce carbon emissions, and stimulate investment in jobs and business. Given Wales's extensive wind resource, the Plan identifies the significant potential for growth in jobs related to device manufacture and deployment, and maintenance in the offshore wind sector.</p> <p>[Page 96]</p>	Policy priority for potential beneficial socio-economic and community impacts relevant to the Mona Offshore Wind Project are considered in assessment of sensitivity of receptors.

3.2.4 National planning policy

Wales

- 3.2.4.1 The assessment of potential changes to socio-economics has also been made with consideration to the Welsh legislation, strategic planning policy, evidence, and research on the matter of economic growth and renewable energy. Key considerations are set out in Table 3.4 along with details as to how these have been addressed within the assessment.

MONA OFFSHORE WIND PROJECT

Table 3.4: Wales planning policies of relevance to socio-economics.

Policy	Summary of key considerations	How and where considered in the Environmental Statement
Planning Policy Wales (Welsh Government, 2021)	<p>The PPW aims to ensure that the planning system within Wales contributes towards sustainable development, where opportunities for long term benefit (socially, economically and environmentally) is achieved. [Paragraph 1.2]</p> <p>The PPW commits to providing well-connected employment alongside sustainable development. The policy identifies that driving further renewable energy proposals, such as offshore wind, whilst including an element of local ownership, will allow for decarbonisation and the retainment of economic value. [Paragraph 5.7.6, 5.7.14]</p>	Policy priority for potential beneficial socio-economic and community impacts relevant to the Mona Offshore Wind Project are considered in assessment of sensitivity of receptors.
Prosperity for All: economic action plan (Welsh Government, 2019).	<p>The Prosperity for All: economic action plan aims to generate inclusive growth and promote even distribution of opportunities across Wales.</p> <p>The plan sets out an ambition to shift towards a low-carbon future and use this as an opportunity to diversify the economy, support businesses, and take advantage of existing and emerging markets in this sector. The Plan aims to accelerate the deployment of renewable energy generation and maximise the investment opportunities that could be presented by this to Wales. [Page 25 and Page 29]</p>	Policy priority for potential beneficial socio-economic and community impacts relevant to the Mona Offshore Wind Project are considered in assessment of sensitivity of receptors.
Technical Advice Note (TAN) 23 – Economic Development (Welsh Government, 2014).	<p>The Technical advice Note 23 for Economic Development advises on planning policy, creating guidelines in understanding the contribution of economic development projects.</p> <p>The TAN points out that planning decisions need to be made through balancing social, environmental and economic considerations. The TAN identifies that sustainable development is essential to build strong communities, helping to improve the alignment of housing and jobs and helping to generate income. [Paragraph 1.1.1, 1.2.4]</p>	Policy priority for potential beneficial socio-economic and community impacts relevant to the Mona Offshore Wind Project are considered in assessment of sensitivity of receptors.
All Wales Plan 2021 – 2025, Working together to reach Net Zero. (Welsh Government, 2022).	<p>This document outlines a set of pledges towards achieving Net Zero made by businesses, public sector bodies, communities, schools and individuals across Wales.</p> <p>The Plan sets out an aim to provide advice and support for the marine energy industry to help deliver a low carbon economy and develop jobs and skills in the sector.</p> <p>Transport for Wales commits to procure at least 50% of its electricity from Welsh renewable sources by 2026. [Page 15]</p> <p>Awel Amen Tawe pledges to develop a low carbon education social enterprise centre and to enrol 50 more schools in their energy education and monitoring platform. [Page 14]</p>	The potential impact of increased employment opportunities is assessed for its significance in sections 3.9 and 3.10.
Future Potential for Offshore	This report evaluates the case for offshore wind in Wales and sets out the potential for increased offshore wind deployment, the associated economic benefits, and the key considerations for policy makers.	The potential impact on economic receptors including employment, GVA and supply chain demand is assessed

MONA OFFSHORE WIND PROJECT

Policy	Summary of key considerations	How and where considered in the Environmental Statement
Wind in Wales. (Welsh Government, 2018).	<p>North Hoyle, Rhyl Flats and Gwynt-y-Mor offshore wind farms are identified as having brought local economic benefits to Welsh businesses and communities in the region, particularly at the Port of Mostyn which served as the installation and operations and maintenance base and a hub for offshore wind activity whilst helping to support local companies, (section 3.1.1). Several local companies have also established offices at the Port of Mostyn as a result of these developments.</p> <p>[Page 98]</p> <p>The report includes an assessment of the supply chain capacity in Wales for future offshore wind developments. Wales has a medium to high capacity to serve the operation and maintenance phases of a development. This is because Wales has strengths in the provision of support vessels and safety equipment, where the Port of Mostyn can become a hub for supply chain companies, technology innovation and training activities. The longevity of operation activity can bring sustainable, long term employment in Wales. Wales has an overall low capacity to serve the construction phase. However, there are construction opportunities in the supply of array cable cores from Prysmian's Wrexham facility, which could result in increased employment for the local workforce if volume orders can trigger additional expansion,(section 4.4.1, page 122). Welsh companies have capacity to provide support services, vessels and equipment, but not installation works which are likely to go to established European contractors, (section 4.4.1, pg 123). A future opportunity may lie in the decommissioning phase, as Welsh companies develop capabilities and knowledge in this area.</p> <p>[Section 4.4.1]</p> <p>The report recognises that the Welsh coastline supports a range of recreational activities, such as sailing, kayaking and surfing, which play an important role in the Welsh tourism industry and therefore impacts on these activities should be considered in offshore wind developments.</p> <p>[Section, 3.3.2.3, Page 51]</p>	<p>for its significance in sections 3.9 and 3.10.</p> <p>The potential impact of increased employment opportunities is assessed for its significance in sections 3.9 and 3.10.</p> <p>The potential impact on the population, housing and accommodation is assessed for its significance in sections 3.9 and 3.10.</p> <p>The potential impact on tourism is assessed for its significance in sections 3.9 and 3.10.</p>
Future Wales, The National Plan 2040. (Welsh Government, 2021).	<p>This plan is the national framework for all future development in Wales up to 2040.</p> <p>Policies 17 and 18 of the plan contain criteria for the determination of applications for renewable energy and low carbon developments. Together, these policies set out the Welsh Government's strong support for renewable energy development, but that proposals should describe the net benefits the scheme will bring in terms of social and economic improvements to local communities.</p> <p>Policy 18 for renewable energy developments of national significance details that the Welsh Government will use its policy powers to work with relevant stakeholders to help unlock the economic, social and cultural benefits these renewable energy projects can bring. It recognises that large scale developments can generate direct social and economic benefits to local communities and recommends that developers should explore how infrastructure improvements associated with a development (e.g. transport and</p>	<p>The potential impacts on economic receptors including employment, GVA and supply chain demand is assessed for its significance in sections 3.9 and 3.10.</p> <p>The potential impacts of increased employment opportunities is assessed for its significance in sections 3.9 and 3.10.</p> <p>The potential impacts on tourism is assessed for its significance in sections 3.9 and 3.10.</p>

MONA OFFSHORE WIND PROJECT

Policy	Summary of key considerations	How and where considered in the Environmental Statement
	<p>communications) may be utilised by the host communities to bring additional non planning related benefits.</p> <p>[Pages 95-97]</p> <p>Policy 21 for North Wales Coastal settlements aims to support energy generation, storage and management to play a role in the regional economy in the North.</p> <p>[Page 115-118]</p> <p>Policy 24 for north west Wales and energy supports the area as a location for new energy development and investment, and proposed developments associated with the Isle of Anglesey Energy Island Programme, Wylfa Newydd and Trawsfynydd will be supported in principle as means of creating significant economic benefits for the area. The policy also details that new energy-related development in the region should support local and regional communities; provide jobs and investment in training and skills; and work with universities and businesses across the region and the North West of England to co-ordinate and maximise new investment to support the wider region.</p> <p>[Page 125]</p>	

UK

- 3.2.4.2 National planning policy within the relevant consenting jurisdiction (England and Wales – UK Government) is presented below.
- 3.2.4.3 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 3.5 along with details as to how these have been addressed within the assessment.

Table 3.5: UK strategic planning policies of relevance to socio-economics.

Policy	Summary of key considerations	How and where considered in the Environmental Statement
British Energy Security Strategy, (UK Government, 2022).	<p>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.</p> <p>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.</p> <p>[Page 17]</p> <p>A key measure for progress in the development of wind energy is the improvement of community benefits in areas with strategic network infrastructure.</p> <p>[Page 31]</p>	Policy priority for potential beneficial socio-economic and community impacts relevant to the Mona Offshore Wind Project are considered in assessment of sensitivity of receptors.

MONA OFFSHORE WIND PROJECT

Policy	Summary of key considerations	How and where considered in the Environmental Statement
Industrial Strategy: Offshore Wind Sector Deal (UK Government, 2019)	<p>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.</p> <p>Ports in North Wales are seen as a hub of activity for construction and operations and maintenance that can support the growing number of offshore windfarms in the UK. The deal supports capitalising on existing hubs to create more opportunities for investment and growth in local economies.</p> <p>[Page 36]</p> <p>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 and working with the UK government to address identified skills gaps in relevant routes including construction, engineering and manufacturing.</p> <p>[Page 13]</p>	Policy priority for potential beneficial socio-economic and community impacts relevant to the Mona Offshore Wind Project are considered in assessment of sensitivity of receptors.
Net Zero Strategy: Build Back Greener (UK Government, 2021)	<p>This policy sets out policies and proposals for decarbonising all sectors of the UK economy to meet the net zero target by 2050.</p> <p>Achieving 40GW (since updated to 50 GW via the offshore wind net zero investment roadmap (HM Government, 2023)) of offshore wind by 2030 is a key policy for the UK government and aims to support this through investing in supply chains, infrastructure and offshore transmission networks to secure jobs and benefit communities across the UK.</p> <p>[Section 3i, Page 94]</p> <p>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.</p> <p>[Section 4v, Page 269]</p>	Policy priority for potential beneficial socio-economic and community impacts relevant to the Mona Offshore Wind Project are considered in assessment of sensitivity of receptors.
The Clean Growth Strategy (UK Government, 2017).	<p>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.</p> <p>[Chapter 3, Page 47]</p>	Policy priority for potential beneficial socio-economic and community impacts relevant to the Mona Offshore Wind Project are considered in assessment of sensitivity of receptors.

3.2.5 North West Inshore and North West Offshore Marine Plans

- 3.2.5.1 The assessment of potential changes to socio-economics has also been made with consideration to the specific policies set out in the North West Inshore and North West Offshore Marine Plans (MMO, 2021). Key provisions are set out in Table 3.6 along with details as to how these have been addressed within the assessment.

MONA OFFSHORE WIND PROJECT

Table 3.6: North West Inshore and North West Offshore Marine Plan policies of relevance to socio-economics.

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. [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 8, Annex 3.1: Socio-economics technical impact report of the Environmental Statement 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 8, Annex 3.1: Socio-economics technical impact report of the Environmental Statement provides an assessment of the direct, indirect and induced potential economic impacts (employment and GVA), at regional and national levels. The potential impact on economic receptors including employment, GVA and supply chain demand is assessed for its significance in sections 3.9 and 3.10. The potential impact of increased employment opportunities is assessed for its significance in sections 3.9 and 3.10.
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 3.9 and 3.10. This assessment is informed by: Volume 2, Chapter 8: Seascape and visual resources and Volume 2, Chapter 10: Other sea users of the Environmental Statement.
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) minimise c) mitigate -adverse cumulative and/or in-combination effects so they are no longer significant. [Page 52]	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 environment of the north west marine area and other relevant receptors are effectively managed.	Section 3.12 Cumulative effects assessments considers the potential cumulative impacts of relevant major projects.

MONA OFFSHORE WIND PROJECT

Policy	Key provisions	How and where considered in the ES
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 8, Annex 3.1: Socio-economics technical impact report of the Environmental Statement provides an assessment of the direct, indirect and induced potential economic impacts (employment and GVA), which apply throughout the offshore wind supply chain.

3.2.6 Isle of Man policies

- 3.2.6.1 This section provides a summary of the strategic policy context for the Isle of Man in relation to socio-economics.
- 3.2.6.2 Table 3.7 sets out a summary of the key considerations within the Isle of Man Government's strategic planning policy documentation.

Table 3.7: Isle of Man strategic policy – summary

Policy	Summary of key considerations
Our Island Plan (Isle of Man Government, 2023a)	<p>The Our Island Plan outlines a vision to create a secure, vibrant, and sustainable economy, where everyone has access to high-quality services and opportunities.</p> <p>Informed by the Economic Strategy (2022), the Plan sets out strategic programmes to achieve the Isle of Man's ambitions including building better services for residents and building an attractive, competitive, and high-skilled Island. (pg.9)</p> <p>The Plan aims to ensure the Island is well-connected, enabling travel to, from and around it to make it attractive for residents, visitors, and businesses. (pg.26)</p>
Our Island, Our Future: Isle of Man Economic Strategy (Isle of Man Government, 2022b)	<p>The Economic Strategy sets out the Isle of Man Government's ambitions to develop a strong, diverse, and sustainable economy. It aims to facilitate economic growth by increasing business productivity, maintaining and supporting growth of key sectors, and developing new sectors.</p> <p>Current key sectors of the economy are digital, financial services, high value manufacturing, and the visitor economy.</p> <p>Enabling sectors – important in ensuring the viability of the Island as an attractive place to live and work – are listed as retail, hospitality, culture and leisure, property, and energy.</p> <p>New sectors, which represent emerging areas of the economy characterised by innovation and strong growth potential, are listed as the green economy, data (linked to strengths in regulation and security), and the knowledge economy (education and training).</p> <p>The Strategy sets out the aim to secure 5,000 new jobs, and reach £10 billion in overall GDP by 2032, which will support an estimated 100,000 Island residents over the next fifteen years. (pg.15)</p> <p>Attracting more economically active people to the Island is recognised as an important part in helping to generate further income that can be reinvested into the economy. (pg.42)</p>
Our Big Picture Strategic Economic Framework: Phase 3 Report (KPMG, 2022)	<p>The Framework identifies priorities and programmes of work that can be delivered over the next five to ten years to help achieve the Isle of Man's economic vision.</p> <p>Ensuring prosperity for businesses and communities are core goals for the Island, supported through creating provisions for high-quality education, healthcare, infrastructure, and transport, and an ecosystem that supports entrepreneurship, innovation, and investment. (pg.5, pg.11)</p>

MONA OFFSHORE WIND PROJECT

Policy	Summary of key considerations
	The Framework outlines the Island's needs to support current and new businesses and to attract a younger, more diverse mix of individuals who have access to good career opportunities.
Isle of Man Employment Land Review (Isle of Man Government, 2015, amended 2017)	<p>The Employment Land Review delivers an overview of employment land supply on the Isle of Man and sets out the geographic and sectoral distribution of the Island's economy.</p> <p>The Review recognises Douglas and the east of the Island as the main areas of focus for employment and businesses and sets the aim of attracting more investors and businesses to the Island through increasing the choice and quality of employment land available.</p> <p>The review estimates that a further 3,500 jobs will be added up to the year 2029 by key sectors (advanced manufacturing, finance, professional services, and tourism) and aims to sustain growth in these sectors and create growth in new emerging sectors (innovation, green growth). (pg.33)</p>
Our Island, Our Future, Isle of Man Visitor Economy Strategy 2022-2032 (Biosphere Isle-Man and Visit Isle of Man, 2022)	<p>The Visitor Economy Strategy sets out the aims and actions for the Island to become a strong visitor destination.</p> <p>The Strategy recognises that visitors help support employment and income for many residents and helps enhance the Island as a place to invest, work, and live. Visitors also help maintain the Island's air and sea links to the UK and Ireland.</p> <p>The Strategy highlights the introduction of the new Manxman ferry and the opening of the new Liverpool ferry terminal as an important enhancement to increasing ferry capacity (p5).</p> <p>The Strategy sets the aim to grow annual visitor numbers to 500,000 by 2032 (an increase of 175,000 visitors based on 2019 figures) and increase the annual economic contribution of the Island's visitor economy to £520m. (pg.10)</p> <p>The Strategy sets out actions to ensure the Isle of Man Steam Packet company continually looks to improve ferry services and promote ferry-inclusive packaged holidays to the Island.</p> <p>The Strategy aims to ensure the viability of critical air routes, and develop new connections to international hub airports. (pg.18)</p>
Smarter Movement Strategy (Isle of Man Government, 2021a)	<p>The Smarter Movement Strategy sets out aims of improving the ability to move around the Island, between people, places, services, and organisations.</p> <p>Whilst the Strategy focuses on improving personal transport choices and transport on the Island, it notes that transport on and off the Island for business and social purposes are also important. It recognises the need for safe, reliable, and effective transport, which includes that of freight services to bring goods and supplies needed on the Island. (pg.2)</p>

3.2.7 Local Planning Policies

- 3.2.7.1 The Mona Offshore Wind Project lies within the administrative areas of Conwy County Borough Council and Denbighshire County Council.
- 3.2.7.2 The assessment of potential changes to socio-economics has also been made with consideration to the specific policies set out in the following strategic planning policies:
- [Adopted] Local Development Plan 2006–2021 (Denbighshire County Council, adopted June 2013)
 - [Preferred Strategy] Denbighshire Local Development Plan 2018–2033 Draft (Denbighshire County Council, 2019)
 - [Adopted] Conwy Local Development Plan 2007–2022 (Conwy County Borough Council, adopted October 2013)
 - [Preferred Strategy] Replacement LDP 2018–2033 (Conwy County Borough Council, 2019).
- 3.2.7.3 Key provisions are set out in Table 3.8 along with details as to how these have been addressed within the assessment.

MONA OFFSHORE WIND PROJECT

Table 3.8: Local Planning Policy of relevant to socio-economics.

Policy	Key provisions	How and where considered in the Environmental Statement
[Adopted] Local Development Plan 2006–2021 (Denbighshire County Council, adopted June 2013).	<p>The adopted Local Development Plan (LDP) has a vision to promote sustainable development, building a vibrant urban coast where housing and employment needs will be met. Policies relevant to the topic of socio-economics include:</p> <ul style="list-style-type: none"> • Policy BSC 1 Growth Strategy for Denbighshire makes the provision for approximately 7,500 new homes by 2021 to meet the needs of the local community. Policy BSC 4 Affordable Housing aims to deliver around 2,250 to 3,000 affordable homes [Page 21, 28] • Policy PSE 1 supports proposals in the North Wales Coast Strategic Regeneration Area to retain and develop employment generating uses, provide new accommodation, and support tourism facilities [Page 43] • Policy PSE 11 Major New Tourism Developments and PSE 14 Outdoor Activity Tourism set out the policies to ensure tourism developments (including outdoor activity tourism) meet the needs of residents and visitors, utilise local labour, and reinforce and expand the tourism offer in the county. [Page 54] • Policy VOE 10 Renewable Energy Technologies aims to promote the provision of renewable energy technologies to meet the needs of the local community. [Page 78, 79] 	<p>Potential employment impacts are assessed within sections 3.9 and 3.10.</p> <p>Potential local labour market impacts are assessed within sections 3.9 and 3.10.</p> <p>Potential impacts on housing and accommodation are assessed within sections 3.9 and 3.10.</p> <p>Potential impacts on tourism are assessed within sections 3.9 and 3.10.</p>
[Preferred Strategy] Denbighshire Local Development Plan 2018–2033 Draft (Denbighshire County Council, 2019).	<p>The draft Preferred Strategy LDP sets out the same vision as the adopted LDP for Denbighshire. Draft key policies include: [Section 8]</p> <ul style="list-style-type: none"> • The Placemaking policy set out how proposals must support the delivery of economic, social, environmental and cultural well-being. This policy includes promoting decarbonisation and renewable energy technology [Page 25, 26] • The Housing and Affordable Housing policy sets out the provision for 3,375 new homes and 750 affordable homes to be delivered over the plan period [Page 27–29] • The Visitor Economy policy notes that proposals should strengthen and diversify the visitor economy and be suitably located. [Page 34, 35] 	<p>Potential employment impacts are assessed within sections 3.9 and 3.10.</p> <p>Potential local labour market impacts are assessed within sections 3.9 and 3.10.</p> <p>Potential impacts on housing and accommodation are assessed within sections 3.9 and 3.10.</p> <p>Potential impacts on tourism are assessed within sections 3.9 and 3.10.</p>

MONA OFFSHORE WIND PROJECT

Policy	Key provisions	How and where considered in the Environmental Statement
[Adopted] Conwy Local Development Plan 2007–2022 (Conwy County Borough Council, adopted October 2013).	<p>The adopted LDP sets the vision to create more sustainable communities with a higher quality of life for its residents, including generating access to better jobs. Policies include:</p> <ul style="list-style-type: none"> • Policies HOU/1 Meeting Housing Need and HOU/2 Affordable Housing for Local Need set out the aim to deliver 6,520 new homes and affordable homes to meet housing needs [Page 87, 100] • Policies TOU/1 Sustainable Tourism and TOU/2 New Sustainable Tourism and Recreational Development promote sustainable tourism by supporting new high-quality all-year round developments that help to diversify the economy, encourage cross-boundary links with neighbouring authorities, and provide local employment benefits [Page 153, 155] • Policy NTE/6 Energy Efficiency and Renewable Technologies in New Development sets out the council's support for renewable energy generation, which include wind energy sources, to use the area's natural resources sustainably. [Page 201] 	<p>Potential employment impacts are assessed within sections 3.9 and 3.10.</p> <p>Potential local labour market impacts are assessed within sections 3.9 and 3.10.</p> <p>Potential impacts on housing and accommodation are assessed within sections 3.9 and 3.10.</p> <p>Potential impacts on tourism are assessed within sections 3.9 and 3.10.</p>
[Preferred Strategy] Replacement LDP 2018–2033 (Conwy County Borough Council, 2019).	<p>The Preferred Strategy LDP sets the vision to improve community well-being, promoting sustainability, prosperity and positive health. Policies include:</p> <ul style="list-style-type: none"> • Policy SP/1 Sustainable Placemaking Principles sets a number of aims including protecting the environment, helping create resilient communities and attracting investment, promoting renewable energy, fostering economic activity, and ensuring homes and jobs are available to meet the County's needs [Section 3.2, page 57] • Policies SP/2 Levels of Housing Growth and SP/15 Housing set out provisions to deliver 4,300 dwellings over the plan period, including 1,800 affordable homes [Section 3.3, page 60] • SP/3 Levels of Employment Growth sets out the provision to deliver around 1,800 new jobs helping to encourage a more balanced age structure, less out-commuting, help safeguard community identity, and contribute positively to North Wales growth Deal [Section 3.4, page 62] • SP/19 Landscape sets the policy to protect landscapes of value, and encourage bringing forward opportunities that landscapes provide for tourism, local employment, and renewable energy [Section 5.2, page 115] • Policy SP/28 Tourism notes that proposals for tourism development will be supported provided that they are appropriate and offer benefits to the local community [Section 6.3, page 143] • Policy SP/32 Energy sets the aim to promote a mix of energy sources and help to deliver clean growth and contribute to the decarbonisation of energy. [Section 6.7, page 155] 	<p>Potential employment impacts are assessed within sections 3.9 and 3.10.</p> <p>Potential local labour market impacts are assessed within sections 3.9 and 3.10.</p> <p>Potential impacts on housing and accommodation are assessed within sections 3.9 and 3.10.</p> <p>Potential impacts on tourism are assessed within sections 3.9 and 3.10.</p>

MONA OFFSHORE WIND PROJECT

3.3 Consultation

3.3.1 Key issues raised during consultation

- 3.3.1.1 A summary of the key issues raised during consultation activities undertaken to date specific to socio-economics is presented in Table 3.9 below, together with how these issues have been considered in the production of this chapter.

3.3.2 Evidence plan

- 3.3.2.1 The purpose of the Evidence Plan process is to agree the information the Mona Offshore Wind Project needs to supply to the Secretary of State, as part of a DCO application for the Mona Offshore Wind Project. The Evidence Plan seeks to ensure compliance with the Habitat Regulations Assessment (HRA) and EIA. The development and monitoring of the Evidence Plan and its subsequent progress is being undertaken by the Steering Group. The Steering Group is comprised of the Planning Inspectorate, the Applicant, Natural Resources Wales, Natural England, Joint Nature Conservation Committee and the Marine Management Organisation as the key regulatory and Statutory Nature Conservation Bodies. To inform the EIA and HRA process during the pre-application stage of the Mona Offshore Wind Project, Expert Working Groups (EWGs) were also set up to discuss and agree topic specific issues with the relevant stakeholders.

MONA OFFSHORE WIND PROJECT

Table 3.9: Summary of key issues raised during statutory and non-statutory consultation activities undertaken for the Mona Offshore Wind Project relevant to socio-economics.

Date	Consultee and type of response	Issues raised	Response to issue raised and/or where considered in this chapter
Socio-economics – general			
June 2022	The Planning Inspectorate– Scoping opinion	The Applicant should make effort to identify the location of the port and O&M base, where possible, and assess any likely significant effects associated. In the event that the locations have not been confirmed, the ES should make effort to assess the likely significant effects associated with relevant assumptions and a worst-case scenario.	Volume 8, Annex 3.1: Socio-economics technical impact report of the Environmental Statement sets out the detailed approach taken to define study areas – this approach aligns with industry best practice guidance ‘Defining ‘Local Area’ for assessing impact of offshore renewables and other marine developments’ (Marine Scotland, 2022).
June 2022	The Planning Inspectorate– Scoping opinion	The Applicant should seek to agree study areas and receptors with relevant consultation bodies. The Environmental Statement should confirm whether the study area proposed aligns with relevant policy and guidance and provide justification for any divergences.	Volume 8, Annex 3.1: Socio-economics technical impact report of the Environmental Statement sets out the detailed approach taken to define study areas – this approach aligns with industry best practice guidance ‘Defining ‘Local Area’ for assessing impact of offshore renewables and other marine developments’ (Marine Scotland, 2022). Study areas were presented and discussed with stakeholders during non-statutory consultation.
June 2022	The Planning Inspectorate – Scoping Opinion	A number of mitigation plans have been referred to in aspect chapters. Where plans are relied upon to avoid significant environmental effects, outline or in-principle plans should be submitted as part of the DCO application.	Considered as part of Measures adopted as part of the Mona Offshore Wind Project (section 3.8).

MONA OFFSHORE WIND PROJECT

Date	Consultee and type of response	Issues raised	Response to issue raised and/or where considered in this chapter
Economic			
June 2022	The Planning Inspectorate – Scoping opinion	The Environmental Statement should detail the number of anticipated full and part time jobs generated by all phases of the Proposed Development.	Considered as part of assessment of significant effects (sections 3.9 and 3.10).
June 2022	The Planning Inspectorate – Scoping Opinion	Whilst the Inspectorate acknowledges the potential for positive economic impacts on employment and supply chain, the Environmental Statement should also identify and assess any negative economic impacts, for example to commercial fisheries, where significant effects are likely to occur.	Considered as part of assessment of significant effects (sections 3.9 and 3.10). Considered as part of cumulative effects assessment (section 3.12).
June 2022	The Planning Inspectorate – Scoping Opinion	The Inspectorate agrees that significant transboundary effects on socio-economics are unlikely and can be scoped out of the Environmental Statement.	Socio-economics transboundary effects has been scoped out of the Environmental Statement.
January 2023	Liverpool City Region Combined Authority Online consultation	Consider including Birkenhead Port and Mostyn Port within the same impact area.	Considered as part of defining study areas (section 3.4.3 and Volume 8, Annex 3.1: Socio-economics technical impact report of the Environmental Statement). 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 policy and administrative boundaries was more appropriate in defining study areas.

MONA OFFSHORE WIND PROJECT

Date	Consultee and type of response	Issues raised	Response to issue raised and/or where considered in this chapter
January 2023	Barrow Port Online consultation	Consider capacity of ports and suitability of existing infrastructure in handling large scale construction.	Considered as part of selection of potential port locations to identify study areas (section 3.4.3 and Volume 8, Annex 3.1: Socio-economics technical impact report of the Environmental Statement). Considered as part of assessment of significant effects (sections 3.9 and 3.10). Considered as part of cumulative effects assessment (section 3.12).
January 2023	Barrow Port Liverpool City Region Combined Authority Online consultation	Investment into infrastructure at port locations required to provide support during construction phase.	Considered as part of assessment of significant effects (sections 3.9 and 3.10). Considered as part of cumulative effects assessment (section 3.12).
January 2023	Barrow Port Liverpool City Region Combined Authority Online consultation	Consider sharing work amongst ports across the Offshore Energy Alliance cluster to sustain capability.	Considered as part of assessment of significant effects (sections 3.9 and 3.10). Considered as part of cumulative effects assessment (section 3.12).
January 2023	Barrow Port Online consultation	Lack of potential for fabrication and staging processes of larger components such as blades and foundations.	Considered as part of assessment of significant effects (sections 3.9 and 3.10). Considered as part of cumulative effects assessment (section 3.12).
January 2023	Liverpool City Region Combined Authority Online consultation	Investment would be beneficial to upskill current businesses.	Considered as part of next steps – further measures for enhancing beneficial effects.
January 2023	Barrow Port Cumbria Local Enterprise Partnership (LEP)	Already significant offshore wind supply base, especially with operations and maintenance, which could be increased.	Considered as part of assessment of significant effects (sections 3.9 and 3.10).

MONA OFFSHORE WIND PROJECT

Date	Consultee and type of response	Issues raised	Response to issue raised and/or where considered in this chapter
	Online consultation		Considered as part of cumulative effects assessment (section 3.12).
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.	<p>Considered as part of assessment of significant effects (sections 3.9 and 3.10).</p> <p>Considered as part of cumulative effects assessment (section 3.12).</p> <p>The Applicant has committed to the provision of an Outline Skills and Employment Plan (Document Reference J.24) which will be included as a requirement of the draft DCO.</p> <p>The actions presented within the Outline Plan will form the basis of a post-consent Skills and Employment Strategy, which will be adopted by the Applicant to help develop and support the economic benefits associated with the Mona Offshore Wind Project in relation to skills and employment within the offshore wind sector.</p>
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.	<p>Considered as part of assessment of significant effects (sections 3.9 and 3.10).</p> <p>Considered as part of cumulative effects assessment (section 3.12).</p> <p>The Applicant has committed to the provision of an Outline Skills and Employment Plan (Document Reference J.24) which will be included as a requirement of the draft DCO.</p> <p>The actions presented within the Outline Plan will form the basis of a post-consent Skills and Employment Strategy, which will be adopted by the</p>

MONA OFFSHORE WIND PROJECT

Date	Consultee and type of response	Issues raised	Response to issue raised and/or where considered in this chapter
			Applicant to help develop and support the economic benefits associated with the Mona Offshore Wind Project in relation to skills and employment within the offshore wind sector.
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.	Considered as part of assessment of significant effects (sections 3.9 and 3.10). Considered as part of cumulative effects assessment (section 3.12). The Applicant has committed to the provision of an Outline Skills and Employment Plan (Document Reference J.24) which will be included as a requirement of the draft DCO. The actions presented within the Outline Plan will form the basis of a post-consent Skills and Employment Strategy, which will be adopted by the Applicant to help develop and support the economic benefits associated with the Mona Offshore Wind Project in relation to skills and employment within the offshore wind sector.
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.	Considered as part of assessment of significant effects (sections 3.9 and 3.10). Considered as part of cumulative effects assessment (section 3.12).
January 2023	Denbighshire Council Online consultation meeting	Future opportunity to use local labour. Planned new large engineering department at Rhyl College will provide	Considered as part of assessment of significant effects (sections 3.9 and 3.10).

MONA OFFSHORE WIND PROJECT

Date	Consultee and type of response	Issues raised	Response to issue raised and/or where considered in this chapter
		further skilled labour in the local workforce.	Considered as part of cumulative effects assessment (section 3.12).
January 2023	Denbighshire Council Online consultation meeting	There is a need to recognise the value of utilising local labour and maximising local benefits and social value.	<p>Considered as part of assessment of significant effects (sections 3.9 and 3.10).</p> <p>Considered as part of cumulative effects assessment (section 3.12).</p> <p>The Applicant has committed to the provision of an Outline Skills and Employment Plan (Document Reference J.24) which will be included as a requirement of the draft DCO.</p> <p>The actions presented within the Outline Plan will form the basis of a post-consent Skills and Employment Strategy, which will be adopted by the Applicant to help develop and support the economic benefits associated with the Mona Offshore Wind Project in relation to skills and employment within the offshore wind sector.</p>
January 2023	Denbighshire Council Online consultation meeting	<p>Opportunity to transition skilled workers from sea defence projects to offshore wind due to transferable skills.</p> <p>Construction sector in Denbighshire has a good baseline of good practice so can provide some capacity.</p>	<p>Considered as part of assessment of significant effects (sections 3.9 and 3.10).</p> <p>Considered as part of cumulative effects assessment (section 3.12).</p> <p>The Applicant has committed to the provision of an Outline Skills and Employment Plan (Document Reference J.24) which will be included as a requirement of the draft DCO.</p> <p>The actions presented within the Outline Plan will form the basis of a post-consent Skills and Employment Strategy, which will be adopted by the</p>

MONA OFFSHORE WIND PROJECT

Date	Consultee and type of response	Issues raised	Response to issue raised and/or where considered in this chapter
			Applicant to help develop and support the economic benefits associated with the Mona Offshore Wind Project in relation to skills and employment within the offshore wind sector.
January 2023	Denbighshire Council Online consultation meeting	Denbighshire has strong Tier 1 suppliers	Considered as part of assessment of significant effects (sections 3.9 and 3.10). Considered as part of cumulative effects assessment (section 3.12).
June 2023	Isle of Anglesey Council Section 42 statutory consultation	Recommendation that a Skills and Employment Strategy be prepared to identify opportunities for employment and training.	The Applicant has committed to the provision of an Outline Skills and Employment Plan (Document Reference J.24) which will be included as a requirement of the draft DCO. The actions presented within the Outline Plan will form the basis of a post-consent Skills and Employment Strategy, which will be adopted by the Applicant to help develop and support the economic benefits associated with the Mona Offshore Wind Project in relation to skills and employment within the offshore wind sector.
June 2023	Isle of Anglesey Council Section 42 statutory consultation	Recommendation that local content should be maximised.	Commercial decisions relating to supply chain engagement and port selection will be undertaken post-consent. The Applicant has committed to the provision of an Outline Skills and Employment Plan (Document Reference J.24) which will be included as a requirement of the draft DCO. The actions presented within the Outline Plan will form the basis of a post-consent Skills and Employment

MONA OFFSHORE WIND PROJECT

Date	Consultee and type of response	Issues raised	Response to issue raised and/or where considered in this chapter
			Strategy, which will be adopted by the Applicant to help develop and support the economic benefits associated with the Mona Offshore Wind Project in relation to skills and employment within the offshore wind sector.
June 2023	Isle of Anglesey Council Section 42 statutory consultation	Suggestion of collaboration with other major projects within the North Wales region with the aim of maximising socio-economic benefits for the area.	The Applicant has committed to the provision of an Outline Skills and Employment Plan (Document Reference J.24) which will be included as a requirement of the draft DCO. The actions presented within the Outline Plan will form the basis of a post-consent Skills and Employment Strategy, which will be adopted by the Applicant to help develop and support the economic benefits associated with the Mona Offshore Wind Project in relation to skills and employment within the offshore wind sector.
June 2023	Isle of Man Government Section 42 statutory consultation	Social and economic risks associated with potential lifeline ferry disruption.	Considered as part of assessment of significant effects (3.9.6). Considered as part of cumulative effects assessment (section 3.12.6).
Social			
January 2023	Denbighshire Council Online consultation meeting	Has had other projects, such as construction of Gwynt Y Mor Onshore Substation. Not known to have had a material impact on the local community.	Considered as part of assessment of significant effects (sections 3.9 and 3.10) Considered as part of cumulative effects assessment (section 3.12).
January 2023	Denbighshire Council Online consultation meeting	Current supply of housing is not sufficient and would struggle to support an extra onshore workforce.	Considered as part of assessment of significant effects (sections 3.9 and 3.10).

MONA OFFSHORE WIND PROJECT

Date	Consultee and type of response	Issues raised	Response to issue raised and/or where considered in this chapter
			Considered as part of cumulative effects assessment (section 3.12).
Tourism			
June 2022	The Planning Inspectorate – Scoping opinion	<p>Tourism and community effect within the National Impact Area (NIA).</p> <p>The inspectorate agrees that the Proposed Development is unlikely to result in significant effects on tourism and community at a national level. Therefore, this matter can be scoped out.</p>	<p>Considered as part of selection of potential port locations to identify tourism study areas (section 3.4.3 and Volume 8, Annex 3.1: Socio-economics technical impact report of the Environmental Statement).</p> <p>Considered as part of assessment of significant effects (sections 3.9 and 3.10).</p> <p>Considered as part of cumulative effects assessment (section 3.12).</p>
June 2022	Conwy County Borough Council— Scoping Opinion	<p>It is proposed to scope into the project assessment “<i>the impact of disruption on tourism and recreation receptors during the construction, operation and maintenance, and decommissioning phase</i>”.</p> <p>It is unclear whether Conwy County Borough would still be included as a Local Impact Area if the landfall and onshore transmission assets were located outside the County Borough. The development would potentially impact on tourism and recreation over a wide area, and the Environmental Statement should address impacts of the development on the vitality, viability and attractiveness of tourism destinations over a wider area, including (but not limited to) Llandudno, Conwy, Colwyn Bay and Abergelge, giving particular regard to the special</p>	<p>Considered as part of selection of potential port locations to identify tourism study areas (section 3.4.3).</p> <p>Considered as part of assessment of significant effects (sections 3.9 and 3.10).</p> <p>Considered as part of cumulative effects assessment (section 3.12).</p>

MONA OFFSHORE WIND PROJECT

Date	Consultee and type of response	Issues raised	Response to issue raised and/or where considered in this chapter
		character and ambience of Llandudno as a Victorian resort.	
May 2022	Denbighshire County Council— Scoping Opinion	In terms of impacts of the potential landfall, it is noted that the area of search includes Rhyl and Prestatyn which are coastal towns with large areas of beach and the Wales Coastal path runs along the promenade. Tourism is a significant part of the local economy and a number of local businesses are located along the coast.	Considered as part of selection of potential port locations to identify tourism study areas (section 3.4.3 and Volume 8, Annex 3.1: Socio-economics technical impact report of the Environmental Statement). Considered as part of assessment of significant effects (sections 3.9 and 3.10). Considered as part of cumulative effects assessment (section 3.12).
May 2022	Denbighshire County Council – Scoping Opinion	The cumulative impact of the construction phase on public amenity, tourism and local economy has the potential to give rise to significant effects and should be scoped in.	Considered as part of cumulative effects assessment (section 3.12).
January 2023	Visit Wales Online consultation	As offshore wind development becomes more established as a sector, negative perceptions of such developments – particularly in terms of visual impacts – have become less prevalent over time.	Whilst this is an anecdotal observation it supports the evidence set out at paragraphs 3.9.5.1–3.9.5.6 as part of the assessment of significant effects.
January 2023	Visit Wales Online consultation	Consider impact of using bed stock from the tourism sector to provide accommodation for a non-local workforce. Could create issues through taking away accommodation for visitors and reducing spend on attractions within the tourism industry.	Considered as part of assessment of significant effects (sections 3.9 and 3.10). Considered as part of cumulative effects assessment (section 3.12).
January 2023	Visit Wales Online consultation	Consider a bigger demand for accommodation within the UK visitor sector.	Considered as part of baseline conditions (section 3.3.2.2).

MONA OFFSHORE WIND PROJECT

Date	Consultee and type of response	Issues raised	Response to issue raised and/or where considered in this chapter
			<p>Considered as part of assessment of significant effects (sections 3.9 and 3.10).</p> <p>Considered as part of cumulative effects assessment (section 3.12).</p>
January 2023	Denbighshire Council— Online consultation meeting	Consider any restrictions and disturbances in place during the onshore construction phase on the tourism sector. Ensure work aligns with the Council's prime goals, which includes the regeneration and rejuvenation of tourism.	<p>Considered as part of assessment of significant effects (sections 3.9 and 3.10).</p> <p>Considered as part of cumulative effects assessment (section 3.12).</p>

MONA OFFSHORE WIND PROJECT

3.3.2.2 Three stakeholder consultation workshops were held during January 2023. The focus of each workshop was tailored to the areas of knowledge and expertise of the participants and focussed on the following:

- **Economic:** discussion focused on potential ports, port infrastructure capacity, supply chain capacity and skills and labour market capacity
- **Social:** discussion focused on skills and labour market factors such as capacity and training, and local factors such as housing market capacity and community dynamics
- **Tourism:** discussion focused on visual amenity, overnight accommodation and recreation assets.

3.3.2.3 A range of key stakeholders were invited to participate in consultation to inform the assessment. This included national and regional representative organisations as well as local authority officers within the economic, social and tourism study areas.

3.3.2.4 Table 3.10 summarises the invite list for each workshop.

Table 3.10: Socio-economics stakeholder consultation participation.

Note: asterisk (*) denotes the organisation attended the workshop.

Workshop	Invitees
Economic – January 2023	<ul style="list-style-type: none"> • Associated British Ports* • Cumbria County Council* • Cumbria LEP* • Furness Economic Development Forum • Liverpool City Region Combined Authority* • Marine Energy Wales • Mersey Maritime • North Wales Economic Ambition Board • ORE Catapult* • Renewable UK Cymru* • Welsh Government*
Social – January 2023	<ul style="list-style-type: none"> • Barrow-in-Furness Borough Council • Conwy County Borough Council • Denbighshire County Council* • Flintshire County Council • Isle of Anglesey County Council • Lancaster City Council
Tourism – January 2023	<ul style="list-style-type: none"> • Go North Wales • Royal Yachting Association • Visit North West • Visit Wales* • Wales Tourism Alliance (WTA)

3.3.2.5 This stakeholder consultation was carried out during preparation of the PEIR. This process provided useful inputs which have been incorporated to the approach taken for the preparation of this Environmental Statement chapter.

3.3.2.6 As there have been no significant changes relating to either the scope of the Mona Offshore Wind Project or environmental conditions relevant to the topic of socio-

MONA OFFSHORE WIND PROJECT

economics since PEIR no further topic-specific consultation on economic, social, and tourism receptors has been undertaken.

- 3.3.2.7 An assessment of potential impact on the Isle of Man associated with potential adverse effects on lifeline ferry services has been included since PEIR. To inform this assessment, the Applicant has engaged both the Isle of Man Government and the Isle of Man Steam Packet Company (IoMSPC) to ascertain the availability of data on freight movements and lifeline ferry service cancellations.

3.4 Baseline methodology

3.4.1 Relevant guidance

- 3.4.1.1 This section summarises the methodology applied to inform the analysis of the baseline environments of the economic, social and tourism study areas.

3.4.2 Scope of the assessment

- 3.4.2.1 The scope of this Environmental Statement has been developed in consultation with relevant statutory and non-statutory consultees as detailed in Table 3.9.
- 3.4.2.2 Taking into account the scoping and consultation process, Table 3.11 summarises the issues considered as part of this assessment.

Table 3.11: Issues considered within this assessment.

Potential effects scoped into the assessment

Construction phase

The potential impact on economic receptors including employment and GVA.

The potential impact of increased employment opportunities.

The potential impact on population, housing and accommodation.

The potential impact on tourism.

The potential impact on the Isle of Man associated with potential adverse effects on lifeline ferry services.

Operation and maintenance

The potential impact on economic receptors including employment and GVA.

The potential impact of increased employment opportunities.

The potential impact on population, housing and accommodation.

The potential impact on tourism.

The potential impact on the Isle of Man associated with potential adverse effects on lifeline ferry services.

Decommissioning phase

The potential impact on economic receptors including employment and GVA.

The potential impact of increased employment opportunities.

The potential impact on population, housing and accommodation.

The potential impact on tourism.

The potential impact on the Isle of Man associated with potential adverse effects on lifeline ferry services.

MONA OFFSHORE WIND PROJECT

3.4.2.3 Effects which are not considered likely to be significant have been scoped out of the assessment. A summary of the effects scoped out, together with justification for scoping them out, is presented in Table 3.12.

Table 3.12: Impacts scoped out of the assessment for socio-economics.

Potential impact(s)	Phase	Study area(s)	Justification
Offshore			
The potential impact on economic receptors including employment and GVA.	O	UK	Potential offshore economic impacts during the operations and maintenance phase will be concentrated at geographies below the UK level. These are not anticipated to have any significant effects on economic receptors at the UK level.
The potential impact of increased employment opportunities.	All	Wales and UK	Potential offshore impacts at the national level during all phases are not anticipated to have significant effects on labour market receptors, such economically active individuals and available labour, compared to national economic conditions in Wales and the UK.
Onshore			
The potential impact on economic receptors including employment and GVA.	O	All	Potential onshore economic impacts during the operations and maintenance phase have been estimated in Volume 8, Annex 3.1: Socio-economics technical impact report of the Environmental Statement. Impact estimates are negligible in scale. These are not anticipated to have any significant effects on economic receptors.
The potential impact on economic receptors including employment and GVA.	D	All	No supply chain category within the framework (Appendix B contained in Volume 8, Annex 3.1: Socio-economics technical impact report of the Environmental Statement) 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 are not anticipated to have any significant effects on economic receptors.
The potential impact of increased employment opportunities.	All	Wales and UK	Potential offshore labour market impacts during all phases will be concentrated at sub-national geographies. These are not anticipated to have any significant effects on economic receptors at the national level.
The potential impact of increased employment opportunities.	O	All	Potential onshore labour market impacts during the operations and maintenance phase have been estimated in Volume 8, Annex 3.1: Socio-economics technical impact report of the Environmental Statement. Impact estimates are negligible in scale. These are not anticipated to have any significant effects on economic receptors.
The potential impact of increased employment opportunities.	D	All	No supply chain category within the framework (Appendix B contained in Volume 8, Annex 3.1: Socio-economics technical impact report of the Environmental Statement) 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 labour

MONA OFFSHORE WIND PROJECT

Potential impact(s)	Phase	Study area(s)	Justification
			market impacts are not anticipated to have any significant effects on economic receptors.
The potential impact on population, housing and accommodation.	O	North Wales	<p>Potential onshore impacts on population, housing and accommodation during the operations and maintenance phase have been estimated in Volume 8, Annex 3.1: Socio-economics technical impact report of the Environmental Statement.</p> <p>Impact estimates are negligible in scale. These are not anticipated to have any significant effects on social receptors.</p>
The potential impact on population, housing and accommodation.	D	North Wales	<p>No supply chain category within the framework (Appendix B contained in Volume 8, Annex 3.1: Socio-economics technical impact report of the Environmental Statement) can be categorised as onshore decommissioning expenditure given the associated descriptions within the guidance.</p> <p>Given the exclusion of onshore decommissioning activities from the guidance, onshore decommissioning phase population impacts are not anticipated to have any significant effects on social receptors.</p>

3.4.3 Study area(s)

Economic study area(s)

3.4.3.1 A detailed explanation of the approach to economic study area definition can be found in Volume 8, Annex 3.1: Socio-economics technical impact report of the Environmental Statement.

National economic study area(s) - offshore and onshore

3.4.3.2 National economic study areas are defined to reflect the wider reach of employment and GVA impacts that may materialise through the supply chain and demand for labour. As such, two national economic study areas have been identified:

- **United Kingdom (UK):** understanding the UK content of potential economic impacts associated with offshore wind farm developments is an important aspect of considering a project's potential benefits. It is recognised, therefore, that assessing the potential impacts of the Mona Offshore Wind Project at the UK level will assist the examining authority and Secretary of State in their determination of the project application
- **Wales:** the proximity of the site to the Welsh coast makes it possible that ports within Wales may be selected to support delivery of some elements of the Mona Offshore Wind Project. Assessing the potential impacts of the Mona Offshore Wind Project at the Wales level will assist the Planning Inspectorate in understanding the Mona Offshore Wind Project's potential economic impacts on a devolved nation, the waters of which the Mona Offshore Wind Project will be located within. Wales can be defined as both a nation and a region of the UK. For the purposes of this assessment, Wales is defined as a nation.

Sub-national economic study areas - offshore assessment

3.4.3.3 Industry best practice guidance from Marine Scotland (2022) Defining 'Local Area' for assessing impact of offshore renewables and other marine developments sets out that

MONA OFFSHORE WIND PROJECT

economic impacts can be geographically linked to a range of ‘epicentres’, including construction and operation and maintenance ports. 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’.

3.4.3.4 To ensure the assessment of impacts is proportionate, sub-national economic study area definitions concentrate on locations within England and Wales in proximity to the Irish Sea. Therefore, locations in north Wales and northwest England are considered as part of the assessment of sub-national economic impacts².

3.4.3.5 The following sub-national economic study areas have been defined for the purposes of assessing potential offshore economic impacts:

- **North Wales** sub-national offshore economic study area³ (hereafter referred to as ‘North Wales’) – consists of Isle of Anglesey, Gwynedd, Conwy, Denbighshire, Flintshire, and Wrexham local authorities.
- **North West England** sub-national offshore economic study area⁴ (hereafter referred to as ‘North West England’).

Sub-national economic study area(s) – onshore assessment

3.4.3.6 The permanent onshore infrastructure for the Transmission Assets includes the onshore export cables, the onshore substation (at Bodelwyddan) and the 400kV Grid Connection Cables that will connect the Transmission Assets to the National Grid. This location is considered as the ‘epicentre of impact’ for the onshore assessment.

3.4.3.7 The following economic study area has been defined for the purposes of assessing potential onshore impacts:

- **North Wales** sub-national onshore economic study area (hereafter referred to as ‘North Wales’).

Social study area(s)

3.4.3.8 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.

3.4.3.9 Social impacts are not assessed at a national level, therefore Wales and UK study areas not considered within the assessment.

Social study area(s) – offshore assessment

3.4.3.10 Having identified potential port facilities in part 1, the same list has been utilised in determining appropriate sub-national offshore social study area(s). The extent of the offshore economic study areas has been determined on the basis of labour catchment areas using a 60 minute drive time catchment as a proxy.

² The selection process associated with the identification of ports, inputs, and services will not conclude until the post-consent phase for the Mona Offshore Wind Project, 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.

³ Does not meet the statistical definition of a UK region.

⁴ Does meet the statistical definition of a UK region.

MONA OFFSHORE WIND PROJECT

3.4.3.11 Therefore, the same 60-minute drive catchments for the same long list of port facilities results in the same best fit sub-national social study areas, as follows:

- **North Wales**
- **North West England.**

Social study area(s) - onshore assessment

3.4.3.12 In line with the definition of sub-national offshore social study areas, having identified potential onshore substation locations in part 1, the same locations has been utilised in determining appropriate sub-national onshore social study area(s). The extent of the onshore economic study area was determined on the basis of labour catchment areas using a 60 minute drive time catchment as a proxy.

3.4.3.13 Therefore, the same 60-minute drive catchments for the same potential onshore substation locations results in the same best fit sub-national social study area, as follows:

- **North Wales.**

Tourism study area(s)

Tourism study area(s) - offshore assessment

3.4.3.14 Potential offshore impacts of the construction, operations and maintenance, and decommissioning of the Mona Offshore Wind Project 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 Environmental Statement on the basis of visual amenity, overnight trips and accommodation, and recreation.

Visual amenity

3.4.3.15 It is necessary to derive an assessment of significance of effects on visual amenity from the findings of Volume 2, Chapter 8: Seascape and visual resources of the Environmental Statement. The potential visual impacts of the construction, operations and maintenance, and decommissioning of the Mona Offshore Wind Project will be one of the most important considerations when assessing significance of effects on tourism.

3.4.3.16 On this basis, the offshore tourism study area(s) definition draws on the Zone of Theoretical Visibility set out in Volume 2, Chapter 8: Seascape and visual resources of the Environmental Statement.

Overnight trips and accommodation

3.4.3.17 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.

3.4.3.18 On this basis, the tourism sub-national study area(s) definition draws directly on the offshore social study areas within this chapter. These have been determined based on the location of potential ports, which is the main consideration in relation to the impact on overnight trips and accommodation.

MONA OFFSHORE WIND PROJECT

Recreation

- 3.4.3.19 It is necessary to derive an assessment of significance of effects on recreation from the findings of Volume 2, Chapter 10: Other sea users of the Environmental Statement. The potential recreation impacts of the construction, operations and maintenance, and decommissioning of the Mona Offshore Wind Project will be an important consideration when assessing significance of effects on tourism.
- 3.4.3.20 On this basis, the offshore tourism study area(s) definition considers the Other Sea Users study area.

Overall

- 3.4.3.21 On the basis of the above considerations, three tourism study areas have been identified:
- **North Wales**
 - **North West England**
 - **Isle of Man.**
- 3.4.3.22 Tourism study areas are shown on Figure 3.1.

Tourism study area(s) - onshore assessment

- 3.4.3.23 Potential onshore impacts of the construction, operations and maintenance, and decommissioning of the Mona Offshore Wind Project 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 Environmental Statement on the basis of visual amenity, overnight trips and accommodation, and recreation.

Visual amenity

- 3.4.3.24 It is necessary to derive an assessment of significance of effects on visual amenity from the findings of Volume 3, Chapter 6: Landscape and visual resources of the Environmental Statement. The potential visual impacts of the construction, operations and maintenance, and decommissioning of the Mona Offshore Wind Project will be one of the most important considerations when assessing significance of effects on tourism.
- 3.4.3.25 On this basis, the onshore tourism study area(s) definition draws on the Zone of Theoretical Visibility set out in Volume 3, Chapter 6: Landscape and visual resources of the Environmental Statement.

Overnight trips and accommodation

- 3.4.3.26 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.
- 3.4.3.27 On this basis, the tourism sub-national study area(s) draws directly on the onshore social study areas within this chapter. These have been determined based on the potential location of offshore infrastructure – including the onshore substation and cabling – which is the main consideration in relation to the impact on overnight trips and accommodation.

MONA OFFSHORE WIND PROJECT

Recreation

- 3.4.3.28 It is necessary to derive an assessment of significance of effects on recreation from the findings of Volume 3, Chapter 7: Land use and recreation of the Environmental Statement. The potential recreation impacts of the construction, operations and maintenance, and decommissioning of the Mona Offshore Wind Project will be an important consideration when assessing significance of effects on tourism.
- 3.4.3.29 On this basis, the offshore tourism study area(s) definition considers the land use and recreation study area.

Overall

- 3.4.3.30 On the basis of the above considerations, one tourism study area has been identified:
- **North Wales.**
- 3.4.3.31 The onshore tourism study area is shown in Figure 3.1.

Lifeline ferry services study area

- 3.4.3.32 Potential impacts on Isle of Man lifeline ferry services have been assessed within Volume 2, Chapter 7: Shipping and navigation of the Environmental Statement, which assesses potentially significant cumulative effects on commercial operators including strategic routes and lifeline ferries, and potentially significant cumulative effects on adverse weather routeing.
- 3.4.3.33 Understanding the potential for socio-economic impacts on the Isle of Man associated with offshore wind farm development in the Irish Sea is therefore an important aspect of considering the Mona Offshore Wind Project's potential impacts. It is recognised, therefore, that assessing potential socio-economic impacts on the Isle of Man, linked to potential lifeline ferry rescheduling, will assist the Secretary of State in their examination of the project application.
- 3.4.3.34 The Isle of Man socio-economics study area is shown in Figure 3.1.

MONA OFFSHORE WIND PROJECT

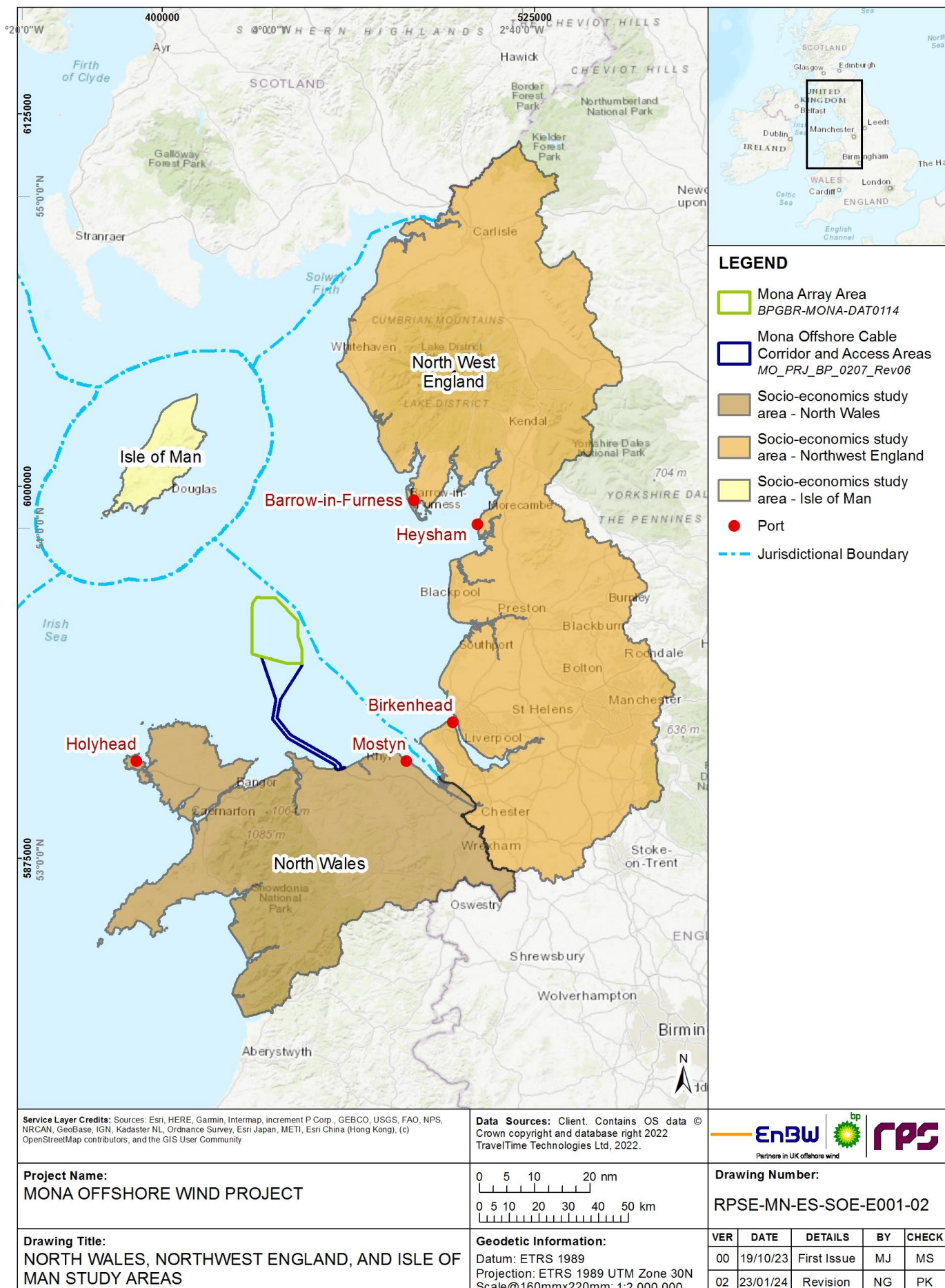


Figure 3.1: Economic, social, and tourism study areas for the topic of socio-economics

MONA OFFSHORE WIND PROJECT

3.4.4 Desktop study

3.4.4.1 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 at Table 3.13: Summary of key desktop reports. below.

Table 3.13: Summary of key desktop reports.

Title	Source	Year
Socio-economics		
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 ITL regions	ONS	2023c
Offshore Wind Skills Intelligence Report	OWIC	2023
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
Table 109 Dwelling stock: by tenure and region	DLUHC ⁵	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
Wales Tourism Alliance Homepage	WTA	2023
North West England and Domestic Tourism	Visit England	2015
Providing recognition to tourism skills in North Wales	Ambition North Wales	2023
The Great Britain Day Visitor 2019 Annual Report	Visit England, Visit Scotland, and Visit Wales	2019
Domestic GB Tourism Statistics (day trips in Wales): 2022	Welsh Government	2023a
Domestic GB Tourism Statistics (overnight trips in Wales): 2022	Welsh Government	2023b
Tourism assets informed by various webpages – listed in 18.15.1	Various	2022

⁵ Department for Levelling Up, Housing and Communities.

MONA OFFSHORE WIND PROJECT

Title	Source	Year
Isle of Man		
National Income 2020/21	Isle of Man Government	2022
2021 Census Report Part 1 and 2	Isle of Man Government	2021
Census Report	Isle of Man Government	2016
Passenger Survey Annual Report 2018	Isle of Man Government	2019
Monthly Harbour Traffic Summary	Isle of Man Government	2023
Ferry Services Survey 2018	Isle of Man Government	2018
UK domestic sea passenger movements, by type of route	Department for Transport	2023
PORT0706: Domestic UK major port freight traffic by coastwise or one port traffic, cargo group and UK country	Department for Transport	2023
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	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

Industry definitions

- 3.4.4.2 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.
- 3.4.4.3 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, operations and maintenance, and decommissioning of offshore energy infrastructure (i.e. not limited to offshore wind). These definitions can be found in Volume 8, Annex 3.1: Socio-economics technical impact report of the Environmental Statement.
- 3.4.4.4 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 8, Annex 3.1: Socio-economics technical impact report of the Environmental Statement. These impact industries should not be seen as representing only activity that currently contributes to the offshore wind sector.

MONA OFFSHORE WIND PROJECT

Instead, these impact industries should be seen as representative activities in industries associated with the construction, operations 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 (Offshore Wind Industry Council (OWIC), 2022). GVA data is based on The Economic Value of Offshore Wind (ORE Catapult, 2017).

Receptors and indicators

3.4.4.5 The summary of baseline conditions aligns with the socio-economic and community impacts set out in Table 3.38, and will therefore cover 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
 - GVA change in impact industries.
- Labour market:
 - Economic activity
 - Unemployment
 - Economically inactive individuals that want a job.
- Housing and local services:
 - Population
 - Dwellings
 - Unoccupied dwellings
 - Dwellings within the private rented sector.
- Tourism and Recreation:
 - Employment in tourism sector
 - GVA in tourism sector
 - Overnight stays and day visits
 - Key tourist and visitor attractions.

MONA OFFSHORE WIND PROJECT

- 3.4.4.6 These indicators will be analysed on the basis of publicly available desktop sources as set out in Table 3.13: Summary of key desktop reports..

3.4.5 Site-specific surveys

- 3.4.5.1 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 3.3.

3.5 Baseline environment

3.5.1 Overview

- 3.5.1.1 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.

3.5.2 Economic

Employment and GVA

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

All industries

North Wales

- 3.5.2.2 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%.

- 3.5.2.3 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

- 3.5.2.4 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%.

- 3.5.2.5 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%.

MONA OFFSHORE WIND PROJECT

Wales

- 3.5.2.6 All industries employment in Wales in 2022 was approximately 1.3 million (ONS, 2023a). Between 2015 and 2022, the number of employed persons in Wales increased by 23,000 (ONS, 2023a). This equates to an average annual growth of 0.2%.
- 3.5.2.7 All industries GVA in Wales in 2021 was approximately £70 bn (ONS, 2023c). Between 2015 and 2021, GVA in Wales increased by £11 bn (ONS, 2023c). This equates to an average annual growth of 2.9%.

United Kingdom/Great Britain

- 3.5.2.8 All industries employment in Great Britain (GB) in 2022 was approximately 31.9 million (ONS, 2023a). Between 2015 and 2022, the number of employed persons in GB increased by 2.1 million (ONS, 2023a). This equates to an average annual growth of 1.0%.
- 3.5.2.9 All industries GVA in the UK in 2021 was approximately £2 trillion (ONS, 2023c). Between 2015 and 2021, GVA in the UK increased by £328 bn (ONS, 2023c). This equates to an average annual growth of 3.0%.
- 3.5.2.10 The figures for each economic study area are presented in Table 3.14.

Table 3.14: 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).

Economic study area	Total employment (2022)	Employment change (2015 - 2022)	Total GVA (£m, 2021)	GVA change (£m, 2015 - 2021)
Sub-national				
North Wales	310,000	3,000	£15,600	£2,500
North West England	3,600,000	310,000	£196,000	£32,900
National				
Wales	1,300,000	23,000	£69,500	£11,100
GB/UK	31,900,000	2,100,000	£2,040,000	£327,000

Construction impact industries

North Wales

- 3.5.2.11 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%.
- 3.5.2.12 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%.

MONA OFFSHORE WIND PROJECT

North West England

- 3.5.2.13 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%.
- 3.5.2.14 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%.

Wales

- 3.5.2.15 Construction impact industries employment in Wales in 2022 was approximately 32,000 (ONS, 2023a). Between 2015 and 2022, the number of employed persons in construction impact industries in Wales decreased by 6,000 (ONS, 2023a). This equates to an average annual decrease of 2.4%.
- 3.5.2.16 Construction impact industries GVA in Wales in 2021 was approximately £12 bn (ONS, 2023c). Between 2015 and 2021, GVA in construction impact industries in Wales increased by £1.7 bn (ONS, 2023c). This equates to an average annual growth of 2.2%.

UK/GB

- 3.5.2.17 Construction impact industries employment in GB in 2022 was approximately 594,000 (ONS, 2023a). Between 2015 and 2022, the number of employed persons in construction impact industries in GB decreased by 25,000 (ONS, 2023a). This equates to an average annual decrease of 0.6%.
- 3.5.2.18 Construction impact industries GVA in the UK in 2021 was approximately £308 bn (ONS, 2023c). Between 2015 and 2021, GVA in construction impact industries in the UK increased by £33 bn (ONS, 2023c). This equates to an average annual growth of 1.9%.
- 3.5.2.19 The figures for each economic study area are presented in Table 3.15.

Table 3.15: 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), and Regional gross value added (balanced) by industry: all ITL regions (ONS 2023c).

Economic study area	Employment (2022)	Employment change (2015 - 2022)	GVA (£m, 2021)	GVA change (£m, 2015 - 2021)
Sub-national				
North Wales	7,000	–2,000	£4,200	+£1,100
North West England	65,000	–4,000	£30,100	+£3,900
National				
Wales	32,000	–6,000	£13,500	+£1,700
GB/UK	594,000	–25,000	£308,000	+£32,700

Operations and maintenance impact industries

North Wales

- 3.5.2.20 Operations 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 operations and maintenance impact industries in North Wales decreased by approximately 1,500 (ONS, 2023a). This equates to an average annual decrease of 6.5%.
- 3.5.2.21 Operations and maintenance impact industries GVA in North Wales in 2021 was approximately £1.9 bn (ONS, 2023b). Between 2015 and 2021, GVA in operations 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

- 3.5.2.22 Operations 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 operations 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%.
- 3.5.2.23 Operations and maintenance impact industries GVA in North West England in 2021 was approximately £17 bn (ONS, 2023c). Between 2015 and 2021, GVA in operations 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%.

Wales

- 3.5.2.24 Operations and maintenance impact industries employment in Wales in 2022 was approximately 8,000 (ONS, 2023a). Between 2015 and 2022, the number of employed persons in operations and maintenance impact industries in Wales decreased by 5,000 (ONS, 2023a). This equates to an average annual decrease of 6.7%.
- 3.5.2.25 Operations and maintenance impact industries GVA in Wales in 2021 was approximately £7.6 bn (ONS, 2023c). Between 2015 and 2021, GVA in operations and maintenance impact industries in Wales increased by £700m (ONS, 2023c). This equates to an average annual growth of 1.7%.

UK/GB

- 3.5.2.26 Operations and maintenance impact industries employment in GB in 2022 was approximately 274,000 (ONS, 2023a). Between 2015 and 2022, the number of employed persons in operations and maintenance impact industries in GB decreased by 4,000 (ONS, 2023a). This equates to an average annual decrease of 0.2%.
- 3.5.2.27 Operations and maintenance impact industries GVA in the UK in 2021 was approximately £202 bn (ONS, 2023c). Between 2015 and 2021, GVA in operations and maintenance impact industries in the UK increased by £22 bn (ONS, 2023c). This equates to an average annual growth of 1.9%.
- 3.5.2.28 The figures for each economic study area are presented in
- 3.5.2.29
- 3.5.2.30 Table 3.16.

Table 3.16: Operations 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), and Regional gross value added (balanced) by industry: all ITL regions (ONS, 2023c).

Economic study area	Employment (2022)	Employment change (2015 - 2022)	GVA (£m, 2021)	GVA change (£m, 2015 - 2021)
Sub-national				
North Wales	2,500	-1,500	£1,900	+£300
North West England	30,000	-2,000	£17,500	+£2,800
National				
Wales	8,000	-5,000	£7,600	+£700
GB/UK	274,000	-4,000	£202,000	+£22,000

Decommissioning impact industries

North Wales

3.5.2.31 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%.

3.5.2.32 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

3.5.2.33 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%.

3.5.2.34 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%.

Wales

3.5.2.35 Decommissioning impact industries employment in Wales in 2022 was approximately 12,000 (ONS, 2023a). Between 2015 and 2022, the number of employed persons in decommissioning impact industries in Wales decreased by 6,000 (ONS, 2023a). This equates to an average annual decrease of 5.6%.

MONA OFFSHORE WIND PROJECT

3.5.2.36 Decommissioning impact industries GVA in Wales in 2021 was approximately £8.6 bn (ONS, 2023c). Between 2015 and 2021, GVA in decommissioning impact industries in Wales increased by £900m (ONS, 2023c). This equates to an average annual growth of 1.8%.

UK/GB

3.5.2.37 Decommissioning impact industries employment in GB in 2022 was approximately 306,000 (ONS, 2023a). Between 2015 and 2022, the number of employed persons in decommissioning impact industries in GB decreased by 14,000 (ONS, 2023a). This equates to an average annual decrease of 0.6%.

3.5.2.38 Decommissioning impact industries GVA in the UK in 2021 was approximately £227 bn (ONS, 2023c). Between 2015 and 2021, GVA in decommissioning impact industries in the UK increased by £26 bn (ONS, 2023c). This equates to an average annual growth of 2.0%.

3.5.2.39 The figures for each economic study area are presented in Table 3.17.

Table 3.17: 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), and Regional gross value added (balanced) by industry: all ITL regions (ONS, 2023c).

Study area	Employment (2022)	Employment change (2015 - 2022)	GVA (£m, 2021)	GVA change (£m, 2015 - 2021)
Sub-national				
North Wales	3,000	–2,000	£2,200	+£420
North West England	37,000	–4,000	£20,000	+£3,300
National				
Wales	12,000	–6,000	£8,600	+£900
GB/UK	306,000	–14,000	£227,000	+£25,800

Offshore wind sector

3.5.2.40 Whilst there is no agreed SIC07 based sector definition for offshore wind, the Offshore Wind Industry Council (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 formula, ratios and government multipliers then used to estimate the total current workforce:

- Direct employment: refers to a FTE job that is directly involved in the manufacturing, development, construction, or operations 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

MONA OFFSHORE WIND PROJECT

- 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 around 32,300 jobs directly and indirectly supported by the offshore wind sector as at June 2023.

3.5.2.41 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.

3.5.2.42 A summary of OWIC's offshore wind employment estimates is provided in Table 3.18.

Table 3.18: Offshore wind sector employment estimates.

Source: HJA analysis of OWIC intelligence report (2023).

Note: some figures have been rounded and may not sum.

Economic study area	Estimated Survey-based employment	Share of UK total	Estimated offshore wind sector employment ⁶
Sub-national			
North Wales	–	–	–
North West England	868	10.5%	3,387
National			
Wales	41	0.5%	161
UK	8,268	100%	32,257

3.5.2.43 Robust data on the GVA contribution of the offshore wind sector to the UK economy is not readily available.

Labour market

Economic activity

3.5.2.44 Economic activity is a measure of those in employment or self-employment, as well as those actively looking for work. Economic inactivity is defined as people not in employment who have not been seeking work within the last four weeks and/or are unable to start work within the next two weeks. The ONS also reports on the rate of economically inactive individuals that want a job.

⁶ Sub-national figures derived on the basis of shares of UK total.

MONA OFFSHORE WIND PROJECT

North Wales

- 3.5.2.45 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).
- 3.5.2.46 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

- 3.5.2.47 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).
- 3.5.2.48 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).

Wales

- 3.5.2.49 The economic activity rate in Wales in 2022 was 76% (ONS 2023d). The number of economically active individuals increased by an annual average of 0.2% between 2015 and 2022 (ONS, 2023d).
- 3.5.2.50 The share of those who were economically inactive who wanted a job was 17% (ONS, 2023d). The number of economically inactive individuals who wanted a job decreased by 6.5% between 2015 and 2022 (ONS, 2023d).

UK

- 3.5.2.51 The economic activity rate in the UK in 2021 was 78% (ONS 2023d). The number of economically active individuals increased by an annual average of 0.4% between 2015 and 2022 (ONS, 2023d).
- 3.5.2.52 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 4.3% between 2015 and 2022 (ONS, 2023d).
- 3.5.2.53 The figures for each economic study area are presented in Table 3.19.

Table 3.19: Economic activity rate and economically inactive individuals that want a job.

Source: Annual Population Survey (ONS, 2023d).

Economic study area	Economically active Individuals (2022)	Economic activity (2022)	Economically inactive individuals that want a job (2022)	Share of economically inactive individuals that want a job (2022)
Sub-national				
North Wales	319,000	77%	19,000	21%
North West England	3,450,000	77%	187,000	18%
National				
Wales	1,440,000	76%	79,000	17%

MONA OFFSHORE WIND PROJECT

Economic study area	Economically active Individuals (2022)	Economic activity (2022)	Economically inactive individuals that want a job (2022)	Share of economically inactive individuals that want a job (2022)
UK	32,510,000	78%	1,620,000	18%

Unemployment

- 3.5.2.54 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 work 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.

North Wales

- 3.5.2.55 The number of unemployed individuals in North Wales in 2022 was 9,000 (ONS, 2023e). The share of the total workforce that were unemployed was 2.7% in 2022 (ONS 2023d). The number of unemployed individuals decreased by an annual average of 7.1% between 2015 and 2022 (ONS, 2023e).

North West England

- 3.5.2.56 The number of unemployed individuals in North West England in 2022 was 146,000 (ONS, 2023e). 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 and 2022 (ONS, 2023e).

Wales

- 3.5.2.57 The number of unemployed individuals in Wales in 2022 was 45,000 (ONS, 2023e). The share of the total workforce that were unemployed was 3.0% in 2022 (ONS 2023e). The number of unemployed individuals decreased by an annual average of 9.0% between 2015 and 2022 (ONS, 2023e).

UK

- 3.5.2.58 The number of unemployed individuals in the UK in 2022 was 1.2 million (ONS, 2023e). The share of the total workforce that were unemployed was 3.5% in 2022 (ONS 2023e). The number of unemployed individuals decreased by an annual average of 5.1% between 2015 and 2022 (ONS, 2023e).

- 3.5.2.59 The figures for each economic study area are presented in

3.5.2.60

3.5.2.61

MONA OFFSHORE WIND PROJECT

3.5.2.62 Table 3.20.

Table 3.20: Unemployed individuals and unemployed rate.

Source: Annual Population Survey (ONS, 2023e).

Economic study area	Unemployed Individuals (2021)	Unemployment Rate (2021)	Change in Number of Unemployed Individuals – Per Annum (2015 - 2021)
Sub-national			
North Wales	9,000	2.7%	–7.1%
North West England	146,000	4.1%	–3.4%
National			
Wales	45,000	3.0%	–9.0%
UK	1,200,000	3.5%	–5.1%

3.5.3 Social

Population

North Wales

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

North West England

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

3.5.3.3 The figures for each social study area are presented in Table 3.21.

Table 3.21: Total population and population change.

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

Social study area	Total population (2021)	Total population change (2015 - 2021)	Average annual population change (2015 - 2021)
North Wales	688,000	-6,000	-0.2%
North West England	7,420,000	+247,000	+0.6%

Dwellings

North Wales

3.5.3.4 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.

3.5.3.5 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

3.5.3.6 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).

3.5.3.7 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%.

3.5.3.8 The figures for each social study area are presented in Table 3.22.

Table 3.22: Total dwellings.

Source: Dwelling stock estimates by local authority and tenure (Statistics Wales, 2023a) and Table 109 Dwelling stock: by tenure and region (DLUHC, 2023a).

Social study area	Total dwellings	Total dwellings change (2015-2022)	Average annual dwellings change (2015-2022)
North Wales	340,000	+14,300	+0.6%
North West England	3,390,000	+188,000	+0.8%

Private rented sector

3.5.3.9 Understanding an area's private rented dwelling stock can provide a useful profile of the type of accommodation that might be utilised by, for instance, temporary workers relocating to participate in construction phase activities.

North Wales

3.5.3.10 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

3.5.3.11 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.

3.5.3.12 The figures for each social study area are presented in Table 3.23.

Table 3.23: Private rented sector dwellings (2022).

MONA OFFSHORE WIND PROJECT

Source: Dwelling stock estimates by local authority and tenure (Statistics Wales, 2023a) and Table 109 Dwelling stock: by tenure and region (DLUHC, 2023a).

Social study area	Total dwellings in private rented sector	Private rented sector as share of total dwellings ⁵
Sub-national		
North Wales	42,000	12%
North West England	577,000	17%

Vacant dwellings

3.5.3.13 Understanding an area's unoccupied dwelling stock can provide a useful profile of how easily an area might accommodate workers relocating to participate in construction, operations and maintenance, or decommissioning activities.

North Wales

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

3.5.3.15 In the statistical period 2023 to 2024⁷, North Wales has approximately 4,700 total chargeable⁸ long term empty dwellings (Statistics Wales, 2023b). This represents 1.4% of the total dwelling stock.

North West England

3.5.3.16 DLUHC provides data on Vacant dwellings by local authority district in England.

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

3.5.3.18 The figures for each social study area are presented in Table 3.24.

Table 3.24: Unoccupied dwellings.

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

Social study area	Total unoccupied dwellings ⁹	Unoccupied dwellings as share of total dwellings ¹⁰	Total unoccupied dwellings change ¹¹	Average annual unoccupied dwellings change ¹²
North Wales	4,700	1.4%	−708	−2.3%
North West England	41,000	1.2%	+420	+0.1%

⁷ Council Tax dwellings data collection for 2023 to 2024 council tax financial year

⁸ i.e. liable to pay Council Tax, whether at a discounted rate, a premium rate, or a standard rate.

⁹ North Wales total unoccupied dwellings for 2023 to 2024, North West England total unoccupied dwellings 2022.

¹⁰ North Wales unoccupied dwellings as share of total dwellings for 2023 to 2024, North West England unoccupied dwellings as share of total dwellings for 2022.

¹¹ North Wales total unoccupied dwellings change 2017/2018 to 2023/2024, North West England total unoccupied dwellings change 2015 to 2022.

¹² North Wales average annual unoccupied dwellings change 2017/2018 to 2023/2024, North West England average annual unoccupied dwellings change 2015 to 2022.

MONA OFFSHORE WIND PROJECT

3.5.4 Tourism

Visitor economy

North Wales

- 3.5.4.1 Tourism in Wales makes a contribution of £6.2 billion to Wales' Gross Domestic Product (GDP), and supports over 172,000 jobs (Wales Tourism Alliance, 2023). The tourism sector contributes around £0.7 million in GVA to the North Wales economy, and supports around 35,000 jobs in the region (Ambition North Wales, 2023).
- 3.5.4.2 Data from the Domestic GB Tourism Statistics showed that Wales had around 62 million day trips in 2022, with around 12.3 million trips taking place in North Wales. These day visits accounted for an average expenditure of £445 million over the year of 2022 for North Wales (Welsh Government, 2023a). This represents a significant drop in day visitors and associated expenditure compared to pre-pandemic levels.

Overnight trips

- 3.5.4.3 In 2022, there were around 8.7 million visits ("trips") to Wales, and around 26.1 million overnight visits. These trips accounted for £1.9 billion in spending in Wales. Data for overnight visits is not available for North Wales (Welsh Government, 2023b). By analysis tourism enterprise data (Welsh Government, 2022), North Wales accounted for approximately 26% of tourism enterprises in Wales. Using this as a proxy for the region's share of overnight visits, there were approximately 7 million overnight visits to North Wales in 2021.
- 3.5.4.4 Overnight accommodation data is not available for North Wales. Therefore – in the absence of granular data – monthly occupancy figures for serviced accommodation in Wales are presented in Table 3.25.

Table 3.25: Monthly occupancy figures for serviced accommodation, Wales (2017 to 2021).

Source: UK Occupancy Survey (Visit England, Visit Scotland, Visit Wales and Northern Ireland Statistics and Research Agency).

	2017	2018	2019	2020	2021	Average
January	43%	47%	45%	61%	32%	46%
February	53%	51%	49%	71%	37%	52%
March	55%	53%	50%	40%	38%	47%
April	64%	59%	60%	20%	35%	48%
May	65%	66%	66%	29%	56%	56%
June	69%	71%	70%	31%	74%	63%
July	74%	71%	74%	26%	81%	65%
August	75%	74%	75%	68%	86%	76%
September	71%	68%	70%	60%	79%	70%
October	63%	57%	61%	26%	75%	56%
November	57%	56%	53%	37%	69%	54%
December	47%	53%	50%	25%	56%	46%
Average	61%	61%	60%	41%	60%	57%

MONA OFFSHORE WIND PROJECT

3.5.4.5 Based on these occupancy rates, there is some slack in overnight accommodation capacity in the North Wales tourism sub-national study area – this assumes regional occupancy rates reflect national rates. The highest monthly occupancy figure during the period 2017 to 2021 was 86% during August 2021. It is notable that occupancy rates from July 2021 onwards (when Covid-19 restrictions were mostly lifted) have been consistently higher than the average across the period 2017 to 2021.

3.5.4.6 Average occupancy across the period 2017 to 2021 was 57%.

North West England

3.5.4.7 In 2022, North West England had 127 million tourism day visits, equivalent to 13% of all tourism day visits in England. These visits had an associated expenditure of £6.0 billion (Visit England, 2023a). This represents a significant drop in day visitors and associated expenditure compared to pre-pandemic levels.

3.5.4.8 North West England has numerous museums, monuments and architectural attractions. The Imperial War Museum, Merseyside Maritime Museum, Lancaster City Museum, Liverpool Cathedral, Lancaster Castle and Hadrian's Wall are all sites dedicated to providing an insight into the regions' heritages and histories. The Lake District, Jodrell Bank Observatory and the Maritime Mercantile City of Liverpool (up to 2021) are classed as UNESCO heritage sites (UNESCO, 2022).

3.5.4.9 There is a vast array of shopping centres and quarters available to visitors in the major urban centres throughout the region.

Overnight trips

3.5.4.10 In 2021, there were around 13.3 million overnight visits to North West England. These trips accounted for £3.3 billion in spending in North West England (Visit England, 2022a). There were around 14.7 million overnight visits to North West England in 2022 (Visit England, 2023b).

3.5.4.11 Overnight accommodation data is not available for North West England. Therefore – in the absence of granular data – monthly occupancy figures for serviced accommodation in England are presented in Table 3.26.

Table 3.26: Monthly occupancy figures for serviced accommodation, England (2017 to 2023).

Source: UK Occupancy Survey (Visit England, Visit Scotland, Visit Wales and Northern Ireland Statistics and Research Agency).

	2017	2018	2019	2020	2021	2022	2023	Average
January	56%	65%	65%	65%	24%	47%	65%	54%
February	63%	74%	73%	73%	29%	65%	73%	63%
March	66%	75%	75%	37%	33%	70%	75%	59%
April	70%	77%	76%	22%	34%	73%	77%	59%
May	73%	79%	79%	23%	34%	76%	78%	61%
June	80%	82%	80%	24%	57%	80%	83%	67%
July	84%	86%	85%	29%	64%	83%	84%	72%
August	81%	83%	82%	47%	71%	78%	-	74%*
September	84%	84%	83%	46%	72%	80%	-	75%*

MONA OFFSHORE WIND PROJECT

	2017	2018	2019	2020	2021	2022	2023	Average
October	80%	83%	82%	41%	71%	80%	-	73%*
November	78%	79%	79%	28%	68%	78%	-	68%*
December	71%	72%	71%	27%	56%	71%	-	61%*
Average	74%	78%	78%	39%	51%	73%	76%**	65%*

*note – averages for August to December and total average are for 2017 to 2022.

**note – average for 2023 period are for between January and July.

3.5.4.12 Based on these occupancy rates, it can be estimated there is some slack in overnight accommodation capacity in North West England – this assumes regional occupancy rates reflect national rates. The highest monthly occupancy figure during the period 2017 to 2023 was 86% during July 2018. It is notable that occupancy rates from July 2021 onwards (when COVID-19 restrictions were mostly lifted) have mostly been lower than the average across the period 2017 to 2021, with occupancy levels returning to similar to pre-pandemic

3.5.4.13 Average occupancy across the period 2017 to 2022 was 65%.

Isle of Man

3.5.4.14 The visitor economy makes an important contribution to the Isle of Man economy. Tourism brings expenditure from outside the Isle of Man economy, supporting local businesses and jobs, and contributing to sectors such as hospitality, retail, and transportation.

3.5.4.15 Total expenditure by all arrivals to the Isle of Man (ferry and air) in 2018 was approximately £133 million. Total expenditure increased by £29.4 million between 2012 and 2018 (+4.3% per annum). The average expenditure from all visitors in 2018 was £489 per person, an increase of £138 since 2012 (+5.7% per annum). Around 580 resident jobs are supported by the tourist accommodation sector in the Isle of Man, which accounts for around 1% of all resident jobs. Employment in the tourist accommodation sector has decline slightly over the period 2016–2021.

3.5.4.16 The Isle of Man TT races are an annual motorcycle racing event taking place in May and June. The event consists of one week of practice and qualifying sessions followed by one week of racing along a 61.2 km circuit on the Island's public roads. Over the years, the Isle of Man TT has attracted a dedicated global fan base and has become an important event for motorcycle enthusiasts. A survey during the 2023 races indicated that 43,000 visitors travelled to the Isle of Man during the races, with 261,053 bed nights booked between 29 May and 10 June. This supported a total spend of £36.1 million in the Isle of Man economy during the races, with an average spend of £834 per person (BBC, 2023).

Visual amenity

North Wales

3.5.4.17 Table 8.10 within Volume 2, Chapter 8: Seascape and visual resources of the Environmental Statement presents the list of agreed representative viewpoints within North Wales assessed as part of the SLVIA.

3.5.4.18 As per section 8.3.7 of Volume 2, Chapter 8: Seascape and visual resources of the Environmental Statement, the visual receptor categories considered in the SLVIA that are relevant to tourism include:

MONA OFFSHORE WIND PROJECT

- People using National trails and promoted paths (e.g. Offa's Dyke Path National Trail, Wales Coast Path and Millennium Way, Isle of Man)
- People using Access Land/open country
- People using public rights of way or bridleways
- Cyclists using National Cycle Routes or National Cycleways
- People accessing main coastal settlement seafronts and shorelines (e.g. Llandudno and Douglas promenades, and Blackpool promenade/piers).

3.5.4.19 The following representative viewpoints within North Wales are assessed within the SLVIA to determine potential effects on the identified visual receptors:

- 1 Mynydd y Garn trig point, Isle of Anglesey Area of Outstanding Natural Beauty (AONB)
- 2 Llanlleiana Head, Isle of Anglesey AONB
- 3 Mynydd Eilian
- 4 Bwrdd Arthur trig point, Isle of Anglesey AONB
- 6 Carnedd Llewelyn, Eryri (Snowdonia) National Park
- 7 Great Ormes Head, Llandudno
- 8 Mynydd y Gaer
- 9 Rhyl
- 10 Graig Fawr, Clwydian Range and Dee Valley AONB
- 11 Moel y Parc, Clwydian Range and Dee Valley AONB
- 24 Bull Bay, Amlwch, Isle of Anglesey AONB
- 25 Moelfre Headland, Isle of Anglesey AONB
- 26 Yr Arwydd trig point, near Mynydd Bodafon, Isle of Anglesey AONB
- 27 Benllech
- 28 Penmon Point, Isle of Anglesey AONB
- 29 Base of Moel Wnion, Eryri (Snowdonia) National Park
- 30 Garreg Fawr, Eryri (Snowdonia) National Park
- 31 Tal y Fan, summit, Eryri (Snowdonia) National Park
- 32 Foel Lus, summit, Eryri (Snowdonia) National Park
- 33 Conwy Mountain, summit, Eryri (Snowdonia) National Park
- 34 Little Ormes Head, Llandudno
- 35 Bryn Euryn Nature Reserve
- 36 Bryn y Maen
- 37 Pen-y-Corddyn-Mawr
- 38 Moelfre Isaf
- 39 Prestatyn Hillside, Clwydian Range and Dee Valley AONB
- 40 Point of Ayr

MONA OFFSHORE WIND PROJECT

- 47 Llanfairfechan Seafront
- 48 Llandudno Promenade
- 52 Carnedd Dafydd, Eryri (Snowdonia)
- 53 Elidir Fawr, Eryri (Snowdonia) National Park
- 54 Bridleway north of Golden Grove or adjacent PROW, Clwydian Range and Dee Valley AONB
- 55 Trwyn Eilian (Point Lynas), Isle of Anglesey AONB
- 56 Caer y Twr on Holyhead Mountain, Isle of Anglesey AONB
- 57 Trwyn Cemlyn, Isle of Anglesey AONB.

North West England

- 3.5.4.20 Table 8.10 within Volume 2, Chapter 8: Seascape and visual resources of the Environmental Statement presents the list of agreed representative viewpoints within North Wales assessed as part of the SLVIA.
- 3.5.4.21 The following representative viewpoints within North West England are assessed within the SLVIA to determine potential effects on the aforementioned visual receptors (paragraph 3.5.4.18):
- 12 Wallasey embankment, Leasowe Common
 - 13 Sefton Coastal Footpath at Massam's Slack/Ainsdale National Nature Reserve, Formby
 - 15 Blackpool North Pier.

Isle of Man

- 3.5.4.22 Table 8.10 within Volume 2, Chapter 8: Seascape and visual resources of the Environmental Statement presents the list of agreed representative viewpoints within the Isle of Man assessed as part of the SLVIA.
- 3.5.4.23 The following representative viewpoints within Isle of Man are assessed within the SLVIA to determine potential effects on the aforementioned visual receptors (paragraph 3.5.4.18):
- 18 Herring Tower Trig Point, Langness Peninsula, Isle of Man
 - 19 Panoramic Viewpoint at Arch Southwest of Douglas Head, Isle of Man
 - 22 Liverpool to Douglas (Isle of Man) Ferry
 - 23 Heysham to Douglas (Isle of Man) Ferry.

Recreation

North Wales

- 3.5.4.24 North Wales is known for its opportunities to experience the natural landscapes. It supports a wide range of recreation activities which draw in tourists (Conwy.com, 2022; Discover Anglesey, 2022; Eryri National Park, 2022; Flintshire County Council, 2022; UNESCO, 2022; Visit Snowdonia, 2022; Visit Wales, 2022a; Visit Wales, 2022b):
- Cycling and mountain biking: North Wales is known for its natural landscapes and mountains, which provide a multitude of routes for cyclists and mountain bikers. There are 14 routes that carve through a former slate mine in *Antur*

MONA OFFSHORE WIND PROJECT

Stiniog, and Eryri (Snowdonia) has multiple popular routes including Coed y Brenin and the Penmachno Trails

- Walking: the region is extremely popular in bringing in tourists who want to go walking. The Wales Coast Path stretches 870 miles around the whole the country and there are multiple routes in North Wales such as Llyn Coast, Cardigan Bay and Pilgrims Way, allowing visitors to enjoy the scenic beaches and landscapes. The highest mountain in England and Wales, Yr Wyddfa (Snowdon), boasts the most famous walk in Wales as it provides stunning views from its climb and summit.
- Extreme sports/experiences:
 - White water rafting: the Tryweryn River in Eryri's (Snowdonia's) national park is used for white water rafting with its intense river rapids
 - Canyoning: a popular activity in Eryri (Snowdonia) is to navigate gorges and water chutes and abseil into plunge pools
 - Zip lining: two key attractions that provide stunning views of the mountains and lakes are Europe's fastest zipline, Velocity 2 in Penryhn Quarry, and Europe's first 4-person zipline, Titan 2 in Blaenau Ffestiniog
 - Trampolining: constructed within a large underground chamber are huge trampolines, known as Bounce Below
 - Caverns: five underground slate caverns have been transformed into a unique adventure playground which include zip lines, tunnels and rope bridges.
- Golf: golf is popular in North Wales with its scenic courses, including the North Wales Golf Club, which has hosted the Welsh Team Championships, and the Royal St David's Golf Club, which has hosted the Open Championships
- Photography: with its numerous mountains, forests, beaches, lakes and rivers, North Wales is able to deliver some of the most stunning landscapes which attracts photographers to visit. Yr Wyddfa (Snowdon), Newborough Nature Reserve, South Stack are amongst some sites that enable photographers to capture the beautiful flora, fauna and landscapes on offer
- Culture and art: visitors can take a trip to museums and galleries such as the Ruthin Craft Centre, Oriel Mostyn, the National Slate Museum and The Royal Cambrian Academy of Art. There are also more interactive ways to experience culture and art including the Alice in Wonderland trail in Llandudno
- History and heritage: the region is embedded with historic legacies such as the Clwydian Range, Plas Mawr, Castell y Bere and Conwy Castle. North Wales has three UNESCO World Heritage Sites which are popular attractions: The Slate Landscape of north west Wales, Castles and Town Walls of King Edward I in Gwynedd and Pontcysyllte Aqueduct and Canal.

3.5.4.25 With regards to site-specific examples of recreational activities, as per section 10.4.5 of Volume 2, Chapter 10: Other sea users of the Environmental Statement there are:

- Two wreck diving sites within the regional other sea users study area including one within the Mona Offshore Cable Corridor near the south boundary of the Mona Array Area

MONA OFFSHORE WIND PROJECT

- Four recreational bathing sites within the regional other sea users study area: Llandudno North Shore; Colwyn Bay; Colwyn Bay Porth Eirias; and Abergele (Pensarn)
- Low-to-medium intensities of recreational sailing and motor cruising in inshore and coastal areas
- No Royal Yachting Association (RYA) clubs, training centres or marinas located within the local other sea users study area
- Sea fishing trips running from Conwy (North Wales)
- A variety of water sports including surfing, kayaking and windsurfing occurring within the local other sea users study area. Two water sports centres (PKS Watersports in Rhyl and Porth Eirias Water Sports Centre in Colwyn Bay) are located within the vicinity of the Mona Offshore Wind Project.

3.5.4.26 As per Volume 6, Annex 7.1: navigational risk assessment of the Environmental Statement, according to Automatic Identification System (AIS) based data recreational vessels were recorded during the summer months, with no recreational vessels recorded during winter months. Relatively few recreational vessels without AIS were recorded.

3.5.4.27 As per Volume 2, Chapter 7: Shipping and navigation of the Environmental Statement, there is little recreational activity within the Mona Array Area, with most recreational activity occurring along the coast. Relatively few yachts were recorded during the 2021/2022 vessel traffic surveys, with an average of less than one per day during the summer survey and none at all recorded during the winter survey indicating strong seasonality.

North West England

3.5.4.28 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 Arnsdale 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

MONA OFFSHORE WIND PROJECT

- 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.

Isle of Man

3.5.4.29 The Isle of Man has a range of tourist attractions to offer. With its predominantly rural landscape, the Island is able to attract a number of visitors each year for reasons including:

- Driving and motorsport: linked to the Isle of Man TT Races, outside racing events courses are open to road traffic – providers offer motorbike hire and guided tours to the top riding spots on the Island.
- Walking: hills, footpaths, and an extensive coastline
- Extreme sports: mountain biking and climbing
- Water sports: kayaking and coasteering
- Heritage: visitor attractions include Castle Rushen, Peel Castle, Cregneash, Tynwald Hill, the Manx Electric Railway, the Victorian Steam Railway and the Old House of Keys.

3.5.4.30 As per Volume 2, Chapter 10: Other sea users of the Environmental Statement there are sea fishing trips operating from the Isle of Man.

3.5.5 Isle of Man socio-economic context and interaction with lifeline ferry services

3.5.5.1 This section sets out the Isle of Man's socio-economic context, including population and demography, employment and labour market conditions, and economic sector profiles.

Economy

3.5.5.2 In the financial year 2020/21, the Isle of Man economy generated £5 billion Gross Domestic Product (GDP) (Isle of Man Government, 2022a).

3.5.5.3 Insurance is the largest sector in the Isle of Man economy, accounting for 22.4% of GDP. Other significant contributors are eGaming (11.2%), other finance and business services (9.3%), other professional services (7.2%), and information and communication technology (6.8%).

3.5.5.4 As such, the Isle of Man can be characterised as a service dominated economy.

MONA OFFSHORE WIND PROJECT

3.5.5.5 Table 3.27 sets out business income for the financial years 2019/20 and 2020/21. Both years are included, as the latest available data (2020/21) is likely to be affected by the COVID-19 pandemic.

Table 3.27: Income in year at factor cost, at current prices (£'000s)

Source: Isle of Man Government (2022a)

Economic Activity	2019/20	2020/21	Sector share (%) 2020/21
Agriculture, forestry and fishing	18,000	19,000	0.4%
Manufacturing: engineering	37,000	34,000	0.7%
Manufacturing: food and drink	31,000	25,000	0.5%
Manufacturing: general	55,000	68,000	1.4%
Mining and quarrying	4,100	7,300	0.2%
Construction	220,000	230,000	4.9%
Utilities	85,000	95,000	2.0%
Transport and communications	160,000	150,000	3.1%
Wholesale distribution	42,000	31,000	0.6%
Retail distribution	120,000	130,000	2.6%
Banking	370,000	240,000	5.0%
Insurance	1,000,000	1,100,000	22.4%
Other finance and business services	470,000	450,000	9.3%
Information and communication technology	460,000	330,000	6.8%
Legal and accountancy services	88,000	85,000	1.8%
Corporate service providers	140,000	150,000	3.2%
Education	100,000	110,000	2.4%
Medical and health services	250,000	270,000	5.5%
Other professional services	300,000	340,000	7.2%
Tourist accommodation	30,000	12,000	0.2%
Catering and entertainment	36,000	37,000	0.8%
eGaming	910,000	540,000	11.2%
Miscellaneous services	150,000	160,000	3.2%
Public administration	190,000	220,000	4.5%

Labour market

Employment – all industries

3.5.5.6 In 2021, 43,500 residents were in employment on the Isle of Man. Between 2016 and 2021, the number of employed persons increased by 1,900 by an annual average growth of 0.9% (Isle of Man Government, 2016; Isle of Man Government, 2021).

MONA OFFSHORE WIND PROJECT

Employment by sector

3.5.5.7 Sectors with the highest resident employment numbers in 2021 were medical and health services, and construction. The largest growth between 2016 and 2021 was in financial and business services, construction, and information and communication technologies.

3.5.5.8 Table 3.28 provides a breakdown of employment by sector taken from the 2016 and 2021 Census.

Table 3.28: Employment by sector, Isle of Man (resident-based)

Source: 2016 Census and 2021 Census (Isle of Man Government 2016, 2021b).

Note: some figures may not sum due to rounding.

Employment by sector	2016	2021	Change between 2016 and 2021	Annual Average Growth
Agriculture, forestry and fishing	810	660	(150)	−3.9%
Manufacturing	1,900	2,100	140	+1.5%
Mining and quarrying	55	80	20	+6.9%
Construction	3,500	4,200	730	+3.9%
Utilities	490	500	4	+0.2%
Transport	2,400	1,800	(600)	−5.4%
Wholesale distribution	430	330	(95)	−5.0%
Retail distribution	3,300	3,600	350	+2.0%
Banking	2,300	1,900	(430)	−4.1%
Insurance	1,900	1,300	(550)	−6.7%
Other financial and business services	2,400	3,300	930	+6.8%
Information and communication technology	700	1,300	600	+13.2%
Legal and accountancy services	1,300	1,300	75	+1.1%
Corporate service providers	1,600	1,600	-	±0.0%
Education	2,700	2,500	(140)	−1.1%
Medical and health service	4,900	4,700	(200)	−0.8%
Other professional services	630	1,100	440	+11.2%
Tourist accommodation	630	580	(55)	+1.7%
Catering and entertainment	1,700	2,100	320	+3.5%
eGaming	660	1,100	430	+10.5%
Miscellaneous services	3,900	4,400	490	+2.4%
Public administration	3,000	3,200	160	+1.0%
Property owning and management	600	-	-	-
Total	41,600	43,500	1,900	+0.9%

MONA OFFSHORE WIND PROJECT

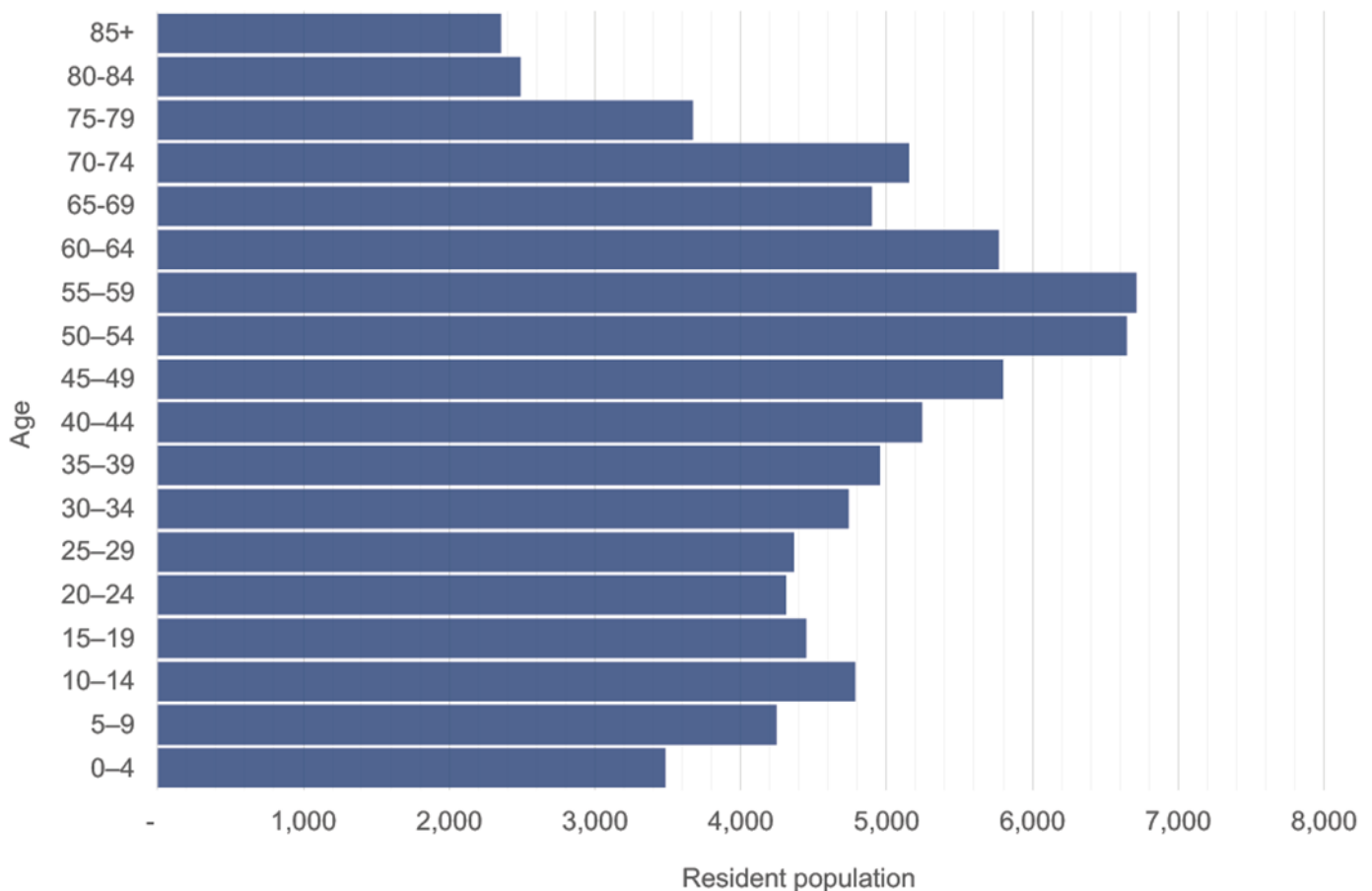
Social

Population

- 3.5.5.9 The resident population of the Isle of Man in 2021 was 84,100 (Isle of Man Government, 2021b). This increased by around 750 residents from 2016 by an annual average growth rate of 0.2% (Isle of Man Government, 2016, 2021b).
- 3.5.5.10 Figure 3.2 sets out the Isle of Man's resident age profile.

Figure 3.2: Isle of Man resident age profile, five-year intervals (2021)

Source: Isle of Man Government (2021b)



Lifeline ferry service profile

- 3.5.5.11 This section provides a characterisation of transport services to and from the Isle of Man based on publicly available data covering service frequency, passenger profiling, visitor expenditure, freight profiling, and harbour traffic.
- 3.5.5.12 The primary modes of transport to and from the Isle of Man are via ferry services or aeroplane.

MONA OFFSHORE WIND PROJECT

Air

- 3.5.5.13 The latest Isle of Man Passenger Survey¹³ was published in 2019 (Isle of Man Government, 2019). For the year 2018, there were 418,400 departures from the Island by air. This accounted for 60.5% of total departures in 2018. Between 2012 and 2018, the total number of passengers departing by air increased by 70,100 (+3.1% per annum).
- 3.5.5.14 Isle of Man airport is the primary airport on the Island, located about 14.5 Km southwest of Douglas. It offers scheduled flights to various destinations in the UK and Ireland, including Manchester (~1 hour), London (~1.5 hours), Belfast (~45 mins), and Dublin (~50 mins).

Ferry

- 3.5.5.15 According to the latest Isle of Man Passenger Survey, in 2018 there were 272,900 departures from the Island by ferry (Isle of Man Government, 2019). This accounted for 39.5% of departures in 2018. Between 2012 and 2018, the total number of passengers departing by sea decreased by 8,900 (–0.5% per annum). This data provides a useful comparison with air departures.
- 3.5.5.16 The latest available data on scheduled ferry passengers indicates there were around 612,000 ferry passenger arrivals and departures via Douglas in the year to 2023 (Isle of Man Government, 2023b).
- 3.5.5.17 The sea terminal at Douglas is the only ferry terminal on the Isle of Man and connects the Island to several ports in the UK and Ireland. There are crossings from Douglas to Heysham, Liverpool, Belfast and Dublin.
- 3.5.5.18 Liverpool, located in the northwest of England, is an important crossing, with a typical journey time of just under 3 hours (can vary seasonally). Liverpool accounted for well over half of all ferry arrivals (54%) and departures (56%) via Douglas in May 2023. Services between Douglas and Liverpool are seasonal, undertaken by the high speed ferry Manannan, operating between March and November. Services between Douglas and Liverpool are important, especially for seasonal tourism on the Isle of Man. Volume 2, Chapter 7: Shipping and navigation of the Environmental Statement categorises the Douglas to Liverpool crossing as a lifeline ferry service.
- 3.5.5.19 Heysham, located in Lancashire, is a major gateway to the Isle of Man and this route is operated predominantly by the Isle of Man Steam Packet Company, with a typical journey time of around 3–4 hours. Heysham is a well-used crossing, accounting for over a third of ferry arrivals (38%) and departures (34%) via Douglas in May 2023. During winter months, Heysham accounts for the majority of crossings. In January 2023 almost all ferry arrivals (97%) and departures (99%) were on the Douglas to Heysham crossing (Isle of Man Government, 2023c). Services between Douglas and Heysham are year-round and provide essential transport for passengers and freight to the Isle of Man. Volume 2, Chapter 7: Shipping and navigation of the Environmental Statement categorises the Douglas to Heysham crossing as a lifeline ferry service.
- 3.5.5.20 Ferries also connect the Isle of Man to Belfast in Northern Ireland, offering a journey time of just under 3 hours (can vary seasonally). Ferries between the Isle of Man and Dublin in Ireland the offer a typical journey time of just under 3 hours. Belfast and Dublin both accounted for a very small share of ferry arrivals (2%, 1%) and departures

¹³ The Isle of Man Passenger Survey is conducted by Economic Affairs, who interview departing passengers at Douglas Harbour and Ronaldsway Airport. Responses from these interviews are recorded electronically and analysed by the Department.

MONA OFFSHORE WIND PROJECT

(2%, 0.3%) via Douglas in May 2023. Services between Douglas and both ports are seasonal, operating between April and September (and during the Christmas period for Belfast only).

Frequency

3.5.5.21 Table 7.10 within Volume 2, Chapter 7: Shipping and Navigation of the Environmental Statement sets out the number of crossings by operator in 2022. Crossing data relevant to the Isle of Man is set out in Table 3.29.

Table 3.29: Ferry routes and annual crossings to the Isle of Man – lifeline services

Operator	Route	Example vessels (2019-2022)	Approximate annual crossings (2022)
IoMSPC	HEY - DOUG	Ben-my-Chree	1,451
	LIV - DOUG	Manannan	593

3.5.5.22 Service variance data for IoMSPC vessels between 2018 and 2022 is set out within Table 3.30 below¹⁴. This includes high level categorisation of the reason for variance from the planned schedule.

Table 3.30: IoMSPC service variance data by vessel (2018–2022)

Note: Service variance represents the difference between scheduled and actual crossings. Positive values indicate fewer sailings than scheduled were provided. Negative values (in parentheses) indicate more sailings than scheduled were provided.

Vessel	Main route ¹⁵	Reason	2018	2019	2020	2021	2022	Total	Avg.
Ben-my-Chree	Heysham to Douglas	Technical	6	2	50	110	38	206	41
		Covid-19	0	0	169	12	0	181	36
		Weather	32	28	56	70	31	217	43
		Total	38	30	275	192	69	604	121
Manannan	Liverpool to Douglas	Technical	0	0	2	0	(18)	(16)	(3)
		Covid-19	0	0	449	14	0	463	93
		Weather	10	6	18	0	4	38	8
		Total	10	6	469	14	(14)	485	97

¹⁴ Annual data includes service variance on every route travelled by the vessel. Some vessel variance over the period recorded were on routes other than the main route identified in Table 3.30 – these account for <2% of variance on the Ben-my-Chree, and ~7% of variance on the Manannan. All variance on the MV Arrow service were on the main route identified.

¹⁵ Note: variance data for all routes is included in annual data.

MONA OFFSHORE WIND PROJECT

- 3.5.5.23 A new vessel, the 'Manxman' entered service on 17 August 2023, replacing the Ben-my-Chree on the Douglas–Heysham route – service variance data for the MV Manxman is therefore not available.
- 3.5.5.24 The MV Arrow freight vessel operates on the Douglas–Heysham route. The vessel provides dry-dock cover during instances of the latter being taken out of service for major repairs and maintenance, and back-up to provide additional freight capacity during peak service periods e.g. Isle of Man TT. This vessel allows for cancelled freight crossings to be more quickly 'caught-up'.

Passengers

- 3.5.5.25 The UK Government's Department for Transport (2023a) provides data for domestic sea passenger movements, by type of route. The data provides movement data for passengers travelling from Heysham to Douglas, Liverpool to Douglas, and other routes.
- 3.5.5.26 In 2022, there were 571,000 ferry passenger arrivals via Douglas. Between 2012 and 2018, the number of ferry passenger arrivals via Douglas decreased. However, between 2018 and 2022 there was a large increase in ferry passenger arrivals.
- 3.5.5.27 Table 3.31 sets out domestic sea passenger movements over the period.

Table 3.31: Douglas ferry passenger arrivals, GB only

Source: Department for Transport (2023a)

Note: some figures may not sum due to rounding.

Note: negative values in parentheses.

Ferry route	2012	2018	Change 2012–2018 ¹⁶	2022	Change 2018–2022
Heysham to Douglas	257,000	251,000	(6,000)	294,000	43,000
Liverpool to Douglas	270,000	251,000	(19,000)	277,000	26,000

- 3.5.5.28 The Isle of Man Passenger Survey 2018 (Isle of Man Government, 2019) reports data relating to passengers, visitors, and residents travelling to and from the Isle of Man¹⁷.
- 3.5.5.29 In 2018, 135,100 departures by sea were Isle of Man residents, and 137,800 were visitors.
- 3.5.5.30 The data reports journeys by visitor category:
- Overnight visitors in paid accommodation¹⁸
 - Overnight visitors visiting friends and relatives¹⁹
 - Business visitors²⁰

¹⁶ For comparison with Isle of Man Passenger Survey data.

¹⁷ Data is provided up to the year 2018. Change has been calculated between 2012 and 2018 in order to provide an understanding of growth or decline within a similar time span to previous analyses in earlier sections that look at change between 2016 to 2021/2022.

¹⁸ Defined as non-business visitors who stayed in paid accommodation whilst on the island (Isle of Man Government, 2018).

¹⁹ Defined as non-business visitors who stayed with friends or relatives whilst on the Island (Isle of Man Government, 2018).

²⁰ Defined as visitors who were on the Island for business purposes (Isle of Man Government, 2018).

MONA OFFSHORE WIND PROJECT

- Day visitors²¹.

- 3.5.5.31 The highest proportion of visitors by sea were overnight visitors in paid accommodation (88,400), overnight visitors visiting friends and relatives (39,500), followed by business visitors (9,300), and day visitors (700).
- 3.5.5.32 Between 2012 and 2018, resident departures by sea increased by 4,400 (+0.6% per annum) whilst visitor departures by sea decreased by 13,300 (–1.5% per annum). In terms of the change in visitors by sea in this time frame, only overnight visitors in paid accommodation increased (by +9,600, +1.9% per annum). Overnight visitors visiting friends and relatives decreased by 18,000 (–6.1% per annum), business visitors by 2,800 (–4.3% per annum), and day visitors by 1,900 (–19.6% per annum). It should be noted that UK Government Department for Transport (2023a) data indicates that ferry passenger arrivals from Heysham and Liverpool have increased in the period since the latest Isle of Man Passenger Survey was published.
- 3.5.5.33 Table 3.32 provides a breakdown of departures and visits to the Isle of Man from the Isle of Man Passenger Survey 2018 (Isle of Man Government, 2019).

Table 3.32: Departures and visits to the Isle of Man²²

Source: Isle of Man Passenger Survey 2018 (Isle of Man Government, 2019)

Note: negative values in parentheses.

Note: some figures may not sum due to rounding.

Scheduled Departures and Visits	2012	2018	Change between 2012 and 2018	Share of total passengers (2018)
Scheduled air departures				
Resident	205,000	247,900	42,900	36%
Visitor	143,300	170,500	27,200	25%
Total	348,300	418,400	70,100	61%
Scheduled sea departures				
Resident	130,700	135,100	4,400	20%
Visitor	151,100	137,800	(13,300)	20%
Total	281,800	272,900	(8,900)	39%
Scheduled sea departures – by visitor type				
Overnight visitors in paid accommodation	78,800	88,400	9,600	13%
Overnight visitors visiting friends and relatives	57,500	39,500	(18,000)	6%
Business visitors	12,100	9,300	(2,800)	1%
Day visitors	2,600	700	(1,900)	0.1%

- 3.5.5.34 Table 3.33 sets out the total and average sea passenger expenditure in the Isle of Man on the basis of visitor type.

²¹ Defined as non-business visitors who did not stay overnight (Isle of Man Government, 2018).

²² Departures and Visits to the Isle of Man figures for this table are assumed to cover all routes/crossings in and out the Island.

MONA OFFSHORE WIND PROJECT

Table 3.33: Visitor expenditure²³ on the Isle of Man – sea passengers

Source: Isle of Man Passenger Survey 2018 (Isle of Man Government, 2019)

	Expenditure, 2018 (£ million)	Expenditure as share of total visitor spend	Average expenditure (£)
Overnight visitors in paid accommodation	£52.4	39%	£590
Overnight visitors visiting friends and relatives	£9.8	7%	£250
Business visitors	£5.1	4%	£670
Day visitors	£0.2	0.2%	£250
Total	£67.5	51%	£525

Freight

3.5.5.35 Data on freight movements to the Isle of Man is limited.

3.5.5.36 In 2022, a total of 539,000 tonnes²⁴ of freight traffic moved in and out of the Isle of Man by coastwise or one port traffic, consisting of: liquid bulk (68,000 tonnes); dry bulk (3,000 tonnes); other general cargo (5,000 tonnes); container traffic (2,000 tonnes); and roll-on/roll-off traffic (461,000 tonnes) (Department for Transport, 2023b):

- 'Exports' from Douglas consisted of a total of 177,000 tonnes, which was entirely consisting of roll-on/roll-off traffic (Department for Transport, 2023b)
- 'Imports' into Douglas consisted of a total of 362,000 tonnes (68,000 tonnes liquid bulk, 3,000 tonnes dry bulk, 5,000 tonnes other general cargo, 2,000 tonnes container traffic, and 284,000 tonnes roll-on/roll-off traffic) (Department for Transport, 2023b).

3.5.5.37 Between 2016 and 2022, freight traffic moving in both directions decreased by 22,000 tonnes (−0.7% per annum). 'Export' freight in this time period increased by 6,000 tonnes (+0.6% per annum) whilst 'import' freight decreased by 28,000 tonnes (−1.2% per annum).

3.5.6 Future baseline scenario

3.5.6.1 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 Environmental Statement. In the event that Mona Offshore Wind Project does not come forward, an assessment of the future baseline conditions has been carried out and is described within this section.

Economic

Employment and GVA

²³ Expenditure includes travel to and from the Isle of Man, accommodation, and other expenditure.

²⁴ All freight figures are in metric tonnes.

MONA OFFSHORE WIND PROJECT

- 3.5.6.2 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 its pre-pandemic (Covid-19) level in the middle of 2024 (OBR, 2023).
- 3.5.6.3 The National Foundation for Educational Research (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.
- 3.5.6.4 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.
- 3.5.6.5 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. 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).
- 3.5.6.6 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

In the UK Government monthly comparison of independent economic forecasts, the average unemployment rate for the UK in 2023 is forecast to be 4.4% and for 2024, the average unemployment rate is forecast at 4.6% (HM Treasury, 2023).

Social

Population

- 3.5.6.7 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.
- 3.5.6.8 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

MONA OFFSHORE WIND PROJECT

(Statistics Wales, 2021). A summary of population projections for the relevant social study areas is presented in Table 3.34.

- 3.5.6.9 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 3.34: Population projections.

Source: various.

Social 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

Recreation

- 3.5.6.10 As per Volume 2, Chapter 10: Other sea users of the Environmental Statement, in the absence of the Mona Offshore Wind Project, the future baseline scenario for recreational activities is considered unlikely to change substantially.
- 3.5.6.11 As per Volume 2, Chapter 7: Shipping and navigation of the Environmental Statement, a review of available information for recreational activity does not suggest there would be a substantial change in activity from the baseline. Surveys of recreational participation conducted by the RYA do not indicate a notable increase, and more recently results have suggested a downturn. In the absence of definitive information, an assumption is made that recreational vessel activity will be similar in 2035 as to the existing baseline environment.

Isle of Man

- 3.5.6.12 In 2013, the Isle of Man Government undertook a wide-ranging research project to establish an evidence base relating to the Island's ageing population. This report was reviewed and updated in 2020. The data establishes the Isle of Man will continue to face an ageing population through to 2036 and beyond.
- 3.5.6.13 The report shows that an ageing population will be one of the most significant challenges facing the Isle of Man in the future, regardless of how successful the Island is at attracting younger working people.

3.5.7 Data limitations

- 3.5.7.1 Specific data on employment and GVA within offshore wind activities is not available across economic study areas on a consistent basis.
- 3.5.7.2 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

MONA OFFSHORE WIND PROJECT

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.

3.5.7.3 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.

3.5.7.4 Some data on tourism baseline conditions (paragraphs 3.5.4.3–3.5.4.6) 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 the chapter.

3.6 Impact assessment methodology

3.6.1 Overview

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

3.6.1.2 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.

3.6.1.3 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.

3.6.2 Impact assessment criteria

3.6.2.1 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: EIA methodology of the Environmental Statement.

3.6.2.2 As this assessment sets out magnitude, sensitivity and significance for multiple study area geographies (national/sub-national) 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.

Magnitude of potential impacts

- 3.6.2.3 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.
- 3.6.2.4 The magnitude of impact is characterised on the basis of spatial extent, duration and frequency (as per Volume 1, Chapter 5: Environmental Impact Assessment methodology). 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 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 (up to four years) and therefore temporary. Operations 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 intermittent²⁵. Operations and maintenance phase impacts are predicted to be continuous.
- 3.6.2.5 The criteria for defining magnitude in this chapter are outlined in Table 3.35 below.

Table 3.35: Definition of terms relating to the magnitude of an impact.

Magnitude of impact	Definition
High	Scale: major worsening of socio-economic conditions compared to the baseline. (Adverse)
	Scale: major improvement of socio-economic conditions compared to the baseline. (Beneficial)
Medium	Scale: moderate worsening of socio-economic conditions compared to the baseline. (Adverse)

²⁵ 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 Mona Offshore Wind Project will work for a fixed period, or be involved in other projects in parallel.

Consequently, construction phase economic impacts are assessed as intermittent.

MONA OFFSHORE WIND PROJECT

Magnitude of impact	Definition
	Scale: moderate improvement of socio-economic conditions compared to the baseline. (Beneficial)
Low	Scale: minor worsening of socio-economic conditions compared to the baseline. (Adverse)
	Scale: minor improvement of socio-economic conditions compared to the baseline. (Beneficial)
Negligible	Scale: very minor worsening of socio-economic conditions compared to the baseline. (Adverse)
	Scale: very minor improvement of socio-economic conditions compared to the baseline. (Beneficial)
No change	The potential impact would result in no change of socio-economic conditions.

Sensitivity of receptors

3.6.2.6 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 Impact Assessment methodology of the Environmental Statement):

- 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
 - Outcomes of consultation to date.

3.6.2.7 The criteria for defining sensitivity in this chapter are outlined in Table 3.36 below. Professional judgement has been utilised in the application of the following criteria.

Table 3.36: Definition of terms relating to the sensitivity of the receptor.

Sensitivity	Definition
Very High	<ul style="list-style-type: none"> • 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 Mona Offshore Wind Project • Very low recoverability – the receptor is highly unlikely to return to a state comparable with the conditions that existed before delivery of the Mona Offshore Wind Project.

MONA OFFSHORE WIND PROJECT

Sensitivity	Definition
High	<ul style="list-style-type: none"> 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 Mona Offshore Wind Project Low recoverability – the receptor is highly unlikely to return to a state comparable with the conditions that existed before delivery of the Mona Offshore Wind Project.
Medium	<ul style="list-style-type: none"> 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 Mona Offshore Wind Project, 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 Mona Offshore Wind Project.
Low	<ul style="list-style-type: none"> 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 be able to accommodate most impacts of the Mona Offshore Wind Project, 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 Mona Offshore Wind Project.
Negligible	<ul style="list-style-type: none"> The receptor is deemed not important at any policy level There is evidence of complete tolerance to the Mona Offshore Wind Project.

Significance of effects

- 3.6.2.8 The significance of the effect upon socio-economics is determined by correlating the magnitude of the impact and the sensitivity of the receptor. The particular method employed for this assessment is presented in Table 3.37.
- 3.6.2.9 Where a range of significance of effect is presented in Table 3.37, the final assessment for each effect is based upon expert judgement. In such instances, for potentially beneficial effects the lower significance of effect is adopted so as not to over-estimate potential beneficial effects. For potentially adverse effects, the higher significance of effect is adopted so as not to under-estimate potential adverse effects.
- 3.6.2.10 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.
- 3.6.2.11 For the purposes of this assessment, any effects with a significance level of minor or less have been concluded to be not significant in terms of The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017.

Table 3.37: Matrix used for the assessment of the significance of the effect.

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

MONA OFFSHORE WIND PROJECT

Sensitivity of Receptor	Magnitude of Impact			
	Negligible	Low	Medium	High
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

3.6.3 Economic and social impacts

- 3.6.3.1 Further details on the methodology adopted for estimating potential economic and social impacts can be found in Volume 8, Annex 4.1: Socio-economics technical impact report of the Environmental Statement.
- 3.6.3.2 The assessment of potential economic impacts in this chapter includes consideration of direct, indirect and induced economic impacts.

3.7 Key parameters for assessment

3.7.1 Maximum design scenario – Offshore

- 3.7.1.1 The Maximum Design Scenarios (MDSs) identified in Table 3.38 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 Environmental Statement.
- 3.7.1.2 Offshore 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 scheme.

Economic impact scenarios

- 3.7.1.3 With paragraph 4.2.12 of NPS EN-1 in mind (see Table 3.1), for the topic of socio-economics the ‘most likely’, ‘maximum’ and ‘worst case’ scenarios are not necessarily the same.

Most likely – ‘current capability’ scenario

- 3.7.1.4 This assessment considers a ‘current capability’ scenario to represent the ‘most likely’ potential economic and social impacts, in accordance with NPS EN-1.
- 3.7.1.5 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.
- 3.7.1.6 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 8, Annex 4.1: Socio-economics technical impact report of the Environmental Statement), the associated impacts are captured within national and sub-national content figures, where relevant.
- 3.7.1.7 The current capability scenario has been quantitatively assessed to represent the ‘most likely’ economic and social impacts associated with the Mona Offshore Wind Project under current sector conditions.

MONA OFFSHORE WIND PROJECT

- 3.7.1.8 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

- 3.7.1.9 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.
- 3.7.1.10 The low scenario has been qualitatively assessed to represent the 'minimum' – or 'worst case' – economic impact associated with the Mona Offshore Wind Project.
- 3.7.1.11 As it would result in no change to receiving environment, the low scenario is not assessed for social impacts.

Maximum scenario

- 3.7.1.12 A 'maximum' scenario would cover a situation where greater sector investment would lead to an increase in national and sub-national content.
- 3.7.1.13 There is no information available at this stage to provide a basis for the assumptions that would be required to define a 'maximum' scenario.
- 3.7.1.14 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.
- 3.7.1.15 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

- 3.7.1.16 Due to the infrastructure requirements of large components (e.g. laydown and storage areas), it is likely that multiple fabrication and marshalling ports will be utilised during project delivery.
- 3.7.1.17 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.
- 3.7.1.18 Should ports outside North Wales and North West England but within the UK be selected, the associated economic impacts are captured within the assessment of UK economic impacts under the 'current capability' scenario.
- 3.7.1.19 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.

MONA OFFSHORE WIND PROJECT

Table 3.38: Maximum design scenario considered for the assessment of potential offshore impacts on socio-economics.

^a C=construction, O=operational and maintenance, D=decommissioning

Potential impact	Phase ^a			Maximum Design Scenario	Justification
	C	O	D		
Economic					
The potential impact on economic receptors including employment and GVA.	✓	✓	✓	<p>Construction phase</p> <ul style="list-style-type: none">MDS assumes 1.5 GW 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 farms developed in the UK – detailed assumptions are set out within Volume 8, Annex 3.1: Socio-economics technical impact report of the Environmental StatementMDS assumes offshore construction phase of up to four yearsMDS 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. <p>Operations and maintenance phase</p> <ul style="list-style-type: none">MDS assumes 1.5 GW 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 farms developed in the UK – detailed assumptions are set out within Volume 8, Annex 3.1: Socio-economics technical impact report of the Environmental StatementMDS assumes operations and maintenance phase of 35 yearsMDS assumes operations and maintenance support facility to be located in North Wales or North West England. <p>Decommissioning phase</p> <ul style="list-style-type: none">MDS assumes 1.5 GW installed capacity – this is an assumption that is necessary for the purposes of applying industry guidance to the assessment of economic impacts.	<p>The MDS is informed by analysis within Volume 8, Annex 3.1: Socio-economics technical impact report of the Environmental Statement setting out the estimated offshore economic impacts in terms of employment and GVA.</p> <p>Construction phase</p> <p>Potential expenditure on offshore activities associated with the construction of the Mona Offshore Wind Project could support direct, indirect and induced employment and GVA impacts within the economy.</p> <p>The current capability scenario has been quantitatively assessed to provide a fair assessment of the potential ‘most likely’ economic impacts.</p> <p>The low impact scenario has been qualitatively assessed to provide a fair assessment of the potential ‘worst case’ economic impacts.</p> <p>Operational and maintenance phase</p> <p>Potential expenditure on offshore activities associated with the operation and maintenance of the Mona Offshore Wind Project could support direct, indirect and induced employment and GVA impacts within the economy.</p> <p>The current capability scenario has been quantitatively assessed to provide a fair assessment of the potential ‘most likely’ economic impacts.</p> <p>The low impact scenario has been qualitatively assessed to provide a fair assessment of the potential ‘worst case’ economic impacts.</p> <p>Decommissioning phase</p> <p>Potential expenditure on offshore activities associated with the decommissioning of the Mona Offshore Wind Project could</p>

MONA OFFSHORE WIND PROJECT

Potential impact	Phase ^a			Maximum Design Scenario	Justification
	C	O	D		
				<ul style="list-style-type: none"> MDS assumes some offshore decommissioning phase activities to be delivered from a port (or more than one port) located in North Wales or North West England. 	<p>support direct, indirect and induced employment and GVA impacts within the economy.</p> <p>The current capability scenario has been quantitatively assessed to provide a fair assessment of the potential 'most likely' economic impacts.</p> <p>The low impact scenario has been qualitatively assessed to provide a fair assessment of the potential 'worst case' economic impacts.</p>
The potential impact of increased employment opportunities.	✓	✓	✓	<p>Construction phase</p> <ul style="list-style-type: none"> As per the impact on economic receptors including employment and GVA <p>Operational and maintenance phase</p> <ul style="list-style-type: none"> As per the impact on economic receptors economic receptors including employment and GVA <p>Decommissioning phase</p> <ul style="list-style-type: none"> As per the impact on economic receptors including employment and GVA. 	<p>Construction phase</p> <p>Potential offshore employment impacts associated with the construction phase could increase the range and supply of employment opportunities that are accessible to residents.</p> <p>The current capability scenario has been quantitatively assessed to provide a fair assessment of the potential 'most likely' economic impacts.</p> <p>The low impact scenario has been qualitatively assessed to provide a fair assessment of the potential 'worst case' economic impacts.</p> <p>Operational and maintenance phase</p> <p>Potential offshore employment impacts associated with the operation and maintenance phase could increase the range and supply of employment opportunities that are accessible to residents.</p> <p>The current capability scenario has been quantitatively assessed to provide a fair assessment of the potential 'most likely' economic impacts.</p> <p>The low impact scenario has been qualitatively assessed to provide a fair assessment of the potential 'worst case' economic impacts.</p> <p>Decommissioning phase</p> <p>Potential offshore employment impacts associated with the decommissioning phase could increase the range and supply of employment opportunities that are accessible to residents.</p>

MONA OFFSHORE WIND PROJECT

Potential impact	Phase ^a			Maximum Design Scenario	Justification
	C	O	D		
					<p>The current capability scenario has been quantitatively assessed to provide a fair assessment of the potential 'most likely' economic impacts.</p> <p>The low impact scenario has been qualitatively assessed to provide a fair assessment of the potential 'worst case' economic impacts.</p>
Social					
The potential impact on population, housing and accommodation.	✓	✓	✓	<p>Construction phase</p> <ul style="list-style-type: none"> MDS assumes 1.5 GW installed capacity – as above. MDS assumes a similar delivery model to previous offshore wind farms developed in the UK – detailed assumptions are set out within Volume 8, Annex 3.1: Socio-economics technical impact report of the Environmental Statement 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 inter array and export cabling MDS assumes construction phase of up to four years. <p>Operations and maintenance phase</p> <ul style="list-style-type: none"> MDS assumes 1.5 GW installed capacity – as above. MDS assumes a similar delivery model to previous offshore wind farms developed in the UK – detailed assumptions are set out within Volume 8, Annex 3.1: Socio-economics technical impact report of the Environmental Statement MDS assumes the maximum activity, and associated vessel numbers, located at any single potential port within North Wales or North West England will be linked to the delivery of all offshore operation and maintenance activities MDS assumes operations and maintenance phase of 35 years. <p>Decommissioning phase</p> <ul style="list-style-type: none"> As for construction phase. 	<p>The MDS is informed by analysis within Volume 8, Annex 3.1: Socio-economics technical impact report of the Environmental Statement setting out the likely source of workforce associated with offshore infrastructure, and likely demand for overnight, short term (temporary) and long term (permanent) accommodation.</p> <p>Construction phase</p> <p>Direct offshore employment generated during the construction phase could impact overnight accommodation (during the construction phase).</p> <p>The current capability scenario has been quantitatively assessed to provide a fair assessment of the potential 'most likely' economic impacts.</p> <p>Operational and maintenance phase</p> <p>Direct offshore employment generated during the operations and maintenance phase could impact population, housing and accommodation. It is anticipated that due to the long term nature of the operations and maintenance requirements, part of the workforce will live locally. Some of those associated with the operation and maintenance of offshore infrastructure may relocate to the area requiring long term (permanent) housing within the vicinity of the operations and maintenance port.</p> <p>The current capability scenario has been quantitatively assessed to provide a fair assessment of the potential 'most likely' economic impacts.</p> <p>Decommissioning phase</p>

MONA OFFSHORE WIND PROJECT

Potential impact	Phase ^a			Maximum Design Scenario	Justification
	C	O	D		
					As for construction phase
Tourism					
The potential impact on tourism.	✓	✓	✓	All phases Visual amenity <ul style="list-style-type: none"> As per Volume 2, Chapter 8: Seascape and visual resources of the Environmental Statement (Table 8.17). MDS assumes 68 wind turbines and four Offshore Substation Platforms (OSPs), noting that a larger turbine would present the MDS for this topic. Overnight trips and accommodation <ul style="list-style-type: none"> As per the potential impact on population, housing and accommodation (above). Recreation <ul style="list-style-type: none"> As per Volume 2, Chapter 7: Shipping and navigation of the Environmental Statement (Table 7.16) which sets out the potential <i>impact on recreational craft passages and safety (NPS EN-3 2.6.166)</i>. MDS assumes maximum number of 96 wind turbines plus four OSPs As per Table 10.15 within Volume 2, Chapter 10: Other sea users of the Environmental Statement which sets out the MDS for potential impacts, including <i>displacement of recreational activities</i> and <i>increased SSCs and associated deposition affecting recreational diving and bathing sites</i>. MDS for <i>displacement of recreational activities</i> assumes maximum number of 96 wind turbines plus four OSPs. 	<p>Potential offshore impacts of the construction, operations and maintenance, and decommissioning of the Mona Offshore Wind Project 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 Environmental Statement as follows.</p> <p>Visual amenity</p> <p>It is necessary to derive an assessment of significance of effects on offshore visual amenity from the findings of Volume 2, Chapter 8: Seascape and visual resources of the Environmental Statement.</p> <p>On this basis, the MDS for the impact on visual amenity in this chapter draws directly on the MDS for Volume 2, Chapter 8: Seascape and visual resources.</p> <p>Overnight trips and accommodation</p> <p>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.</p> <p>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).</p> <p>Recreation</p> <p>It is necessary to derive an assessment of significance of effects on recreation from the findings in Volume 2, Chapter 7: Shipping and navigation, and Volume 2, Chapter 10: Other sea users of the Environmental Statement.</p> <p>On this basis, the MDS for the impact on recreation draws directly on the MDS for Volume 2, Chapter 7: Shipping and navigation, and Volume 2, Chapter 10: Other sea users of the Environmental Statement.</p>

MONA OFFSHORE WIND PROJECT

Potential impact	Phase ^a			Maximum Design Scenario	Justification
	C	O	D		
Isle of Man					
The potential impact on the Isle of Man associated with potential adverse effects on lifeline ferry services.	✓	✓	✓	<p>As per Volume 2, Chapter 7: Shipping and navigation of the Environmental Statement (Table 7.16)</p> <p>Construction phase</p> <ul style="list-style-type: none">Four years construction durationConstruction activities over the maximum extent of the Mona Array Area (300 km²) and a 90 km long Mona Offshore Cable Corridor. <p>Operations and maintenance phase</p> <ul style="list-style-type: none">Operational life of 35 yearsMaximum extent of Mona Array Area (300 km²) and a 90 km long Mona Offshore Cable Corridor. <p>Decommissioning phase</p> <ul style="list-style-type: none">The duration of the decommissioning programme is anticipated to be the same as for construction, and thus, up to four yearsDuring the decommissioning phase the changes would gradually decrease from the operational MDS as the need for project-related vessels is reduced and structures are removed and cut below the seabed.	<p>Impact to commercial operators including strategic routes and lifeline ferries</p> <p>Greatest extent of the Mona Offshore Wind Project over the longest duration, would impact the most routes whilst vessels navigate around the Mona Array Area and therefore the greatest potential for impacts on commercial operators and routes.</p> <p>Impact to adverse weather routeing.</p> <p>Greatest extent of the Mona Offshore Wind Project over the longest duration, would impact the most routes whilst vessels navigate around the Mona Array Area and therefore the greatest potential for impacts on adverse weather routing.</p>

3.7.2 Maximum design scenario – Onshore

- 3.7.2.1 The Maximum Design Scenarios (MDSs) identified in Table 3.39 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 Environmental Statement.
- 3.7.2.2 Onshore 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 scheme.

Economic impact scenarios

- 3.7.2.3 For the topic of 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 substation site), therefore the application of scenarios is not necessary.

MONA OFFSHORE WIND PROJECT

Table 3.39: Maximum design scenario considered for the assessment of potential onshore impacts on socio-economics.

^a C=construction, O=operational and maintenance, D=decommissioning

Potential impact	Phase ^a			Maximum Design Scenario	Justification
	C	O	D		
Economic					
The potential impact on economic receptors including employment and GVA.	✓			Construction phase <ul style="list-style-type: none">MDS assumes a similar delivery model to previous offshore wind farms developed in the UK – detailed assumptions are set out within Volume 8, Annex 3.1: Socio-economics technical impact report of the Environmental StatementMDS assumes onshore construction period of up to four yearsMDS assumes Onshore Substation site to be located at Bodelwyddan, North Wales.	<p>The MDS is informed by analysis within Volume 8, Annex 3.1: Socio-economics technical impact report of the Environmental Statement setting out the estimated onshore economic impacts in terms of employment and GVA.</p> <p>Construction phase</p> <p>Potential expenditure on onshore activities associated with the construction of the Mona Offshore Wind Project could support direct, indirect and induced employment and GVA impacts within the economy.</p>
The potential impact of increased employment opportunities.	✓			Construction phase <ul style="list-style-type: none">As per the impact on economic receptors including employment and GVA.	<p>Construction phase</p> <p>Potential onshore employment impacts associated with the construction phase could increase the range and supply of employment opportunities that are accessible to residents.</p>
Social					
The potential impact on population, housing and accommodation.	✓			Construction phase <ul style="list-style-type: none">MDS assumes a similar delivery model to previous offshore wind farms developed in the UK – detailed assumptions are set out within Volume 8, Annex 3.1: Socio-economics technical impact report of the Environmental StatementMDS assumes onshore construction phase of up to four yearsMDS assumes Onshore Substation site to be located at Bodelwyddan, North Wales.	<p>The MDS is informed by analysis within Volume 8, Annex 3.1: Socio-economics technical impact report of the Environmental Statement setting out the likely source of workforce associated with onshore infrastructure, and likely demand for overnight, short term (temporary) and long term (permanent) accommodation.</p> <p>Construction phase</p> <p>Direct onshore employment generated during the construction phase could increase demand for overnight accommodation and/or short term (temporary) housing (during the construction phase). Workers associated with construction of onshore infrastructure will be based onshore.</p>
Tourism					

MONA OFFSHORE WIND PROJECT

Potential impact	Phase ^a			Maximum Design Scenario	Justification
	C	O	D		
The potential impact on tourism.	✓	✓	✓	<p>All phases</p> <p>Visual amenity</p> <ul style="list-style-type: none"> As per Volume 3, Chapter 6: Landscape and visual resources of the Environmental Statement (Table 6.19). <p>Overnight trips and accommodation</p> <ul style="list-style-type: none"> As per the potential impact on population, housing and accommodation (above). <p>Recreation</p> <ul style="list-style-type: none"> Volume 3, Chapter 7: Land use and recreation of the Environmental Statement (Table 7.23). 	<p>Potential onshore impacts of the construction, operations and maintenance, and decommissioning of the Mona Offshore Wind Project 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 Environmental Statement as follows.</p> <p>Visual amenity</p> <p>It is necessary to derive an assessment of significance of effects on onshore visual amenity from the findings of Volume 2, Chapter 8: Seascape and visual resources of the Environmental Statement.</p> <p>On this basis, the MDS for the impact on visual amenity in this chapter draws directly on the MDS for Volume 2, Chapter 8: Seascape and Visual Resources of the Environmental Statement.</p> <p>Overnight trips and accommodation</p> <p>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.</p> <p>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).</p> <p>Recreation</p> <p>It is necessary to derive an assessment of significance of effects on recreation from the findings in Volume 3, Chapter 7: Land use and recreation of the Environmental Statement.</p> <p>On this basis, the MDS for the impact on recreation draws directly on the MDS for Volume 3, Chapter 7: Land use and recreation of the Environmental Statement.</p>

3.8 Measures adopted as part of the Mona Offshore Wind Project

- 3.8.1.1 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 IEMA, 2016):
- Measures included as part of the project design. These include modifications to the location or design of the Mona Offshore Wind Project which are integrated into the application for consent. These measures are secured through the consent itself through the description of the development and the parameters secured in the DCO and/or marine licences (referred to as primary mitigation in IEMA, 2016)
 - Measures required to meet legislative requirements, or actions that are generally standard practice used to manage commonly occurring environmental effects and are secured through the DCO requirements and/or the conditions of the marine licences (referred to as tertiary mitigation in IEMA, 2016).
- 3.8.1.2 Measures have been adopted as part of the Mona Offshore Wind Project to enhance the potential for beneficial impacts on socio-economics. These are outlined in Table 3.40 below.

Table 3.40: Measures adopted as part of the Mona Offshore Wind Project.

Measures adopted as part of the Mona Offshore Wind Project	Justification	How the measure will be secured
Tertiary measures: Measures required to meet legislative requirements, or adopted standard industry practice		
Skills and Employment Strategy	Setting out opportunities for engagement to enable local workers and training providers to prepare for anticipated employment opportunities associated with the Mona Offshore Wind Project.	Strategy secured as a requirement of the DCO (document number J.24).

3.9 Assessment of significant effects – offshore

3.9.1 Overview

- 3.9.1.1 As per paragraph 3.1.1.3, this chapter'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.
- 3.9.1.2 The potential offshore impacts of the construction, operations and maintenance, and decommissioning phases of the Mona Offshore Wind Project have been assessed on socio-economics receptors. The potential offshore impacts arising from the construction, operations and maintenance and decommissioning phases of the Mona Offshore Wind Project are listed in Table 3.38, along with the MDS against which each impact has been assessed.
- 3.9.1.3 A description of the potential offshore effects on socio-economics receptors caused by each identified impact is given below.

Economic

3.9.2 The potential impact on economic receptors including employment and GVA

3.9.2.1 The construction, operations and maintenance, and decommissioning of the Mona Offshore Wind Project offshore infrastructure may lead to potential impacts on economic receptors including employment and GVA. The assessment draws on the estimates of potential offshore employment and GVA impacts as set out in Volume 8, Annex 3.1: Socio-economics technical impact report of the Environmental Statement.

Magnitude (scale) of impact - assessment approach

3.9.2.2 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.

3.9.2.3 The criteria against which magnitude of potential economic impacts are assessed can be found in Table 3.41.

Table 3.41: 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%

3.9.2.4 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 national economy.

Construction phase

3.9.2.5 This assessment assumes a four-year (48-month) construction period (see Volume 1, Chapter 3: Project description of the Environmental Statement).

Current capability scenario

3.9.2.6 The current capability scenario has been quantitatively assessed to represent the 'most likely' construction phase employment and GVA impacts associated with the Mona Offshore Wind Project under current sector conditions.

3.9.2.7 The potential offshore impacts of the Mona Offshore Wind Project on employment and GVA in development and construction activities under the current capability scenario

MONA OFFSHORE WIND PROJECT

are set out in Table 3.42. 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 3.42: Potential offshore impacts (current capability scenario) of the Mona Offshore Wind Project on employment and GVA in development and construction activities.

	North Wales	North West England	Wales	UK
Per annum				
Employment (FTE years)	70	220	160	2,100
GVA	£10 m	£20 m	£15 m	£160 m
Total (48 months)²⁶				
Employment (FTE years)	280	890	640	8,600
GVA	£40 m	£85 m	£65 m	£620 m

Magnitude of impact

- 3.9.2.8 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.
- 3.9.2.9 The magnitude of impact is characterised on the basis of spatial extent, duration and frequency (as per Volume 1, Chapter 5: Environmental Impact Assessment methodology of the Environmental Statement). Within the topic of socio-economics, these factor 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 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'
 - 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 intermittent²⁷.

²⁶ As per Volume 1, Chapter 3: Project description of the Environmental Statement.

²⁷ 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 Mona Offshore Wind Project will work for a fixed period, or be involved in other projects in parallel. Consequently, construction phase economic impacts are assessed as intermittent.

MONA OFFSHORE WIND PROJECT

3.9.2.10 A comparison of the potential annual offshore employment and GVA impacts associated with development and construction phase activities, compared to the relevant baseline conditions for each economic study area, results in an assessment of impact magnitude as set out in Table 3.43.

Table 3.43: Magnitude of impact – potential construction phase offshore employment and GVA impacts compared to baseline conditions.

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
Wales	Low (beneficial)	National	Medium term (temporary)	Intermittent
UK	Low (beneficial)	National	Medium term (temporary)	Intermittent

3.9.2.11 When assessing the potential scale of impact of the Mona Offshore Wind Project on employment within the offshore wind sector specifically²⁸, results suggest the Mona Offshore Wind Project has the potential to significantly impact fabrication and installation activity within this emerging sector.

Sensitivity of the receptor

3.9.2.12 As per section 3.6.2, 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

3.9.2.13 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.

3.9.2.14 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.

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

Tolerance

3.9.2.16 According to section 3.5, between 2015–2021 employed persons in construction impact industries decreased by approximately 1,000 in North Wales (–1.9% per annum), 5,000 in North West England (–1.2% per annum), 3,000 in Wales (–1.4% per annum), and 42,000 in UK (–1.2% per annum) (ONS, 2023a). This suggests there is potential across all economic study areas to accommodate an increase in

²⁸ i.e. notwithstanding the potential scale of impact on 'all industries' and 'impact industries' employment and GVA – see paragraph 3.9.2.2 for a summary of the inputs to the quantitative assessment of the scale of impact on economic receptors including employment and GVA.

MONA OFFSHORE WIND PROJECT

development and construction activities in the offshore wind sector – although this would likely require a degree of ‘upskilling’ and transitioning for firms and workers.

- 3.9.2.17 The future baseline conditions set out in section 3.5.5 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.
- 3.9.2.18 Overall, the tolerance of the receptor is assessed as high – as per Table 3.36 this corresponds to a low sensitivity.

Recoverability

- 3.9.2.19 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.
- 3.9.2.20 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

- 3.9.2.21 The sensitivity of the receptor for all economic study areas is set out in Table 3.44.

Table 3.44: Sensitivity of receptor – potential construction phase offshore employment and GVA impacts.

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

Significance of the effect

- 3.9.2.22 The significance of the effect for each economic study area under the current capability scenario is set out in Table 3.45.

Table 3.45: Significance of construction phase offshore employment and GVA impacts (current capability scenario).

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

MONA OFFSHORE WIND PROJECT

Study area	Magnitude	Sensitivity	Significance	Significant in EIA terms
UK	Low (beneficial)	Medium	Minor (beneficial)	No

Low scenario

- 3.9.2.23 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 Mona Offshore Wind Project.
- 3.9.2.24 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. Wales and UK impacts remain unchanged compared to the current capability scenario.
- 3.9.2.25 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.
- 3.9.2.26 The significance of the effect for each economic study area under the low scenario is set out in Table 3.46.

Table 3.46: 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

Operations and maintenance phase

- 3.9.2.27 This assessment assumes a 35-year operations and maintenance period (see Volume 1, Chapter 3: Project description of the Environmental Statement).

Current capability scenario

- 3.9.2.28 The current capability scenario has been quantitatively assessed to represent the 'most likely' operations and maintenance phase offshore employment and GVA impacts associated with the Mona Offshore Wind Project under current sector conditions.
- 3.9.2.29 The potential impacts of the Mona Offshore Wind Project on offshore employment and GVA in operation and maintenance activities under the current capability scenario are set out in Table 3.47. 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 3.47: Potential offshore impacts (current capability scenario) of the Mona Offshore Wind Project on employment and GVA in operation and maintenance activities.

	North Wales	North West England	Wales
Per annum			
Employment (FTE years)	190	220	200

MONA OFFSHORE WIND PROJECT

	North Wales	North West England	Wales
GVA	£25 m	£25 m	£25 m

Magnitude of impact

- 3.9.2.30 As per section 3.6.2, the magnitude of impact is assessed on the basis of scale, spatial extent, duration and frequency.
- 3.9.2.31 A comparison of the potential annual offshore employment and GVA impacts associated with operation and maintenance phase activities compared to the relevant baseline conditions for each economic study area results in an assessment of impact magnitude as set out in Table 3.48.

Table 3.48: Magnitude of impact – potential operations and maintenance phase offshore employment and GVA impacts compared to baseline conditions.

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

- 3.9.2.32 When assessing potential impacts compared to offshore wind sector conditions in isolation, the results suggest the Mona Offshore Wind Project has the potential to significantly impact operations and maintenance activity within the young, but growing, sector.

Sensitivity of the receptor

- 3.9.2.33 As per section 3.6.2, receptor sensitivity to potential operations and maintenance phase offshore employment and GVA impacts is assessed on the basis of tolerance, recoverability, and value and importance.

Value and importance

- 3.9.2.34 As set out at paragraphs 3.9.2.13–3.9.2.15, 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

- 3.9.2.35 The future baseline conditions set out in section 3.5.5 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 operations and maintenance activities in the offshore wind sector.
- 3.9.2.36 As such, the tolerance of the receptor is assessed as high – this corresponds to a low sensitivity.

Recoverability

- 3.9.2.37 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 3.36 this corresponds to a high sensitivity.

MONA OFFSHORE WIND PROJECT

Overall

3.9.2.38 The sensitivity of the receptor for all economic study areas is set out in Table 3.49.

Table 3.49: Sensitivity of receptor – operation and maintenance phase offshore employment and GVA.

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

Significance of the effect

3.9.2.39 The significance of the effect for each economic study area under the current capability scenario is set out in Table 3.50.

Table 3.50: Significance of operation and maintenance phase offshore employment and GVA impacts (current capability scenario).

Study area	Magnitude	Sensitivity	Significance	Significant in EIA terms
North Wales	Medium (beneficial)	High	Moderate (beneficial)	Yes
North West England	Low (beneficial)	High	Minor (beneficial)	No
Wales	Low (beneficial)	High	Minor (beneficial)	No

Low scenario

3.9.2.40 The low scenario has been qualitatively assessed to represent the 'minimum' or 'worst case' employment and GVA impacts associated with the operations and maintenance phase of the Mona Offshore Wind Project.

3.9.2.41 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 operations and maintenance activities. Wales impacts remain unchanged compared to the current capability scenario.

3.9.2.42 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.

3.9.2.43 The significance of the effect for each economic study area under the low scenario is set out in Table 3.51.

Table 3.51: Significance of operations 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

MONA OFFSHORE WIND PROJECT

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

Decommissioning phase

3.9.2.44 This assessment assumes a four-year (48-month) decommissioning period (see Volume 1, Chapter 3: Project description of the Environmental Statement).

Current capability scenario

3.9.2.45 The current capability scenario has been quantitatively assessed to represent the 'most likely' decommissioning phase offshore employment and GVA impacts associated with the Mona Offshore Wind Project under current sector conditions.

3.9.2.46 The preferred approach to decommissioning activity is uncertain at this time. The exact approach to decommissioning is not yet confirmed as best practice at the time is not currently known. It is anticipated that recycling of decommissioned components will contribute to beneficial supply chain impacts.

3.9.2.47 The activities for the decommissioning of the offshore parts of the Mona Offshore Wind Project is likely to be supported in a similar way to installation, with the process taking place in reverse (i.e. construction phase activities minus project development and fabrication).

3.9.2.48 The potential impacts of the Mona Offshore Wind Project on offshore employment and GVA in decommissioning activities under the current capability scenario are set out in Table 3.52. 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 3.52: Potential offshore impacts (current capability scenario) of the Mona Offshore Wind Project on employment and GVA in decommissioning activities.

	North Wales	North West England	Wales	UK
Per annum				
Employment (FTE years)	35	65	85	460
GVA	£6 m	£8 m	£9 m	£35 m
Total (48 months)				
Employment (FTE years)	140	270	330	1,900
GVA	£25 m	£30 m	£35 m	£140 m

Magnitude of impact

3.9.2.49 As per section 3.6.2, the magnitude of potential impacts is assessed on the basis of scale, spatial extent, duration and frequency.

3.9.2.50 A comparison of the potential annual offshore employment and GVA impacts associated with decommissioning phase activities compared to the relevant baseline conditions for each economic study area results in an assessment of impact magnitude as set out in Table 3.53.

MONA OFFSHORE WIND PROJECT

Table 3.53: Magnitude of impact – potential decommissioning phase offshore employment and GVA impacts compared to baseline conditions.

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
Wales	Low (beneficial)	National	Medium term (temporary)	Intermittent
UK	Low (beneficial)	National	Medium term (temporary)	Intermittent

3.9.2.51 When assessing potential impacts compared to offshore wind sector conditions in isolation, the results suggest the Mona Offshore Wind Project has the potential to significantly impact decommissioning activity within the young, but growing, sector.

Sensitivity of the receptor

3.9.2.52 As per section 3.6.2, receptor sensitivity to potential decommissioning phase employment and GVA impacts is assessed on the basis of tolerance, recoverability, and value and importance.

Value and importance

3.9.2.53 As per paragraphs 3.9.2.13–3.9.2.15, 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

3.9.2.54 The decommissioning phase is scheduled to begin in approximately 40 years (see Volume 1, Chapter 3: Project description of the Environmental Statement). This is beyond the reasonable limit of labour market forecasting. As such, the tolerance of the receptor is assessed as medium.

Recoverability

3.9.2.55 It is not possible to confidently determine whether or not the receptor would return to a state close to that which existed before any decommissioning 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 decommissioning activity in the offshore wind sector. As the impact is expected to be beneficial, it would be desirable to retain any impacts.

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

Overall

The sensitivity of the receptor for all economic study areas is set out in

3.9.2.57 Table 3.54.

MONA OFFSHORE WIND PROJECT

Table 3.54: Sensitivity of receptor – potential decommissioning phase offshore employment and GVA impacts.

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

Significance of the effect

3.9.2.58 The significance of the effect for each economic study area under the current capability scenario is set out in Table 3.55.

Table 3.55: Significance of decommissioning phase offshore employment and GVA impacts (current capability scenario).

Study area	Magnitude	Sensitivity	Significance	Significant in EIA terms
North Wales	Low (beneficial)	Medium	Minor (beneficial)	No
North West England	Low (beneficial)	Medium	Minor (beneficial)	No
Wales	Low (beneficial)	Medium	Minor (beneficial)	No
UK	Low (beneficial)	Medium	Minor (beneficial)	No

Low scenario

3.9.2.59 The low scenario has been qualitatively assessed to represent the ‘minimum’ or ‘worst case’ employment and GVA impacts associated with the decommissioning phase of the Mona Offshore Wind Project.

3.9.2.60 This scenario considers a situation where no Tier 1 contracts are secured within North Wales and North West England for the delivery of decommissioning activities. Wales and UK impacts remain unchanged compared to the current capability scenario.

3.9.2.61 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 decommissioning supply chain expenditure is retained in these locations.

3.9.2.62 The significance of the effect for each economic study area under the low scenario is set out in Table 3.56.

Table 3.56: Significance of decommissioning phase offshore employment and GVA impacts (low scenario).

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

MONA OFFSHORE WIND PROJECT

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

3.9.3 The potential impact of increased employment opportunities

3.9.3.1 The construction, operations and maintenance, and decommissioning of the Mona Offshore Wind Project 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 8, Annex 3.1: Socio-economics technical impact report of the Environmental Statement.

Magnitude (scale) of impact - assessment approach

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

- Economic activity: using the economically active population as a benchmark to assess the scale of impact on the current available workforce
- Economically inactive individuals that want a job, and unemployed population: comparison with this figure gives an indication of the scale of employment impacts in the context of potentially available workforce within an area.

3.9.3.3 The criteria against which magnitude of potential economic impacts are assessed can be found in Table 3.57.

Table 3.57: 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%

Construction phase

3.9.3.4 This assessment assumes a four-year (48-month) construction period (see Volume 1, Chapter 3: Project description of the Environmental Statement).

Current capability scenario

3.9.3.5 The current capability scenario has been quantitatively assessed to represent the 'most likely' construction phase offshore labour market impacts associated with the Mona Offshore Wind Project under current sector conditions.

3.9.3.6 The potential impacts of the Mona Offshore Wind Project on offshore employment opportunities for local residents in development and construction activities under the current capability scenario are set out in Table 3.58.

MONA OFFSHORE WIND PROJECT

Table 3.58: Potential offshore impacts (current capability scenario) of the Mona Offshore Wind Project on employment opportunities for local residents in development and construction activities.

	North Wales	North West England	Wales	UK
Per annum				
Employment (FTE years)	70	220	160	2,100
Total (48 months)				
Employment (FTE years)	280	890	640	8,600

Magnitude of impact

- 3.9.3.7 As per section 3.6.2, the magnitude of potential impacts is assessed on the basis of scale, spatial extent, duration and frequency.
- 3.9.3.8 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 results in an assessment of impact magnitude as set out in Table 3.59.

Table 3.59: Magnitude of impact – potential construction phase offshore employment opportunities for local residents compared to baseline conditions.

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

Sensitivity of the receptor

- 3.9.3.9 As per section 3.6.2, receptor sensitivity to potential construction phase labour market impacts is assessed on the basis of tolerance, recoverability, and value and importance.

Value and importance

- 3.9.3.10 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.
- 3.9.3.11 As such, the value and importance of the receptor is assessed as high.

Tolerance

- 3.9.3.12 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

MONA OFFSHORE WIND PROJECT

England (ONS, 2023c). This suggests there are a significant number of residents across all economic study areas looking to enter the workforce.

3.9.3.13 For technical roles to be accessible to economically inactive and unemployed individuals that want a job, this would very likely require a high degree of 'upskilling' and transitioning for workers. However, there are numerous indirect roles which support and facilitate technical roles, such as human resources, IT support, finance and administration which are potentially more accessible to economically inactive and unemployed individuals that want a job.

3.9.3.14 As such, the tolerance of the receptor is assessed as high – as per Table 3.36 this corresponds to a low sensitivity.

Recoverability

3.9.3.15 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.

3.9.3.16 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

3.9.3.17 The sensitivity of the receptor for all economic study areas is assessed as in Table 3.60.

Table 3.60: Sensitivity of receptor – potential construction phase offshore employment opportunities for local residents.

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

Significance of the effect

3.9.3.18 The significance of the effect for each economic study area under the current capability scenario is set out in Table 3.61.

Table 3.61: Significance of construction phase offshore employment opportunities for local residents (current capability scenario).

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

Low scenario

- 3.9.3.19 The low scenario has been qualitatively assessed to represent the 'minimum' or 'worst case' labour market impacts associated with the construction phase of the Mona Offshore Wind Project.
- 3.9.3.20 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. Wales and UK impacts remain unchanged compared to the current capability scenario.
- 3.9.3.21 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.
- 3.9.3.22 The significance of the effect for each economic study area under the low scenario is set out in Table 3.62.

Table 3.62: 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

Operations and maintenance phase

- 3.9.3.23 This assessment assumes a 35-year operations and maintenance period (see Volume 1, Chapter 3: Project description of the Environmental Statement).

Current capability scenario

- 3.9.3.24 The current capability scenario has been quantitatively assessed to represent the 'most likely' operations and maintenance phase offshore labour market impacts associated with the Mona Offshore Wind Project under current sector conditions.
- 3.9.3.25 The potential impacts of the Mona Offshore Wind Project on offshore employment opportunities for local residents in operation and maintenance activities under the current capability scenario are set out in Table 3.63.

Table 3.63: Potential offshore impacts (current capability scenario) of the Mona Offshore Wind Project on employment opportunities for local residents in operation and maintenance activities.

	North Wales	North West England
Per annum		
Employment (FTE years)	190	220

MONA OFFSHORE WIND PROJECT

Magnitude of impact

- 3.9.3.26 As per section 3.6.2, the magnitude of potential impacts is assessed on the basis of scale, spatial extent, duration and frequency.
- 3.9.3.27 A comparison of the potential annual offshore labour market impacts associated with operation and maintenance phase activities compared to the relevant baseline conditions for each economic study area results in an assessment of impact magnitude as set out in Table 3.64.

Table 3.64: Magnitude of impact – potential operations and maintenance phase offshore employment opportunities for local residents compared to baseline conditions.

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

Sensitivity of the receptor

- 3.9.3.28 As per section 3.6.2, receptor sensitivity to potential labour market impacts is assessed on the basis of tolerance, recoverability, and value and importance.

Value and importance

- 3.9.3.29 As per paragraphs 3.9.2.13–3.9.2.15, 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

- 3.9.3.30 As per paragraphs 3.9.3.12–3.9.3.14, the tolerance of the receptor is assessed as high – as per Table 3.36 this corresponds to a low sensitivity.

Recoverability

- 3.9.3.31 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 3.36 this corresponds to a high sensitivity.

Overall

- 3.9.3.32 The sensitivity of the receptor for all economic study areas is set out in Table 3.65.

Table 3.65: 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

MONA OFFSHORE WIND PROJECT

Significance of the effect

3.9.3.33 The significance of the effect for each economic study area under the current capability scenario is set out in Table 3.66.

Table 3.66: Significance of operation and maintenance phase offshore employment opportunities for local residents (current capability scenario).

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

Low scenario

3.9.3.34 The low scenario has been qualitatively assessed to represent the 'minimum' or 'worst case' offshore labour market impacts associated with the operations and maintenance phase of the Mona Offshore Wind Project.

3.9.3.35 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 operations and maintenance activities.

3.9.3.36 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.

3.9.3.37 The significance of the effect for each economic study area under the low scenario is set out in Table 3.67.

Table 3.67: Significance of operations 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

Decommissioning phase

3.9.3.38 This assessment assumes a four-year (48-month) decommissioning period (see Volume 1, Chapter 3: Project description of the Environmental Statement).

Current capability scenario

3.9.3.39 The current capability scenario has been quantitatively assessed to represent the 'most likely' decommissioning phase offshore labour market impacts associated with the Mona Offshore Wind Project under current sector conditions.

3.9.3.40 The preferred approach to decommissioning activity is uncertain at this time. The exact approach to decommissioning is not yet confirmed as best practice at the time is not currently known. It is anticipated that recycling of decommissioned components will contribute to beneficial labour market impacts.

MONA OFFSHORE WIND PROJECT

- 3.9.3.41 The activities for the decommissioning of the offshore parts of the Mona Offshore Wind Project is likely to be supported in a similar way to installation, with the process taking place in reverse (i.e. construction phase activities minus project development and fabrication).
- 3.9.3.42 The potential offshore impacts of the Mona Offshore Wind Project on employment opportunities for local residents in decommissioning activities under the current capability scenario are set out in Table 3.68.

Table 3.68: Potential offshore impacts (current capability scenario) of the Mona Offshore Wind Project on employment opportunities for local residents in decommissioning activities.

	North Wales	North West England
Per annum		
Employment (FTE years)	35	65
Total (48 months)		
Employment (FTE years)	140	270

Magnitude of impact

- 3.9.3.43 As per section 3.6.2, the magnitude of potential impacts is assessed on the basis of scale, spatial extent, duration and frequency.
- 3.9.3.44 A comparison of the potential annual offshore labour market impacts associated with decommissioning phase activities compared to the relevant baseline conditions for each economic study area results in an assessment of impact magnitude as set out in Table 3.69.

Table 3.69: Magnitude of impact – potential decommissioning phase offshore employment opportunities for local residents compared to baseline conditions.

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

Sensitivity of the receptor

- 3.9.3.45 As per section 3.6.2, receptor sensitivity to potential decommissioning phase labour market impacts is assessed on the basis of tolerance, recoverability, and value and importance.

Value and importance

- 3.9.3.46 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.
- 3.9.3.47 As such, the value and importance of the receptor is assessed as high.

MONA OFFSHORE WIND PROJECT

Tolerance

- 3.9.3.48 As per paragraphs 3.9.3.12–3.9.3.14, the tolerance of the receptor is assessed as high.

Recoverability

- 3.9.3.49 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 decommissioning activity in the offshore wind sector. As the impact is expected to be beneficial, it would be desirable to retain any impacts.
- 3.9.3.50 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 decommissioning phase. As such, the recoverability of the receptor is assessed as medium.

Overall

- 3.9.3.51 The sensitivity of the receptor for all economic study areas is set out in Table 3.70.

Table 3.70: Sensitivity of receptor – potential decommissioning phase offshore employment opportunities for local residents.

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

Significance of the effect

- 3.9.3.52 The significance of the effect for each economic study area under the current capability scenario is set out in Table 3.71.

Table 3.71: Significance of decommissioning phase offshore employment opportunities for local residents (current capability scenario).

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

Low scenario

- 3.9.3.53 The low scenario has been qualitatively assessed to represent the 'minimum' or 'worst case' offshore labour market impacts associated with the decommissioning phase of the Mona Offshore Wind Project.
- 3.9.3.54 This scenario considers a situation where no Tier 1 contracts are secured within North Wales or North West England for the delivery of decommissioning activities. Wales and UK impacts remain unchanged compared to the current capability scenario.

MONA OFFSHORE WIND PROJECT

- 3.9.3.55 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 decommissioning supply chain expenditure is retained in these locations.
- 3.9.3.56 The significance of the effect for each economic study area under the low scenario is set out in Table 3.72.

Table 3.72: Significance of decommissioning 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

Social Impacts

3.9.4 The potential impact on population, housing and accommodation.

- 3.9.4.1 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.
- 3.9.4.2 '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.
- 3.9.4.3 '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.
- 3.9.4.4 '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.
- 3.9.4.5 This impact is applicable to the construction, operations 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 8, Annex 3.1: Socio-economics technical impact report of the Environmental Statement.

Magnitude (scale) of impact - assessment approach

- 3.9.4.6 The magnitude of impacts is assessed against the following baseline conditions and shown in Table 3.73:
- 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

MONA OFFSHORE WIND PROJECT

- 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
- 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 3.73: Magnitude of potential impacts on population, housing and accommodation.

Magnitude of Impact	Share of baseline population and housing	Share of baseline overnight accommodation
High	>1.0%	>10%
Medium	0.5%–1.0%	5%–10%
Low	0.1%–0.5%	1%–5%
Negligible	<0.1%	<1%

Construction phase

3.9.4.7 A four-year (48-month) offshore construction period has been assumed throughout (see Volume 1, Chapter 3: Project description of the Environmental Statement).

Current capability scenario

3.9.4.8 The current capability scenario has been quantitatively assessed to represent the ‘most likely’ construction phase social impacts associated with the Mona Offshore Wind Project under current sector conditions.

3.9.4.9 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.

3.9.4.10 Under the current capability scenario the primary export and array cable marshalling port(s) are located within the same social study area. However, other installation and commissioning activities could be located at other ports within the same social study area – any further impacts are not anticipated to be of greater scale than those assessed.

3.9.4.11 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 Service Operation Vessels (SOVs). 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.

3.9.4.12 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.

3.9.4.13 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.

MONA OFFSHORE WIND PROJECT

- 3.9.4.14 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.
- 3.9.4.15 The potential demand for overnight accommodation, as measured in nights per annum, arising from the Mona Offshore Wind Project are set out in Table 3.74 below.

Table 3.74: Potential offshore impact on overnight accommodation (current capability scenario).

Study area	Maximum temporary overnight stays (nights per annum)
North Wales	35,800
North West England	35,800

Magnitude of impact

- 3.9.4.16 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.
- 3.9.4.17 Potential offshore impacts are assessed as beneficial, creating demand for overnight accommodation within identified levels of available capacity in each social 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.
- 3.9.4.18 The magnitude of impact, relative to the baseline for each social study area, is set out in Table 3.75.

Table 3.75: 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

Sensitivity of the receptor

- 3.9.4.19 As per section 3.6.2, receptor sensitivity to potential construction phase social impacts is assessed on the basis of tolerance, recoverability, and value and importance.

Value and importance

- 3.9.4.20 The overnight accommodation sector forms part of the wider tourism sector which is a policy priority across each social study area.
- 3.9.4.21 As such, the value and importance of the receptor is assessed as high.

MONA OFFSHORE WIND PROJECT

Tolerance

- 3.9.4.22 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 SOVs. 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.
- 3.9.4.23 As set out in Table 3.25 and Table 3.26, 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.
- 3.9.4.24 There is excess capacity within the overnight accommodation sector based on annual average and peak month occupancy data.
- 3.9.4.25 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.
- 3.9.4.26 Consideration of the above factors leads to the tolerance of the receptor being assessed as medium.

Recoverability

- 3.9.4.27 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 Mona Offshore Wind Project is consented.
- 3.9.4.28 The recoverability of the receptor is therefore assessed as medium.

Overall

- 3.9.4.29 The sensitivity of the receptor for each social study area is assessed as in Table 3.76.

Table 3.76: Sensitivity of construction phase housing, accommodation and local services receptor.

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

Significance of the effect

- 3.9.4.30 The significance of the effect for each social study area is set out in Table 3.77.

Table 3.77: Significance of construction phase offshore employment impacts on the demand for housing, accommodation and local services, current capability scenario.

MONA OFFSHORE WIND PROJECT

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

Operations and maintenance

3.9.4.31 A 35-year operations and maintenance period has been assumed throughout (see Volume 1, Chapter 3: Project description of the Environmental Statement).

Current capability scenario

3.9.4.32 Potential expenditure on offshore activities associated with the operation and maintenance phase of the Mona Offshore Wind Project could support labour migration into social study areas.

3.9.4.33 Under the current capability scenario it is assumed that a port within a social study area is utilised as the primary operations and maintenance base. Some activity will be supported in other locations in the UK, which could potentially be another port within a social study area. However, the scale of any such impact will be lower than if selected as the primary port and assessment has been made on the most likely potential impact.

3.9.4.34 Theoretically the operations and maintenance workforce could live anywhere and travel to the site for shifts. However, given the long term continuity of the maintenance work there is a high likelihood the workforce will live locally, within the relevant social study area.

3.9.4.35 The Mona Offshore Wind Project is likely to directly create new roles within operation and maintenance activities. These 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
- Non-local commuting to the selected locality
- Non-local worker relocation to the selected locality.

3.9.4.36 Within the category of non-local workers relocating to the selected locality, it is assumed that any migrating workers would also relocate their families, resulting in additional population impacts.

3.9.4.37 Table 3.78 sets out estimates of the potential non-local worker relocation impacts, and the associated household population increase during the operations and maintenance phase.

Table 3.78: Potential itinerant employment impacts on population, housing and accommodation, current capability scenario.

Note: figures may not sum due to rounding

Study area	North Wales	North West England
Non-local worker relocation to the selected locality (population change)	25	6
Estimated household population increase (population change)	65	15

MONA OFFSHORE WIND PROJECT

- 3.9.4.38 It is assumed that indirect and induced employment impacts will draw on the existing resident workforce in each area. Given these impacts are expected to take place in the wider economy, the contribution of these impacts to labour migration is expected to reflect typical migration patterns associated with economic growth. Indirect and induced employment impacts are therefore expected to have a negligible impact on population, housing and accommodation.

Magnitude of impact

- 3.9.4.39 Population growth can have both beneficial and adverse effects, with the overall impact largely contingent on various factors such as infrastructure, resources and planning.
- 3.9.4.40 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.
- 3.9.4.41 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.
- 3.9.4.42 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.
- 3.9.4.43 For the purposes of this assessment, population impacts are considered to be 'neutral' (as opposed to beneficial or adverse).
- 3.9.4.44 Within North Wales, it is estimated that around 25 non-local workers will relocate to the selected locality of the operations and maintenance port. Including family members, it is estimated this would result in an increase of 65 to the North Wales household population.
- 3.9.4.45 Within North West England, it is estimated that around six non-local workers will relocate to the selected locality of the operations and maintenance port. Including family members, it is estimated this would result in an increase of 15 residents to the North West England household population.
- 3.9.4.46 The magnitude of impact for each social study area is set out in Table 3.79.

Table 3.79: Magnitude of operations and maintenance phase employment impacts on population, housing and accommodation, current capability scenario.

Study area	Magnitude
North Wales	Negligible
North West England	Negligible

- 3.9.4.47 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.

MONA OFFSHORE WIND PROJECT

- 3.9.4.48 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.

Sensitivity of the receptor

- 3.9.4.49 As per section 3.6.2, receptor sensitivity to potential construction phase social impacts is assessed on the basis of tolerance, recoverability, and value and importance.

Value and importance

- 3.9.4.50 Growing the working age population (partly achieved by attracting migrant labour), as well as delivering additional housing, is a policy ambition across social study areas. Provision of local services is the purpose of all local authorities, making this a policy priority by definition.
- 3.9.4.51 As such, the value and importance of the receptor is assessed as high.

Tolerance

- 3.9.4.52 The population of North Wales decreased by approximately 6,000 over the period 2015–2021 (–0.2% per annum).
- 3.9.4.53 The population of North West England increased by approximately 247,000 over the period 2015–2021 (+0.6% per annum).
- 3.9.4.54 The future baseline scenario set out in section 3.5.5 indicates that populations in North Wales are expected to increase by approximately 14,000 (+0.2% per annum) over the period 2022–2040. Populations in North West England are expected to increase by approximately 420,000 (+0.3% per annum) over the same period. These ONS projections are widely used in planning, for example, housing, local health and education provision.
- 3.9.4.55 It is reasonable to assume the relevant planning authorities factor population growth into strategic planning decisions. The housing market in each social study area has delivered additional dwellings in recent years, with plans for additional housing to meet planned population and economic growth being a standard consideration within strategic planning decisions.
- 3.9.4.56 Consideration of the above factors leads to the tolerance of the receptor being assessed as high – as per Table 3.36 this corresponds to a low sensitivity.

Recoverability

- 3.9.4.57 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 3.36 this corresponds to a high sensitivity.

Overall

- 3.9.4.58 The sensitivity of the receptor for each social study area is assessed as in Table 3.80.

Table 3.80: Sensitivity of operations and maintenance phase housing, accommodation and local services receptor.

Sensitivity level	
Value and importance	High

MONA OFFSHORE WIND PROJECT

Sensitivity level	
Tolerance	Low
Recoverability	High
Sensitivity	High

Significance of the effect

3.9.4.59 The significance of the effect for each social study area is set out in Table 3.81.

Table 3.81: Significance of operations and maintenance phase employment impacts on population, housing and accommodation, current capability scenario.

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

Decommissioning phase

3.9.4.60 Potential expenditure on decommissioning of wind turbine and balance of plant associated with the Mona Offshore Wind Project could increase demand for overnight accommodation in social study areas.

3.9.4.61 The scale and duration of decommissioning activity is uncertain. The exact approach to decommissioning is not yet confirmed as best practice at the time is not currently known. Vessels information is not provided within the project design envelope.

3.9.4.62 Workforce for the decommissioning of the offshore parts of the wind farm is likely to be sourced in a similar way to installation and commissioning. However, the scale of activity will be reduced.

3.9.4.63 On this basis the magnitude of impacts is likely to be no greater than those set out for the construction phase under the current capability scenario.

3.9.4.64 The significance of effects assessed at construction phase for population, housing and accommodation impacts are set out at Table 3.77 – decommissioning phase effects are extrapolated from these results.

3.9.4.65 The significance of the effects for each social study area is set out in Table 3.82.

Table 3.82: Significance of decommissioning phase employment impacts on the demand for housing, accommodation and local services, current capability scenario.

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

Tourism

3.9.5 The potential impact on tourism

Evidence of potential links between offshore wind farms and the visitor economy

- 3.9.5.1 Several studies have been conducted to examine the effect of offshore wind farms on tourism and visitor economy.
- 3.9.5.2 An assessment by Biggar Economics (2020) looked at indicators of the visitor economy in 11 areas, including one adjacent to an Area of Outstanding Natural Beauty (now named 'National Landscapes') and another adjacent to a National Park in an attempt to identify a possible relationship between offshore wind farms and changes in visitor behaviour and spend during the construction period. Their work found that the local visitor economy did not underperform compared to long term averages, and local tourism-related employment followed the trends of the wider region during the construction period.
- 3.9.5.3 According to a Scottish government survey (Scottish Government, 2022) of those with experience of offshore wind farms, the majority (85%) approved of offshore wind farms before construction and still approve of them now. Positive views were given due to job creation and renewable energy, while adverse effects were attributed due to visual impacts and marine wildlife disruption. Two-thirds of respondents (66%) agreed that offshore wind farms provide a boost for the local economy, while two in five (41%) agree that they are a positive feature of the coastal landscape. Around a third (34%) indicated that offshore wind farms create new recreational opportunities. The majority of all respondents, whether national or coastal, have not avoided visiting an area due to the presence of offshore wind turbines visible from the shore, while just 4% of respondents say they have done so.
- 3.9.5.4 A study (Scottish Government, 2008) found that the majority (75%) of respondents felt wind farms had a positive or neutral visual impact, and 93-99% who saw the wind farms were not affected by that experience. Overall, the studies suggest that wind farms do not significantly impact upon tourism either positively or negatively and they don't affect the vast majority of tourist's intentions to return. Economically, while certain directly affected areas may experience some small loss through displacement of tourists, those tourists are unlikely to be lost to the wider region as they substitute affected places for those less affected within the region.
- 3.9.5.5 A study by Cronin et al. (2021) conducted an online survey to research the opinion and attitudes of the public towards marine renewable energy projects. Most respondents indicated they would not avoid a beach with visible turbines. Many respondents indicated there has been no perceptible impact on their location since the initial installation of an offshore wind farm, and it has resulted in no interference with their everyday lives. Wind farms in general are considered to have been a positive addition to a location, with many respondents praising the aesthetics and how it enhances the experience for sailors.
- 3.9.5.6 Overall, whilst there are some negative perceptions of the potential visual impacts of offshore wind farms on an area's visitor economy, there are a number of mitigating factors which can result in positive impacts on an area's visitor economy. It is also anticipated that any potential tourism impacts would be predominantly short term in nature, with opportunity for visitor economy adaptation in the longer term once an offshore wind farm becomes part of the baseline conditions of a location.

MONA OFFSHORE WIND PROJECT

Relevant receptors

- 3.9.5.7 Mona Offshore Wind Farm has the potential to cause both beneficial and adverse impacts on tourism. This impact is applicable to the construction, operation and maintenance, and decommissioning phases.
- 3.9.5.8 In assessing any potential offshore 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.

Visual amenity

- 3.9.5.9 Volume 2, Chapter 8: Seascape and visual resources of the Environmental Statement assesses the potential impacts of the construction, operations and maintenance, and decommissioning phases of the Mona Offshore Wind Farm on visual resources. This chapter draws on Volume 2, Chapter 8: Seascape and visual resources of the Environmental Statement to assess the potential indirect effects of potential visual impacts on tourism.
- 3.9.5.10 Volume 2, Chapter 8: Seascape and visual resources of the Environmental Statement assesses the potential impacts on seascape, landscape, and visual receptors. Visual receptors are concerned with the individuals and/or defined groups of people who have the potential to be affected by the Mona Offshore Wind Project. As such, visual receptors are relevant to this chapter. The assessment of seascape and landscape receptors is not considered relevant to this chapter.

North Wales

- 3.9.5.11 The visual receptors that have been assessed within Volume 2, Chapter 8: Seascape, and visual resources of the Environmental Statement and fall within North Wales are:
- Visual effects on people using National Trails/Long distance paths – Wales Coast Path.
 - Visual effects on people using National Trails/Long distance paths – Offa's Dyke Path National Trail.
 - Visual effects on people using Countryside Rights of Way Act 2000 Access Land or equivalent land with public access – Anglesey and Eryri.
 - Visual effects on people using Countryside Rights of Way Act 2000 Access Land or equivalent land with public access – Great Ormes Head and Little Orne (Conwy).
 - Visual effects on people using Countryside Rights of Way Act 2000 Access Land or equivalent land with public access – Clwydian Range and adjacent coastal areas (Denbighshire and Flintshire).
 - Visual effects on people using National Cycle Routes (Wales and England).
 - Visual effects on people at main coastal settlement seafronts/shorelines – Anglesey and Conwy Bay, Wales.
 - Visual effects on people at main coastal settlement seafronts/shorelines – Conwy Bay to Dee Estuary, Wales.
 - Visual effects on people travelling along coastal roads – Wales, England and Isle of Man.

MONA OFFSHORE WIND PROJECT

- Visual effects on people travelling along coastal railways.
- Visual effects on other marine users – commercial shipping/recreational craft and fishing vessels.
- Visual effects on other marine users – recreational sailors.

3.9.5.12 Of the visual resources assessed within Volume 2, Chapter 8: Seascape and visual resources of the Environmental Statement that are located within North Wales, none are anticipated to have significant effects in EIA terms at either the construction, operation and maintenance, or decommissioning phases.

3.9.5.13 The evidence set out at paragraphs 3.9.5.1–3.9.5.6 also established that linkages between potential visual impacts and tourism behaviours are negligible.

3.9.5.14 On the basis of this assessment, there are no likely significant adverse indirect effects on tourism in North Wales associated with visual amenity.

North West England

3.9.5.15 The visual receptors that have been assessed within Volume 2, Chapter 8: Seascape and visual resources of the Environmental Statement and fall within North West England are:

- Visual effects experienced by people using Countryside Rights of Way Act 2000 Access Land, or equivalent land with public access – England..
- Visual effects on people using National Cycle Routes (Wales and England).
- Visual effects on people at main coastal settlement seafronts/shorelines – North West England.
- Visual effects on people travelling along coastal roads – Wales, England and Isle of Man.
- Visual effects on people travelling along coastal railways.
- Visual effects on people using main ferry routes.
- Visual effects on other marine users – commercial shipping/recreational craft and fishing vessels.
- Visual effects on other marine users – recreational sailors.

3.9.5.16 Of the visual resources assessed within Volume 2, Chapter 8: Seascape and visual resources of the Environmental Statement that are located within North West England, none are anticipated to have significant effects in EIA terms at either the construction, operation and maintenance, or decommissioning phases.

3.9.5.17 The evidence set out at paragraphs 3.9.5.1–3.9.5.6 also established that linkages between potential visual impacts and tourism behaviours are negligible.

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

Isle of Man

3.9.5.19 The visual receptors that have been assessed within Volume 2, Chapter 8: Seascape and visual resources of the Environmental Statement and fall within the Isle of Man are:

MONA OFFSHORE WIND PROJECT

- Visual effects on people using Countryside Rights of Way Act 2000 Access Land or equivalent land with public access – Isle of Man.
- Visual effects on people using National Cycle Routes (Isle of Man).
- Visual effects on people at main coastal settlement seafronts/shorelines – Isle of Man.
- Visual effects on people travelling along coastal roads – Wales, England and Isle of Man.
- Visual effects on people using main ferry routes.
- Visual effects on other marine users – commercial shipping/recreational craft and fishing vessels.
- Visual effects on other marine users – recreational sailors.

3.9.5.20 Of the visual resources assessed within Volume 2, Chapter 8: Seascape and visual resources of the Environmental Statement that are located within the Isle of Man, none are anticipated to have significant effects in EIA terms at either the construction, operation and maintenance, or decommissioning phases.

3.9.5.21 The evidence set out at paragraphs 3.9.5.1–3.9.5.6 also established that linkages between potential visual impacts and tourism behaviours are negligible.

3.9.5.22 On the basis of this assessment, there are no likely significant adverse indirect effects on tourism on the Isle of Man associated with visual amenity.

Overnight trips and accommodation

3.9.5.23 The assessment of potential indirect impacts on tourism associated with overnight trips and accommodation demand is based on the assessment of potential impacts on overnight accommodation found in section 3.9.4.

3.9.5.24 During the construction phase, workers are anticipated to be based largely offshore, with workers accommodated within SOVs. However, these workers have the potential to give rise to demand for overnight accommodation at the start and end of typical shift periods at sea within the catchments of the relevant transfer port(s) before or after spending time at their home location.

3.9.5.25 The assessment of effects on population, housing and accommodation set out in section 3.9.4 assessed the potential significance of effects during the construction, operation and maintenance, and decommissioning phases, which are summarised in Table 3.83.

Table 3.83: Significance of offshore employment impacts on population, housing and accommodation, current capability scenario.

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

MONA OFFSHORE WIND PROJECT

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

3.9.5.26 On the basis of this assessment, there are no likely significant indirect effects on tourism in either North Wales or North West England area associated with demand for overnight accommodation. This receptor is not relevant to the Isle of Man since no port on the Island is likely be used to support delivery of the Mona Offshore Wind Project.

Recreation

3.9.5.27 This assessment the considers potential indirect impacts on tourism associated with direct or indirect effects on recreation. This part of the assessment is based on Volume 2, Chapter 7: Shipping and navigation, and Volume 2, Chapter 10: Other sea users of the Environmental Statement.

3.9.5.28 Volume 2, Chapter 7: Shipping and navigation of the Environmental Statement assesses the significance of potential impacts on recreational craft passages and safety within the shipping and navigation study area.

3.9.5.29 The assessment concludes that during the construction, operations and maintenance and decommissioning phases potential effects will be of minor adverse significance, which is not significant in EIA terms.

3.9.5.30 Volume 2, Chapter 10: Other sea users of the Environmental Statement assesses the significance of the following potential impacts:

- Displacement of recreational activities
- Increased suspended sediment concentrations and associated deposition affecting recreational diving and bathing sites.

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

3.9.5.32 This consideration of potential indirect effects on recreation indicates that there are unlikely to be any material indirect impacts on tourism in either North Wales, North West England, or the Isle of Man associated with impacts on recreation as a result of the Mona Offshore Wind Project.

Overall

Construction phase

3.9.5.33 Based on a consideration of the pathways by which tourism activities might be impacted by Mona Offshore Wind Farm during the construction phase, the following sets out the magnitude, sensitivity and significance for each tourism study area:

- North Wales: the magnitude of the impact is deemed to be negligible and the sensitivity of the receptor is considered to be high. The effect will, therefore, be of minor (adverse) significance, which is not significant in EIA terms.

MONA OFFSHORE WIND PROJECT

- North West England: the magnitude of the impact is deemed to be negligible and the sensitivity of the receptor is considered to be high. The effect will, therefore, be of minor (adverse) significance, which is not significant in EIA terms
- Isle of Man: the magnitude of the impact is deemed to be negligible and the sensitivity of the receptor is considered to be high. The effect will, therefore, be of minor (adverse) significance, which is not significant in EIA terms.

Operation and maintenance phase

3.9.5.34 Based on a consideration of the pathways by which tourism activities might be impacted by Mona Offshore Wind Farm during the operation and maintenance phase, the following sets out the magnitude, sensitivity and significance for each tourism study area:

- North Wales: the magnitude of the impact is deemed to be negligible and the sensitivity of the receptor is considered to be high. The effect will, therefore, be of minor (adverse) significance, which is not significant in EIA terms
- North West England: the magnitude of the impact is deemed to be negligible and the sensitivity of the receptor is considered to be high. The effect will, therefore, be of minor (adverse) significance, which is not significant in EIA terms
- Isle of Man: the magnitude of the impact is deemed to be negligible and the sensitivity of the receptor is considered to be high. The effect will, therefore, be of minor (adverse) significance, which is not significant in EIA terms.

Decommissioning phase

3.9.5.35 Based on a consideration of the pathways by which tourism activities might be impacted by Mona Offshore Wind Farm during the decommissioning phase, the following sets out the magnitude, sensitivity and significance for each tourism study area:

- North Wales: the magnitude of the impact is deemed to be negligible and the sensitivity of the receptor is considered to be high. The effect will, therefore, be of minor (adverse) significance, which is not significant in EIA terms
- North West England: the magnitude of the impact is deemed to be negligible and the sensitivity of the receptor is considered to be high. The effect will, therefore, be of minor (adverse) significance, which is not significant in EIA terms
- Isle of Man: the magnitude of the impact is deemed to be negligible and the sensitivity of the receptor is considered to be high. The effect will, therefore, be of minor (adverse) significance, which is not significant in EIA terms.

Isle of Man

3.9.6 The potential impact on the Isle of Man associated with potential adverse effects on lifeline ferry services

3.9.6.1 The construction, operations and maintenance, and decommissioning of the Mona Offshore Wind Project offshore infrastructure may lead to potential adverse impacts on lifeline ferry services (refer to Volume 2, Chapter 7: Shipping and navigation of the

MONA OFFSHORE WIND PROJECT

Environmental Statement), which could lead to potential impacts on socio-economic receptors on the Isle of Man.

- 3.9.6.2 Figure 3.3 below presents a logic diagram of the variables considered within this assessment.

MONA OFFSHORE WIND PROJECT

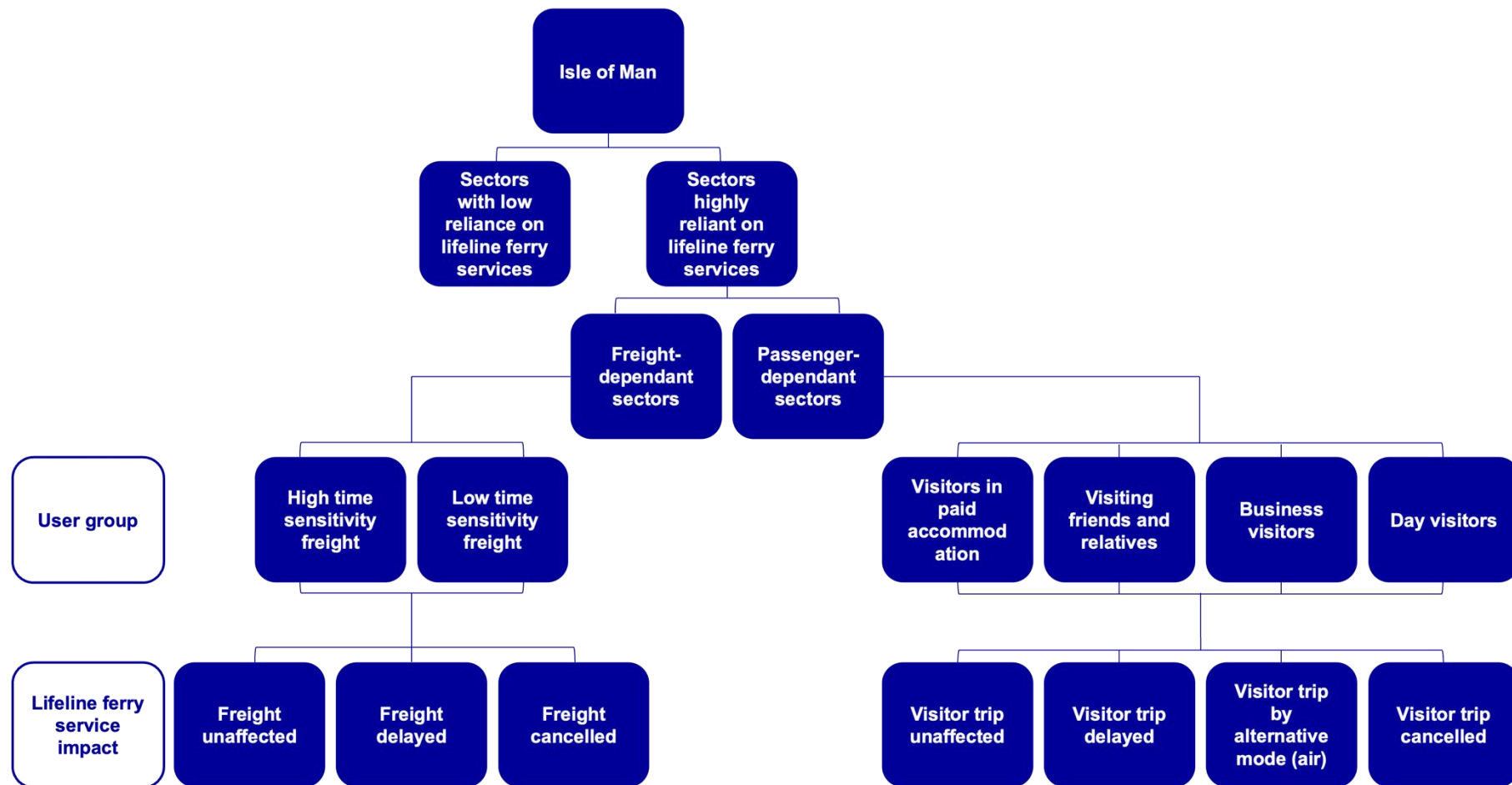


Figure 3.3: Assessment of lifeline ferry service impacts on the Isle of Man – logic diagram.

Service variance

- 3.9.6.3 Under current circumstances, service variance is affected by a number of factors – technical issues and adverse weather being the primary ones. These variables cause disruption to lifeline ferry services by way of delays and cancellations.
- 3.9.6.4 During the period of service variance data reported in Table 3.30, Covid-19 became a significant third influence on service variance. Given the unique nature of the Covid-19 pandemic and its impact on IoMSPC lifeline ferry crossings, service variance data for this category is excluded from the assessment.
- 3.9.6.5 The replacement of the Ben-my-Chree on the Douglas–Heysham route with the Manxman will influence service variance due to technical issues. Whilst there may be some technical cancellations with a new vessel entering service, variance data from the Manannan vessel indicates that, in the medium to long term, technical issues with newer vessels are greatly reduced compared to older ones.
- 3.9.6.6 In the case of the Manannan, technical variance has recently tended to provide more crossings than scheduled.
- 3.9.6.7 On the one hand, solely analysing service variance data on the basis of individual years can be unhelpful, as outliers can be exaggerated and present a risk of limiting the analysis to the most unlikely outcome. On the other hand, it is also important to analyse an atypical scenario of an outlier year, which can demonstrate the level of service variance the Isle of Man economy has recently withstood.
- 3.9.6.8 To balance these considerations, for each vessel/route this assessment considers typical service variance, and atypical service variance as follows:
- Ben-my-Chree/Douglas–Heysham:
 - Typical annual service variance on the basis of adverse weather influences – technical variances excluded given vessel replacement, and Covid-19 cancellations excluded.
 - Atypical level of adverse service variance for each vessel/route on the basis of technical and adverse weather influences.
 - Manannan/Douglas–Liverpool:
 - Typical annual service variance on the basis of technical and adverse weather influences.
 - Atypical level of adverse service variance for each vessel/route – either adverse weather only, or technical and adverse weather reasons, whichever is higher.
- 3.9.6.9 On this basis, the following service variance data is utilised for this assessment:

Table 3.84: IoMSPC service variance – for use in assessment

Vessel	Main route ²⁹	Reason	2018	2019	2020	2021	2022	Total	Avg.
Ben-my-Chree	Heysham to Douglas	Technical	6	2	50	110	38	206	41
		Weather	32	28	56	70	31	217	43
		Total	38	30	106	180	69	423	84

²⁹ Note: variance data for all routes is included in annual data.

MONA OFFSHORE WIND PROJECT

Vessel	Main route ²⁹	Reason	2018	2019	2020	2021	2022	Total	Avg.
Manannan	Liverpool to Douglas	Technical	0	0	2	0	(18)	(16)	(3)
		Weather	10	6	18	0	4	38	8
		Total	10	6	20	0	(14)	22	5

- 3.9.6.10 There were 1,451 crossings on the Douglas–Heysham route in 2022 (Table 3.29). Between 2018–2022 (Table 3.30), there was an annual average of 43 fewer crossings than scheduled due to adverse weather. In 2021, there were 180 fewer crossings than scheduled due to technical and adverse weather reasons – this is the greatest level of annual service variance across the period reported.
- 3.9.6.11 Assuming a typical year averages 1,500 scheduled crossings and 45 fewer crossing than scheduled due to adverse weather, an average of 3% of crossings may be cancelled as a result of adverse weather. During the greatest level of atypical service variance on the basis of technical and adverse weather reasons, 12% of crossings could be cancelled.
- 3.9.6.12 There were 593 crossings on the Douglas–Liverpool route in 2022 (Table 3.29). Between 2018–2022 (Table 3.30), there was an annual average of 5 fewer crossings than scheduled due to technical and adverse weather reasons. In 2020, there were 20 fewer crossings than scheduled due to technical and adverse weather reasons – this is the greatest level of annual service variance across the period reported.
- 3.9.6.13 Assuming a typical year averages 600 scheduled crossings and 5 fewer crossing than scheduled due to technical and adverse weather reasons, an average of 1.3% of crossings may be cancelled as a result of adverse weather. During the greatest level of adverse service variance on the basis of technical and adverse weather reasons, 3.3% of crossings could be cancelled.

Socio-economic linkages

- 3.9.6.14 Lifeline ferry services play an important role in the supply chain of goods to the Isle of Man. This includes essentials like groceries, food supplies, household goods, and construction materials. Ferries also transport visitors, whose spending contributes to the Isle of Man’s visitor economy, and passengers travelling for business and work. The following considers the role played by lifeline ferry services within the Island’s economy and society in more detail.

Economic

Service economy

- 3.9.6.15 As per section 3.5.5 (and paragraph 3.5.5.4), the Isle of Man can be characterised as a service dominated economy, with service exports accounting for a significant share of the Island’s GDP (67%). The service economy also supports around 30% of resident-based unemployment on the Island.
- 3.9.6.16 Sectors such as banking, insurance, information and communication technology, legal and accountancy services, corporate services, eGaming, and other professional services are not reliant on the movement of passengers and freight, and therefore ferry services play a negligible role in the operation of the Island’s service economy.

MONA OFFSHORE WIND PROJECT

- 3.9.6.17 Where ferry services do play a role in these activities e.g. business visitors and commuters, given the ubiquitousness of remote working in modern business operations, any disruption is unlikely to result in material adverse economic impacts.

Public services

- 3.9.6.18 Whilst public services do not contribute as much to the Isle of Man's GDP output (17%), these activities make a vital contribution to Island life. Public service activities support around 29% of resident-based unemployment on the Island.
- 3.9.6.19 The day-to-day operation of sectors such as public administration, education, transport, and utilities not reliant on the movement of passengers and freight via lifeline ferry services. Ferry services therefore play a limited role in the operation of the Island's public services.
- 3.9.6.20 The medical and health services sector does have a greater level of interaction with lifeline ferries than other public service activities – potential impacts on the Island's medical and health services are assessed within Volume 4, Chapter 4: Human Health Assessment of the Environmental Statement.

Freight sectors

Retail and wholesale

- 3.9.6.21 The Isle of Man retail sector accounted for around £130 million of GDP in 2020/21 – around 2.6% of the Island's economy. The retail sector accounted for around 3,600 jobs in 2021 – around 8.3% of resident-based employment on the Island.
- 3.9.6.22 The Isle of Man wholesale sector accounted for around £31 million of GDP in 2020/21 – around 0.6% of the Island's economy. The wholesale sector accounted for around 330 jobs in 2021 – around 0.8% of resident-based employment on the Island.
- 3.9.6.23 Retailers, such as supermarkets and convenience stores, are reliant upon ferry services for stock delivery. The frequency and reliability of ferry services are important for ensuring consistent supplies.
- 3.9.6.24 Island communities can have limited agricultural capacity depending on potential land availability and climate. As a result, island communities often rely on mainland supply chains for fresh produce and other perishable goods. Ferry services ensure that goods reach Island consumers in a timely manner.
- 3.9.6.25 Beyond essential supplies, retailers on the Island provide a wide range of consumer goods and services, including clothing, electronics, appliances, and more. Ferry services contribute to the delivery of these goods.
- 3.9.6.26 Many Island residents use online shopping to purchase goods. Ferry services play a role in ensuring the timely delivery of online purchases to consumers.
- 3.9.6.27 With regards to fresh food deliveries, a single cancelled ferry service can lead to a delay (4+ hours) sufficiently long enough for refrigerated wagons to be diverted to an alternative location on the mainland. A single day without a crossing can result in some gaps appearing in fresh food store supplies, which can take up to 3 days fully recover. Two days without a crossing can result in further gaps of fruit, vegetable, and bread supplies, with some additional gaps on popular ambient and frozen food – this can take up to a week to fully recover.

MONA OFFSHORE WIND PROJECT

Construction

- 3.9.6.28 The Isle of Man construction sector accounted for around £230 million of GDP in 2020/21 – around 4.9% of the Island's economy. The construction sector accounted for around 4,200 jobs in 2021 – around 9.7% of resident-based employment on the Island.
- 3.9.6.29 The construction sector on the Isle of Man is reliant on the availability of materials, equipment, and skilled labour. The ferry services play a role in ensuring a steady supply of these resources.
- 3.9.6.30 Construction projects require materials such as concrete, steel, timber, bricks, and other building components. These materials are not always readily available on the Isle of Man, and often need to be sourced from the mainland. Ferry services ensure a consistent supply route for these materials.
- 3.9.6.31 Large construction equipment and machinery that are not produced on the Island need to be transported from the GB mainland. This might include cranes, excavators, and other heavy machinery. The ferry services facilitate the transportation of such equipment.
- 3.9.6.32 In some cases, specialised construction workers may need to be brought in from the mainland to work on specific projects. The ferry services provide a means of transport for such personnel.
- 3.9.6.33 Construction generates a degree of waste, including rubble, debris, and other materials. The ferry services are used to transport waste off the Island for proper disposal and/or recycling.

Manufacturing

- 3.9.6.34 The Isle of Man manufacturing sector accounted for around £127 million of GDP in 2020/21 – around 2.7% of the Island's economy. The manufacturing sector accounted for around 2,100 jobs in 2021 – around 4.7% of resident-based employment on the Island.
- 3.9.6.35 The manufacturing sector on the Isle of Man is reliant on the availability of materials, equipment, and skilled labour. The ferry services play a role in ensuring a steady supply of these resources. Timely delivery of components and parts, in particular, is important for efficiency in manufacturing operations.
- 3.9.6.36 Goods produced by the manufacturing sector on the Isle of Man require transportation to markets on the UK mainland and further afield. Lifeline ferry services provide a means for exporting these goods.

Overall

- 3.9.6.37 Lifeline ferry services play a very important role in facilitating the delivery of freight to and from the Isle of Man. The retail and wholesale, construction, and manufacturing sectors are, much more than other sectors, operationally dependant on sea freight services.
- 3.9.6.38 In general, persistent and permanent disruption of freight services – whether by delay or cancellation – can increase costs for users. It is possible these costs will be passed from the operator to end users, with the costs eventually being absorbed by consumers. Disruption of freight services can impact the timely delivery of goods, which can result in increased holding costs for inventory, and can in some instances lead to contractual penalties for freight operators unable to meet delivery timelines.

MONA OFFSHORE WIND PROJECT

- 3.9.6.39 Persistent and permanent disruption of freight services can also impact customer relationships and lead to reputational damage to freight operators and those businesses reliant on the movement of freight. Effective communication with clients and customers can significantly reduce the likelihood of this outcome.
- 3.9.6.40 Freight operators and end users develop comprehensive risk mitigation and contingency plans to address unforeseen disruption to ferry services. This typically involves establishing clear protocols for responding to various scenarios, including securing backup transportation options such as alternative modes and routes. To guard against the impact of lifeline ferry service disruption, freight operators can adopt a diversified approach to transportation. In the Isle of Man's case, options are more limited given that road and rail options are not available to end users. Air freight may be an alternative potential option for some freight delivery to minimise disruption but is not suitable for cost and operational reasons in many circumstances.
- 3.9.6.41 Integration of advanced tracking technologies can assist end users in monitoring the movement of freight. Real-time data on shipments can help freight operators and end users proactively respond to disruptions, enabling them to implement contingency plans in a proactive manner to minimise supply chain impacts.
- 3.9.6.42 End users and freight operators can also adopt an approach of strategically positioning inventory. This approach can help to reduce reliance on a single ferry route and allows for alternative routes to be utilised when required. In the case of the Isle of Man, Heysham is the dominant freight route (98.7% of wagons).
- 3.9.6.43 Certain types of freight items have low time sensitivity, and delays or cancellations to ferry services are likely to have minimal impact on their delivery:
- **Bulk commodities:** bulk goods like raw materials, minerals, and agricultural products that are not perishable, and are typically transported in large quantities, are likely to have less sensitivity to delivery timelines. Bulk chemicals with stable storage conditions are likely to be less affected by delays in ferry services. Liquid and dry bulk accounted for around 13% of typical freight tonnage to and from the Isle of Man over the period 2018–2022.
 - **Non-perishable foods:** food items with long shelf lives, such as canned goods, dried foods, and certain packaged items, are less impacted by delays and cancellations as they are not prone to spoilage.
 - **Building materials:** construction materials like lumber, bricks, cement, and other building supplies can be ordered in advance, and slight delays in their delivery are unlikely to significantly impact construction projects.
 - **Non-urgent retail merchandise:** certain retail items, especially those with steady demand and no seasonal urgency, are unlikely to be time-sensitive. Examples include non-seasonal clothing, home goods, and general merchandise.
 - **Industrial equipment:** large industrial equipment or machinery that is ordered well in advance and does not require immediate installation is likely to have minimal impact from delayed deliveries.
- 3.9.6.44 Based on 2022 data, it is estimated that freight which has low time sensitivity accounts for approximately 73% of roll-on/roll-off freight being transported to and from the Isle of Man. This figure does not include liquid and dry bulk (13% of total freight tonnage), and other general or container cargo (1% of total freight tonnage).
- 3.9.6.45 Factoring in typical annual freight shares, around 63% of freight to and from the Isle of Man is roll-on/roll-off freight (via lifeline services) that has low time sensitivity, with a

MONA OFFSHORE WIND PROJECT

further 14% of mainly liquid and dry bulk freight which is not transported via lifeline ferry services.

- 3.9.6.46 Common freight items which are highly time-sensitive, and delays or cancellations to ferry services can have a material impact on end users:
- **Perishable foods:** fresh produce such as fruit and vegetables, dairy products, meat, seafood, and other perishable food items have a limited shelf life and require timely delivery to maintain quality and safety standards.
 - **Live animals:** livestock and other live animals being transported require timely delivery to ensure their well-being.
 - **Just-in-time inventory:** goods that are part of just-in-time inventory systems, common in manufacturing and retail, require precise delivery schedules to avoid disruptions in production and/or distribution.
 - **Mail:** documents, packages, and parcels can be time-sensitive – this particularly applies to those handled by express or specialist courier services that are dependent on prompt transportation to meet delivery deadlines.
 - **Pharmaceuticals and medication:** medications, vaccines, and medical supplies can have strict timelines for delivery to ensure they reach their destination promptly for patient care and safety reasons. Potential impacts on the Island's medical and health services are assessed within Volume 2, Chapter 14: Human Health Assessment of the Environmental Statement.
- 3.9.6.47 Based on 2022 data, it is estimated that freight which has high time sensitivity accounts for approximately 27% of roll-on/roll-off freight being transported to and from the Isle of Man.
- 3.9.6.48 Factoring in typical annual freight shares (including liquid and dry bulk, and other general or container cargo), around 23% of total freight to and from the Isle of Man is roll-on/roll-off freight that has high time sensitivity.
- 3.9.6.49 Under current circumstances, service variance is affected by a number of factors – technical issues and adverse weather being the primary ones. These variables cause disruption to lifeline ferry services by way of delays and cancellations. Where there are delays or cancellations to ferry services, the IoMSPC has operational contingencies in place to ensure catch-up services are provided which prioritise freight in terms of time-sensitivity.
- 3.9.6.50 Estimating the exact share of freight that will be cancelled due to ferry service cancellations is challenging as there are many variables at play. The impact is likely to be influenced by the duration of service disruption, the nature of the freight (e.g. low or high time sensitivity), the availability and viability of alternative transportation modes and ferry routes, and the effectiveness of contingency plans implemented by freight operators.
- 3.9.6.51 Despite the best efforts of freight operators to minimise disruption, some freight is likely to experience delays or, in extreme cases, face cancellations. The actual share of freight cancelled would vary on a case-by-case basis, and depends on the ability of the logistics system to adapt swiftly to the challenges posed by the ferry service disruption. Cancellation of freight deliveries are less likely where service cancellations are isolated to single instances. There is a higher (albeit still small) possibility of time sensitive freight delivery cancellations where ferry services are cancelled on consecutive days.

MONA OFFSHORE WIND PROJECT

- 3.9.6.52 For the purposes of this assessment, it is assumed that for every cancelled lifeline ferry crossing, 5% of time sensitive freight would be lost to cancellation, and 1% of non-time sensitive freight would be lost to cancellation. Table 3.85 sets out the estimates of current roll-on/roll-off freight cancellations to and from the Isle of Man as a direct result of ferry crossing cancellations (please see also Table 3.32).

Table 3.85: Impact of lifeline ferry service cancellations on freight to and from the Isle of Man under current conditions.

Note: some figures may not sum due to rounding.

	Share of total freight to and from Isle of Man (2022)	Cancelled freight as share of total freight to and from Isle of Man (typical)	Cancelled freight as share of total freight to and from Isle of Man (atypical)
Sea freight – by freight type			
Roll-on/roll-off – low time sensitivity	63%	0.02%	0.1%
Roll-on/roll-off – high time sensitivity	23%	0.03%	0.1%
Total	86%	0.05%	0.2%

Passenger sectors

Visitor and leisure economy

- 3.9.6.53 The Isle of Man tourist accommodation sector accounted for around £12 million of GDP in 2019/20 – around 0.2% of the Island's economy. The tourist accommodation sector accounted for around 580 jobs in 2021 – around 1.3% of resident-based employment on the Island.
- 3.9.6.54 The Isle of Man catering and entertainment sector accounted for around £37 million of GDP in 2020/21 – around 0.8% of the Island's economy. The catering and entertainment sector accounted for around 2,100 jobs in 2021 – around 4.7% of resident-based employment on the Island.
- 3.9.6.55 The visitor economy makes an important contribution to the Isle of Man economy. Tourism brings expenditure from outside the Isle of Man economy, supporting local businesses and jobs, and contributing to sectors such as hospitality, retail, and transportation. The Isle of Man TT is especially dependent on ferry services, as participants and many spectators will travel with their own motorbike, which can only be transported to the island by ferry.
- 3.9.6.56 Air travel is an important mode of transport for visitors to the Isle of Man – around 61% of all departures (residents and visitors) to the Island are made by air. Around 55% of visitor departures are made by air.
- 3.9.6.57 Around 39% of all departures (residents and visitors) to the Island are made by sea. Ferry services provide a relatively convenient and cost-effective means for visitors to travel to and from the Isle of Man – around 45% of visitor departures are made by sea. The services accommodate both foot passengers and vehicles, making them an accessible option for a wide range of passengers.
- 3.9.6.58 Around half of all sea departures are residents of the Isle of Man. The remaining departures are visitors to the Island which fall into a number of categories (please also see Table 3.29):

MONA OFFSHORE WIND PROJECT

- Overnight visitors in paid accommodation
- Overnight visitors visiting friends and relatives
- Business visitors
- Day visitors.

- 3.9.6.59 In 2018, ferry passengers within these categories contributed approximately £67.5 million in visitor expenditure to the Isle of Man economy – this is around 51% of total visitor expenditure.
- 3.9.6.60 Ferry passengers may decide to cancel their travel plans (“cancel”), delay their travel plans until the next available ferry service (“delay”), or travel by an alternative mode (air) if given sufficient notice of cancellations due to adverse weather (“travel by air”).
- 3.9.6.61 Resident passengers will either delay or travel by air – cancelling their journey altogether is not an option given their main residence is on the Island.
- 3.9.6.62 Visitors to the Island may decide to cancel, delay, or travel by air. Data on passenger decisions with respect to cancelling, delaying, or travelling by air is not available.
- 3.9.6.63 Importantly, not all lifeline ferry service disruption will result in the loss of visitors to the Island and the expenditure associated with these visits. Where visitors cancel their trip, the associated expenditure will be lost, resulting in an adverse impact on the Isle of Man visitor and leisure economy. Where visitors delay or travel by air, there is likely to be a reduction in the associated expenditure where the duration of a visit is reduced as a result of travel disruption, however some expenditure will be retained.
- 3.9.6.64 **Overnight visitors in paid accommodation** account for around 29% of all visitor departures to the Isle of Man. The majority of visitors travelling by sea (64%) are overnight visitors in paid accommodation.
- 3.9.6.65 Overnight visitors in paid accommodation account for around £52 million of visitor expenditure in the Isle of Man economy each year (around 39% of total visitor expenditure).
- 3.9.6.66 A significant number of overnight visitors in paid accommodation travel to the Island for reasons associated with the Isle of Man TT. Data for 2023 indicates that 43,000 visitors travelled to the Isle of Man during the TT races. It is assumed that a higher proportion of these visitors would travel by sea as many may bring a motorbike, which cannot be transported by air. In the event of ferry service disruption during the TT event, it is assumed the majority of visitors would delay their journey – they would be unlikely to cancel or travel by air. For the purposes of this assessment it is assumed that 5% of TT-related passengers would cancel their visit, with the majority of remaining passengers opting to delay.
- 3.9.6.67 Of the remaining overnight visitors in paid accommodation travelling by sea, in the event of lifeline ferry service disruption these passengers might cancel, delay, or travel by air. Given the importance of expenditure by this visitor category, an increase in cancelled visits as a result of lifeline ferry disruption would have an adverse impact on the visitor and leisure economy. For the purposes of this assessment, it is assumed that up to 25% of overnight visitors in paid accommodation travelling by sea would cancel their visit as a result of ferry service cancellations, with the majority of remaining passengers opting to delay. Where overnight visitors in paid accommodation delay or travel by air, there is likely to be a reduction in the associated expenditure where the duration of a visit is reduced, however some expenditure will be retained.

MONA OFFSHORE WIND PROJECT

- 3.9.6.68 **Overnight visitors visiting friends and relatives** account for around 13% of all visitor departures to the Isle of Man. Around 29% of visitors travelling by sea are overnight visitors visiting friends and relatives.
- 3.9.6.69 Overnight visitors visiting friends and relatives account for around £10 million of visitor expenditure in the Isle of Man economy each year (around 7% of total visitor expenditure).
- 3.9.6.70 In the event of lifeline ferry service disruption, overnight visitors visiting friends and relatives might cancel, delay, or travel by air.
- 3.9.6.71 Where overnight visitors visiting friends and relatives cancel their trip, the associated expenditure will be lost, resulting in an adverse impact on the Isle of Man visitor and leisure economy. For the purposes of this assessment, it is assumed that up to 25% of overnight visitors visiting friends and relatives travelling by sea would cancel their visit as a result of service cancellations, with the majority of remaining passengers opting to delay. Where overnight visitors visiting friends and relatives delay or travel by air, there is likely to be a reduction in the associated expenditure where the duration of a visit is reduced, however some expenditure will be retained.
- 3.9.6.72 Business visitors account for around 3% of all visitor departures to the Isle of Man. Around 7% of visitors travelling by sea are business visitors.
- 3.9.6.73 **Business visitors** account for around £5 million of visitor expenditure in the Isle of Man economy each year (around 4% of total visitor expenditure).
- 3.9.6.74 In the event of lifeline ferry service disruption, day visitors might cancel, delay, or travel by air.
- 3.9.6.75 Where business visitors cancel their trip, the associated expenditure will be lost, resulting in an adverse impact on the Isle of Man visitor and leisure economy. For the purposes of this assessment, it is assumed that up to 50% of business visitors travelling by sea would cancel their visit as a result of service cancellations, with the majority of remaining passengers opting to delay. Where business visitors delay or travel by air, there is likely to be a reduction in the associated expenditure where the duration of a visit is reduced, however some expenditure will be retained.
- 3.9.6.76 **Day visitors** account for around 0.2% of all visitor departures to the Isle of Man. Around 0.5% of visitors travelling by sea are day visitors.
- 3.9.6.77 Day visitors account for around £0.2 million of visitor expenditure in the Isle of Man economy each year (around 0.2% of total visitor expenditure).
- 3.9.6.78 In the event of lifeline ferry service disruption, day visitors are most likely to cancel their visit. For the purposes of this assessment, it is assumed that up to 90% of day visitors travelling by sea would cancel their visit as a result of service cancellations. Whilst the associated expenditure with cancelled trips will be lost, given the very low contribution of day visitors to overall expenditure, there is not anticipated to be any material adverse impact on the Isle of Man visitor and leisure economy.
- 3.9.6.79 Under current circumstances, service variance is affected by a number of factors – technical issues and adverse weather being the primary ones. These variables cause disruption to lifeline ferry services by way of delays and cancellations. Table 3.86 sets out the **overall** impacts of lifeline ferry service cancellations on visits to the Isle of Man under current conditions. In a typical year it is estimated that approximately 0.1% of all departures³⁰ to the Isle of Man are lost as a result of visitors to the Island cancelling

³⁰ All departures includes air and sea passengers, and residents and non-residents.

MONA OFFSHORE WIND PROJECT

their trip due to ferry service cancellations. In a year with atypically high levels of disruption, it is estimated that approximately 0.5% of all departures to the Isle of Man are lost as a result of visitors to the Island cancelling their trip due to ferry service cancellations.

Table 3.86: Impact of lifeline ferry service cancellations on visits to the Isle of Man under current conditions.

Note: some figures may not sum due to rounding.

	Share of total scheduled visitor departures to Isle of Man (2018–2022)	Cancelled visits as share of total scheduled visitor departures to Isle of Man (typical)	Cancelled visits as share of total scheduled visitor departures to Isle of Man (atypical)
Scheduled sea departures – by visitor type			
Overnight visitors in paid accommodation	29%	0.1%	0.4%
Overnight visitors visiting friends and relatives	13%	0.1%	0.3%
Business visitors	3%	<0.1%	0.1%
Day visitors	0.2%	<0.1%	<0.1%
Total	45%	0.2%	0.8%

Summary

- 3.9.6.80 The majority of the Isle of Man economy (~90% GDP) and resident-based employment (~70%) have very low levels of interaction with, and operational dependence on, lifeline ferry services. Considering the assessment within Volume 2, Chapter 7: Shipping and Navigation of the Environmental Statement, it is unlikely that the majority of the Isle of Man economy would be subject to adverse impacts associated with lifeline ferry service variance.
- 3.9.6.81 The sectors in the Isle of Man economy that have the greatest level of interaction with, and operational dependence on, lifeline ferry services are: retail and wholesale, construction, manufacturing, and the visitor and leisure economy. Together, these sectors accounted for around £470 million of GDP in 2020/21 – around 9.8% of the Island's economy. These sectors accounted for around 12,800 jobs in 2021 – around 29% of the resident-based employment on the Island.
- 3.9.6.82 Under current conditions, in a typical year it is estimated that approximately 0.1% of all freight and 0.2% of all visitor journeys to the Isle of Man are lost as a result of ferry service cancellations. In a year with atypically high adverse weather cancellations, it is estimated that approximately 0.5% of all freight 0.8% of all visitor journeys to the Isle of Man are lost as a result of ferry service cancellation.
- 3.9.6.83 Sectors, and individual businesses, typically have contingencies in place to deal with existing disruption to ferry services, whether service variance is a result of technical or adverse weather. The Isle of Man Government also has contingencies in place to mitigate potential adverse socio-economic impacts resulting from lifeline ferry service disruption.
- 3.9.6.84 Therefore, the focus of the assessment will consider potential impacts on freight-dependant sectors such as retail and wholesale, construction, and manufacturing, and

MONA OFFSHORE WIND PROJECT

the passenger-dependant visitor and leisure economy. It is acknowledged these sectors represent a part of the Isle of Man economy, not the whole.

Social

- 3.9.6.85 The ferry service is an important means of travelling to and from the Island for accessing healthcare services, attending educational institutions, and for leisure purposes – for example visiting friends and family.

Leisure passengers

- 3.9.6.86 Air travel is an important mode of transport for visitors to the Isle of Man – around 61% of all departures (residents and visitors) to the Island are made by air. Around 65% of resident departures and around 55% of visitor departures are made by air.
- 3.9.6.87 Around 39% of all departures (residents and visitors) to the Island are made by sea. Ferry services provide a relatively convenient and cost-effective means for visitors to travel to and from the Isle of Man – around 35% of resident departures and 45% of visitor departures are made by sea.
- 3.9.6.88 Ferry services are often more cost-effective compared to air travel, particularly for those bringing vehicles or traveling with a group. This makes it an accessible option for a wide range of people.
- 3.9.6.89 Ferry services allow visitors to bring larger items, such as gifts, luggage, and vehicles, offering flexibility to passengers. For extended visits, particularly those involving families or individuals relocating temporarily, the ability to bring a vehicle and personal belongings is advantageous.
- 3.9.6.90 Lifeline ferry services contribute to enabling people on the mainland to maintain connections with their friends and family on the Isle of Man, and vice versa. Visits to friends and family can lead to additional spending in the local economy. This includes expenditure on accommodation, dining, entertainment, and shopping, which contributes to the visitor economy of the Isle of Man.
- 3.9.6.91 Disruption to lifeline ferry services, as with disruption to any journey, can negatively affect itineraries – passengers may miss important events, meetings, or connections to subsequent legs of their journey. If the disruption is sufficiently severe to lead to cancellations, passengers may miss their engagement altogether.
- 3.9.6.92 Travel disruption can lead to uncertainty and frustration. Passengers may experience heightened stress as they navigate changes to their travel plans, especially when facing unexpected delays, cancellations, or rerouting.
- 3.9.6.93 Travel disruptions can result in financial losses for passengers. Delays and cancellations may lead to additional costs for re-booking tickets, accommodation, meals, or connections. Some passengers may also face penalties or fees for changing their travel plans at late notice.
- 3.9.6.94 Travel disruptions can be particularly challenging for vulnerable groups, such as elderly passengers, individuals with disabilities, or families with young children. These passengers may require additional assistance and support, and disruptions can exacerbate their challenges.
- 3.9.6.95 Travel disruptions can diminish the overall travel experience, especially for those who are travelling for leisure. Passengers may face disappointment and dissatisfaction with their travel experiences when faced with unexpected disruptions. This can damage the overall perception of a service.

MONA OFFSHORE WIND PROJECT

Health

- 3.9.6.96 The Isle of Man's healthcare system utilises lifelines ferry services to support its activities. The potential health impacts associated with potential adverse impacts on lifeline ferries are assessed within Volume 4, Chapter 4: Human Health Assessment of the Environmental Statement.

Construction phase

Magnitude of impact

- 3.9.6.97 As per paragraph 7.9.2.6 in Volume 2, Chapter 7: Shipping and navigation of the Environmental Statement, both of the Isle of Man Steam Packet Company (IoMSPC) routes between Douglas–Liverpool and Douglas–Heysham pass clear of the Mona Array Area. On occasion vessels on the route between Liverpool and Douglas may have deviated to the west to avoid traffic situations and this would no longer be possible. However, there is sufficient sea room for alternative routes to be taken. Volume 2, Chapter 7: Shipping and navigation of the Environmental Statement concludes the magnitude of impact on commercial lifeline ferry operators is considered to be low.
- 3.9.6.98 The requirement for lifeline ferry services to use alternative routes, on occasion, to avoid traffic situations is considered to have very limited linkages with socio-economic conditions on the Isle of Man. It is unlikely that users will experience a material change in service timing and reliability as a result of the identified impact. No additional service cancellations are anticipated on either crossing as a result of this impact.
- 3.9.6.99 As per paragraph 7.9.3.9 in Volume 2, Chapter 7: Shipping and navigation of the Environmental Statement, the presence of the Mona Array Area could increase the number of occasions during which adverse weather routes are taken on the Douglas–Liverpool route. Volume 2, Chapter 7: Shipping and navigation of the Environmental Statement concludes the magnitude of impact on lifeline ferry operators is considered to be medium.
- 3.9.6.100 As per paragraph 7.9.3.10 in Volume 2, Chapter 7: Shipping and navigation of the Environmental Statement, the adverse weather routes for the Douglas–Heysham route are clear of the Mona Array Area.

Freight

- 3.9.6.101 Adverse weather routeing is not expected to have an impact on freight services, which primarily (98.7%) operate on the Douglas–Heysham route. Therefore, retail and wholesale, construction, and manufacturing are not anticipated to be impacted.
- 3.9.6.102 The Douglas–Liverpool route accounts for a very small proportion (1.2%) of the Isle of Man's freight transport. Therefore, impacts on freight associated with the Mona Offshore Wind Project are considered to be negligible.

Passengers

- 3.9.6.103 Adverse weather routes on the Douglas–Heysham crossing are clear of the Mona Array Area. Passenger services on this crossing will, therefore, not be impacted.
- 3.9.6.104 Volume 2, Chapter 7: Shipping and navigation of the Environmental Statement assesses a potential requirement for services on the Douglas–Liverpool route to take adverse weather routes 'infrequently', albeit multiple times per year. As such, there is

MONA OFFSHORE WIND PROJECT

potential for adverse impacts on the Isle of Man's visitor and leisure economy associated with potential passenger journey disruption.

- 3.9.6.105 These occurrences are likely to result in delays, but will not always lead to service cancellation. Where the outcome of the impact is limited to delays (on the service in question and subsequent services that day), there is likely to be a reduction in the associated expenditure where the duration of a visit is reduced, however most expenditure is expected to be retained. Where adverse weather routing results in service cancellations, passengers may decide to cancel, delay, or travel by air. Where visitors cancel their trip, the associated expenditure will be lost, resulting in an adverse impact on the Isle of Man visitor and leisure economy.
- 3.9.6.106 There is currently an average service variance of 8 fewer crossings per annum on the Douglas–Liverpool crossing as a result of adverse weather conditions, impacting around 1.5% of scheduled crossings. It is estimated this leads to approximately 0.07% of all scheduled visitor departures to the Isle of Man being lost as a result of visitors on the Douglas–Liverpool crossing cancelling their trip.
- 3.9.6.107 In a year with atypically high adverse weather cancellations on the Douglas–Liverpool crossing, it is estimated that 3.8% fewer crossings take place than scheduled, with these cancellations estimated to lead to approximately 0.16% of all scheduled visitor departures to the Isle of Man being lost as a result of visitors cancelling their trip.
- 3.9.6.108 The data on the number of potential additional service cancellations due to adverse weather routing associated with the Mona Offshore Wind Project is not available at this stage. However it is assumed that additional 'infrequent' occurrences of adverse weather routing will not lead to average disruption materially beyond the current greatest level of annual service variance i.e. 20 fewer crossings than scheduled, 0.16% of all scheduled visitor departures being lost.
- 3.9.6.109 In general delays and cancellations to travel plans have the potential to result in disrupted itineraries, stress, financial loss, additional challenges for vulnerable passengers, and damage to perceptions. However, 'infrequent' occurrences of adverse weather routing are not anticipated to lead to disruption materially beyond the current greatest level of annual service variance. It is therefore unlikely that adverse weather routing associated with the Mona Offshore Wind Project will result in material adverse impacts on the Isle of Man visitor and leisure economy.

Overall

- 3.9.6.110 The above considerations have informed the assessment of the magnitude of impact as follows:
- Under normal weather conditions, lifeline ferry services to the Isle of Man are largely unaffected by the Mona Array Area.
 - Adverse weather routes for the Douglas–Heysham route are clear of the Mona Array Area, therefore freight service to the Isle of Man (and therefore retail and wholesale, construction, and manufacturing sector activity) will be unaffected. Passenger services on the Douglas–Heysham route will also be unaffected.
 - Given the very small proportion of freight transported on the Douglas–Liverpool crossing, impacts on freight associated with the Mona Offshore Wind Project are considered to be negligible.
 - Given the potential for an increase in the occasions where adverse weather routing is required on the Douglas–Liverpool route, there is potential for adverse impacts on the Isle of Man's visitor and leisure economy.

MONA OFFSHORE WIND PROJECT

- In a typical year it is estimated that adverse weather cancellations could lead to approximately 0.07% of all scheduled visitor departures to the Isle of Man on the Douglas–Liverpool crossing being lost as a result of visitors cancelling their trip, with 0.16% being lost in a year with atypically high adverse weather cancellations.
- It is assumed that ‘infrequent’ occurrences of adverse weather routeing will not lead to additional disruption during an average year materially beyond the current greatest level of annual service variance on the Douglas–Liverpool route.
- Where adverse weather routeing results in delays only, there is likely to be a reduction in the associated expenditure where the duration of a visit is reduced, however most expenditure is expected to be retained.
- Where adverse weather routeing results in service cancellations, passengers may decide to cancel, delay, or travel by air. Whilst there is likely to be a reduction in the associated expenditure where the duration of a visit is reduced to due delay, the main loss of visitor expenditure occurs when visitors decide to cancel their trip.
- Where adverse weather routeing results in service delays and/or cancellations, it is anticipated to be sufficiently infrequent that the associated negative passenger experience will not materially impact visitor spend on the Island.

- 3.9.6.111 On the Douglas–Heysham crossing, the magnitude of impact is assessed as ‘no change’.
- 3.9.6.112 On the Douglas–Liverpool crossing, the potential impact is predicted to be negligible (adverse).
- 3.9.6.113 Overall, the potential impact is predicted to be of local spatial extent, long term duration, intermittent, and high reversibility. It is predicted the impact will affect the receptor indirectly. The magnitude is therefore, considered to be negligible (adverse).

Sensitivity of the receptor

- 3.9.6.114 As per section 3.6.2, receptor sensitivity to potential construction phase social impacts is assessed on the basis of tolerance, recoverability, and value and importance.
- 3.9.6.115 The Douglas–Heysham crossing will be unaffected by the Mona Offshore Wind Project during both normal and adverse weather conditions. Therefore, the assessment of sensitivity considers the Douglas–Liverpool crossing only.

Value and importance

- 3.9.6.116 As per Table 3.7, socio-economic conditions on the Isle of Man are a policy priority of the Isle of Man Government.
- 3.9.6.117 As such, the value and importance of the receptor is assessed as high, which equates to a high sensitivity.

Tolerance

- 3.9.6.118 Certain types of freight items have low time sensitivity, and delays or cancellations to ferry services are likely to have minimal impact on their delivery. This includes bulk commodities, non-perishable foods, building materials, non-urgent retail merchandise, and industrial equipment. This category accounts for around 77% of freight to and from

MONA OFFSHORE WIND PROJECT

the Isle of Man in a typical year. Around 23% of freight to and from the Isle of Man is roll-on/roll-off freight that has high time sensitivity. As such, the majority of freight to and from the Isle of Man is able to tolerate 'infrequent' occurrences of additional adverse weather routeing leading to disruption to freight services.

- 3.9.6.119 Aside from adverse weather, there have been a number of reasons for lifeline ferry service disruptions on the Isle of Man in recent years, including:
- Covid-19 restrictions (2020–2021)
 - Industrial action (2023–2024)
 - Technical failures, repairs, and upgrades (various)
- 3.9.6.120 Sectors and individual businesses typically have contingencies in place to deal with existing disruptions to ferry services. The Isle of Man Government also has contingencies in place to mitigate potential adverse socio-economic impacts resulting from lifeline ferry service disruption.
- 3.9.6.121 In the event of cancellations due to adverse weather, typical 'catch up' is achieved within a few days. 'Infrequent' occurrences of adverse weather routeing as a result of the Mona Offshore Wind Project are not anticipated to lead to disruption materially beyond the current greatest level of annual service variance (18 fewer crossings than scheduled due to adverse weather reasons).
- 3.9.6.122 By way of comparison with other causes of service variance, potential additional adverse weather routeing occurrences are anticipated to be much less severe:
- Covid-19 restrictions during 2020 (449 cancellations during the year across all routes).
 - Planned industrial action in January 2024, which involves a reduction in passenger services for a two-week period. Manxman services were further reduced to one return trip per day following a rostered officer needing to take leave for personal reasons. Isle of Man Treasury confirmed that, despite the disruption, the Isle of Man was not at risk of shortages of supplies (BBC, 2024).
 - Recent (March 2023) repair works on the Ben-my-Chree over an eight day period resulted in the cancellation of overnight passenger services.
- 3.9.6.123 The above considerations have informed an assessment of high tolerance, which equates to a low sensitivity.

Recoverability

- 3.9.6.124 Due to the dynamic nature of economies and societies, 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.
- 3.9.6.125 However – and with all else being equal – in the event the Mona Offshore Wind Project is decommissioned and any infrastructure above sea level is removed, adverse weather routeing would be unaffected, and therefore conditions in those industries with interdependencies with ferry services would fully recover to their previous condition. Recoverability is therefore assessed as high, which equates to a low sensitivity.

Overall

- 3.9.6.126 With respect to linkages with lifeline ferry services, socio-economic conditions on the Isle of Man economy are deemed to be of high tolerance, high recoverability and high value. The sensitivity of the receptor is therefore, considered to be low.

Significance of the effect

- 3.9.6.127 Overall, the magnitude of the impact is deemed to be negligible and the sensitivity of the receptor is considered to be low. The effect will, therefore, be of **minor (adverse)** significance, which is not significant in EIA terms.

Operation and maintenance phase

- 3.9.6.128 As per paragraph 7.9.3.31 of Volume 2, Chapter 7: Shipping and navigation of the Environmental Statement, the impacts to commercial operators including strategic routes and lifeline ferries during operations and maintenance are not anticipated to be substantially different to those during construction.
- 3.9.6.129 Therefore, the magnitude of potential impacts and the sensitivity of the receptor during the operation and maintenance phase are assessed on the same basis as the construction phase.

Magnitude of impact

- 3.9.6.130 On the Douglas–Heysham crossing, the magnitude of impact is assessed as ‘no change’.
- 3.9.6.131 On the Douglas–Liverpool crossing, the potential impact is predicted to be negligible.
- 3.9.6.132 Overall, the potential impact is predicted to be of local spatial extent, long term duration, intermittent, and high reversibility. It is predicted the impact will affect the receptor indirectly. The magnitude is therefore, considered to be negligible.

Sensitivity of the receptor

- 3.9.6.133 With respect to linkages with lifeline ferry services, socio-economic conditions on the Isle of Man economy are deemed to be of high tolerance, high recoverability and high value. The sensitivity of the receptor is therefore, considered to be low.

Significance of the effect

- 3.9.6.134 Overall, the magnitude of the impact is deemed to be negligible and the sensitivity of the receptor is considered to be low. The effect will, therefore, be of **minor (adverse)** significance, which is not significant in EIA terms.

Decommissioning phase

- 3.9.6.135 As per paragraph 7.9.3.32 of Volume 2, Chapter 7: Shipping and navigation of the Environmental Statement, the impacts to commercial operators including strategic routes and lifeline ferries during decommissioning are not anticipated to be substantially different to those during construction.
- 3.9.6.136 Therefore, the magnitude of potential impacts and the sensitivity of the receptor during the decommissioning phase are assessed on the same basis as the construction phase.

Magnitude of impact

- 3.9.6.137 On the Douglas–Heysham crossing, the magnitude of impact is assessed as ‘no change’.
- 3.9.6.138 On the Douglas–Liverpool crossing, the potential impact is predicted to be negligible.

MONA OFFSHORE WIND PROJECT

- 3.9.6.139 Overall, the potential impact is predicted to be of local spatial extent, medium term duration, intermittent, and high reversibility. It is predicted the impact will affect the receptor indirectly. The magnitude is therefore, considered to be negligible.

Sensitivity of the receptor

- 3.9.6.140 With respect to linkages with lifeline ferry services, socio-economic conditions on the Isle of Man economy are deemed to be of high tolerance, high recoverability and high value. The sensitivity of the receptor is therefore, considered to be low.

Significance of the effect

- 3.9.6.141 Overall, the magnitude of the impact is deemed to be negligible and the sensitivity of the receptor is considered to be low. The effect will, therefore, be of **minor (adverse)** significance, which is not significant in EIA terms.

3.10 Assessment of significant effects – Onshore

3.10.1 Overview

- 3.10.1.1 As per paragraph 3.1.1.3, 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.
- 3.10.1.2 The potential impacts of the construction, operations and maintenance, and decommissioning phases of the Mona Offshore Wind Project have been assessed on socio-economics receptors. The potential impacts arising from the onshore construction, operations and maintenance and decommissioning phases of the Mona Offshore Wind Project are listed in Table 3.39, along with the MDS against which each impact has been assessed.
- 3.10.1.3 A description of the potential onshore effects on socio-economics receptors caused by each identified impact is given below.

Economic

3.10.2 The potential impact on economic receptors including employment and GVA

- 3.10.2.1 The construction, operations and maintenance, and decommissioning of the Mona Offshore Wind Project 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 8, Annex 3.1: Socio-economics technical impact report of the Environmental Statement.

Magnitude (scale) of impact - assessment approach

- 3.10.2.2 The scale of potential employment and GVA impacts is assessed against the same conditions and criteria set out for offshore assessment at paragraphs 3.9.2.2–3.9.2.4.

Construction phase

- 3.10.2.3 This assessment assumes a three-year (36-month) onshore construction period.

MONA OFFSHORE WIND PROJECT

- 3.10.2.4 The potential onshore impacts of the Mona Offshore Wind Project on employment and GVA in development and construction activities are set out in Table 3.87. 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 3.87: Potential onshore impacts of the Mona Offshore Wind Project on employment and GVA in development and construction activities.

	North Wales	Wales	UK
Per annum			
Employment (FTE years)	25	25	260
GVA	£1.9 m	£2.0 m	£20 m
Total (48 months)			
Employment (FTE years)	70	80	780
GVA	£6 m	£6 m	£55 m

Magnitude of impact

- 3.10.2.5 As per section 3.6.2, the magnitude of potential onshore impacts is assessed on the basis of scale, spatial extent, duration and frequency.
- 3.10.2.6 A comparison of the potential annual onshore employment and GVA impacts associated with development and construction phase activities compared to the relevant baseline conditions for each economic study area results in an assessment of impact magnitude as set out in Table 3.88.

Table 3.88: Magnitude of impact – potential construction phase onshore employment and GVA impacts compared to baseline conditions.

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

Sensitivity of the receptor

- 3.10.2.7 As per section 3.6.2, receptor sensitivity to potential construction phase employment and GVA impacts is assessed on the basis of tolerance, recoverability, and value and importance.
- 3.10.2.8 The value and importance, tolerance, and recoverability are assessed on the same basis as the offshore assessment (paragraphs 3.9.2.13–3.9.2.20).
- 3.10.2.9 The sensitivity of the receptor for all economic study areas is set out in in Table 3.89.

Table 3.89: Sensitivity of receptor – potential construction phase onshore employment and GVA impacts.

	Sensitivity level
Value and importance	High
Tolerance	Low

MONA OFFSHORE WIND PROJECT

Sensitivity level	
Recoverability	Medium
Sensitivity	Medium

Significance of the effect

3.10.2.10 The significance of the effect for each economic study area is set out in Table 3.90.

Table 3.90: Significance of construction phase onshore employment and GVA impacts.

Study area	Magnitude	Sensitivity	Significance	Significant in EIA terms
North Wales	Low (beneficial)	Medium	Minor (beneficial)	No
Wales	Low (beneficial)	Medium	Minor (beneficial)	No
UK	Negligible	Medium	Negligible	No

3.10.3 The potential impact of increased employment opportunities

3.10.3.1 The construction, operations and maintenance, and decommissioning of the Mona Offshore Wind Project 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 8, Annex 3.1: Socio-economics technical impact report of the Environmental Statement.

Magnitude (scale) of impact - assessment approach

3.10.3.2 The scale of potential labour market impacts is assessed against the same conditions and criteria set out for offshore assessment at paragraphs 3.9.3.2–3.9.3.3.

Construction phase

3.10.3.3 This assessment assumes a three-year (36-month) onshore construction period.

3.10.3.4 The potential onshore impacts of the Mona Offshore Wind Project on employment opportunities for local residents in development and construction activities are set out in Table 3.91. These impacts will create opportunities to both safeguard existing jobs, and facilitate new jobs growth.

Table 3.91: Potential onshore impacts of the Mona Offshore Wind Project on employment opportunities for local residents in development and construction activities.

North Wales	
Per annum	
Employment (FTE years)	25
Total (36 months)	
Employment (FTE years)	70

MONA OFFSHORE WIND PROJECT

Magnitude of impact

- 3.10.3.5 As per section 3.6.2, the magnitude of potential impacts is assessed on the basis of scale, spatial extent, duration and frequency.
- 3.10.3.6 A comparison of the potential onshore labour market impacts associated with development and construction phase activities compared to the relevant baseline conditions for North Wales results in an assessment of impact magnitude as set out in Table 3.92.

Table 3.92: Magnitude of impact – potential construction phase onshore employment opportunities for local residents compared to baseline conditions.

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

Sensitivity of the receptor

- 3.10.3.7 As per section 3.6.2, receptor sensitivity to potential construction phase labour market impacts is assessed on the basis of tolerance, recoverability, and value and importance.
- 3.10.3.8 The value and importance, tolerance, and recoverability are assessed on the same basis as the offshore assessment (paragraphs 3.9.3.10–3.9.3.16).
- 3.10.3.9 The sensitivity of the receptor for North Wales is assessed as in Table 3.93.

Table 3.93: Sensitivity of receptor – potential construction phase onshore employment opportunities for local residents.

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

Significance of the effect

- 3.10.3.10 The significance of the effect for North Wales is set out in Table 3.94.

Table 3.94: Significance of construction phase onshore employment opportunities for local residents.

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

Social Impacts

3.10.4 The potential impact on population, housing and accommodation.

- 3.10.4.1 The potential 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 social study areas.
- 3.10.4.2 The terms 'overnight', 'short term (temporary)', and 'long term (permanent)' are defined as per the offshore assessment (paragraphs 3.9.4.2–3.9.4.4).
- 3.10.4.3 This impact is assessed for the construction phase. Onshore employment impacts during the operations 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.
- 3.10.4.4 The assessment draws on the assessment of social impacts and discussion of workforce issues as set out in the supporting Volume 8, Annex 3.1: Socio-economics technical impact report of the Environmental Statement.

Magnitude (scale) of impact - assessment approach

- 3.10.4.5 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

- 3.10.4.6 A three-year (36-month) construction period has been assumed throughout.
- 3.10.4.7 Potential expenditure on onshore activities associated with the construction phase of the Mona Offshore Wind Project could support overnight trips into social study areas.
- 3.10.4.8 In order to assess the 'worst case' potential social impacts, it is assumed that direct employment impacts will predominantly draw on labour from outside North Wales. 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.
- 3.10.4.9 It is anticipated there will be no material long term (permanent) relocation of workers into North Wales.
- 3.10.4.10 The potential demand for overnight accommodation and short term (temporary) housing arising from the Mona Offshore Wind Project are set out in Table 3.95.

MONA OFFSHORE WIND PROJECT

Table 3.95: 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
North Wales	5,000	20

Magnitude of impact

- 3.10.4.11 As per paragraphs 3.9.4.39–3.9.4.43, population growth can have both beneficial and adverse effects, with the overall impact largely contingent on various factors such as infrastructure, resources and planning. For the purposes of this assessment, population impacts are considered to be 'neutral' (as opposed to beneficial or adverse).
- 3.10.4.12 The magnitude of impact, relative to the baseline for North Wales, is set out in Table 3.96.

Table 3.96: Magnitude of overnight accommodation demand, onshore impacts.

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

Sensitivity of the receptor

- 3.10.4.13 As per section 3.6.2, receptor sensitivity to potential construction phase social impacts is assessed on the basis of tolerance, recoverability, and value and importance.

Value and importance

- 3.10.4.14 As per the offshore assessment (paragraphs 3.9.4.20–3.9.4.21 and 3.9.4.50–3.9.4.51), the value and importance of the receptor is assessed as high.

Tolerance

- 3.10.4.15 As per the offshore assessment (paragraphs 3.9.4.23–3.9.4.26 and 3.9.4.52–3.9.4.56), the tolerance of the receptor is assessed as high – as per Table 3.36 this corresponds to a low sensitivity.

Recoverability

- 3.10.4.16 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 Mona Offshore Wind Project is consented.
- 3.10.4.17 The recoverability of the receptor is therefore assessed as medium.

Overall

The sensitivity of the receptor for North Wales is assessed as in

- 3.10.4.18 Table 3.97.

MONA OFFSHORE WIND PROJECT

Table 3.97: Sensitivity of operations and maintenance phase housing, accommodation and local services receptor.

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

Significance of the effect

3.10.4.19 The significance of the effect for North Wales is set out in Table 3.98.

Table 3.98: Significance of construction phase employment impacts on the demand for housing, accommodation and local services, current capability scenario.

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

Tourism

3.10.5 The potential impact on tourism

Relevant receptors

3.10.5.1 Mona Offshore Wind Farm has the potential to cause both beneficial and adverse impacts on tourism. This impact is applicable to the construction, operation and maintenance, and decommissioning phases.

3.10.5.2 In assessing any potential offshore impacts upon tourism activity, the following receptors have been considered:

- Visual amenity: the indirect effect of potential visual impacts on tourism – based on Volume 3, Chapter 6: Landscape and visual resources of the Environmental Statement
- Overnight trips and accommodation: during the construction phase, 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. Assessment of potential impacts on overnight trips and accommodation is based on the assessment in section 3.10.4 above
- Recreation: the direct or indirect effect of potential impacts on recreation – based on Volume 3, Chapter 7: Land use and recreation of the Environmental Statement.

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

Visual amenity

3.10.5.4 Volume 3, Chapter 6: Landscape and visual resources of the Environmental Statement assesses the potential impacts of the construction, operations and maintenance, and

MONA OFFSHORE WIND PROJECT

decommissioning phases of the Mona Offshore Wind Farm on visual resources. This chapter draws on Volume 3, Chapter 6: Landscape and visual resources of the Environmental Statement to assess the potential indirect effects of potential visual impacts on tourism.

- 3.10.5.5 Volume 3, Chapter 6: Landscape and visual resources of the Environmental Statement assesses the potential impacts on landscape, and visual receptors. Visual receptors are concerned with the individuals and/or defined groups of people who have the potential to be affected by the Mona Offshore Wind Project. As such, visual receptors are relevant to this chapter. The assessment of seascape and landscape receptors is not considered relevant to this chapter.

North Wales

- 3.10.5.6 The visual receptors that have been assessed within Volume 3, Chapter 6: Landscape and visual resources of the Environmental Statement and fall within North Wales are:
- Visual effects on people using National Trails/Long distance paths – Wales Coast Path.
 - Visual effects on people using National Trails/Long distance paths – Offa's Dyke Path National Trail.
 - Assessment of effects experienced by people travelling along public rights of way and local roads.
- 3.10.5.7 Of the visual resources assessed within Volume 3, Chapter 6: Landscape and visual resources of the Environmental Statement that are located within North Wales, the majority are anticipated to have no significant effects in EIA terms at either the construction, operation and maintenance, or decommissioning phases. Some potentially significant effects have been identified on pedestrian users of public footpaths during the construction, operation and maintenance, and decommissioning phases. However, within the context of the North Wales visitor economy, the significance of effect on visual receptors during construction, operation and maintenance, or decommissioning phases is considered to be negligible.
- 3.10.5.8 On the basis of this assessment, there are no likely significant adverse indirect effects on tourism in North Wales associated with visual amenity.

Overnight trips and accommodation

- 3.10.5.9 The assessment of potential indirect impacts on tourism associated with overnight trips and accommodation demand is based on the assessment of potential impacts on overnight accommodation found in section 3.10.4. The assessment assumes that direct employment impacts will predominantly draw on labour from outside North Wales. 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.
- 3.10.5.10 The assessment of effects on population, housing and accommodation set out in section 3.10.4 identified potential effects during the construction phase, which are summarised in Table 3.99.

Table 3.99: Significance of construction phase onshore employment impacts on population, housing and accommodation, current capability scenario.

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

3.10.5.11 On the basis of this assessment, there are no likely significant indirect effects on tourism in North Wales associated with demand for housing and accommodation.

Recreation

3.10.5.12 This assessment the considers potential indirect impacts on tourism associated with direct or indirect effects on recreation. This part of the assessment is based on Volume 3, Chapter 7: Land use and recreation of the Environmental Statement.

3.10.5.13 Volume 3, Chapter 7: Land use and recreation of the Environmental Statement assesses the significance of the following potential impacts:

- The temporary impact on the recreational use of Coastal Areas
- The temporary impact on the recreational use of recreational resources
- The temporary impact on the recreational use of the Wales Coast Path and NCR 5.

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

3.10.5.15 Volume 3, Chapter 7: Land use and recreation of the Environmental Statement assesses potential effects on the following recreational resources as temporary and moderate adverse:

- Gwrych Castle Estate
- Castle Cove Holiday Park to the east of the potential landfall area
- The Beach Caravan Park to the west of the landfall with car parking area for coastal access
- Abergele golf club
- A holiday/camping park south of the B5381 at Sirior Bach.

3.10.5.16 Within the context indirect effects on the North Wales visitor economy, the significance of effect on recreational resources during construction, operation and maintenance, and decommissioning phases is considered be negligible.

3.10.5.17 This consideration of potential indirect effects on recreation indicates that there are unlikely to be any material indirect impacts on tourism in North Wales associated with impacts on recreation as a result of the Mona Offshore Wind Project.

Overall

3.10.5.18 Based on a consideration of the pathways by which tourism activities might be impacted by Mona Offshore Wind Farm during the construction phase, the magnitude of the impact in North Wales is deemed to be negligible and the sensitivity of the

MONA OFFSHORE WIND PROJECT

receptor is considered to be high. The effect on North Wales will, therefore, be of minor (adverse) significance, which is not significant in EIA terms.

Operation and maintenance phase

- 3.10.5.19 Based on a consideration of the pathways by which tourism activities might be impacted by Mona Offshore Wind Farm during the operation and maintenance phase, the magnitude of the impact in North Wales is deemed to be negligible and the sensitivity of the receptor is considered to be high. The effect on North Wales will, therefore, be of minor (adverse) significance, which is not significant in EIA terms

Decommissioning phase

- 3.10.5.20 Based on a consideration of the pathways by which tourism activities might be impacted by Mona Offshore Wind Farm during the decommissioning phase, the magnitude of the impact in North Wales is deemed to be negligible and the sensitivity of the receptor is considered to be high. The effect on North Wales will, therefore, be of minor (adverse) significance, which is not significant in EIA terms

3.11 Cumulative effect assessment methodology

3.11.1 Methodology

- 3.11.1.1 The Cumulative Effects Assessment (CEA) takes into account the impact associated with the Mona Offshore Wind Project 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 5, Annex 5.1: CEA screening matrix of the Environmental Statement). 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.
- 3.11.1.2 The socio-economics CEA methodology has followed the methodology set out in Volume 1, Chapter 5: EIA methodology of the Environmental Statement. As part of the assessment, all projects and plans considered alongside the Mona Offshore Wind Project have been allocated into 'tiers' reflecting their current stage within the planning and development process, these are listed below.
- 3.11.1.3 A tiered approach to the assessment has been adopted, as follows:
- Tier 1
 - Under construction
 - Permitted application
 - Submitted application
 - Those currently operational that were not operational when baseline data were collected, and/or those that are operational but have an ongoing impact.
 - Tier 2
 - Scoping report has been submitted and is in the public domain.
 - Tier 3
 - Scoping report has not been submitted and is not in the public domain
 - Identified in the relevant Development Plan

MONA OFFSHORE WIND PROJECT

- Identified in other plans and programmes.

- 3.11.1.4 This tiered approach is adopted to provide a clear assessment of the Mona Offshore Wind Project alongside other projects, plans and activities.
- 3.11.1.5 The specific projects, plans and activities scoped into the CEA, are outlined in Table 3.100.

MONA OFFSHORE WIND PROJECT

Table 3.100: List of other projects, plans and activities considered within the CEA.

Project/ Plan	Status	Distance from the Mona Array Area (km)	Distance from the Mona offshore/on shore cable corridor (km)	Description of project/plan	Dates of constructi on (if applicable)	Dates of operation (if applicable)	Overlap with the Mona Offshore Wind Project
Tier 1							
Awel y Môr Offshore Wind Farm	Consented	13.5	3.6/16.2	At least 500 MW capacity offshore wind farm.	2026–2030	2030– onwards	<p>Construction Phase</p> <p>Construction period scheduled to overlap with the construction period of the Mona Offshore Wind Project in its entirety.</p> <p>Construction port(s) not yet identified, therefore possibility remains that both North Wales and North West England may be subject to cumulative effects.</p> <p>Operations and Maintenance Phase</p> <p>Operation of project scheduled to commence at the same point as the Mona Offshore Wind Project.</p> <p>Operations and maintenance port not yet identified, therefore possibility remains that both North Wales and North West England may be subject to cumulative effects.</p> <p>Decommissioning Phase</p> <p>Decommissioning period (commencing 2055) is not scheduled to overlap with the decommissioning period of the Mona Offshore Wind Project.</p>
Tier 2							
Morgan Offshore Wind	Pre- application	5.52	32.93/72.07	Application for the generation assets of the Morgan Offshore	2026–2030	2030– onwards	Construction Phase

MONA OFFSHORE WIND PROJECT

Project/ Plan	Status	Distance from the Mona Array Area (km)	Distance from the Mona offshore/on shore cable corridor (km)	Description of project/plan	Dates of constructi on (if applicable)	Dates of operation (if applicable)	Overlap with the Mona Offshore Wind Project
Project Generation Assets				Wind Project in the east Irish Sea.			<p>Construction period scheduled to overlap with the construction period of the Mona Offshore Wind Project in its entirety.</p> <p>Construction port(s) not yet identified. Possibility that installation activities will be co-located with the Mona Offshore Wind Project in order to deliver project efficiencies. Possibility remains that both North Wales and North West England may be subject to cumulative effects.</p> <p>Operations and Maintenance Phase</p> <p>Operation of project scheduled to commence at the same point as the Mona Offshore Wind Project.</p> <p>Operations and maintenance port not yet identified. Possibility that operation activities will be co-located with the Mona Offshore Wind Project in order to deliver project efficiencies. Possibility remains that both North Wales and North West England may be subject to cumulative effects.</p> <p>Decommissioning Phase</p> <p>Decommissioning period (commencing 2065) is scheduled to overlap with the decommissioning period of the Mona Offshore Wind Project.</p> <p>Possibility remains that both North Wales and North West England may be subject to cumulative effects.</p>

MONA OFFSHORE WIND PROJECT

Project/ Plan	Status	Distance from the Mona Array Area (km)	Distance from the Mona offshore/on shore cable corridor (km)	Description of project/plan	Dates of constructi on (if applicable)	Dates of operation (if applicable)	Overlap with the Mona Offshore Wind Project
Morgan and Morecamb e Offshore Windfarms Transmissi on Assets	Pre- application	8.92	21.53/50.72	Application for the coordinated transmission assets for the Morgan and Morecambe Offshore Wind Projects.	2026–2030	2030– onwards	<p>Construction Phase</p> <p>Construction period scheduled to overlap with the construction period of the Mona Offshore Wind Project in its entirety.</p> <p>Possibility remains that both North Wales and North West England may be subject to cumulative effects.</p> <p>Operations and Maintenance Phase</p> <p>Operation of project scheduled to commence at the same point as the Mona Offshore Wind Project.</p> <p>Possibility remains that both North Wales and North West England may be subject to cumulative effects.</p> <p>Decommissioning Phase</p> <p>Decommissioning period (commencing 2065) is scheduled to overlap with the decommissioning period of the Mona Offshore Wind Project.</p> <p>Possibility remains that both North Wales and North West England may be subject to cumulative effects.</p>
Morecamb e Offshore Windfarm Generation Assets	Pre- application	5.52	21.53/50.7	480 MW capacity floating offshore wind farm.	Unknown – overlap likely	Unknown – overlap likely	<p>Construction Phase</p> <p>Construction period scheduled to overlap with the construction period of the Mona Offshore Wind Project in its entirety.</p>

MONA OFFSHORE WIND PROJECT

Project/ Plan	Status	Distance from the Mona Array Area (km)	Distance from the Mona offshore/on shore cable corridor (km)	Description of project/plan	Dates of constructi on (if applicable)	Dates of operation (if applicable)	Overlap with the Mona Offshore Wind Project
							<p>Possibility remains that both North Wales and North West England may be subject to cumulative effects.</p> <p>Operations and Maintenance Phase</p> <p>Operation of project scheduled to commence at the same point as the Mona Offshore Wind Project.</p> <p>Possibility remains that both North Wales and North West England may be subject to cumulative effects.</p> <p>Decommissioning Phase</p> <p>Decommissioning period (commencing 2065) is scheduled to overlap with the decommissioning period of the Mona Offshore Wind Project.</p> <p>Possibility remains that both North Wales and North West England may be subject to cumulative effects.</p>
Moor Vannin Offshore Wind Farm	Scoping published.	34.52	52.90/100.40	1.4 GW capacity offshore wind farm.	2030–2032	2032– onwards	<p>Construction Phase</p> <p>Construction period scheduled to overlap with the construction period of the Mona Offshore Wind Project in its entirety.</p> <p>Possibility remains that both North Wales and North West England may be subject to cumulative effects.</p> <p>Operations and Maintenance Phase</p>

MONA OFFSHORE WIND PROJECT

Project/ Plan	Status	Distance from the Mona Array Area (km)	Distance from the Mona offshore/on shore cable corridor (km)	Description of project/plan	Dates of constructi on (if applicable)	Dates of operation (if applicable)	Overlap with the Mona Offshore Wind Project
							<p>Operation of project scheduled to commence at the same point as the Mona Offshore Wind Project.</p> <p>Possibility remains that both North Wales and North West England may be subject to cumulative effects.</p> <p>Decommissioning Phase</p> <p>Decommissioning period (commencing 2065) is scheduled to overlap with the decommissioning period of the Mona Offshore Wind Project.</p> <p>Possibility remains that both North Wales and North West England may be subject to cumulative effects.</p>

3.11.2 Maximum design scenario

- 3.11.2.1 The MDSs identified in Table 3.101 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 Environmental Statement as well as the information available on other projects and plans, in order to inform an MDS. 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 wind turbine layout), to that assessed here, be taken forward in the final design scheme.

MONA OFFSHORE WIND PROJECT

Table 3.101: Maximum design scenario considered for the assessment of potential offshore cumulative effects on socio-economics.

^a C=construction, O=operational and maintenance, D=decommissioning

Potential cumulative effect	Phase ^a			Maximum Design Scenario	Justification
	C	O	D		
The impact on economic receptors including employment, GVA and supply chain demand.	✓	✓	✓	<p>MDS as described for the Mona Offshore Wind Project (Table 3.38) assessed cumulatively with the following other projects/plans:</p> <p>Tier 1</p> <ul style="list-style-type: none"> Awel y Môr Offshore Wind Farm <p>Tier 2</p> <ul style="list-style-type: none"> Morgan Offshore Wind Project Generation Assets Morgan and Morecambe Offshore Windfarms Transmission Assets Morecambe Offshore Windfarm Generation Assets. Moor Vannin Offshore Wind Farm. 	Outcome of the CEA will be greatest when the largest number of other projects, which could impact on economic, social and tourism receptors within a study area.
The impact of increased employment opportunities.	✓	✓	✓	<p>MDS as described for the Mona Offshore Wind Project (Table 3.38) assessed cumulatively with the following other projects/plans:</p> <p>Tier 1</p> <ul style="list-style-type: none"> Awel y Môr Offshore Wind Farm. <p>Tier 2</p> <ul style="list-style-type: none"> Morgan Offshore Wind Project Generation Assets Morgan and Morecambe Offshore Windfarms Transmission Assets Morecambe Offshore Windfarm Generation Assets. Moor Vannin Offshore Wind Farm. 	Outcome of the CEA will be greatest when the greatest number of other projects, which could impact on economic, social and tourism receptors within a study area.

MONA OFFSHORE WIND PROJECT

Potential cumulative effect	Phase ^a			Maximum Design Scenario	Justification
	C	O	D		
The impact on the demand for housing, accommodation and local services.	✓	✓	✓	<p>MDS as described for the Mona Offshore Wind Project (Table 3.38) assessed cumulatively with the following other projects/plans:</p> <p>Tier 1</p> <ul style="list-style-type: none"> • Awel y Môr Offshore Wind Farm. <p>Tier 2</p> <ul style="list-style-type: none"> • Morgan Offshore Wind Project Generation Assets • Morgan and Morecambe Offshore Windfarms Transmission Assets • Morecambe Offshore Windfarm Generation Assets. • Mooir Vannin Offshore Wind Farm. 	Outcome of the CEA will be greatest when the greatest number of other projects, which could impact on economic, social and tourism receptors within a study area.
The impact on tourism.	✓	✓	✓	<p>MDS as described for the Mona Offshore Wind Project (Table 3.38) assessed cumulatively with the following other projects/plans:</p> <p>Tier 1</p> <ul style="list-style-type: none"> • Awel y Môr Offshore Wind Farm. • Deans Lane Wind Turbine • HMS Eaglet, Sefton Street – Wind Turbine • Rhyd-y-Groes Wind Farm repowering <p>Tier 2</p> <ul style="list-style-type: none"> • Morgan Offshore Wind Project Generation Assets • Morgan and Morecambe Offshore Windfarms Transmission Assets • Morecambe Offshore Windfarm Generation Assets. • Mooir Vannin Offshore Wind Farm. 	Outcome of the CEA will be greatest when the greatest number of other projects, which could impact on economic, social and tourism receptors within a study area.

MONA OFFSHORE WIND PROJECT

Potential cumulative effect	Phase ^a			Maximum Design Scenario	Justification
	C	O	D		
The potential impact on the Isle of Man associated with potential adverse effects on lifeline ferry services	✓	✓	✓	<p>MDS as described for the Mona Offshore Wind Project (Table 3.38) assessed cumulatively with the following other projects/plans:</p> <p>Tier 1</p> <ul style="list-style-type: none"> • Awel y Môr Offshore Wind Farm. <p>Tier 2</p> <ul style="list-style-type: none"> • Morgan Offshore Wind Project Generation Assets • Morgan and Morecambe Offshore Windfarms Transmission Assets • Morecambe Offshore Windfarm Generation Assets. • Mooir Vannin Offshore Wind Farm. 	<p>Outcome of the CEA will be greatest when the greatest number of other schemes are considered which result in the greatest impact on commercial operator routes.</p> <p>Outcome of the CEA will be greatest when the greatest number of other schemes are considered which result in the greatest impact on adverse weather routing.</p>

MONA OFFSHORE WIND PROJECT

Table 3.102: Maximum design scenario considered for the assessment of potential onshore cumulative effects on socio-economics.

^a C=construction, O=operational and maintenance, D=decommissioning

Potential cumulative effect	Phase ^a			Maximum Design Scenario	Justification
	C	O	D		
The impact on economic receptors including employment, GVA and supply chain demand.	✓	✓	✓	<p>MDS as described for the Mona Offshore Wind Project (Table 3.38) assessed cumulatively with the following other projects/plans:</p> <p>Tier 1</p> <ul style="list-style-type: none"> • Awel y Môr Offshore Wind Farm <p>Tier 2</p> <ul style="list-style-type: none"> • Morgan Offshore Wind Project Generation Assets • Morgan and Morecambe Offshore Windfarms Transmission Assets • Morecambe Offshore Windfarm Generation Assets. • Mooir Vannin Offshore Wind Farm. 	Outcome of the CEA will be greatest when the largest number of other projects, which could impact on economic, social and tourism receptors within a study area.
The impact of increased employment opportunities.	✓	✓	✓	<p>MDS as described for the Mona Offshore Wind Project (Table 3.38) assessed cumulatively with the following other projects/plans:</p> <p>Tier 1</p> <ul style="list-style-type: none"> • Awel y Môr Offshore Wind Farm. <p>Tier 2</p> <ul style="list-style-type: none"> • Morgan Offshore Wind Project Generation Assets • Morgan and Morecambe Offshore Windfarms Transmission Assets • Morecambe Offshore Windfarm Generation Assets. • Mooir Vannin Offshore Wind Farm. 	Outcome of the CEA will be greatest when the greatest number of other projects, which could impact on economic, social and tourism receptors within a study area.

MONA OFFSHORE WIND PROJECT

Potential cumulative effect	Phase ^a			Maximum Design Scenario	Justification
	C	O	D		
The impact on the demand for housing, accommodation and local services.	✓	✓	✓	<p>MDS as described for the Mona Offshore Wind Project (Table 3.38) assessed cumulatively with the following other projects/plans:</p> <p>Tier 1</p> <ul style="list-style-type: none"> • Awel y Môr Offshore Wind Farm. <p>Tier 2</p> <ul style="list-style-type: none"> • Morgan Offshore Wind Project Generation Assets • Morgan and Morecambe Offshore Windfarms Transmission Assets • Morecambe Offshore Windfarm Generation Assets. • Mooir Vannin Offshore Wind Farm. 	Outcome of the CEA will be greatest when the greatest number of other projects, which could impact on economic, social and tourism receptors within a study area.
The impact on tourism.	✓	✓	✓	<p>MDS as described for the Mona Offshore Wind Project (Table 3.38) assessed cumulatively with the following other projects/plans:</p> <p>Tier 1</p> <ul style="list-style-type: none"> • Awel y Môr Offshore Wind Farm. • Deans Lane Wind Turbine • HMS Eaglet, Sefton Street – Wind Turbine • Rhyd-y-Groes Wind Farm repowering <p>Tier 2</p> <ul style="list-style-type: none"> • Morgan Offshore Wind Project Generation Assets • Morgan and Morecambe Offshore Windfarms Transmission Assets • Morecambe Offshore Windfarm Generation Assets. • Mooir Vannin Offshore Wind Farm. 	Outcome of the CEA will be greatest when the greatest number of other projects, which could impact on economic, social and tourism receptors within a study area.

MONA OFFSHORE WIND PROJECT

Potential cumulative effect	Phase ^a			Maximum Design Scenario	Justification
	C	O	D		
The potential impact on the Isle of Man associated with potential adverse effects on lifeline ferry services	✓	✓	✓	<p>MDS as described for the Mona Offshore Wind Project (Table 3.38) assessed cumulatively with the following other projects/plans:</p> <p>Tier 1</p> <ul style="list-style-type: none"> • Awel y Môr Offshore Wind Farm. <p>Tier 2</p> <ul style="list-style-type: none"> • Morgan Offshore Wind Project Generation Assets • Morgan and Morecambe Offshore Windfarms Transmission Assets • Morecambe Offshore Windfarm Generation Assets. • Mooir Vannin Offshore Wind Farm. 	<p>Outcome of the CEA will be greatest when the greatest number of other schemes are considered which result in the greatest impact on commercial operator routes.</p> <p>Outcome of the CEA will be greatest when the greatest number of other schemes are considered which result in the greatest impact on adverse weather routing.</p>

3.12 Cumulative effects assessment – offshore

3.12.1 Overview

- 3.12.1.1 A description of the significance of cumulative effects upon socio-economics receptors arising from each identified impact is given below. All Tier 1 and Tier 2 projects have been assessed together.
- 3.12.1.2 Information from cumulative projects on port selection is not available. Detailed data on economic impacts, including employment and GVA, which would allow for a consistent and comparable quantitative assessment of potential cumulative effects is not available. Whilst the information on which to base a quantitative cumulative effects assessment is absent from the public domain, it is reasonable to assume there is potential for cumulative impacts on economic and social receptors within the socio-economics study areas.
- 3.12.1.3 Publicly available information on cumulative projects (e.g. Preliminary Environmental Information Reports) has been used where relevant to underpin the CEA.

Economic

3.12.2 The potential impact on economic receptors including employment and GVA

Construction phase

Magnitude of impact

- 3.12.2.1 Whilst detailed information is not available on which to carry out a quantitative cumulative effects assessment, it is reasonable to assume there is potential for cumulative impacts on economic receptors within the socio-economics study areas.
- 3.12.2.2 This would be dependant on the selection of primary construction ports for other projects within the same economic study area as the Mona Offshore Wind Project. The likelihood of this situation occurring is strongest with the Morgan Offshore Wind Farm project – there is a possibility that construction activities for this project will be co-located with the Mona Offshore Wind Project in order to deliver project efficiencies, as they are being promoted by the same developer.
- 3.12.2.3 Cumulative effects are very likely to occur at the UK level, as there is a very high likelihood the selection of primary construction ports for other projects will be within the UK.
- 3.12.2.4 As per Table 3.43, the magnitude of impact assessed for the Mona Offshore Wind Project is low (beneficial) in North Wales, North West England, Wales and the UK.
- 3.12.2.5 Based on the lack of consistent and comparable publicly available data on which a quantitative assessment of the magnitude of potential cumulative impacts can be based, the magnitude of impact for each economic study area is assessed relative to the Mona Offshore Wind Farm impact assessment, and is shown in Table 3.103. Relative to the assessment set out in section 3.9, it is anticipated there will be additional impacts when cumulative projects are considered alongside the Mona Offshore Wind Farm.

Table 3.103: Magnitude of cumulative construction phase employment and GVA impacts.

Study area	Magnitude
North Wales	Medium to high (beneficial)
North West England	Medium to high (beneficial)
Wales	Medium to high (beneficial)
UK	Medium to high (beneficial)

3.12.2.6 The upper end of any range is based on primary construction ports for more than two projects being located within the same economic study area.

Sensitivity of the receptor

3.12.2.7 As per section 3.9.2, the sensitivity of the receptor is considered to be **medium**.

Significance of the effect

3.12.2.8 The significance of the cumulative effects for each economic study area are set out in Table 3.104.

Table 3.104: Significance of cumulative construction phase offshore employment and GVA impacts.

Study area	Magnitude	Sensitivity	Significance	Significant in EIA terms
North Wales	Medium to high (beneficial)	Medium	Moderate (beneficial)	Yes
North West England	Medium to high (beneficial)	Medium	Moderate (beneficial)	Yes
Wales	Medium to high (beneficial)	Medium	Moderate (beneficial)	Yes
UK	Medium to high (beneficial)	Medium	Moderate (beneficial)	Yes

Operations and maintenance phase

Magnitude of impact

3.12.2.9 Whilst detailed information is not available it is reasonable to assume there is potential for cumulative impact on economic receptors within the economic study areas. This would be dependant on the selection of primary operation and maintenance ports for other projects within the same economic study area as the Mona Offshore Wind Project. The likelihood of this situation occurring is strongest with the Morgan Offshore Wind Farm project – there is a possibility operation and maintenance activities for this project will be co-located with the Mona Offshore Wind Project in order to deliver project efficiencies. The same is largely true with regards to the Wales economic study area. The likelihood of cumulative effects occurring within the UK socio-economics national study area is greater, as this would be dependant on the selection of primary operation and maintenance ports for other projects within the UK – a situation with a much higher probability of occurring.

MONA OFFSHORE WIND PROJECT

- 3.12.2.10 As per Table 3.48, the magnitude of impact assessed for the Mona Offshore Wind Project is medium (beneficial) in North Wales, and low (beneficial) in North West England and Wales.
- 3.12.2.11 Based on the lack of consistent and comparable publicly available data on which a quantitative assessment of the magnitude of potential cumulative impacts can be based, the magnitude of impact for each economic study area is assessed relative to the Mona Offshore Wind Farm impact assessment, and is shown in Table 3.105. Relative to the assessment set out in section 3.9, it is anticipated there will be additional impacts when cumulative projects are considered alongside the Mona Offshore Wind Farm.

Table 3.105: Magnitude of cumulative operations and maintenance phase offshore employment and GVA impacts.

Study area	Magnitude
North Wales	Medium to high (beneficial)
North West England	Low to medium (beneficial)
Wales	Low to medium (beneficial)

- 3.12.2.12 The upper end of any range is based on primary operations and maintenance ports for more than two projects being located within the economic study area.

Sensitivity of the receptor

- 3.12.2.13 As per section 3.9.2, the sensitivity of the receptor is considered to be **high**.

Significance of the effect

- 3.12.2.14 The significance of the cumulative effects for each socio-economics study area are set out in Table 3.106.

Table 3.106: Significance of cumulative operation and maintenance offshore phase employment and GVA impacts.

Study area	Magnitude	Sensitivity	Significance	Significant in EIA terms
North Wales	Medium to high (beneficial)	High	Moderate (beneficial)	Yes
North West England	Low to medium (beneficial)	High	Minor (beneficial)	No
Wales	Low to medium (beneficial)	High	Minor (beneficial)	No

Decommissioning phase

- 3.12.2.15 The scale and duration of decommissioning activity is uncertain. The exact approach to decommissioning is not yet confirmed as best practice at the time is not currently known.
- 3.12.2.16 No plans are in place to consider potential locations for decommissioning support ports.
- 3.12.2.17 If decommissioning ports were selected within the same economic study areas, there may be cumulative effects with other projects where decommissioning phases

MONA OFFSHORE WIND PROJECT

coincide. However timing is uncertain and no data is available on which to make an assessment.

- 3.12.2.18 Within the economic study areas the significance of cumulative effects assessed at construction phase on economic receptors is moderate (beneficial). On the basis of currently available evidence the significance of effects for decommissioning phase will be minor (beneficial) and therefore not significant in EIA terms.

3.12.3 The potential impact of increased employment opportunities

Construction phase

Magnitude of impact

- 3.12.3.1 Whilst detailed information is not available it is reasonable to assume there is potential for cumulative impact on employment opportunities within economic study areas. This would be dependant on the selection of primary construction ports for other projects within the same economic study area as the Mona Offshore Wind Project. The likelihood of this situation occurring is strongest with the Morgan Offshore Wind Farm project – there is a possibility construction activities for this project will be co-located with the Mona Offshore Wind Project in order to deliver project efficiencies. The same is largely true with regards to the Wales. The likelihood of cumulative effects occurring within the UK is greater, as this would be dependant on the selection of primary construction ports for other projects within the UK – a situation with a much higher probability of occurring.
- 3.12.3.2 As per Table 3.59, the magnitude of impact assessed for the Mona Offshore Wind Project is negligible in North Wales and North West England.
- 3.12.3.3 Based on the lack of consistent and comparable publicly available data on which a quantitative assessment of the magnitude of potential cumulative impacts can be based, the magnitude of impact for each economic study area is assessed relative to the Mona Offshore Wind Farm impact assessment, and is shown in Table 3.107. Relative to the assessment set out in section 3.9, it is anticipated there will be additional impacts when cumulative projects are considered alongside the Mona Offshore Wind Farm.

Table 3.107: Magnitude of cumulative construction phase offshore employment opportunity impacts.

Study area	Magnitude
North Wales	Low (beneficial)
North West England	Low (beneficial)

- 3.12.3.4 These magnitudes are based on primary construction ports for more than two projects being located within the same economic study area.

Sensitivity of the receptor

- 3.12.3.5 As per section 3.9.3, the sensitivity of the receptor is considered to be **medium**.

Significance of the effect

- 3.12.3.6 The significance of the cumulative effects for each economic study area are set out in Table 3.108.

MONA OFFSHORE WIND PROJECT

Table 3.108: Significance of cumulative construction phase offshore employment opportunity impacts.

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

Operations and maintenance phase

Magnitude of impact

- 3.12.3.7 Whilst detailed information is not available it is reasonable to assume there is potential for cumulative impact on employment opportunities within the economic study areas. This would be dependant on the selection of primary operation and maintenance ports for other projects within the same economic study area as the Mona Offshore Wind Project. The likelihood of this situation occurring is strongest with the Morgan Offshore Wind Farm project – there is a possibility operation and maintenance activities for this project will be co-located with the Mona Offshore Wind Project in order to deliver project efficiencies. The same is largely true with regards to Wales. The likelihood of cumulative effects occurring within the UK is greater, as this would be dependant on the selection of primary operation and maintenance ports for other projects within the UK – a situation with a much higher probability of occurring.
- 3.12.3.8 As per Table 3.64, the magnitude of impact assessed for the Mona Offshore Wind Project is low (beneficial) in North Wales, and negligible in North West England.
- 3.12.3.9 Based on the lack of consistent and comparable publicly available data on which a quantitative assessment of the magnitude of potential cumulative impacts can be based, the magnitude of impact for each economic study area is assessed relative to the Mona Offshore Wind Farm impact assessment, and is shown in Table 3.109. Relative to the assessment set out in section 3.9, it is anticipated there will be additional impacts when cumulative projects are considered alongside the Mona Offshore Wind Farm.

Table 3.109: Magnitude of cumulative operation and maintenance phase offshore employment opportunity impacts.

Study area	Magnitude
North Wales	Medium (beneficial)
North West England	Low (beneficial)

- 3.12.3.10 This is based on primary operations and maintenance ports for more than two projects being located within the same economic study area.

Sensitivity of the receptor

- 3.12.3.11 As per section 3.9.3, the sensitivity of the receptor is considered to be **high**.

Significance of the effect

- 3.12.3.12 The significance of the cumulative effects for each socio-economics study area are set out in Table 3.110.

MONA OFFSHORE WIND PROJECT

Table 3.110: Significance of cumulative operation and maintenance phase offshore employment opportunity impacts.

Study area	Magnitude	Sensitivity	Significance	Significant in EIA terms
North Wales	Medium (beneficial)	High	Moderate (beneficial)	Yes
North West England	Low (beneficial)	High	Minor (beneficial)	No

Decommissioning phase

- 3.12.3.13 The scale and duration of decommissioning activity is uncertain. The exact approach to decommissioning is not yet confirmed as best practice at the time is not currently known.
- 3.12.3.14 No plans are in place to consider potential locations for decommissioning support ports.
- 3.12.3.15 If decommissioning ports were selected within the same economic study areas, there may be cumulative effects with other projects where decommissioning phases coincide. However timing is uncertain and no data is available on which to make an assessment.
- 3.12.3.16 Within the economic study areas the significance of cumulative effects assessed at construction phase on employment opportunities is negligible. On the basis of currently available evidence the significance of effects for decommissioning phase will be minor (beneficial) and therefore not significant in EIA terms.

Social

3.12.4 The potential impact on the population, housing and accommodation

Construction phase

Magnitude of impact

- 3.12.4.1 Whilst detailed information is not available it is reasonable to assume there is potential for cumulative impact on the demand for overnight accommodation within the social study areas. This would be dependant on the selection of primary construction ports for other projects within the same social study area as the Mona Offshore Wind Project. The likelihood of this situation occurring is strongest with the Morgan Offshore Wind Farm project – there is a possibility construction activities for this project will be co-located with the Mona Offshore Wind Project in order to deliver project efficiencies.
- 3.12.4.2 As per Table 3.75, the magnitude of impact assessed for the Mona Offshore Wind Project is negligible in both North Wales and North West England.
- 3.12.4.3 Based on the lack of consistent and comparable publicly available data on which a quantitative assessment of the magnitude of potential cumulative impacts can be based, the magnitude of impact for each economic study area is assessed relative to the Mona Offshore Wind Farm impact assessment, and is shown in Table 3.111. Relative to the assessment set out in section 3.9, it is anticipated there will be additional impacts when cumulative projects are considered alongside the Mona Offshore Wind Farm.

MONA OFFSHORE WIND PROJECT

Table 3.111: Magnitude of cumulative construction phase offshore impacts on the demand for housing, accommodation and local services.

Study area	Magnitude
North Wales	Low (beneficial)
North West England	Low (beneficial)

3.12.4.4 The upper end of any range is based on primary construction ports for more than two projects being located within the same social study area.

Sensitivity of the receptor

3.12.4.5 As per section 3.9.4, the sensitivity of the receptor is considered to be **medium**.

Significance of the effect

3.12.4.6 The significance of the cumulative effects for each socio-economics study area are set out in Table 3.112.

Table 3.112: Significance of cumulative construction phase offshore impacts on housing, accommodation and local services.

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

Operation and maintenance phase

Magnitude of impact

3.12.4.7 Whilst detailed information is not available it is reasonable to assume there is potential for cumulative impact on the demand for private rented and permanent accommodation within the social study areas. This would be dependent on the selection of primary operation and maintenance ports for other projects within the same social study area as the Mona Offshore Wind Project. The likelihood of this situation occurring is strongest with the Morgan Offshore Wind Farm project – there is a possibility operation and maintenance activities for this project will be co-located with the Mona Offshore Wind Project in order to deliver project efficiencies.

3.12.4.8 The magnitude of impact arising from the Mona Offshore Wind Project has been assessed as negligible in North Wales and North West England.

3.12.4.9 Based on the lack of consistent and comparable publicly available data on which a quantitative assessment of the magnitude of potential cumulative impacts can be based, the magnitude of impact for each economic study area is assessed relative to the Mona Offshore Wind Farm impact assessment, and is shown in Table 3.113. Relative to the assessment set out in section 3.9, it is anticipated there will be additional impacts when cumulative projects are considered alongside the Mona Offshore Wind Farm.

MONA OFFSHORE WIND PROJECT

Table 3.113: Magnitude of cumulative operation and maintenance phase impacts on the demand for housing, accommodation and local services.

Study area	Magnitude
North Wales	Low (beneficial)
North West England	Low (beneficial)

Sensitivity of the receptor

3.12.4.10 As per section 3.9.4, the sensitivity of the receptor is considered to be **high**.

Significance of the effect

3.12.4.11 The significance of the cumulative effects for each socio-economics study area are set out in Table 3.114.

Table 3.114: Significance of cumulative operation and maintenance phase impacts on housing, accommodation and local services.

Study area	Magnitude	Sensitivity	Significance	Significant in EIA terms
Sub-national				
North Wales	Low (beneficial)	High	Minor (beneficial)	No
North West England	Low (beneficial)	High	Minor (beneficial)	No

Decommissioning phase

3.12.4.12 The duration of decommissioning activity is uncertain. The exact approach to decommissioning is not yet confirmed as best practice at the time is not currently known.

3.12.4.13 No plans are in place to consider potential locations for decommissioning support ports.

3.12.4.14 If decommissioning ports were selected within the same social study areas, there may be cumulative effects with other projects where decommissioning phases coincide. However timing is uncertain and no data is available on which to make an assessment.

3.12.4.15 Within the social study areas the significance of cumulative effects assessed at construction phase for population, housing and accommodation minor (beneficial). On the basis of currently available evidence the significance of effects for decommissioning phase will be no more than minor (beneficial) and therefore not significant in EIA terms.

Tourism

3.12.5 The potential impact on tourism.

3.12.5.1 Paragraphs 3.9.5.1–3.9.5.6 set out a summary of evidence of potential links between offshore wind farms and the visitor economy. This evidence suggests that, whilst there are some negative perceptions of the potential visual impacts of offshore wind farms on an area's visitor economy, there are a number of mitigating factors which can result in positive impacts on an area's visitor economy. It is also anticipated that any potential tourism impacts would be predominantly short term in nature, with opportunity for

MONA OFFSHORE WIND PROJECT

visitor economy adaptation in the longer term once an offshore wind farm becomes part of the baseline conditions of a location.

Relevant receptors

- 3.12.5.2 Mona Offshore Wind Farm 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.
- 3.12.5.3 In assessing any potential cumulative offshore 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.

Visual amenity

- 3.12.5.4 Volume 2, Chapter 8: Seascape and visual resources of the Environmental Statement assesses the potential cumulative impacts of the construction, operations and maintenance, and decommissioning phases of the Mona Offshore Wind Farm on visual resources. This chapter draws on Volume 2, Chapter 8: Seascape and visual resources of the Environmental Statement to assess the potential indirect cumulative effects of potential visual impacts on tourism.
- 3.12.5.5 Volume 2, Chapter 8: Seascape and visual resources of the Environmental Statement assesses the potential cumulative impacts of the Mona Offshore Wind Project in combination with cumulative projects on seascape, landscape, and visual receptors. As per paragraph 3.9.5.10, the cumulative assessment of visual receptors is relevant to this chapter. Therefore, the following aspects of the cumulative effects assessment within Volume 2, Chapter 8: Seascape and visual resources of the Environmental Statement are relevant to this chapter's assessment:
- Cumulative visual effects together with existing development projects – static and dynamic visual receptors
 - Cumulative visual effects together with proposed development projects – static and dynamic visual receptors (excluding ferry routes).

Cumulative visual effects together with existing development projects – static and dynamic visual receptors

- 3.12.5.6 The visual receptors that have been assessed for cumulative impacts within Volume 2, Chapter 8: Seascape and visual resources of the Environmental Statement are:
- Popular, sensitive publicly accessible locations on land, represented by a selection of CEA viewpoints
 - National trails (Wales Coast Path and Offa's Dyke Path or equivalent non-vehicular recreational routes e.g., Raad ny Foillan Coastal Path, Isle of Man)
 - Main coastal roads and railways (including the A547 and A55 North Wales Expressway, the Liverpool/Manchester to Holyhead railway, and the Manx Electric Railway, Isle of Man)
 - Ferry routes (in particular, Liverpool to Dublin and Liverpool to Douglas)
 - Other viewpoints relevant to the CEA and the above visual receptor groups.
- 3.12.5.7 Volume 2, Chapter 8: Seascape and visual resources of the Environmental Statement concludes that none of the assessed visual receptors are likely to be significantly

MONA OFFSHORE WIND PROJECT

affected cumulatively by the Mona Offshore Wind Project together with existing development projects.

Cumulative visual effects together with proposed development projects – static and dynamic visual receptors (excluding ferry routes)

- 3.12.5.8 The visual receptors that have been assessed for cumulative impacts within Volume 2, Chapter 8: Seascape and visual resources of the Environmental Statement are:
- Popular, sensitive publicly accessible locations on land, represented by a selection of CEA viewpoints
 - National trails (Wales Coast Path and Offa's Dyke Path or equivalent non-vehicular recreational routes e.g., Raad ny Foillan Coastal Path, Isle of Man)
 - Main coastal roads and railways (including the A547 and A55 North Wales Expressway, the Liverpool/Manchester to Holyhead railway, and the Manx Electric Railway, Isle of Man)
 - A sample of six representative viewpoints which have been assessed according to CEA wirelines
 - Other viewpoints relevant to the CEA and the above visual receptors groups.
- 3.12.5.9 Volume 2, Chapter 8: Seascape and visual resources of the Environmental Statement concludes that none of the assessed visual receptors are likely to be significantly affected cumulatively by the Mona Offshore Wind Project together with proposed Tier 1, Tier 2, and Tier 3 projects.

Overall

- 3.12.5.10 Having considered the assessment of cumulative effects set out within Volume 2, Chapter 8: Seascape and visual resources of the Environmental Statement, there are no likely significant adverse indirect cumulative effects on tourism in North Wales, North West England, and the Isle of Man associated with visual amenity.

Overnight trips and accommodation

- 3.12.5.11 The assessment of potential cumulative indirect impacts on tourism associated with overnight trips and accommodation demand is based on the assessment of potential cumulative impacts on overnight accommodation found in section 3.12.4.
- 3.12.5.12 The assessment of cumulative effects on population, housing and accommodation set out in section 3.12.4 assessed the potential significance of effects during the construction, operation and maintenance, and decommissioning phases, which are summarised in Table 3.115.

Table 3.115: Significance of offshore employment impacts on population, housing and accommodation, current capability scenario.

Study area	Magnitude	Sensitivity	Significance	Significant in EIA terms
Construction				
North Wales	Low (beneficial)	Medium	Minor (beneficial)	No
North West England	Low (beneficial)	Medium	Minor (beneficial)	No
Operation and Maintenance				
North Wales	Low (beneficial)	High	Minor (beneficial)	No

MONA OFFSHORE WIND PROJECT

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

- 3.12.5.13 On the basis of this assessment, there are no likely significant indirect cumulative effects on tourism in either North Wales or North West England area associated with cumulative demand for overnight accommodation. This receptor is not relevant to the Isle of Man since no port on the Island is likely to be used to support delivery of the Mona Offshore Wind Project.

Recreation

- 3.12.5.14 This assessment considers potential cumulative indirect impacts on tourism associated with cumulative direct or indirect effects on recreation. This part of the assessment is based on Volume 2, Chapter 7: Shipping and navigation, and Volume 2, Chapter 10: Other sea users of the Environmental Statement.
- 3.12.5.15 Volume 2, Chapter 7: Shipping and navigation of the Environmental Statement assesses the significance of potential cumulative impacts on recreational craft passages and safety within the shipping and navigation study area.
- 3.12.5.16 The assessment concludes that during the construction phase, operations and maintenance and decommissioning phases potential cumulative effects will be of no more than minor adverse significance, which is not significant in EIA terms.
- 3.12.5.17 Volume 2, Chapter 10: Other sea users of the Environmental Statement assesses the significance of potential displacement of recreational activities during the operations and maintenance phase as a result of Tier 1 and Tier 2 cumulative projects in combination.
- 3.12.5.18 The assessment concludes that during the operations and maintenance phase potential cumulative effects will be of no more than minor adverse significance, which is not significant in EIA terms.
- 3.12.5.19 This consideration of potential indirect cumulative effects on recreation indicates there are unlikely to be any material indirect cumulative impacts on tourism in either North Wales or North West England associated with impacts on recreation as a result of the Mona Offshore Wind Project.

Overall

Construction phase

- 3.12.5.20 Based on a consideration of the pathways by which tourism activities might be cumulatively impacted by Mona Offshore Wind Farm during the construction phase, the following sets out the magnitude, sensitivity and significance for each tourism study area:
- 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 (adverse) significance, which is not significant in EIA terms.

MONA OFFSHORE WIND PROJECT

- 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 (adverse) significance, which is not significant in EIA terms
- Isle of Man: 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.

Operation and maintenance phase

3.12.5.21 Based on a consideration of the pathways by which tourism activities might be cumulatively impacted by Mona Offshore Wind Farm during the operation and maintenance phase, the following sets out the magnitude, sensitivity and significance for each tourism study area:

- 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 (adverse) significance, which is not significant in EIA terms
- 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 (adverse) significance, which is not significant in EIA terms
- Isle of Man: 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.

Decommissioning phase

3.12.5.22 Based on a consideration of the pathways by which tourism activities might be cumulatively impacted by Mona Offshore Wind Farm during the decommissioning phase, the following sets out the magnitude, sensitivity and significance for each tourism study area:

- 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 (adverse) significance, which is not significant in EIA terms
- 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 (adverse) significance, which is not significant in EIA terms
- Isle of Man: 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.

Isle of Man

3.12.6 The potential impact on the Isle of Man associated with potential adverse effects on lifeline ferry services.

Tier 1

Construction phase

Magnitude of impact

- 3.12.6.1 As per Figure 7.10 within Volume 2, Chapter 7: Shipping and Navigation of the Environmental Statement, Awel y Môr Offshore Wind Farm is anticipated to have no impact on IoMSPC shipping routes (including adverse weather routes) between Douglas–Heysham and/or Douglas–Liverpool.
- 3.12.6.2 Tier 1 impacts are therefore not anticipated to be materially different to that of the Mona Offshore Wind Project in isolation and described in section 3.9.6.
- 3.12.6.3 The potential cumulative effect is predicted to be of local spatial extent, long term duration, intermittent, and high reversibility. It is predicted the impact will affect the receptor indirectly. The magnitude is therefore, considered to be **negligible (adverse)**.

Sensitivity of the receptor

- 3.12.6.4 As per paragraph 3.9.6.126, with respect to linkages with lifeline ferry services, socio-economic conditions on the Isle of Man economy are deemed to be of high tolerance, high recoverability and high value. The sensitivity of the receptor is therefore, considered to be low.

Significance of the effect

- 3.12.6.5 Overall, the magnitude of the impact is deemed to be negligible and the sensitivity of the receptor is considered to be low. The cumulative effect will, therefore, be of **minor (adverse)** significance, which is not significant in EIA terms.

Operation and maintenance phase

- 3.12.6.6 As per paragraph 3.9.6.129, the magnitude of potential impacts and the sensitivity of the receptor during the operation and maintenance phase are assessed on the same basis as the construction phase.

Magnitude of impact

- 3.12.6.7 The potential cumulative effect is predicted to be of local spatial extent, long term duration, intermittent, and high reversibility. It is predicted the impact will affect the receptor indirectly. The magnitude is therefore, considered to be **negligible (adverse)**.

Sensitivity of the receptor

- 3.12.6.8 As per paragraph 3.12.6.4, with respect to linkages with lifeline ferry services, socio-economic conditions on the Isle of Man economy are deemed to be of high tolerance, high recoverability and high value. The sensitivity of the receptor is therefore, considered to be low.

Significance of the effect

- 3.12.6.9 Overall, the magnitude of the impact is deemed to be negligible and the sensitivity of the receptor is considered to be low. The cumulative effect will, therefore, be of **minor (adverse)** significance, which is not significant in EIA terms.

Decommissioning phase

- 3.12.6.10 As per paragraph 3.9.6.136, the magnitude of potential impacts and the sensitivity of the receptor during the decommissioning phase are assessed on the same basis as the construction phase.

Magnitude of impact

- 3.12.6.11 The potential cumulative effect is predicted to be of local spatial extent, long term duration, intermittent, and high reversibility. It is predicted the impact will affect the receptor indirectly. The magnitude is therefore, considered to be **negligible (adverse)**.

Sensitivity of the receptor

- 3.12.6.12 As per paragraph 3.12.6.4, with respect to linkages with lifeline ferry services, socio-economic conditions on the Isle of Man economy are deemed to be of high tolerance, high recoverability and high value. The sensitivity of the receptor is therefore, considered to be low.

Significance of the effect

- 3.12.6.13 Overall, the magnitude of the impact is deemed to be negligible and the sensitivity of the receptor is considered to be low. The cumulative effect will, therefore, be of **minor (adverse)** significance, which is not significant in EIA terms.

Tier 2

Construction phase

Magnitude of impact

- 3.12.6.14 The assessment of Tier 2 cumulative effects considers the following:
- **Morgan Offshore Wind Project Generation Assets**
 - Anticipated to contribute 1.7 minutes of steaming time per crossing on the baseline IoMSPC route between Douglas–Heysham, and 0.5 minutes of steaming time per crossing on the baseline IoMSPC route between Douglas–Liverpool.
 - Anticipated to result in increased occurrences of adverse weather routing on the Douglas–Heysham route – infrequently, but multiple times a year.
 - Anticipated to have no impact on adverse weather routes for the Douglas–Liverpool route.
 - Magnitude of impact on socio-economic conditions on the Isle of Man is assessed as low (adverse).
 - **Morgan and Morecambe Offshore Windfarms Transmission Assets**
 - consists of a single isolated structure and a temporary and localised cable installation impact which would have a negligible impact on ship routing.
 - **Morecambe Offshore Windfarm Generation Assets**
 - is anticipated to have limited impact on IoMSPC shipping routes between Douglas–Heysham and/or Douglas–Liverpool.
 - **Moor Vannin Offshore Wind Farm**

MONA OFFSHORE WIND PROJECT

- construction phase is not anticipated to overlap with the Morgan Generation Assets construction phase. Therefore, cumulative impacts are not anticipated during the construction phase.

3.12.6.15 Overall, the potential cumulative effect is predicted to be of local spatial extent, long term duration, intermittent, and high reversibility. It is predicted the impact will affect the receptor indirectly. The magnitude is therefore, considered to be **medium (adverse)**.

Sensitivity of the receptor

3.12.6.16 As per paragraph 3.12.6.4, with respect to linkages with lifeline ferry services, socio-economic conditions on the Isle of Man economy are deemed to be of high tolerance, high recoverability and high value. The sensitivity of the receptor is therefore, considered to be low.

Significance of the effect

3.12.6.17 Overall, the magnitude of the impact is deemed to be medium (adverse) and the sensitivity of the receptor is considered to be low. The cumulative effect will, therefore, be of **minor (adverse)** significance, which is not significant in EIA terms.

Operation and maintenance phase

3.12.6.18 As per paragraph 3.9.6.129, the magnitude of potential impacts and the sensitivity of the receptor during the operation and maintenance phase are assessed on the same basis as the construction phase, unless otherwise stated.

Magnitude of impact

3.12.6.19 In addition to the considerations included with the assessment of Tier 2 construction impacts, the assessment of potential operation and maintenance phase Tier 2 considers the following:

- Moir Vannin Offshore Wind Farm
 - Anticipated to have additional impacts on the normal weather IoMSPC shipping route between Douglas–Heysham. The extent of these impacts is unknown.
 - Anticipated to have no impact on IoMSPC adverse weather shipping routes between Douglas–Heysham.
 - Anticipated to have no impact on IoMSPC shipping routes (including adverse weather routes) between Douglas–Liverpool.

3.12.6.20 Overall, the potential cumulative effect is predicted to be of local spatial extent, long term duration, intermittent, and high reversibility. It is predicted the impact will affect the receptor indirectly. The magnitude is therefore, considered to be **medium (adverse)**.

Sensitivity of the receptor

3.12.6.21 As per paragraph 3.12.6.4, with respect to linkages with lifeline ferry services, socio-economic conditions on the Isle of Man economy are deemed to be of high tolerance, high recoverability and high value. The sensitivity of the receptor is therefore, considered to be low.

MONA OFFSHORE WIND PROJECT

Significance of the effect

- 3.12.6.22 Overall, the magnitude of the impact is deemed to be medium (adverse) and the sensitivity of the receptor is considered to be low. The cumulative effect will, therefore, be of **minor (adverse)** significance, which is not significant in EIA terms.

Decommissioning phase

- 3.12.6.23 As per paragraph 3.9.6.136, the magnitude of potential impacts and the sensitivity of the receptor during the decommissioning phase are assessed on the same basis as the construction phase.

Magnitude of impact

- 3.12.6.24 The potential cumulative effect is predicted to be of local spatial extent, long term duration, intermittent, and high reversibility. It is predicted the impact will affect the receptor indirectly. The magnitude is therefore, considered to be **medium (adverse)**.

Sensitivity of the receptor

- 3.12.6.25 As per paragraph 3.12.6.4, with respect to linkages with lifeline ferry services, socio-economic conditions on the Isle of Man economy are deemed to be of high tolerance, high recoverability and high value. The sensitivity of the receptor is therefore, considered to be low.

Significance of the effect

- 3.12.6.26 Overall, the magnitude of the impact is deemed to be medium (adverse) and the sensitivity of the receptor is considered to be low. The cumulative effect will, therefore, be of **minor (adverse)** significance, which is not significant in EIA terms.

3.13 Cumulative effects assessment – onshore

3.13.1 Overview

- 3.13.1.1 A description of the significance of cumulative effects upon socio-economics receptors arising from each identified impact is given below. Tier 1 project Awel y Môr Offshore Wind Farm is the only listed project with potential to result in cumulative onshore environmental effects.
- 3.13.1.2 Publicly available information on cumulative projects (e.g. Preliminary Environmental Information Reports) has been used where relevant to underpin the CEA.

Economic

3.13.2 The potential impact on economic receptors including employment and GVA

Construction phase

- 3.13.2.1 There is potential for cumulative impact on economic receptors within study areas where the onshore substation sites for cumulative projects are in close proximity to the Mona Offshore Wind Project. The cumulative project where this is known to be the case, or cannot be ruled out at this stage is:
- Tier 1: Awel y Môr Offshore Wind Farm.

MONA OFFSHORE WIND PROJECT

3.13.2.2 The remaining cumulative projects are seeking consent for landfall and onshore infrastructure in north west England.

Magnitude of impact

3.13.2.3 As per Table 3.88, the magnitude of impact assessed for the Mona Offshore Wind Project is low (beneficial) in North Wales and Wales, and Negligible in the UK.

3.13.2.4 Based on the lack of consistent and comparable publicly available data on which a quantitative assessment of the magnitude of potential cumulative impacts can be based, the magnitude of impact for each economic study area is assessed relative to the Mona Offshore Wind Farm impact assessment, and is shown in

3.13.2.5 Table 3.116 below.

3.13.2.6 Relative to the assessment set out in section 3.9, it is anticipated there will be additional impacts when Tier 1 cumulative projects are considered alongside the Mona Offshore Wind Farm.

Table 3.116: Significance of cumulative construction phase onshore employment and GVA impacts.

Study area	Magnitude
North Wales	Medium (beneficial)
Wales	Low (beneficial)
UK	Negligible

Sensitivity of the receptor

3.13.2.7 As per section 3.10.2, the sensitivity of the receptor is considered to be **medium**.

Significance of the effect

3.13.2.8 The significance of the cumulative effects for each economic study area are set out in Table 3.117.

Table 3.117: Significance of cumulative construction phase onshore employment and GVA impacts.

Study area	Magnitude	Sensitivity	Significance	Significant in EIA terms
North Wales	Medium (beneficial)	Medium	Moderate (beneficial)	Yes
Wales	Low (beneficial)	Medium	Minor (beneficial)	No
UK	Negligible	Medium	Negligible	No

3.13.3 The potential impact of increased employment opportunities

Construction phase

3.13.3.1 There is potential for cumulative impact on economic receptors within study areas since the onshore substation sites for both the Mona Offshore Wind Project and Awel y Môr Offshore Wind Farm are within close proximity.

MONA OFFSHORE WIND PROJECT

Magnitude of impact

- 3.13.3.2 As per Table 3.92, the magnitude of impact assessed for the Mona Offshore Wind Project is negligible in North Wales.
- 3.13.3.3 Based on the lack of consistent and comparable publicly available data on which a quantitative assessment of the magnitude of potential cumulative impacts can be based, the magnitude of impact for each economic study area is assessed relative to the Mona Offshore Wind Farm impact assessment, and is shown in Table 3.118. Relative to the assessment set out in section 3.9, it is anticipated there will be additional impacts when Tier 1 cumulative projects are considered alongside the Mona Offshore Wind Farm.

Table 3.118: Magnitude of cumulative construction phase onshore employment opportunity impacts.

Study area	Magnitude
North Wales	Low (beneficial)

Sensitivity of the receptor

- 3.13.3.4 As per section 3.10.3, the sensitivity of the receptor is considered to be **medium**.

Significance of the effect

- 3.13.3.5 The significance of the cumulative effects for each economic study area are set out in Table 3.119.

Table 3.119: Significance of cumulative construction phase onshore employment opportunity impacts.

Study area	Magnitude	Sensitivity	Significance	Significant in EIA terms
North Wales	Low (beneficial)	Medium	Minor (beneficial)	No

Social

3.13.4 The potential impact on the population, housing and accommodation

- 3.13.4.1 There is potential for cumulative impact on economic receptors within study areas since the onshore substation sites for both the Mona Offshore Wind Project and Awel y Môr Offshore Wind Farm are within close proximity.

Construction phase

Magnitude of impact

- 3.13.4.2 As per Table 3.96, the magnitude of impact assessed for the Mona Offshore Wind Project is Negligible in North Wales.
- 3.13.4.3 Based on the lack of consistent and comparable publicly available data on which a quantitative assessment of the magnitude of potential cumulative impacts can be based, the magnitude of impact for each economic study area is assessed relative to the Mona Offshore Wind Farm impact assessment, and is shown in Table 3.120. Relative to the assessment set out in section 3.9, it is anticipated there will be

MONA OFFSHORE WIND PROJECT

additional impacts when Tier 1 cumulative projects are considered alongside the Mona Offshore Wind Farm.

Table 3.120: Magnitude of cumulative construction phase onshore impacts on the demand for housing, accommodation and local services.

Study area	Magnitude
North Wales	Low (beneficial)

Sensitivity of the receptor

3.13.4.4 As per section 3.10.4, the sensitivity of the receptor is considered to be **medium**.

Significance of the effect

3.13.4.5 The significance of the cumulative effects for each socio-economics study area are set out in Table 3.121.

Table 3.121: Significance of cumulative construction phase onshore impacts on housing, accommodation and local services.

Study area	Magnitude	Sensitivity	Significance	Significant in EIA terms
North Wales	Low (beneficial)	Medium	Minor (beneficial)	No

Tourism

3.13.5 The potential impact on tourism.

Relevant receptors

3.13.5.1 Mona Offshore Wind Farm 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.

3.13.5.2 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.

Visual amenity

3.13.5.3 Volume 3, Chapter 6: Landscape and visual resources of the Environmental Statement assesses the potential cumulative impacts of the construction, operations and maintenance, and decommissioning phases of the Mona Offshore Wind Farm on visual resources. This chapter draws on Volume 3, Chapter 6: Landscape and visual resources of the Environmental Statement to assess the potential indirect cumulative effects of potential visual impacts on tourism.

3.13.5.4 Volume 3, Chapter 6: Landscape and visual resources of the Environmental Statement assesses the potential cumulative impacts of the Mona Offshore Wind Project in combination with cumulative projects on seascape, landscape, and visual receptors. As per paragraph 3.10.5.5, the cumulative assessment of visual receptors is relevant to this chapter. Therefore, the following aspects of the cumulative effects assessment within Volume 3, Chapter 6: Landscape and visual resources of the Environmental Statement are relevant to this chapter's assessment:

MONA OFFSHORE WIND PROJECT

North Wales

- 3.13.5.5 Potentially significant filling or incremental cumulative visual effects together with existing and proposed development projects will be experienced by the following receptor groups:
- Users of public rights of way and cyclists using local roads (within 1 km of the Mona Onshore Development Area)
 - Users of the Wales Coast Path long-distance trail
 - Users of Offa's Dyke Path National Trail
 - Visitors to the Clwydian Range and Dee Valley National Landscape.
- 3.13.5.6 Volume 3, Chapter 6: Landscape and visual resources of the Environmental Statement assesses potential cumulative effects on these receptor groups as not significant in EIA terms.

Overnight trips and accommodation

- 3.13.5.7 The assessment of potential cumulative indirect impacts on tourism associated with overnight trips and accommodation demand is based on the assessment of potential cumulative impacts on overnight accommodation found in section .
- 3.13.5.8 The assessment of cumulative effects on population, housing and accommodation set out in section 3.13.4 assessed the potential significance of effects during the construction phase as minor (beneficial). Potential onshore impacts during the operation and maintenance and decommissioning have been scoped out of the assessment, and are therefore considered to be negligible.
- 3.13.5.9 On the basis of this assessment, there are no likely significant indirect cumulative effects on tourism in North Wales associated with cumulative demand for overnight accommodation.

Recreation

- 3.13.5.10 This assessment considers the potential cumulative indirect impacts on tourism associated with cumulative direct or indirect effects on recreation. This part of the assessment is based on Volume 3, Chapter 7: Land use and recreation of the Environmental Statement.
- 3.13.5.11 As per Volume 3, Chapter 7: Land use and recreation of the Environmental Statement, there is no potential for cumulative effects between the Mona Offshore Wind project and the identified cumulative developments as there are no common recreational resources likely to be affected by both the Mona Offshore Wind Project and the other identified developments.
- 3.13.5.12 This consideration of potential indirect cumulative effects on recreation indicates there are unlikely to be any material indirect cumulative impacts on tourism in either North Wales or North West England associated with impacts on recreation as a result of the Mona Offshore Wind Project.

Overall

Construction phase

- 3.13.5.13 Based on a consideration of the pathways by which tourism activities might be cumulatively impacted by Mona Offshore Wind Farm during the construction phase, the magnitude of the cumulative impact in North Wales is deemed to be negligible and the sensitivity of the receptor is considered to be high. The cumulative effect on North

MONA OFFSHORE WIND PROJECT

Wales will, therefore, be of minor (adverse) significance, which is not significant in EIA terms.

Operation and maintenance phase

- 3.13.5.14 Based on a consideration of the pathways by which tourism activities might be cumulatively impacted by Mona Offshore Wind Farm during the operation and maintenance phase, the magnitude of the cumulative impact in North Wales is deemed to be negligible and the sensitivity of the receptor is considered to be high. The cumulative effect on North Wales will, therefore, be of minor (adverse) significance, which is not significant in EIA terms

Decommissioning phase

- 3.13.5.15 Based on a consideration of the pathways by which tourism activities might be cumulatively impacted by Mona Offshore Wind Farm during the decommissioning phase, the magnitude of the cumulative impact in North Wales is deemed to be negligible and the sensitivity of the receptor is considered to be high. The cumulative effect on North Wales will, therefore, be of minor (adverse) significance, which is not significant in EIA terms

3.14 Inter-related effects

- 3.14.1.1 Inter-relationships are considered to be the impacts and associated effects of different aspects of the proposal on the same receptor. These are considered to be:
- Project lifetime effects: Assessment of the scope for effects that occur throughout more than one phase of the Mona Offshore Wind Project (construction, operations 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. subsea noise effects from piling, operational turbines, vessels and decommissioning)
 - Receptor-led effects: Assessment of the scope for all effects to interact, spatially and temporally, to create inter-related effects on a receptor. As an example, all effects on socio-economics 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.
- 3.14.1.2 A description of the likely interactive effects arising from the Mona Offshore Wind Project on socio-economics is provided in Volume 2, Chapter 11: Inter-related effects – Offshore of the Environmental Statement and Volume 3, Chapter 11: Inter-related effects – Onshore of the Environmental Statement.
- 3.14.1.3 Table 3.122 lists the inter-related effects (project lifetime effects) that are predicted to arise during the construction, operations and maintenance and decommissioning phases of the Mona Offshore Wind Project, and also the inter-related effects (receptor-led effects that are predicted to arise for socio-economics receptors.

MONA OFFSHORE WIND PROJECT

Table 3.122: Summary of likely significant inter-related effects on the environment for individual effects occurring across the construction, operations and maintenance, and decommissioning phases of the Mona Offshore Wind Project and from multiple effects interacting across all phases (receptor-led effects).

Description of impact	Phase			Likely significant inter-related effects	Significance
	C	O	D		
Economic					
The potential impact on economic receptors including employment and GVA.	✓	✓	✓	There are likely to be beneficial effects on employment and GVA throughout the construction and installation; operations and maintenance; and decommissioning phases. Employment and GVA effects will occur within different locations and sectors of the economy, and at different times and intensities. In combination the Mona Offshore Wind Project will provide a long term employment and GVA stimulus.	These inter-related effects as described above are not anticipated to interact in such a way as to result in combined effects of greater significance than the assessments presented for each individual phases. Therefore, these inter-related effects would not be significant in EIA terms.
The potential impact of increased employment opportunities.	✓	✓	✓	There will be beneficial effects on the potential for local workers to access employment throughout the construction and installation; operations and maintenance; and decommissioning phases. Access to employment effects will occur within different locations, sectors of the economy, and labour market – and at different times and intensities. In combination the Mona Offshore Wind Project will provide a long term employment stimulus.	These inter-related effects as described above are not anticipated to interact in such a way as to result in combined effects of greater significance than the assessments presented for each individual phases. Therefore, these inter-related effects would not be significant in EIA terms.
Social					
The potential impact on population, housing and accommodation.	✓	✓	✓	Direct and indirect employment generated during the construction phase could increase demand for housing, accommodation and local services during the construction phase. Direct and indirect employment generated during the operations and maintenance phase could increase demand for housing, accommodation and local services. It is anticipated that due to the long term nature of the operations and maintenance requirements the workforce will live locally. Some of those may relocate to the area requiring long term/permanent housing within the vicinity of the operations and maintenance port. Direct and indirect employment generated during the decommissioning phase could increase demand for housing, accommodation and local services during the decommissioning phase. The housing and accommodation needs of employment during each phase differs.	These inter-related effects as described above are not anticipated to interact in such a way as to result in combined effects of greater significance than the assessments presented for each individual phases. Therefore, these inter-related effects would not be significant in EIA terms.
Tourism					

MONA OFFSHORE WIND PROJECT

Description of impact	Phase			Likely significant inter-related effects	Significance
	C	O	D		
The potential impact on tourism.	✓	✓	✓	Potential impacts of the construction, operations and maintenance, and decommissioning of the Mona Offshore Wind Project on tourism are indirect in nature.	These inter-related effects as described above are not anticipated to interact in such a way as to result in combined effects of greater significance than the assessments presented for each individual phases. Therefore, these inter-related effects would not be significant in EIA terms.

Isle of Man

The potential impact on the Isle of Man associated with potential adverse effects on lifeline ferry services.	✓	✓	✓		These inter-related effects as described are not anticipated to interact in such a way as to result in combined effects of greater significance than the assessments presented for each individual phases. Therefore, these inter-related effects would not be significant in EIA terms.
---	---	---	---	--	--

Receptor-led effects

By definition, the economic and social impacts outlined above will interact. The tourism receptor is an exception, which is primarily determined on the basis of visual impact. Socio-economic conditions on the Isle of Man is also an exception, as impacts are primarily determined on the basis of interactions with lifeline ferry services.

Expenditure associated with the Mona Offshore Wind Project will result in employment and GVA impacts – these impacts are the basis for assessing potential socio-economic effects. Therefore the interactions between socio-economic receptors are inherent in the assessments of these impacts. It is not possible for socio-economic impacts to act together in a manner that multiplies effects.

Employment-related receptors are likely to interact with the demand for housing, accommodation and local services receptor. In the event that employment and GVA impacts were to increase or decrease, effects related to the demand for housing, accommodation and local services would similarly increase or decrease. However, these impacts would not act together in a manner that multiplies effects.

Potential impacts on visual resources on the Isle of Man could combine with potential impacts on socio-economic conditions on the Isle of Man associated with potential adverse effects on lifeline ferry services. This could have synergistic adverse effects on the Isle of Man visitor and leisure economy. However, any synergistic adverse effects are not anticipated to lead to effects of greater significance than the assessments presented for each individual receptor. Therefore, these inter-related effects would not be significant in EIA terms

3.15 Summary of impacts, mitigation measures and monitoring

Table 3.123 to Table 3.126 present a summary of the potential offshore impacts and residual effects in respect to socio-economics across every study area.

3.15.1.1 Table 3.127 to Table 3.129 present a summary of the potential offshore impacts and residual effects. The impacts assessed include:

- The potential impact on economic receptors including employment and GVA
- The potential impact of increased employment opportunities for local residents
- The potential impact on population, housing and accommodation
- The potential impact on tourism.

3.15.1.2 Table 3.130 to Table 3.133 present a summary of the potential cumulative socio-economic impacts, mitigation measures and residual effects.

MONA OFFSHORE WIND PROJECT

- 3.15.1.3 No potential transboundary impacts have been identified in regard to socio-economic effects of the Mona Offshore Wind Farm.

MONA OFFSHORE WIND PROJECT

Table 3.123: Summary of potential offshore environmental effects, mitigation and monitoring – North Wales

Description of impact	Phase ^a			Measures adopted as part of the project	Magnitude of impact	Sensitivity of the receptor	Significance of effect	Further mitigation	Residual effect	Proposed monitoring
	C	O	D							
Economic										
The potential impact on economic receptors including employment and GVA.	✓	✓	✓	Outline Skills and Employment Plan (commitment number J9)	C: Low (beneficial) O: Medium (beneficial) D: Low (beneficial)	C: Medium O: High D: Medium	C: Minor (beneficial) O: Moderate (beneficial) D: Minor (beneficial)	None proposed beyond existing commitments.	C: Minor (beneficial) O: Moderate (beneficial) D: Minor (beneficial)	None required
The potential impact of increased employment opportunities.	✓	✓	✓	Outline Skills and Employment Plan (commitment number J9)	C: Negligible O: Low (beneficial) D: Negligible	C: Medium O: High D: Medium	C: Negligible O: Minor (beneficial) D: Negligible	None proposed beyond existing commitments.	C: Negligible O: Minor (beneficial) D: Negligible	None required
Social										
The potential impact on population, housing and accommodation.	✓	✓	✓	Outline Skills and Employment Plan (commitment number J9)	C: Negligible O: Negligible D: Negligible	C: Medium O: High D: Medium	C: Minor (beneficial) O: Minor (neutral) D: Minor (beneficial)	None proposed beyond existing commitments.	C: Minor (beneficial) O: Minor (neutral) D: Minor (beneficial)	None required
Tourism										
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)	N/A	C: Minor (adverse) O: Minor (adverse) D: Minor (adverse)	None required

MONA OFFSHORE WIND PROJECT

Table 3.124: Summary of potential offshore environmental effects, mitigation and monitoring – North West England

Description of impact	Phase ^a			Measures adopted as part of the project	Magnitude of impact	Sensitivity of the receptor	Significance of effect	Further mitigation	Residual effect	Proposed monitoring
	C	O	D							
Economic										
The potential impact on economic receptors including employment and GVA.	✓	✓	✓	Outline Skills and Employment Plan (commitment number J9)	C: Low (beneficial) O: Low (beneficial) D: Low (beneficial)	C: Medium O: High D: Medium	C: Minor (beneficial) O: Minor (beneficial) D: Minor (beneficial)	None proposed beyond existing commitments.	C: Minor (beneficial) O: Minor (beneficial) D: Minor (beneficial)	None required
The potential impact of increased employment opportunities.	✓	✓	✓	Outline Skills and Employment Plan (commitment number J9)	C: Negligible O: Negligible D: Negligible	C: Medium O: High D: Medium	C: Negligible O: Minor (beneficial) D: Negligible	None proposed beyond existing commitments.	C: Negligible O: Minor (beneficial) D: Negligible	None required
Social										
The potential impact on population, housing and accommodation.	✓	✓	✓	Outline Skills and Employment Plan (commitment number J9)	C: Negligible O: Negligible D: Negligible	C: Medium O: High D: Medium	C: Minor (beneficial) O: Minor (neutral) D: Minor (beneficial)	None proposed beyond existing commitments.	C: Minor (beneficial) O: Minor (neutral) D: Minor (beneficial)	None required
Tourism										
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)	N/A	C: Minor (adverse) O: Minor (adverse) D: Minor (adverse)	None required

MONA OFFSHORE WIND PROJECT

Table 3.125: Summary of potential offshore environmental effects, mitigation and monitoring – Wales

Description of impact	Phase ^a			Measures adopted as part of the project	Magnitude of impact	Sensitivity of the receptor	Significance of effect	Further mitigation	Residual effect	Proposed monitoring
	C	O	D							
Economic										
The potential impact on economic receptors including employment and GVA.	✓	✓	✓	Outline Skills and Employment Plan (commitment number J9)	C: Low (beneficial) O: Low (beneficial) D: Low (beneficial)	C: Medium O: High D: Medium	C: Minor (beneficial) O: Minor (beneficial) D: Minor (beneficial)	None proposed beyond existing commitments.	C: Minor (beneficial) O: Minor (beneficial) D: Minor (beneficial)	None required

Table 3.126: Summary of potential offshore environmental effects, mitigation and monitoring – UK

Description of impact	Phase ^a			Measures adopted as part of the project	Magnitude of impact	Sensitivity of the receptor	Significance of effect	Further mitigation	Residual effect	Proposed monitoring
	C	O	D							
Economic										
The potential impact on economic receptors including employment and GVA.	✓		✓	Outline Skills and Employment Plan (commitment number J9)	C: Low (beneficial) D: Low (beneficial)	C: Medium D: Medium	C: Minor (beneficial) D: Minor (beneficial)	None proposed beyond existing commitments.	C: Minor (beneficial) D: Minor (beneficial)	None required

MONA OFFSHORE WIND PROJECT

Table 3.127: Summary of potential onshore environmental effects, mitigation and monitoring – North Wales

Description of impact	Phase ^a			Measures adopted as part of the project	Magnitude of impact	Sensitivity of the receptor	Significance of effect	Further mitigation	Residual effect	Proposed monitoring
	C	O	D							
Economic										
The potential impact on economic receptors including employment and GVA.	✓	✓	✓	Outline Skills and Employment Plan (commitment number J9)	C: Low (beneficial)	C: Medium	C: Minor (beneficial)	None proposed beyond existing commitments.	C: Minor (beneficial)	None required
The potential impact of increased employment opportunities.	✓	✓	✓	Outline Skills and Employment Plan (commitment number J9)	C: Negligible	C: Medium	C: Negligible	None proposed beyond existing commitments.	C: Negligible	None required
Social										
The potential impact on population, housing and accommodation.	✓	✓	✓	Outline Skills and Employment Plan (commitment number J9)	C: Negligible	C: Medium	C: Negligible	None proposed beyond existing commitments.	C: Negligible	None required
Tourism										
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)	N/A	C: Minor (adverse) O: Minor (adverse) D: Minor (adverse)	None required

MONA OFFSHORE WIND PROJECT

Table 3.128: Summary of potential onshore environmental effects, mitigation and monitoring – Wales

Description of impact	Phase ^a			Measures adopted as part of the project	Magnitude of impact	Sensitivity of the receptor	Significance of effect	Further mitigation	Residual effect	Proposed monitoring
	C	O	D							
Economic										
The potential impact on economic receptors including employment and GVA.	✓	✓	✓	Outline Skills and Employment Plan (commitment number J9)	C: Low (beneficial)	C: Medium	C: Minor (beneficial)	None proposed beyond existing commitments.	C: Minor (beneficial)	None required

Table 3.129: Summary of potential onshore environmental effects, mitigation and monitoring – UK

Description of impact	Phase ^a			Measures adopted as part of the project	Magnitude of impact	Sensitivity of the receptor	Significance of effect	Further mitigation	Residual effect	Proposed monitoring
	C	O	D							
Economic										
The potential impact on economic receptors including employment and GVA.	✓		✓	Outline Skills and Employment Plan (commitment number J9)	C: Negligible	C: Medium	C: Negligible	None proposed beyond existing commitments.	C: Negligible	None required

MONA OFFSHORE WIND PROJECT

Table 3.130: Summary of potential cumulative offshore environmental effects, mitigation and monitoring – North Wales

Description of impact	Phase ^a			Measures adopted as part of the project	Magnitude of impact	Sensitivity of the receptor	Significance of effect	Further mitigation	Residual effect	Proposed monitoring
	C	O	D							
Economic										
The potential impact on economic receptors including employment and GVA.	✓	✓	✓	Outline Skills and Employment Plan (commitment number J9)	C: Medium to high (beneficial) O: Medium to high (beneficial) D: Low (beneficial)	C: Medium O: High D: Medium	C: Moderate (beneficial) O: Moderate (beneficial) D: Minor (beneficial)	None proposed beyond existing commitments.	C: Moderate (beneficial) O: Moderate (beneficial) D: Minor (beneficial)	None required
The potential impact of increased employment opportunities.	✓	✓	✓	Outline Skills and Employment Plan (commitment number J9)	C: Low (beneficial) O: Medium (beneficial) D: Low (beneficial)	C: Medium O: High D: Medium	C: Minor (beneficial) O: Moderate (beneficial) D: Minor (beneficial)	None proposed beyond existing commitments.	C: Minor (beneficial) O: Moderate (beneficial) D: Minor (beneficial)	None required
Social										
The potential impact on population, housing and accommodation.	✓	✓	✓	Outline Skills and Employment Plan (commitment number J9)	C: Low (beneficial) O: Low (neutral) D: Low (beneficial)	C: Medium O: High D: Medium	C: Minor (beneficial) O: Minor (neutral) D: Minor (beneficial)	None proposed beyond existing commitments.	C: Minor (beneficial) O: Minor (neutral) D: Minor (beneficial)	None required
Tourism										
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)	N/A	C: Minor (adverse) O: Minor (adverse) D: Minor (adverse)	None required

MONA OFFSHORE WIND PROJECT

Table 3.131: Summary of potential cumulative offshore environmental effects, mitigation and monitoring – North West England

Description of impact	Phase ^a			Measures adopted as part of the project	Magnitude of impact	Sensitivity of the receptor	Significance of effect	Further mitigation	Residual effect	Proposed monitoring
	C	O	D							
Economic										
The potential impact on economic receptors including employment and GVA.	✓	✓	✓	Outline Skills and Employment Plan (commitment number J9)	C: Medium to high (beneficial) O: Low to medium (beneficial) D: Low (beneficial)	C: Medium O: High D: Medium	C: Moderate (beneficial) O: Minor (beneficial) D: Minor (beneficial)	None proposed beyond existing commitments.	C: Moderate (beneficial) O: Minor (beneficial) D: Minor (beneficial)	None required
The potential impact of increased employment opportunities.	✓	✓	✓	Outline Skills and Employment Plan (commitment number J9)	C: Low (beneficial) O: Low (beneficial) D: Low (beneficial)	C: Medium O: High D: Medium	C: Minor (beneficial) O: Minor (beneficial) D: Minor (beneficial)	None proposed beyond existing commitments.	C: Minor (beneficial) O: Minor (beneficial) D: Minor (beneficial)	None required
Social										
The potential impact on population, housing and accommodation.	✓	✓	✓	Outline Skills and Employment Plan (commitment number J9)	C: Low (beneficial) O: Low (neutral) D: Low (beneficial)	C: Medium O: High D: Medium	C: Minor (beneficial) O: Minor (neutral) D: Minor (beneficial)	None proposed beyond existing commitments.	C: Moderate (beneficial) O: Minor (neutral) D: Minor (beneficial)	None required
Tourism										
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)	N/A	C: Minor (adverse) O: Minor (adverse) D: Minor (adverse)	None required

MONA OFFSHORE WIND PROJECT

Table 3.132: Summary of potential cumulative offshore environmental effects, mitigation and monitoring – Wales

Description of impact	Phase ^a			Measures adopted as part of the project	Magnitude of impact	Sensitivity of the receptor	Significance of effect	Further mitigation	Residual effect	Proposed monitoring
	C	O	D							
Economic										
The potential impact on economic receptors including employment and GVA.	✓	✓	✓	Outline Skills and Employment Plan (commitment number J9)	C: Medium to high (beneficial) O: Low to medium (beneficial) D: Low (beneficial)	C: Medium O: High D: Medium	C: Moderate (beneficial) O: Minor (beneficial) D: Minor (beneficial)	None proposed beyond existing commitments.	C: Moderate (beneficial) O: Minor (beneficial) D: Minor (beneficial)	None required

Table 3.133: Summary of potential cumulative offshore environmental effects, mitigation and monitoring – UK

Description of impact	Phase ^a			Measures adopted as part of the project	Magnitude of impact	Sensitivity of the receptor	Significance of effect	Further mitigation	Residual effect	Proposed monitoring
	C	O	D							
Economic										
The potential impact on economic receptors including employment and GVA.	✓	✓	✓	Outline Skills and Employment Plan (commitment number J9)	C: Medium to high (beneficial)	C: Medium	C: Moderate (beneficial)	None proposed beyond existing commitments.	C: Moderate (beneficial)	None required

MONA OFFSHORE WIND PROJECT

Table 3.134: Summary of potential cumulative offshore environmental effects, mitigation and monitoring – Isle of Man

Description of impact	Phase ^a			Measures adopted as part of the project	Magnitude of impact	Sensitivity of the receptor	Significance of effect	Further mitigation	Residual effect	Proposed monitoring
	C	O	D							
Tier 1										
Potential socio-economic impacts on the Isle of Man associated with potential adverse effects on lifeline ferry services.	✓	✓	✓	None proposed	C: Negligible (adverse) O: Negligible (adverse) D: Negligible (adverse)	C: Low O: Low D: Low	C: Minor (adverse) O: Minor (adverse) D: Minor (adverse)	N/A	C: Minor (adverse) O: Minor (adverse) D: Minor (adverse)	None required
Tier 2										
Potential socio-economic impacts on the Isle of Man associated with potential adverse effects on lifeline ferry services.	✓	✓	✓	None proposed	C: Medium (adverse) O: Medium (adverse) D: Medium (adverse)	C: Low O: Low D: Low	C: Minor (adverse) O: Minor (adverse) D: Minor (adverse)	N/A	C: Minor (adverse) O: Minor (adverse) D: Minor (adverse)	None required

MONA OFFSHORE WIND PROJECT

Table 3.135: Summary of potential cumulative onshore environmental effects, mitigation and monitoring – North Wales

Description of impact	Phase ^a			Measures adopted as part of the project	Magnitude of impact	Sensitivity of the receptor	Significance of effect	Further mitigation	Residual effect	Proposed monitoring
	C	O	D							
Economic										
The potential impact on economic receptors including employment and GVA.	✓	✓	✓	Outline Skills and Employment Plan (commitment number J9)	C: Medium (beneficial)	C: Medium	C: Moderate (beneficial)	None proposed beyond existing commitments.	C: Moderate (beneficial)	None required
The potential impact of increased employment opportunities.	✓	✓	✓	Outline Skills and Employment Plan (commitment number J9)	C: Low (beneficial)	C: Medium	C: Minor (beneficial)	None proposed beyond existing commitments.	C: Minor (beneficial)	None required
Social										
The potential impact on population, housing and accommodation.	✓	✓	✓	Outline Skills and Employment Plan (commitment number J9)	C: Low (beneficial)	C: Medium	C: Minor (beneficial)	None proposed beyond existing commitments.	C: Minor (beneficial)	None required
Tourism										
The potential impact on tourism.	✓	✓	✓	N/A	C:	C:	C:	N/A	C:	None required

MONA OFFSHORE WIND PROJECT

Table 3.136: Summary of potential cumulative onshore environmental effects, mitigation and monitoring – Wales

Description of impact	Phase ^a			Measures adopted as part of the project	Magnitude of impact	Sensitivity of the receptor	Significance of effect	Further mitigation	Residual effect	Proposed monitoring
	C	O	D							
Economic										
The potential impact on economic receptors including employment and GVA.	✓	✓	✓	Outline Skills and Employment Plan (commitment number J9)	C: Low (beneficial)	C: Medium	C: Minor (beneficial)	None proposed beyond existing commitments.	C: Minor (beneficial)	None required

Table 3.137: Summary of potential cumulative onshore environmental effects, mitigation and monitoring – UK

Description of impact	Phase ^a			Measures adopted as part of the project	Magnitude of impact	Sensitivity of the receptor	Significance of effect	Further mitigation	Residual effect	Proposed monitoring
	C	O	D							
Economic										
The potential impact on economic receptors including employment and GVA.	✓	✓	✓	Outline Skills and Employment Plan (commitment number J9)	C: Negligible	C: Medium	C: Minor (beneficial)	None proposed beyond existing commitments.	C: Minor (beneficial)	None required

3.16 References

- Ambition North Wales (2023) Providing recognition to tourism skills in North Wales. Available: <https://ambitionnorth.wales/news/providing-recognition-to-tourism-skills-in-north-wales/>. Accessed September 2023.
- BBC (2023) Isle of Man TT: Visitor numbers rise to 43,000. Available: <https://www.bbc.co.uk/news/world-europe-isle-of-man-66869174>. Accessed October 2023.
- BBC (2023) Isle of Man TT: Visitor numbers rise to 43,000. Available: <https://www.bbc.co.uk/news/world-europe-isle-of-man-66869174>. Accessed October 2023.
- Biggar Economics (2020) Offshore Wind Farm Construction and Tourism. Available: <https://biggareconomics.co.uk/offshore-wind-farm-construction-and-tourism>. Accessed March 2023.
- 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 October 2023.
- Conwy.com (2022) Homepage. Available: <https://www.conwy.com/>. Accessed November 2022.
- 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 November 2022.
- Department for Energy Security and Net Zero (DESNZ) (2024a) Overarching NPS for Energy (NPS EN-1). Available: <https://assets.publishing.service.gov.uk/media/655dc190d03a8d001207fe33/overarching-nps-for-energy-en1.pdf>https://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) (2024b) 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) (2024c) 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 October 2023.
- 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 October 2023.

MONA OFFSHORE WIND PROJECT

Discover Anglesey (2022) Land Activities. Available: <https://discoveranglesey.com/active-anglesey-listings.php?type=land>. Accessed November 2022.

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 2023.

England's Coast (2022) North West. Available: <https://englandscoast.com/en/explore-regions/north-west>. Accessed November 2022.

English Heritage (2022) Hadrian's Wall. Available: <https://www.english-heritage.org.uk/visit/places/hadrians-wall/>. Accessed November 2022.

Eryri National Park (2022) Homepage. Available: <https://snowdonia.gov.wales/>. Accessed November 2022.

Flintshire County Council (2022) Welcome to Flintshire. Available: <https://www.flintshire.gov.uk/en/LeisureAndTourism/Tourism/Welcome-to-Flintshire.aspx>. Accessed November 2022.

Glasson, J., Durning, B., Olorundami, T. and Welch, K. (2020) Guidance on assessing the socio-economic impacts of offshore wind farms (OWFs). Available: <https://group.vattenfall.com/uk/contentassets/c66251dd969a437c878b5fec736c32aa/best-practice-guidance---final-oct-2020.pdf>. Accessed November 2022.

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: November 2023.

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 2023.

IEMA (2016) Environmental Impact Assessment. Guide to Delivering Quality Development. Available: <https://www.iema.net/download-document/7014>. Accessed: October 2022.

IPPR (2020) Net Zero North Sea: A managed transition for oil and gas in Scotland and the UK after Covid-19. Available: <https://www.ippr.org/research/publications/net-zero-north-sea>. Accessed March 2023.

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 October 2023.

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 October 2023.

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 October 2023.

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 October 2023.

MONA OFFSHORE WIND PROJECT

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 October 2023.

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 October 2023.

Isle of Man Government (2021a) Smarter Movement Strategy. Available: <https://www.gov.im/media/1373908/smarter-movement-final-130821.pdf>. Accessed October 2023.

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 October 2023.

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 October 2023.

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 October 2023.

Isle of Man Government (2023a) Our Island Plan. Available: <https://islandplan.im/about-the-plan/one-vision-for-the-isle-of-man/>. Accessed October 2023.

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 October 2023.

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 October 2023.

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 October 2023.

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 November 2023.

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: https://www.nfer.ac.uk/media/5076/the_skills_imperative_2035_working_paper_2_headline_report.pdf. Accessed September 2023.

OBR (2023) Economic and fiscal outlook. Available: https://obr.uk/docs/dlm_uploads/OBR-EFO-March-2023_Web_Accessible.pdf. Accessed September 2023.

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: <https://www.nomisweb.co.uk/default.asp>. Accessed September 2023.

MONA OFFSHORE WIND PROJECT

- ONS (2023b) Regional gross value added (balanced) by industry: local authorities. Available: <https://www.ons.gov.uk/economy/grossdomesticproductgdp/datasets/regionalgrossvalueaddedbalancedbyindustrylocalauthoritiesbyitl1region>. Accessed September 2023.
- ONS (2023c) Regional gross value added (balanced) by industry: all ITL regions. Available: <https://www.ons.gov.uk/economy/grossvalueaddedgva/datasets/nominalandrealregionalgrossvalueaddedbalancedbyindustry>. Accessed September 2023.
- ONS (2023d) Annual Population Survey. Available: <https://www.nomisweb.co.uk/default.asp>. Accessed September 2023.
- ONS (2023e) Annual Population Survey: model-based estimates of unemployment. Available: <https://www.nomisweb.co.uk/default.asp>. Accessed September 2023.
- ONS (2023f) Population estimates. Available: <https://www.nomisweb.co.uk/default.asp>. Accessed September 2023.
- 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 2023.
- 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 2023.
- 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 2023.
- Statistics Wales (2023a) Dwelling stock estimates by local authority and tenure. Available: <https://statswales.gov.wales/Catalogue>. Accessed September 2023.
- Statistics Wales (2023b) Chargeable empty and second homes, by local authority (number of dwellings). Available: <https://statswales.gov.wales/Catalogue>. Accessed September 2023.
- The Beach Guide (2022) North West. Available: <https://www.thebeachguide.co.uk/north-west-england/>. Accessed November 2022.
- UK Government (2017) The Clean Growth Strategy. Available: <https://www.gov.uk/government/publications/clean-growth-strategy>. Accessed November 2022.
- UK Government (2019) Industrial Strategy: Offshore Wind Sector Deal. Available: <https://www.gov.uk/government/publications/offshore-wind-sector-deal>. Accessed November 2022.
- UK Government (2021) Net Zero Strategy: Build Back Greener. Available: <https://www.gov.uk/government/publications/net-zero-strategy>. Accessed November 2022.
- UK Government (2022) British Energy Security Strategy. Available: <https://www.gov.uk/government/publications/british-energy-security-strategy>. Accessed November 2022.
- UNESCO (2022) United Kingdom of Great Britain and Northern Ireland. Available: <https://whc.unesco.org/en/statesparties/gb>. Accessed November 2022.
- Visit England (2015) NorthwestNorth West England and Domestic Tourism. Available: https://www.visitbritain.org/sites/default/files/vb-corporate/Documents-Library/documents/England-documents/north_west_2015.pdf. Accessed November 2022.
- 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). Available:

MONA OFFSHORE WIND PROJECT

https://www.visitbritain.org/sites/default/files/vb-corporate/Documents-Library/documents/England-documents/gbts_apr-dec_2021_v1.pdf. Accessed September 2023.

Visit England (2022b) Northwest North West England. Available: <https://www.visitengland.com/things-to-do/north-west-england>. Accessed November 2022.

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: https://www.visitbritain.org/sites/default/files/vb-corporate/great_britain_day_visits_survey_2021_and_2022_-_summary_report_published_20th_june_2023.pdf. Accessed September 2023.

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: https://www.visitbritain.org/sites/default/files/vb-corporate/2023-09-12_great_britain_tourism_survey_2021-2022_summary_report_release_accessible.pdf. Accessed September 2023.

Visit England, Visit Scotland, and Visit Wales (2019) The Great Britain Day Visitor 2019 Annual Report. Available: https://www.visitbritain.org/sites/default/files/vb-corporate/gbdvs_2019_annual_report.pdf. Accessed November 2022.

Visit North West (2022) Homepage. Available: <https://www.visitnorthwest.com/>. Accessed November 2022.

Visit Snowdonia (2022) Homepage. Available: <https://www.visitsnowdonia.info/>. Accessed November 2022.

Visit Wales (2022a) Homepage. Available: <https://www.visitwales.com/>. Accessed November 2022.

Visit Wales (2022b) Search results: “North Wales”. Available: <https://www.visitwales.com/search?search=north+Wales>. Accessed November 2022.

Wales Tourism Alliance (2023) Homepage. Available: <https://www.wta.org.uk/>. Accessed September 2023.

Welsh Government (2014) Technical Advice Note (TAN) 23 – Economic Development. Available: <https://www.gov.wales/technical-advice-note-tan-23-economic-development>. Accessed October 2023.

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 October 2023.

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 November 2022.

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.