

Prosiect Maen Hir

Solar a Storio Ynni



Preliminary Environmental Information Report Volume I, Chapter 16: Socio-economics

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Table of Contents

16	Socio-economics	5
16.1	Introduction	5
16.2	Assessment Methodology	5
16.3	Baseline conditions	19
16.4	Embedded Mitigation	36
16.5	Preliminary Assessment of Likely Significant Effects	38
16.6	Additional Mitigation	54
16.7	Residual Effects	56
16.8	Effect interactions.....	58
16.9	References.....	60

List of Tables

Table 16-1	Scoped in Effects.....	5
Table 16-2	Geographical study area definitions and rationale	8
Table 16-3	Potential Receptors	9
Table 16-4	Potential socio-economic effects, receptors, and the spatial and temporal scope	11
Table 16-5	Sensitivity Criteria	12
Table 16-6	Magnitude of Impact	12
Table 16-7	Significance Matrix.....	13
Table 16-8	Key findings from engagement	16
Table 16-9	- Accommodation in the LCA broken down by type, availability and affordability	25
Table 16-10	Skill levels mapped to resident jobs	33
Table 16-11	Tourism Attractions in the LA	36
Table 16-12	Indicative direct jobs in the construction phase.....	39
Table 16-13	Types of roles and skills likely to be supported during the construction phase of the Project.....	43
Table 16-14	Preliminary local procurement opportunities	45
Table 16-15	- Types of jobs supported during the operational phase	49
Table 16-16	Summary of socio-economic effects	57

List of Figures

Figure 16-1 Socio-economic Study Area

List of Appendices

Appendix 16-1 Socio-economic Policy and Legislation

16 Socio-economics

16.1 Introduction

16.1.1 This chapter presents the preliminary results of the assessment of the range of likely significant socio-economic effects that could occur from the construction, operation and decommissioning of the Project.

16.1.2 The assessment identifies temporary and permanent, beneficial and adverse, direct, indirect and induced likely significant effects on employment, skills, the labour market, workers, businesses, temporary worker accommodation, agricultural businesses, and tourism assets as a result of the construction, operation, and decommissioning of the Project.

16.2 Assessment Methodology

Guidance

16.1.3 There is no specific guidance available which establishes a methodology for assessing the likely significant socio-economic effects of a solar farm. Therefore, the approach to the socio-economic assessment is based on professional judgement, previous experience and good practice. It is informed by the planning policy requirements set out within the Overarching National Policy Statement for Energy (EN-1)ⁱ, which identifies the potential beneficial and adverse socio-economic impacts that should be considered as a result of energy developments.

Assessment Scope

Scoped In

16.1.4 Table 16-1 outlines the potential effects of the Project by phase of development that are considered in this preliminary assessment.

Table 16-1 Scoped in Effects

Phase	Potential effect
Construction and decommissioning phases	Direct, indirect and induced construction jobs supported by the delivery of the Project
	Provision of education, skills, training and supply chain
	Changes in demand for temporary workers accommodation
	Changes to land uses

Phase	Potential effect
Operational phase	Operational employment (direct, indirect and induced) supported by the Project
	Provision of education, skills and training
	Impact on community power
	Changes to land uses
	Changes to local tourism assets

16.1.5 Decommissioning effects are expected to be no greater than construction effects. For example, the size of the decommissioning workforce is currently estimated to be equivalent to 50%-80% of construction jobs supported by the Project. For the purposes of this assessment, they are therefore assumed to be of a similar order of magnitude to construction effects, with construction effects representing a reasonable worst-case. Construction and decommissioning effects are therefore considered jointly throughout this assessment.

Scoped Out

16.1.6 Appendix 03-1: EIA Scoping Opinion Response Table provides a summary of how the socio-economic recommendations received through the Scoping Opinion have been addressed within this assessment. The Scoping Opinion: Proposed Maen Hir Solar and Energy Storage Project noted that the Prosiect Maen Hir EIA Scoping Request did not contain sufficient information around the number of construction workers and detail on likely receptors to scope out the effect of construction workforce expenditure. Paragraphs 16.3.5 to 16.3.9 detail why this effect is not expected to be significant, although it should be noted that the Applicant is not in a position to provide final construction worker numbers at this preliminary stage. Instead, indicative estimates are provided based on the Applicant and Project team’s technical knowledge and current understanding of the Project.

16.1.7 In the peak, the construction period is expected to support 650 workers. This is equivalent to approximately 11% of construction workers in the LCA. The peak period is currently only expected to last seven months. The average number of

workers supported across the two-year construction period is lower at 360 workers.

- 16.1.8 Workplace-based construction workers in the LA are estimated to earn approximately £33,200 per annum.ⁱⁱ Given construction workers are some of the most mobile workers of the economy, travelling to where their work is, it is highly uncertain where their money will be spent. Whilst a proportion is likely to be spent locally, much of it will be spent near to where they are staying.
- 16.1.9 There are not many spending options near the PEIR Boundary, so it is unlikely that construction workers will spend a significant proportion of their money at these locally limited options. The nearest supermarket is a Morrisons Daily, which is approximately 2-miles from the central parcel of the PEIR Boundary in Llannerch-y-medd which also hosts a café, takeaway and two pubs. There is also a pub/restaurant (The Ring) which sits in between the north and central parcels of the PEIR Boundary. The next nearest spending options to the PEIR Boundary are located in Amlwch and Llangefni, located 8-miles north and south of the PEIR Boundary, respectively. Both of these retail centres would be at least a 20-minute drive from the PEIR Boundary and have a collective annual expenditure of £47.8 million. Temporary spending by construction workers who are willing to travel to these retail centres is not expected to be of a scale that is material.
- 16.1.10 Similarly, further spending by construction workers relocating temporarily throughout the construction period would also take place. It is conservatively assumed, at this point in time, that that 50%-75% of construction workers would temporarily relocate and stay in temporary accommodation in a commutable distance to the PEIR Boundary. It should be noted that a local jobs target will be developed as part of the Outline Employment, Skills and Supply Chain Plan for DCO submission, which will be reflected in the ES. It is estimated that these workers would spend approximately £49 per day on accommodation and food based on the spending allowances published by the Construction Industry Joint Council. In total, expenditure by construction workers temporarily re-locating is estimated to be between £3.9 million to £5.8 million over the construction period. It is not certain where these construction workers would stay and spend their

money, albeit most likely to be in the LCA, which represents a 60-minute commute time to the PEIR Boundary. Therefore, in the context of the approximate £813 million of retail spend in the LCA per annum, even if all expenditure was spent in the LCA, it is not expected to be significant. At the most, this temporary expenditure would represent an uplift equivalent to less than 0.5% of existing expenditure levels (when converting to an annual basis).

- 16.1.11 When considering both the uncertainty around where spending will take place and the temporary nature of construction worker expenditure, it is concluded that construction worker expenditure is unlikely to be significant. This effect is therefore scoped out of this assessment.

Spatial scope (study areas)

- 16.1.12 Table 16-2 outlines the various geographical study areas used in this assessment, either as direct study areas or geographical comparators.
- 16.1.13 The spatial scope may vary widely, dependent on the nature of the effect. Effects on the receptors identified is possible at the local, sub-regional and national levels. Study areas have been informed using professional judgement on the geographical extent of where likely significant socio-economic effects may be reasonably expected to occur as a result of the Project. The study area does not necessarily capture where the receptor originates from, rather it indicates where the socio-economic effect is expected to occur.

Table 16-2 Geographical study area definitions and rationale

Study Area	Definition
National	Wales, mostly used for context.
Labour Catchment Area (LCA)	A 60-minute travel time to the Project PEIR Boundary as defined by three Travel to Work Areas (TTWAs), namely Bangor and Holyhead, Pwllheli and Porthmadog, and Colwyn Bay, ⁱⁱⁱ used for employment and related effects since this is considered a reasonable time in which workers would commute to the PEIR Boundary.
Local Authority (LA)	The Isle of Anglesey. Used to assess tourism and skills effects, noting that the skills effect could be assessed at a wider North Wales area in the final ES if feedback from

Study Area	Definition
	statutory consultees indicates that this would be a more appropriate.
The Local Area of Influence, termed 'Northern and Central Anglesey' (NCA)	The NCA comprises the four electoral wards surrounding the PEIR Boundary (and which the boundary itself falls within): Talybolion, Twrcelyn, Lligwy and Canolbarth Môn. These wards represent a reasonable proxy for the local area, defined by a 5km radius from the PEIR Boundary. This selection captures the key settlements and businesses areas near the PEIR Boundary, as identified in the Anglesey and Gwynedd Joint Local Development Plan. ^{iv}
The PEIR Boundary	Used to assess effects which happen at the Project PEIR Boundary level.

16.1.14 Figure 16-1 maps these study areas.

Receptors

16.1.15 The receptors listed in Table 16-3 might experience likely significant effects as a result of the construction and operation of the Project.

Table 16-3 Potential Receptors

Receptors	Description
Residents	Residents who experience changes in their living environment.
Workers	Workers who experience changes in the labour market.
Visitors	Visitors to the study area who experience changes in their tourist destination.
Businesses	Owners of businesses and properties who experience changes in the environment, including the activity and employment supported by these businesses.

Temporal scope (assessment years)

16.1.16 This section discusses the temporal scope that will be considered in the assessment of likely significant socio-economic effects.

16.1.17 For the purposes of PEIR, the assessment of all socio-economic effects is based on a one-phased construction period lasting approximately 24 months due to uncertainty around the construction phasing at this preliminary stage. Currently,

there are two options being considered for the construction period: (i) a single phase over 24 months between 2026 and 2028, and (ii) a two phase build with either sequential phases or a gap in between the two phases. More information on the likely construction phasing will be provided in the ES, where each likely significant socio-economic effects will be assessed on their respective worst-case scenarios, with justification set out.

- 16.1.18 The temporal scope will vary depending on the nature of the effect. The assessment establishes parameters that are likely to result in the maximum adverse likely significant effect (the worst-case scenario). For example, any change to the existing land uses is expected to begin occurring during the construction phase (2026 - 2028) and therefore 2026 is considered as the worst case scenario as that is the earliest that receptors could be affected.
- 16.1.19 The operational phase of the project is proposed to be 60 years. The effects are expected to be largely consistent across the operational phase. Operational effects are considered at the first year of operation which is therefore expected to be representative across the whole 60 year period.
- 16.1.20 Due to the design life of some of the infrastructure, various pieces of solar infrastructure and BESS components would need to be replaced at specific stages during the operational phase, as noted in Chapter 5: Project Description. The schedule of which would be programmed to maintain the electrical export to the National Grid. The Applicant proposes to submit a replacement schedule at agreed intervals to IoACC, which would detail the proposed timings of the replacement works and associated construction traffic volumes and management measures.
- 16.1.21 Decommissioning would occur after the 60 year operational period and is anticipated to take approximately 12 months.

Summary of Receptors and Scope

- 16.1.22 Table 16-4 summarises the above information, showing the receptors, study area and temporal scope for each effect.

Table 16-4 Potential socio-economic effects, receptors, and the spatial and temporal scope

Potential effect	Receptor(s)	Study area	Assessment year(s)
Construction and decommissioning phase			
Direct, indirect and induced construction jobs supported by the delivery of the Project	Residents and workers	LCA	2026-2028 2088
Provision of education, skills, training and supply chain	Residents and businesses	Local Authority	2026-2028 2088
Changes in demand for temporary workers accommodation	Residents and visitors	LCA	Construction worker peak 2088
Changes to land uses	Residents, workers, businesses and visitors	The PEIR Boundary	Start of construction (2026) 2088
Operational phase			
Operational employment (direct, indirect and induced) supported by the Project	Residents and workers	LCA	2028-2088
Provision of education, skills and training	Residents and businesses	Local Authority	2028-2088
Impact on community power	Residents and businesses	-	2028-2088
Changes to land uses	Residents, workers and businesses	The PEIR Boundary	2028-2088
Changes to local tourism assets	Residents, businesses and visitors	NCA	2028-2088

Determining Significance of Effect

Receptor Sensitivity

16.1.23 Receptor sensitivity will be assessed on a case-by-case basis, using professional judgement informed by the baseline statistics and stakeholder engagement to date. To assist with this assessment, broad definitions of the receptor sensitivities are provided in Table 16-5.

Table 16-5 Sensitivity Criteria

Sensitivity	Evidence for sensitivity assessment
High	Representative of where a receptor has limited ability to respond to change, possibly due to no surplus capacity / high scarcity.
Medium	Representative of where changes to the receptor would bring about noticeable changes in conditions in the area.
Low	Representative of where a receptor is particularly responsive to change or able to cope with change without substantial effects on existing status or viability.

Magnitude of Impact

16.1.24 Magnitude of impacts will be determined with reference to the baseline conditions (in terms of uplifts or changes to them), using the criteria provided in Table 16-6. They will be classified as high, medium, low, or negligible. The assessment will aim to be objective by quantifying the magnitude of impacts wherever possible. Where quantification is not possible, qualitative assessments based on professional judgement will be made and justified.

16.1.25 Impacts will be identified as either beneficial or adverse.

Table 16-6 Magnitude of Impact

Magnitude of Impact	Description
High	Total loss or major / substantial alteration to key elements / features of the baseline (pre-development) conditions such that the post-development character / composition / attributes will be fundamentally changed.
Medium	Loss or alteration to one or more key elements / features of the baseline conditions such that post-development character / composition / attributes of the baseline will be materially changed.

Magnitude of Impact	Description
Low	A minor shift away from baseline conditions. Change arising from the loss or alteration will be discernible / detectable but not material. The underlying character / composition / attributes of the baseline condition will be similar to the pre-development circumstances / situation.
Negligible	Very little change from baseline conditions. Change barely distinguishable, approximating to a 'no change' situation.

Likely Significance of Effects

16.1.26 Socio-economic effects are a reflection of the relationship between the sensitivity of the affected receptor and the magnitude of the impact. Table 16-7 shows how the assessment of the likely significance of effects has been determined.

Table 16-7 Significance Matrix

Magnitude of Impact	Sensitivity of receptor		
	High	Medium	Low
High	Major	Major	Moderate
Medium	Major	Moderate	Minor
Low	Moderate	Minor	Negligible
Negligible	Minor	Negligible	Negligible

16.1.27 The following criteria are applied:

- Moderate or major effects are classed as 'significant';
- Minor effects are classed as not 'significant', although they may be a matter of local concern; and
- Negligible effects are classed as 'not significant'.

Assumptions and limitations

16.1.28 The assessment of the existing environment is naturally limited to the availability of baseline data. Existing baseline economic conditions have been established through interpretation of nationally recognised research, data and survey information. Where possible, the latest full year of data published for each given study area is used throughout this assessment, which in most cases is 2022 or

2023. In some cases, the next best alternative (i.e. the most up-to-date) is used such as the latest Census (2021).

- 16.1.29 Information on the future baseline is presented where available, based upon economic, social or community plans or projections. Where this is not available, the receptor population affected in the future assessment are assumed to have the same sensitivity as the population in the baseline.
- 16.1.30 For the purposes of PEIR, the assessment of all socio-economic effects is based on a one-phased construction period lasting approximately 24 months due to uncertainty around the construction phasing at this preliminary stage. Currently, there are two options being considered for the construction period: (i) a single phase over 24 months between 2026 and 2028, and (ii) a two phase build with either sequential phases or a gap in between the two phases. However, at this stage in the process the timing and geographical extent of any phasing is not yet known. Based on current information available, it is believed that the single phase of construction represents a worst-case assessment from a socio-economic perspective, although assumptions that could impact this relate to the number and intensity of the construction workforce required for each phase, their likely demand for temporary accommodation at peak periods, and the intensity of change or disruption to land uses. More information on the likely construction phasing will be provided in the ES, where each likely significant socio-economic effects will be assessed on their respective worst-case scenarios, with justification set out.
- 16.1.31 Part of the limitations of this assessment relates to the coronavirus pandemic on the presented baseline data. The assessment presents baseline data over a reasonable period of time, where time series data are available, so that the impact of any short-term changes such as those caused by coronavirus can be identified in the baseline.

Engagement

- 16.1.32 The Applicant is actively engaging with various officers within IoACC and other local organisations to gain insights and understand further the priorities of the local

communities. The engagement to date, as well as key issues raised or discussed, is presented in Table 16-8.

Table 16-8 Key findings from engagement

Stakeholder and meeting topic	Key findings
IoACC team and North Wales Regional Skills Partnership - introductory meeting on socio-economics and employment and skills 04/03/24	Key takeaways: the Council emphasised the need to align commitments with their plan and the Energy Island Programme, focusing on local benefits. Key partners include Grŵp Llandrillo Menai (GLLM), M-Sparc Menai, and Bangor University, to leverage expertise in construction, renewable energy, and STEM, and invest in local training. Effective communication of local opportunities, particularly in solar projects, was highlighted. Prioritising school engagement to raise sector awareness among youth was also discussed. The Council requested the development of a Collaborative Benefits Report to identify statutory and voluntary benefits. Detailed information on skill requirements for the Project and the socio-economic aspects was requested by IoACC and the Regional Skills Partnership.
IoACC visitor economy and coastal areas manager - visitor accommodation 25/03/24	Key takeaways: focused on the broader impact of the scheme on Anglesey's tourism. IoACC emphasised considering the scheme's effect on Anglesey's tourist appeal, environmental assets, and sense of place. Engagement also highlighted the importance of summer months for tourism. Discussions on cumulative impacts, especially with the Freeport proposals, were noted, though construction of any new nuclear power station at Wylfa (Wylfa B) is unlikely to coincide with the Project's construction period. IoACC suggested there had been a potential decline in accommodation stock due to Airbnb saturation. The Applicant and their project team's analysis indicated sufficient accommodation capacity for peak construction, although it was noted that more work is needed to understand non-home-based accommodation and cumulative impacts.
M-Sparc - employment and skills 05/04/24	Key takeaways: the meeting highlighted M-Sparc's strategic initiatives, including managing a network of 52 tenant companies and 50 virtual tenants with comprehensive business support services. They offer a 12-session STEM programme aligned with the new curriculum, targeting primary schools with plans to expand to secondary schools, focusing on climate change and renewables. M-Sparc facilitates student placements, requiring funding, and works on mapping supply chains in the low carbon sector to identify gaps. M-Sparc requested information on skills and the Project's supply chain, to be able to prepare SMEs and colleges.
Grŵp Llandrillo Menai - employment and skills 05/04/24	Key takeaways: the meeting focused on identifying skills needed for the Project, aligning training with project timelines, and ensuring skills retention for future projects. GLLM offers solar installation and construction apprenticeship programmes, with the potential to adjust courses where there is interest from developers to hire workers. GLLM would

Stakeholder and meeting topic	Key findings
	benefit from information on required skills and worker numbers. Partnerships with the university were discussed for skills in decarbonisation, retrofitting, and housing improvements. GLLM suggested exploring local solar panel recycling to create jobs and maximise local benefits.
Bangor University - employment and skills 16/04/24	<p>Key takeaways: the meeting with a senior lecturer in Economics at Bangor University, who also chairs the community fund for the Morlais tidal energy development, focused on several important areas. In terms of community solar, they emphasised the potential for significant local benefits and mechanisms for administration and safeguarding the Community Solar Fund.</p> <p>Regarding employment and skills, they noted that the employment impacts are limited in the operational phase. The importance of communicating that skills acquired through these projects are transferable was raised.</p> <p>On the supply chain, they acknowledged that while the Anglesey has a supply chain geared towards nuclear services, businesses can sometimes struggle with forward planning and capacity issues. They mentioned that Morlais has held meet-the-buyer events with mixed results; some local companies are proactive, while others can be less engaged.</p>
Careers Pathway Pilot at IoACC 18/04/24	<p>Key takeaways: The Careers Pathways Pilot has evolved into a networking group focusing on career education from ages 3 to 16, encouraging employer involvement in schools. They aim to prepare students for the renewable energy sector, a growth area on Anglesey, and are launching an apprenticeship pathway within the next year. They work with the Regional Skills Board to provide schools with information on required qualifications, skills, and potential earnings in various sectors.</p> <p>A working group with school career leads meets bi-termly, and introductions can be facilitated. There is a teacher engagement session in November 2024 where employers can present their sectors. Building partnerships with the Regional Skills Board, Careers Wales, and the local authority is crucial.</p>
Regional School Improvement Service 29/04/24	<p>Key takeaways: The service works closely with schools in Anglesey, on careers and work-related experiences (CWRE). CWRE is a cross-cutting theme in the curriculum in Wales for 3- to 16-year olds. The service has a successful track record in organising site visits to other energy projects on Anglesey. An interest was expressed in both site visits to this Project and also for presentations on solar energy in local schools. It was also emphasised that residents would likely welcome proposals that improved job prospects in Anglesey, particularly the northern part.</p>

Stakeholder and meeting topic	Key findings
IoACC team - Rhosgoch Site and Freeport proposals 10/07/24	Key takeaways: Meeting with IoACC and the team delivering the Freeport Business Case. Rhosgoch (Former Oil Depot site) is a tax site that forms part of the Freeport proposals. The tax sites were described. Landowners retain sovereignty on tax site and will bring forward proposals on these sites. There are three overarching Freeport objectives - (1) jobs and regeneration, (2) trade and investment, and (3) innovation. Proposals should seek to align with core Freeport objectives (high value and skilled jobs, trade and innovation). The Freeport will need to ensure mechanisms (local policy controls etc.) are in place to ensure investments meet objectives. IoACC confirmed that from a planning policy and Freeport perspective, the Council's key priority is job creation.

16.3 Baseline conditions

Construction and Decommissioning

Jobs

- 16.1.33 The Project is expected to support a sizable construction workforce. To understand the impact of this, there is a need to consider the existing construction employment and construction workforce availability.
- 16.1.34 In the Labour Catchment Area (LCA), there are 6,800 resident construction workers, which represents 6% of all resident workers in the LCA, which, for comparison, is lower than the Wales average of 7%.^v Over the last decade, the proportion of LCA residents working in construction has decreased by two percentage points. From 2021 to 2023 there has been a significant drop in resident construction workers in the LCA, from 10,900 based on the 2021 Census, to 10,500 in 2022 and then to 6,800 in 2023 - a fall of 35% from 2022 to 2023.^{vi} This suggests there is a downward trend in the availability of construction workers residing in the LCA.
- 16.1.35 Creating high quality jobs is one of IoACC's key priorities. The North Anglesey Socio-economic Impact Report provides a detailed view of the challenges facing North Anglesey's economy.^{vii} North Anglesey is viewed as a reasonable proxy for NCA, noting that NCA is a slightly wider study area, covering the central parts of the LA. From 2015 to 2021, North Anglesey lost 21% of its jobs, primarily due to business closures.^{viii} In particular, North Anglesey's economic challenges stem from the loss of jobs driven by the closure of major employment sites such as Wylfa Magnox, Rehau and Octel. Between 500 to 570 jobs directly were lost with many more indirectly and throughout the local supply chain. These have not been replaced with equally well-paid positions, which has left North Anglesey with low job density and lagging productivity growth. The nuclear power station was a major source of employment for local residents, but is now in its decommissioning phase, supporting fewer jobs relative to its previous phases.
- 16.1.36 Unemployment is low in the LCA, with just 4.0% of economically active working-age residents (aged between 16 and 64 years old) considered unemployed as of

2023,^{ix} which is lower than the LA rate of 5.3%, but marginally higher than the national rate of 3.8%. In both areas, unemployment has more than doubled from 2022, where the rate stood at 1.7% in LCA and 2.2% in the LA. With slightly above-average proportions of economically inactive residents that also want a job- 19% across the LCA compared to 17% across Wales - this could be indicative of a tighter labour market as a whole, suggesting a lack of available jobs for jobseekers.

- 16.1.37 Alternatively, an analysis based on workplace-based jobs in 2022 shows the LCA supports 6,000 construction jobs, constituting 6% of the LCA workplace-based workforce.^x Compared to residence-based jobs in 2022 (10,500), this indicates that it is likely that at least half of the LCA residents employed in construction travelled outside of the LCA for work in 2022. Construction workers are much more mobile than other sectors,^{xi} travelling at least double the average distance travelled by the average worker. This is evident in the disparity between the number of working residents and the workforce in the construction sector, which may indicate a high level of out-commuting.
- 16.1.38 That being said, according to the 2022 CITB Workforce Mobility Survey, Wales has the highest level of construction worker retention. 90% of interviewed Welsh construction workers stated that they were working in the same UK region (Wales), in which they were living when they started their construction career.^{xii} This indicates that whilst many LCA resident construction workers might travel outside of the LCA for work, it is unlikely they would travel outside of Wales.
- 16.1.39 The Preliminary Employment, Skills and Supply Chain Plan (PESS Plan) describes that Anglesey has faced significant economic challenges over the past 25 years, due to gradual deindustrialisation and a steady decline in agricultural jobs. The closure of several major employers has resulted in substantial job losses and accelerated the emigration of young people seeking employment opportunities elsewhere. One of IoACC's key priorities is to create high quality job opportunities. The North Anglesey Socio-economic Impact Report finds that *"the lack of jobs has resulted in Welsh speaking working age people moving out with their families - leaving an ageing population and a struggling economy"*.^{xiii} The

report also identifies construction as its third most dominant industry based on employment.

Future baseline

- 16.1.40 The Construction Industry Training Board (CITB) estimate that 11,000 additional construction workers will be required to meet construction demand between 2024 and 2028 in Wales – equivalent to 2,200 construction jobs per year and annual growth of 1.9% based on 2023 workforce levels.^{xiv} Applying the annual recruitment requirement of 1.9% to construction employment in the LCA to 2028, there would be approximately 6,700 construction jobs in the LCA by 2028. This represents a 12% increase on baseline levels of construction employment.
- 16.1.41 More locally, the North Wales Employment and Skills Plan estimates that construction workers will increase by 1.1% from 2021 workforce levels to 2027, equivalent to a compound annual growth rate of 0.2%.^{xv} Applying the compound annual growth rate to 2021 construction workforce levels (6,000 in the LCA), suggests there would be 6,080 construction jobs in the LCA by 2028. This represents a 1.3% increase on baseline levels of construction employment in the LCA.

Sensitivity

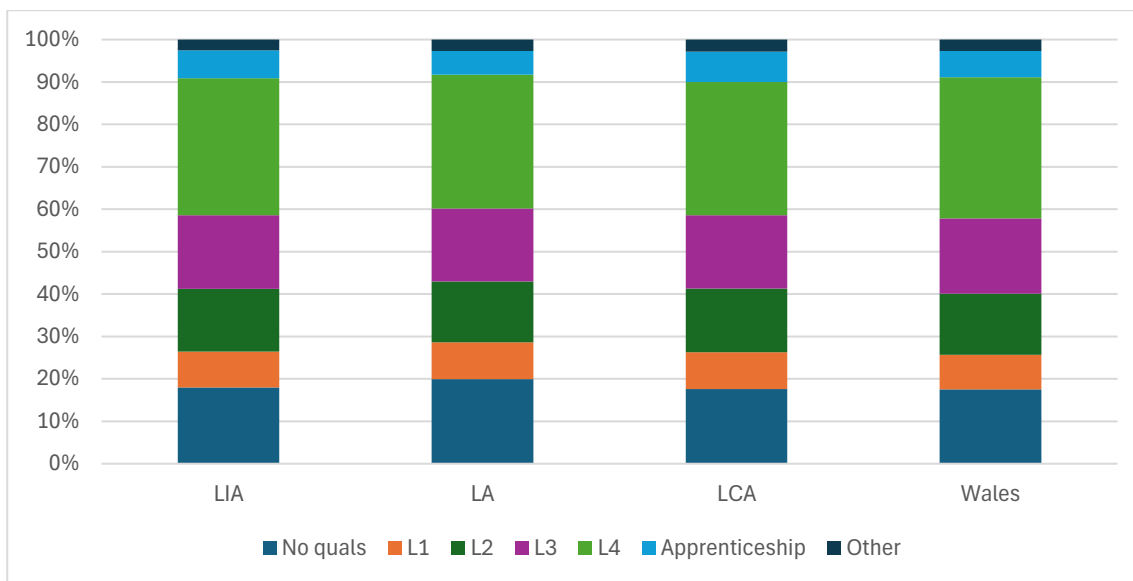
- 16.1.42 The LCA has relatively low unemployment, but slightly above-average economic inactivity rates, suggesting a lack of available jobs for jobseekers and therefore a large proportion of residents who have stopped actively looking for work. Unemployment has also recently increased, suggesting the requirement for jobs could be growing. Similarly, at least half of the LCA's residents in construction travel outside of the LCA for work. Construction employment opportunities are short-term in nature, with workers often employed on temporary contracts and in need of new work following the completion of these contracts. The energy infrastructure developments proposed in the study area mean there is likely to be growing demand for construction workers across the LCA, especially given recent a loss of jobs in some of the existing dominant industries.
- 16.1.43 Based on this, residents and workers are expected to have a high sensitivity to changes in construction employment.

Provision of education, skills, training and supply chain

Qualifications and apprenticeships

16.1.44 Qualifications levels across the LA present a mixed picture. Whilst the LA has a higher proportion of residents without qualifications (20%, compared to 18% in all other study areas), it also possesses 32% of residents with Level 4 qualifications or above, the highest level, equivalent to a degree or higher.^{xvi} This is largely consistent with other geographies: NCA (32%), LCA (31%), and Wales (33%).

Figure 16-2 Highest level of qualification



16.1.45 As of 2023, there are approximately 2,200 residents in the LA that work in construction, representing 7% of the resident workforce.^{xvii} It is an important industry to the LA. Of those LA residents working in construction in 2021, 23% possess higher education qualifications, which is the same as the average across Wales.

16.1.46 In the last academic year (2022/23), there were 45 construction apprenticeship starts in the LA, which represented 10% of all apprenticeship starts in the area.^{xviii} Across Wales, 10% of all apprenticeships starts were also in construction.

Identified skills shortages

16.1.47 The North Wales Skills and Employment Plan 2023-2025 highlights several challenges faced by the energy and environment sector with respect to construction skills, which are causing recruitment problems and increasing demand for technical skills.^{xix} In particular there are skills shortages in engineering

and technical occupations with STEM qualifications as well as quantity surveyors, data scientists, cyber security and project management expert roles.

16.1.48 The North Wales Low Carbon Energy Skills Research report finds that there will be increasing demand for construction workers (namely labourers, scaffolders, electricians, surveyors and civil engineers) across the low carbon energy sector.^{xx} Additionally, there will be a need for mechanical and electrical engineers in both the short and medium term to develop a Low Carbon Energy Sector in Wales. In the shorter term, construction workers will be needed to strengthen North Wales's electrical infrastructure and connections to the National Electricity Transmission System. In the medium term a large number of workers will be needed to undertake the construction of these sites. The current skills shortage, with the forecast high demand for high skilled workers, shows that the LA is facing a skills gap.

16.1.49 The North Anglesey Socio-economic impact report states that North Anglesey's historically dominant industries that were key to the local economy have declined, suggesting a need to upskill residents to support the area's growing industries.

Earnings

16.1.50 The median full-time earnings of construction workers living in the LA is approximately £37,500 per annum, which is marginally higher than the Wales average (£37,100). The workplace equivalent is similar with average annual earnings at £37,600, also higher than the Wales level (£36,600). Generally, construction workers are well-paid, with average earnings slightly higher than the average across all industries.

Future baseline

16.1.51 The North Wales Regional Skills Partnership^{xxi} states there are major skills gaps in green construction. The North Wales Regional Skills Partnership Annex 4: Net Zero skills identifies that the LA needs to upskill approximately 2,000 jobs to adapt to the green energy transition.^{xxii} Less than half of all manufacturing and construction jobs require upskilling. In terms of jobs, if decarbonisation is to be achieved by 2050, it is estimated that an additional 24,400 net jobs will need to be delivered across North Wales.

- 16.1.52 The report by Careers Wales states that more encouragement is needed for upskilling experienced tradespeople with expected high future demand for a number of skills resulting from new energy projects.^{xxiii}
- 16.1.53 The Anglesey Energy Island Framework^{xxiv} states that skills are a key action area for the LA, specifically developing a workforce with skills required to take advantage of the energy production and the sector's supply chains.

Sensitivity

- 16.1.54 Baseline data shows construction skills and training metrics are broadly in line with the national average; however, the shift towards green construction is likely to exacerbate the skills gap in the LA. The sensitivity of residents to changes in provision of education, skills and training in the construction phase is judged to be medium.

Changes in demand for temporary worker accommodation

- 16.1.55 The availability and affordability of tourism accommodation stock considers hotel rooms, holiday dwellings, campsites and short-term home lettings stock. The assessment primarily considers the stock at the LCA level, as this is where construction workers are expected to travel, but it also considers the stock at the Anglesey level to be conservative and to reflect the likelihood that workers may want to stay nearer to the PEIR Boundary.
- 16.1.56 Based on engagement with IoACC, the housing market stock (private rented sector and owner occupied) has not been considered in this assessment, given the 24-month construction programme.
- 16.1.57 Under the Construction Industry Joint Council (CIJC) Working Rule Agreement, construction industry workers can receive subsistence allowances of a little over £44 a night to cover accommodation and £5 for food and drink.^{xxv} This is used as a proxy for affordability for all accommodation options.
- 16.1.58 The following sources are used to inform the temporary accommodation baseline:
- Tourism stock (including caravan sites) and bed space occupancy is taken from the Welsh Government websites. Peak occupancies are applied to the year stock to provide a worst case assessment.

- Airbnb is considered a tourism accommodation option for construction workers and data on the available stock has been sourced from the ONS.^{xxvi}

16.1.59 Table 16-9 summarises the estimated affordable and available bed spaces in the in the LCA across various forms of accommodation which could be utilised by construction workers. Overall, there are estimated to be 10,785 available and affordable bed spaces within the LCA, with 1,740 being located in the LA. This table sets out the baseline estimates of stock across the commuting area, it does not yet consider the demand for these by construction workers.

Table 16-9 - Accommodation in the LCA broken down by type, availability and affordability

	Total bed spaces	Availability	Affordability	Available and affordable
Tourism (LCA)	232,240	*	*	10,785
Serviced	14,500	86%	9%	180
Self-catered	20,300	55%	9%	820
Caravans**	164,500	77%	100%	9,465
Hostels	3,300	51%	9%	145
Airbnb	28,840	*	6%	175
Tourism (LA)	37,815	*	*	1,740
Serviced	1,415	86%	9%	20
Self-catered	2,215	55%	9%	90
Caravans**	27,530	77%	100%	1,585
Hostels	315	51%	9%	15
Airbnb	6,345	91%	6%	35

Future baseline

- 16.1.60 No data is available to inform the future baseline for demand for temporary worker accommodation.
- 16.1.61 However, a review of other major projects coming forward in the LCA shows that Alaw Mon Solar Farm is the only other proposed development likely to materially have an effect through its construction workforce. Based on current information, it is assumed that this project's construction phase would not overlap with the Project construction phase and so would not create additional demand for temporary workers accommodation at the time of the future baseline. This will be reviewed and revised if needed at the ES stage. It is therefore considered unlikely that the peak construction periods and demand for temporary accommodation from these two projects would overlap to cause additional pressure on local accommodation stock. The Applicant is liaising with stakeholders to see if there are any other major projects that need to be assessed.

Sensitivity

- 16.1.62 The sensitivity of current and future residents and visitors to changes in demand for temporary workers accommodation is judged to be low on the basis that there are over 10,000 available and affordable bedspaces in the LCA and almost 2,000 available and affordable bedspaces within Anglesey alone. This is based on a worst-case assessment of availability, using conservative assumptions such as peak occupancy rates.

Changes to land uses

- 16.1.63 The majority of the PEIR Boundary (96%) is agricultural land, with a small element of brownfield land. The sensitivity and impact magnitude on brownfield land and agricultural land are assessed separately for this receptor, given they are different and distinct types of land uses with their own considerations.

Brownfield land

- 16.1.64 The brownfield land at the Former Oil Depot is contained within Maen Hir North. This land is a reserve employment site within the Joint Local Development Plan (JLDP), safeguarded for employment use (B2 and B8 uses) under policy CYF1. Within the JLDP, this is reserved to accommodate business and employment uses that would initially cater specifically for the needs of Wylfa Newydd or other

* Indicates different availability and affordability metrics were applied to different types of tourism accommodation **a further 75% has been applied to conservatively assumed that not all caravan parks will have the license to allow workers into their sites.

‘Energy Island’/ ‘Enterprise Island’ development. The Scoping Opinion notes that “proposals for B1, B2 or B8 uses on these sites would need to demonstrate that there was no suitable safeguarded or allocated employment site, or the supply is insufficient to meet the need.”

Agricultural land

- 16.1.65 The land within the PEIR Boundary is mostly actively farmed, with the majority of the land grassland, used for agricultural purposes and farming activities, such as sheep grazing. The land is farmed by 21 different landowners and occupiers, on a mixture of owned and rented bases.
- 16.1.66 As reported in Chapter 12: Soils and Agriculture, agricultural land quality is assessed using the Welsh system of Predictive Agricultural Land Classification (ALC).^{xxvii} This grades land into five grades, with Grade 3 subdivided into subgrades 3a and 3b. Planning Policy Wales and the Overarching National Policy Statement for Energy (EN-1)^{xxviii} defines land of Grades 1, 2 and 3a as the "best and most versatile" (BMV) land. For land predicted to be BMV land, the land is surveyed to determine the grades present and in what proportion. For land that is predicted to be 3b, 4 or 5 based on the Predictive Map then a survey is not required. Therefore, the ALC survey is limited to areas predicted to be Grade 1-3a.
- 16.1.67 The majority of the PEIR Boundary consists of land that is non-BMV (based on surveyed and predicted land) which is considered poorer quality agricultural land with severe limitations that significantly restricts the level of yields or crops it could output. Non-BMV land accounts for approximately 74% of the PEIR Boundary, the majority of which is land of Grade 4. Almost 23% of the land within the PEIR Boundary is considered within grades 1, 2 or 3a, which is considered higher quality agricultural land. The remaining 3.6% of land within the PEIR boundary is non-agricultural.
- 16.1.68 The IEMA Guidance considers land in Wales of ALC subgrade 3b and 4 to be of medium and low sensitivity respectively.^{xxix} This corresponds to the ALC subgrade of the majority of the land within the PEIR Boundary, suggesting it would have low sensitivity in relation to changes in land use.

- 16.1.69 In terms of gross value added per head - a measure of productivity - agriculture as a sector is less productive than the all-industry average across the LA with a GVA per head that is 21% lower than the average.^{xxx} However, the LA's agriculture GVA per head (£44,900) is over twice as high as the national figure (£20,200).
- 16.1.70 More locally, the majority of the LA's employment in agriculture is concentrated outside of the NCA, with only 1% of the NCA's employment in agriculture, compared to 5% across the LA.^{xxxi} This shows that Anglesey is less dependent on agricultural output within the NCA, compared to other areas of the LA.
- 16.1.71 PEIR Chapter 12: Soils and Agriculture also states that farm businesses are generally resilient to change, as regularly changing enterprises influenced by many external factors including commodity prices, grant funding and natural conditions (weather and disease), suggesting they would be less sensitive to changes in land uses.

Future baseline

Brownfield land

- 16.1.72 IOACC and Stena Line have developed an outline business case related to proposals for Anglesey Freeport, noting that the LA currently does not benefit from Freeport status. Freeports are a public-private-partnership between active ports and their host local authorities, with tax sites put forward by landowners. Once designated, they include the allocation of specific sites where businesses receive certain tax (and in some cases customs) benefits. As part of the Anglesey Freeport, tax and custom sites in the LA have been identified. The Former Oil Depot at Rhosgoch is identified as a proposed tax site. The Project's proposals for this site will seek to align with the vision of the Anglesey Freeport.
- 16.1.73 At the time of writing, the UK government has put forward an agreement to buy land identified for the proposed Wylfa Newydd project. In the Horizon Nuclear Power proposals there was a plan for the Former Oil Depot site to be used to accommodate construction workers, although these were eventually shelved. Given uncertainty surrounding both this agreement and also the specific

proposals for the Former Oil Depot site through the Freeport, the future plans for the brownfield land within the PEIR boundary are currently not known.

Agricultural land

- 16.1.74 A future baseline is not considered for agricultural land, with the assessment instead relying on current baseline conditions prevailing.

Sensitivity

Brownfield land

- 16.1.75 The Former Oil Depot at Rhosgoch is viewed as important for supporting employment locally, including for Energy Island related developments. Based on this, the sensitivity of current and future residents and workers to changes in brownfield land is judged to be medium.

Agricultural land

The agricultural land within the PEIR Boundary is mostly of poorer agricultural value (around three quarters of the total), as per its ALC grade, that would naturally be expected to have a lower agricultural output. The land is mostly used for grazing with some also mown as forage. Additionally, agricultural output per head is lower than the average across all industries in the LA. Similarly, in terms of agricultural employment, NCA's economy is less reliant on agriculture, given it only makes up 1% of its total employment and generally farm businesses are viewed as being more resilient to change. Overall, the sensitivity of current and future residents and workers to changes in agricultural land is judged to be low.

Operation

Operational employment (direct, indirect and induced) supported by the Project

- 16.1.76 In 2022 there were a total of 105,000 jobs in the LCA. Since 2015, employment growth in the LCA has been relatively low at 1%, which is less than the LA and Wales who have experienced employment growth of 3% and 2%, respectively.
- 16.1.77 In terms of residents in the LCA, they perform well against labour market statistics in 2023 with employment (75%) and economic activity rates (78%) marginally better than the Welsh average (74% employment rate and 77% economic activity rate).^{xxxii} However, as identified in the North Anglesey Socio-Economic Impact report, North Anglesey's economic challenges stem from the loss of jobs driven

by the closure of some major employers, which have not been replaced. This has led to low jobs density in North Anglesey, with the only significant concentration of jobs located in Amlwch.

- 16.1.78 The North Wales Skills and Employment Plan (2023-2025)^{xxxiii} states that whilst unemployment is generally lower across North Wales relative to the rest of Wales, economic inactivity rates have stayed static for many years, which presents a challenge. ONS data shows that in 2022 19% of LCA residents are considered to be economically inactive and also want a job, which is higher than the Wales average of 17%. This is reiterated in the North Anglesey Socio-Economic Impact report, which emphasises the reduction in young people and working-age population coupled with an increase in its ageing population as a key driver of higher economic inactivity in the area.
- 16.1.79 Whilst the LCA performs in line with the Wales average (both have average full-time resident and worker earnings of approximately £31,000), there is significant disparity in earnings within the LCA. For example, average earnings for workers in the Pwllheli and Porthmadog area (within the LCA, the study area for this effect) is £23,000, compared to £33,000 in Bangor and Holyhead.^{xxxiv} This is reiterated in the North Wales Skills and Employment Plan (2023-2025)^{xxxv}, which acknowledges that wages are not consistent across the region or sectors of the economy. Similarly, as noted in the North Anglesey Socio-Economic Impact report, North Anglesey have witnessed a shift in their dominant industries towards sectors with lower wages such as accommodation and food, which is also a highlighted concern.
- 16.1.80 The majority of the LCA's residents also work in the LCA – approximately 89%, indicating low levels of out-commuting at this geography.^{xxxvi}

Future baseline

- 16.1.81 IoACC have published employment projections from 2008 to 2025,^{xxxvii} across a range of Energy Island scenarios. Many of these scenarios include the development of Wylfa Newydd, which is now unlikely to come forward before 2028. For these reasons, we have excluded Wylfa from the presented projections.

- 16.1.82 The projections show -4%, -1% and 2% employment growth from 2008 to 2025 across Anglesey based on (i) the base case scenario, (ii) some of energy Island coming forward and (iii) the maximum energy Island scenario coming forward (in all cases excluding Wylfa), respectively. Using the slope method, to linearly trend projected growth forward to 2028 and applying this to baseline employment estimates suggests in the base case scenario employment would be 104,900 in the LCA, equivalent to growth of -0.3% against the existing baseline. Alternatively, in the scenario where some of energy Island initiatives come forward, employment in the LCA decreases by -0.1% to 105,000 and in the maximum energy Island scenario employment remains the same as the current baseline of 105,200. Therefore, even in the best case, assuming all of energy Island comes forward (apart from Wylfa), there is likely to be a lack of future jobs in the LCA to 2028 in the future baseline.
- 16.1.83 Alternatively, projecting forward LCA employment from 2022 to 2028 based on historic employment (2017-2022), sees employment in the LCA fall to approximately 103,100 - that is, a 2% fall in employment compared to the current baseline position.
- 16.1.84 Clearly, the combination of uncertainty around Wylfa Newydd being delivered and the historic decline in jobs (which is expected given that Wylfa Magnox has entered its decommissioning phase) indicates that without intervention, it is likely employment would continue to decline in the LCA in future years. In response to this, IoACC and Stena Line are progressing plans for a new Freeport.^{xxxviii} According to the North Anglesey Socio-Economic Impact Report, the Freeport is anticipated to create between 3,500 to 13,000 jobs across North Wales, with a large proportion being in Anglesey. Whilst it is unclear the extent to which these jobs would be additional, assuming they were all additional would grow future baseline employment to somewhere in the region of 106,600 to 118,200 in the LCA by 2028. Once more detail on the Freeport business case is made publicly available, future baseline employment estimates will be refined to account for Freeport proposals in the ES.

Sensitivity

16.1.85 The LCA labour market has grown slowly over the last decade, with relatively static employment and economic inactivity rates. Whilst earnings are broadly in line with the national average, there are significant earnings disparities within the LCA. There is a clear and identified need for more jobs in the LCA now and in the future, with the recent loss of major employers which has raised concerns particularly across North Anglesey. The sensitivity of existing and future residents and workers to changes in operational employment is estimated to be high.

Provision of education, skills and training

16.1.86 The baseline related to the provision of education, skills and training in the construction phase shows qualifications levels across the LA present a mixed picture.

16.1.87 Most apprenticeship starts in the LA are either foundation level (38%) or level 3 (49%), with only 13% at level 4 or above in the latest academic year, indicating a lack of the highest level of apprenticeship.^{xxxix} This is below the national rate where 19% of all apprenticeship starts in the latest academic year were level 4 or above.

16.1.88 Mapping the occupations of resident jobs in the LA to qualification levels shows a higher concentration in occupations requiring level 3 skills – 29%, which is the highest among geographic comparators.¹ For example, across Wales 24% of jobs require level 3 skills. However, a lower proportion of residents are employed in jobs demanding the highest skill level (level 4)² – 37% in the LA compared to 42% in Wales.^{xl}

¹ Level 2: Covers a large group of occupations (including personal service, sales and customer services occupations), all of which require the knowledge provided via a good general education as for occupations at the first skill level, but which typically have a longer period of work-related training or work experience. Level 2 employment at the Proposed Development could include clerical and secretarial occupations. Level 3: Applies to occupations that normally require a body of knowledge (such as skilled trades occupations) associated with a period of post-compulsory education but not normally to degree level.

² Level 4: Relates to what are termed 'professional' occupations and high-level managerial positions. Occupations at this level normally require a degree or equivalent period of relevant work experience.

Table 16-10 Skill levels mapped to resident jobs

Skill level mapped to occupation	LA	LCA	Wales
4	37%	35%	42%
3	29%	28%	24%
2	23%	25%	23%
1	11%	12%	10%

16.1.89 The North Wales Skills and Employment Plan 2023-2025 identifies the following challenges in terms of skills, of which most around jobs are related to renewable energy and a green economy:

- Skills shortages are causing recruitment problems in the energy sector and technical skills are in demand;
- Skills shortages are in engineering and technicians' occupations with STEM (Science, Technology, Engineering and Mathematics) qualifications as well as quantity surveyors, data scientists, cyber security and project management expert roles; and
- Challenges of defining skills needs for net zero transition.

16.1.90 The North Wales Skills and Employment Plan has identified a skills shortage with 37% hard to fill vacancies in North Wales (includes the LA) – higher than the national average (35%).^{xli} Notably, 70% of regional employers are facing skills shortages, particularly in trades, associate and technical occupations and professional occupations.

16.1.91 The North Anglesey Socio-Economic Impact Report finds that a lack of high-paid job opportunities in the LA is creating an increasing risk around residents moving or commuting elsewhere. Energy Island initiatives are identified in key in reviving North Anglesey as an employment destination.

Future baseline

16.1.92 The potential of the LA as an Energy Island presents significant opportunities for residents to diversify their skills and make the most of future Energy Island-related opportunities.

- 16.1.93 Beyond construction opportunities, residents will have access to a range of operational opportunities associated with nuclear and energy related developments. These jobs would primarily be operational and maintenance jobs, in roles ranging from electrical engineers to project and estate managers. In the case of nuclear development (Wylfa Newydd), operational jobs would include engineering roles, site management as well as roles associated with the supply chain.
- 16.1.94 As noted in Appendix 16-1, the Anglesey Energy Island Framework^{xliii} states that developing a workforce with the skills required to take advantage of energy production will be very important.
- 16.1.95 Further to this, there would be continued demand for jobs in accommodation and food services to support construction workers relocating for work and the new operational workforce at the Energy Island locations.^{xliiii}

Sensitivity

- 16.1.96 Skills, qualifications and apprenticeships are generally lower in the LA relative to comparators, with a lack of the highest level of qualifications and apprenticeship opportunities. There is a growing skills gap from energy-Island related opportunities based on residents current skills, with identified skills gaps across occupations in the energy sector. Based on this, current and future residents are expected to have a medium sensitivity to changes in education, skills and training in the operational phase.

Impact on community power

- 16.1.97 In 2020, Welsh Government set out its expectation for all new renewable energy projects to include an element of local or shared ownership, to provide real benefit to local communities. Shared ownership refers to a project owned by more than one legal entity, whilst local ownership is defined as energy installations owned by one or more individuals or organisations whose principal headquarters are located in Wales.
- 16.1.98 The need for community solar schemes, with an element of local ownership, is still being developed through engagement with communities, IoACC and other stakeholders during statutory consultation. In addition to this, discussions will be

held on the types of projects and initiatives they would like to see supported by the Community Fund. It is not yet possible therefore to conclude on the sensitivity of the receptor. This will be completed within the ES.

Changes to land uses

- 16.1.99 The baseline and future baseline for the preliminary assessment of likely significant effects of changes to land uses is the same for both the construction and operational phase. Paragraph 16.1.36 onwards summarises the baseline and receptor sensitivity for this effect.

Changes to local tourism assets

- 16.1.100 Tourism is a significant economic driver for the LA, with the sector comprising 20% of the LA's total employment, surpassing the 13% average across Wales.³ Moreover, tourism accounts for 8% of the LA's gross value added (GVA),⁴ almost twice as high as the average across Wales (5%), highlighting the sector's important role in the LA economy. The LA is the second most visited local authority in Wales, with 49% of visitors to Anglesey citing its landscapes, countryside, and beaches as their primary motivation for visiting. As stated in Anglesey's Destination Management Plan (2023-2028),^{xliv} Anglesey is the county most reliant in the UK on the tourism industry, highlighting its importance.
- 16.1.101 The LA features a diverse range of tourism assets distributed across its main settlements and coasts. Natural attractions, including parks, gardens, and nature trails, comprise the largest proportion (50%) of tourist attractions. In close proximity to the PEIR Boundary and within the NCA, there are multiple public rights of way (PROWs) (including geotrails) surrounding the area, with Llyn Alaw Reservoir to the west offering a walk which overlooks the old railway line. To the east of the PEIR Boundary lies Parys Mountain and Wildlife Cors Erddreiniog, the largest of the Three Fen National Nature Reserves, providing numerous walking routes, and Parys Mountain.

³ Tourism is defined by the following broad industrial groups: Accommodation & food services and arts, entertainment, recreation and other.

⁴ Tourism is defined by the following 2-digit SIC 2007 codes: 55, 56, 79, 90, 91, 92 and 93.

- 16.1.102 Natural attractions, historical and heritage sites constitute 19% of all attractions in the LA, primarily located along the coast and within settlements. However, the Rhosgoch Standing Stone, one of Anglesey's tallest standing stones, is positioned north of the PEIR Boundary, accessible via several PROWs.
- 16.1.103 Table 16-11 below outlines the proportions of various tourist attractions in the LA, with sport and adventure activities also notably prevalent in Anglesey's tourism landscape.

Table 16-11 Tourism Attractions in the LA

	Count	Proportion
Nature	62	50%
Historical or heritage	24	19%
Adventure and sport	24	19%
Leisure centre	5	4%
Food and Beverage	6	5%
Town	4	3%
Total	125	100%

Future baseline

- 16.1.104 There is no data available to inform the future baseline for changes to local tourism assets, with likely significant effects instead to be assessed against the current baseline levels.

Sensitivity

- 16.1.105 Tourism is one of Anglesey's key industries, particularly due to its natural landscape and features. The sensitivity of current and future residents, businesses and visitors to changes in local tourism assets is considered to be high.

16.4 Embedded Mitigation

- 16.1.106 Currently, the following embedded mitigation measures are integrated into the design of the Project that are relevant to socio-economics:

- **Community Solar Project:** The Applicant is proposing that a proportion of the site is community owned. The Community Solar Project of 5MWp capacity is proposed to be located on the Former Oil Depot at Rhosgoch, subject to securing freehold rights or a head lease over the land. The Applicant has earmarked an alternative location for the Community Solar Project in the event that it is not possible to secure suitable rights over the Former Oil Depot. It is currently expected that this will be a separate generating station that is owned by a third party, albeit that the revenue will be determined at the Project side of the meter (i.e. it is making use of the Project's grid connection).
- **Multi-functional green infrastructure:** In order to maximise benefits the project will seek to create green infrastructure that delivers multiple beneficial outcomes for people and nature. This will be achieved by developing proposals informed by multiple sources and referring to guidance such as 'The Ecosystem Resilience Practitioners Guide' produced by Natural Resources Wales (NRW) and the 'Building with Nature Standards' which are identified as representing good practice for developers in Planning Policy Wales 12 (PPW12).
- **Public rights of way (PRoW) - key tourism assets in Anglesey,** when well-maintained - within the PEIR Boundary and passing through the Solar PV Site would be buffered within hedge-lined corridors within 15m minimum width corridors to reduce any perceived channelling of visual effects along these routes. Furthermore, the Project will seek to improve access to green and natural places either by enhancing existing public rights of way or creating new routes and features in the landscape
- **Sustainable Farming Scheme design measures:** The Project will look to support the continued agricultural landscape and enable a transition amongst landowners to more resilient and sustainable land management approaches, in line with the ambitions of the Sustainable Farming Scheme.
- **Construction Staff Shuttle:** The Project will seek to employ the use of a shuttle bus service for staff who will park within the relevant construction compound which will contain a designated parking area, to remove staff

trips from the local road network. The shuttle will then transfer staff to the relevant area of construction across the Project, which will be subject to phasing of the construction works. Further details of the shuttle bus service will be provided within the ES and will be secured via a requirement, with further details to be provided prior to commencement of the construction phase.

- Siting of the Solar PV Arrays, Project BESS and Substation and the 132kV Substation within the existing landscape framework to subdivide, compartmentalise and fragment views of the development parcels from key visual receptors in the surrounding landscape;
- Siting of the Solar PV Arrays, Project BESS and Substation, and the 132kV Substation away from sensitive landscape and visual receptors including the exclusion of solar arrays within a range of fields near to sensitive assets; and

16.1.107 Embedded mitigation measures, particularly those relating to employment and skills and the supply chain, are currently developing. The final embedded mitigation measures for the Project are therefore not confirmed at this stage but will be presented in the ES. Emerging employment and skills initiatives (mitigation and enhancement measures) are treated as additional mitigation for the purposes of the PEIR.

16.5 Preliminary Assessment of Likely Significant Effects

Construction and Decommissioning

Construction and decommissioning jobs

16.1.108 The Project will create direct, indirect and induced jobs during the construction and decommissioning phase. For clarity:

- Direct jobs are those supported by Project activities on site;
- Indirect jobs are those supported by the Project's supply chain; and
- Induced jobs are those supported by expenditure in the relevant area created by the Project's workers.

Direct jobs

- 16.1.109 For the purposes of the PEIR, the construction phase of the Project is assumed to take place in one. The phase is estimated to last 24 months, which will be made up of five sub-phases, requiring different types of construction jobs.
- 16.1.110 It is estimated that the construction phase would support a peak of approximately 650 construction jobs. In total, the construction phase would support approximately 1,320 construction jobs. Table 16-12 shows the total estimated breakdown of jobs during the construction phase. It is important to note that this breakdown is an early and indicative estimate of the expected profile of the construction workforce. The breakdown has been developed by the Applicant based on a preliminary design. This figure is subject to change and will be reviewed and presented within the ES.

Table 16-12 Indicative direct jobs in the construction phase

Activity	Period 1 Mobilisation and ground works	Period 2 Civil Work / Piles / Framing	Period 3 Civil, Framing, Modules, electrical	Period 4 Mechanical Completion, Electrical	Period 5 Commissio ning
Engineering & Project Management	10	25	65	20	15
Other	5	5	10	5	2
Civil workers (ground workers up to and including supervisors and site engineers)	35	100	175	10	0
Mechanical	0	250	250	63	0
Electrical	0	10	150	98	20
Estimated peak	50	390	650	195	37

Net direct jobs

- 16.1.111 It is important to consider the net impacts of the workers. The Homes & Communities Agency (HCA) Additionality Guide provides a framework for estimating this based on displacement, multiplier and leakage factors.^{xlv}

- 16.1.112 This analysis also considers leakage, which is the amount of jobs that will be taken by workers outside the study area. The PESS Plan states that a leakage has not been defined yet, but will be developed prior to submission of the DCO application. Instead, a range of previous relevant projects and baseline data have been reviewed, highlighting uncertainty around estimating leakage. Important considerations include precedence on large-scale specialised low carbon energy projects. These include leakage estimates ranging from 50%-70%. In contrast, commuting patterns show 89% of residents in the LCA, both live and work in the LCA, albeit these estimates are likely to be a significant over-estimation due to the pandemic and working from home patterns when the Census was undertaken (2021).
- 16.1.113 There will be opportunities for local employment of residents within the respective study area during construction. It is likely, however, that a number of jobs will be taken by people living outside of the study areas. The range of jobs required includes specialised solar PV professions, with some roles potentially facing scarce resources in terms of skills and labour availability locally. The construction workforce of major projects of national significance is also highly mobile, indicating that a proportion of workers will move towards where the current work is. More work will be undertaken for the ES to establish reasonable local employment targets for the Project, with leakage implicitly being the inverse of this target. However, for the purposes of the PEIR, a broad range is presented based on a conservative leakage of 50%-75% outside of the LCA, which would capture the range of considerations presented above.
- 16.1.114 Accounting for this leakage factor suggests that the Project would support approximately 330-660 gross direct jobs for residents in the LCA over the construction period. This is equivalent to a 2%-5% uplift on the current baseline positions for residents in construction jobs in the LCA.

Indirect and induced jobs

- 16.1.115 The multiplier impact captures the indirect and induced impact to other sectors supported by the Project, generated through supply chain (indirect) and worker expenditure (induced). Essentially, the multiplier captures further economic

activity (jobs, expenditure or income) associated with additional local income and local supplier purchases. The scale of multiplier effects varies by intervention, industry and geography. The HCA Additionality Guide considers multiplier effects by industry, from estimates produced by Oxford Economics. However these are at a national level, whilst the analysis here focuses on the indirect and induced impacts at the LCA level. Indirect jobs are those related to jobs supported through the supply chain linkages, whilst induced jobs are those related to jobs supported through increased spending in the local economy.

- 16.1.116 To calculate the regional construction multiplier, we start with a ready reckoner medium multiplier of 1.5 at the regional level, taken from the HCA Additionality Guide. This is then adjusted by the difference between the national construction multiplier (2.7) and the all-industry average multiplier (2.2), resulting in an uplifted regional construction multiplier of 1.8. The construction industry relies heavily on its supply chain compared to other industries, leading to a higher-than-average indirect impact. Using a multiplier of 1.8 is therefore reasonable to account for the significant impact of the construction supply chain.
- 16.1.117 Based on a total of approximately 1,320 gross construction jobs supported over the construction period, there are expected to be approximately 1,110 gross indirect and induced jobs supported through the construction phase, resulting from the multiplier impact.
- 16.1.118 To consider the net additional employment impact, displacement must be considered. Displacement measures the extent to which jobs supported are offset by reductions in employment elsewhere. In other words, the extent to which the jobs would have been supported elsewhere in the LCA in the absence of the Project. The construction workforce is highly mobile, moving to where there is work or between construction projects, as demand requires. The North Wales Skills and Employment Plan (2023-2025) also highlights demand for construction workers in the short and medium term to develop the low carbon energy sector in Wales. Furthermore, the Wales CITB report states construction workers are in demand across Wales, and with relatively low levels of unemployment lead to

competition for workers. Given this, a medium level of displacement is applied, considered as 50% in the HCA Additionality Guide.

- 16.1.119 Applying the multiplier of 1.8 to net direct jobs suggests there will be approximately 555 net indirect and induced jobs created. Therefore, in total it is estimated that the Project will support approximately 1,215 net additional jobs within the LCA during the construction period (when also applying displacement to direct jobs). Applying leakages, it is estimated that approximately 305-610 of these net additional jobs would be expected to taken up by LCA residents.

Decommissioning phase

- 16.1.120 The decommissioning phase is expected to start in 2088 and is assumed to support a lower number of jobs than the construction phase. For the purposes of the PEIR, it is assumed that a workforce the size of approximately 50%-80% of the construction workforce would be required for the decommissioning phase. The ES will consider in more detail how many workers would be supported in the decommissioning phase of the Project.

Total

- 16.1.121 Overall, the Project is considered to have a medium magnitude of impact in relation construction and decommissioning jobs, given the material uplift of 2%-5% on existing LCA residents working in construction with respect to approximate gross direct jobs. On a high sensitivity, this leads to a direct, temporary, major beneficial effect that is significant.

Provision of education, skills, training and supply chain

Education, skills and training

- 16.1.122 The construction of the Project will support local jobs and provide opportunities for upskilling and training. The Applicant will appoint an EPC contractor to manage the construction of the Project. Currently, no EPC has been procured as the Project is still at an early stage. Ultimately, the EPC will be in control of hiring workers, including deciding on the total size of the workforce required, and how many local residents are hired for roles during construction of the Project. For the purposes of this assessment, the Applicant has provided an estimated skills overview of direct jobs opportunities during construction at this early stage.

Further detail will be provided around construction education, skills, training and supply chain opportunities created by the Project in the ES.

16.1.123 The Project will provide an opportunity for local residents in the LA (and to some extent, residents in other parts of the LCA) to acquire new skills and training within the construction industry.

Table 16-13 Types of roles and skills likely to be supported during the construction phase of the Project

Job names	Responsibilities	Skills
Project Management, Engineering & Technical	Project managers are responsible for planning, directing, and coordinating construction and maintenance activities throughout construction phase.	Degree in engineering or related field with an understanding of engineering principles and management Recognised HSE qualification and suitable major construction experience
Engineering & Technical	Engineers research and advise on mechanical systems, including energy use, materials handling, thermodynamic processes, fluid mechanics, vehicles, and environmental controls.	Degree in engineering or related field. Understanding of mechanical and electrical engineering principles, ability to use CAD software and familiarity with industry standards
Health Safety Environmental & Quality	Health and safety personnel are responsible for ensuring the safety of everyone on-site. They implement and monitor safety procedures and regulations to minimise risks and prevent accidents.	Recognised HSE qualifications and/or quality management qualifications Suitable major construction experience (preferably solar)
Procurement and Logistics	Responsible for procuring all necessary materials and organising their delivery to the site.	Experience in procurement and logistics management, with recognised procurement qualifications
Finance and Administration	Assurance of accurate financial documentation and compliance with relevant regulations.	Accounting qualification

Job names	Responsibilities	Skills
Fencing Installation Workers	Responsible for the installation of perimeter fencing, including gates for access.	Ability and proficiency in basic labouring tasks
Operative (Specialist)	Operation and maintenance of specialised equipment as required.	Degree in engineering or related field with an understanding of engineering principles Qualifications for the role and suitable CSCS equivalent
Civil Workers	Responsible for preparing the PEIR Boundary, including removal and storage of topsoil, levelling the land, building access roads, digging trenches for cabling, and laying foundations for solar stations, substations, and BESS.	Ability and proficiency in operating various construction equipment and performing basic labouring tasks
Security	Responsible for protecting the site during the construction process.	Basic understanding of security practices

16.1.124 The Project will create substantial employment opportunities across a range of different occupation types in construction. The construction phase, however, is not particularly long in the context of the lengths of residents' careers. To create legacy benefits, the Project will focus on providing workers employed on the Project with transferable skills that they can take to future opportunities coming forward through the Energy Island Programme (EIP). The Applicant will continue to work with IoACC and other major projects where appropriate to identify which occupations and skills presented in the table above are 'transferable' to other projects or industries related to renewable energy.

Supply chain

16.1.125 The Project will support a range of supply chain opportunities to local businesses. It is expected that the Project will use the local supply chain to source some materials and components, create partnerships between suppliers, manufacturers, and distributors, and as such will stimulate economic activity within the LA.

16.1.126 The procurement of all key equipment, whether by the Applicant or its contractors, will be undertaken via standard competitive bidding practises with final award decisions made based on technical compliance, price and other key onboarding criteria such as quality and ESG (Environmental, Social, Governance). The table below identifies the materials that local suppliers or distributors are likely to be able to explore the possibility of bidding for. In general the list of locally supplied equipment will be dependent upon local expertise, price competitiveness and availability in the region. It is noted that the table below is an emerging list of local opportunities, with more engagement required to be undertaken with both EPC contractors (to discuss feasibility and delivery plans) and IoACC (to improve understanding of the local supply chain offer) as the Project progresses.

Table 16-14 Preliminary local procurement opportunities

Item description – construction activity and material requirement	Opportunities for local suppliers to tender
Fencing Materials: Posts, Net, Strainers & Gates	Yes
Mounting Structure: Mounting Structure Piles & Upper Structure	Yes
Landscaping materials: local, native plants	Yes
Cabling Materials & Ancillary: Including but not limited to: Cable Ducts, AC/MV Cables, ACLV Cables, DC Cables & Communication Cables	Yes in part
HV Equipment (Other): Including but not limited to: Aux Transformer, Switchboard, HAM Unit, Protection Panel, Surge Arrestors, Battery Charger, Enclosures, 22kV Cable, Circuit Breakers, Termination Sets, Busbar	Yes in part
HV Equipment: Lighting/CCTV Columns	Yes in part

16.1.127 Based on a preliminary assessment, the Project is considered to have a medium magnitude of impact in relation to education, skills and training for local residents and businesses. Many of the skills that will be developed among local residents through experience and opportunities provided by the Project will support Anglesey's Energy Island vision and provide residents with transferable skills that

can be used to support longer-term career opportunities associated with Energy Island in the future. On a medium sensitivity, this leads to a direct, temporary, moderate beneficial effect that is significant.

Changes in demand for temporary workers accommodation

- 16.1.128 The construction of the Project will require a mix of skill levels and technical occupations. Some of the workers will be specialist and highly skilled. It is likely that the appointed EPC contractor will hire these workers from a variety of locations.
- 16.1.129 It is estimated that between 50-75% of the construction workers would come from outside of the LCA and therefore may require temporary accommodation during the construction phase.
- 16.1.130 At the peak of construction, it is estimated that 650 workers will be onsite. Applying a leakage of 50%-75% suggests that between 325-490 construction workers at peak would come from outside of the LCA and seek temporary accommodation within it. This is a reasonable worst-case scenario given that potential displacement of workers from other construction projects in the LCA is not factored into this calculation.
- 16.1.131 The baseline data (Table 16-9) shows that there are an estimated 10,785 available and affordable bed spaces within the LCA, indicating that there is more than enough accommodation within the area to serve the total number of construction workers throughout the construction period. However, the number of baseline available and affordable bed spaces may be reduced slightly if other major projects, such as Alaw Mon, temporarily overlap with the construction phase for the Project. This is not currently assumed to be the case for the purposes of the PEIR.
- 16.1.132 This assessment applies several conservative assumptions regarding the percentage of non-LCA based workers, the area of impact, the occupancy rates of accommodation (peak across the year) and the peak workforce size, and concludes there is sufficient capacity within the temporary accommodation market. However, even considering a worst-case assessment of the peak number of construction workers onsite without applying such assumptions, data on the

availability of accommodation suggests that there still would be considerable bedspaces in temporary accommodation to support temporary workers. Based on this, the Project is expected to have a medium magnitude of impact in the reasonable worst-case scenario. Given the low sensitivity, this leads to a temporary, minor adverse effect that is not significant.

Changes to land uses

Brownfield land

16.1.133 With respect to the brownfield land within the PEIR boundary, it is expected that this will be utilised as a construction logistics compound during the construction phase of the Project. Engagement is ongoing with the Freeport around the impact that planned Project uses for this site could have on Freeport site proposals, with a more detailed assessment to be provided in the final ES.

Agricultural land

16.1.134 The construction phase of the Project will lead to a temporary loss of agricultural land. Most of the PEIR Boundary is grassland and is actively farmed. There is also some silage and hay production in the spring and early summer, followed by further sheep grazing. Whilst these activities will likely temporarily stop during the construction phase of the Project, these activities are not labour-intensive and therefore would not lead to a significant loss in socio-economic terms. This will be investigated further as the Project is refined in the ES.

16.1.135 In light of presenting a worst-case assessment, it is assumed that some agricultural operations will cease as construction begins, however it is expected that sheep grazing will be able to continue on a rotational basis, aligned with the construction phasing. As noted in PEIR Chapter 12: Soils and Agriculture, the Project design has evolved in consultation with the agricultural landowners, who are providing their land voluntarily for the PV arrays. The design, phasing and layout are all being developed to minimise adverse effects caused from construction disruption to farms that sit within the PEIR Boundary.

16.1.136 The impact on agricultural jobs and economic output will be concluded on in the ES, as further investigations around the activities within the PEIR Boundary are carried out. For example, interviews are currently being carried out with the

agricultural landowners to better understand the expected socio-economic impacts on their farming operations. These interviews are due to take place prior to the ES being produced, and will be crucial to determining the extent to which any temporary losses of land will have a socio-economic impact (and the magnitude of that impact). The findings will be updated and reflected in the final assessment.

Operation

Operational employment (direct, indirect and induced) supported by the Project

- 16.1.137 The operational phase of the Project will last 60-years, supporting direct jobs as well as indirect and induced jobs.
- 16.1.138 It is estimated that the operation and management of the Project will support between 10 and 12 full time jobs per annum over the 60-year period, as well as one administrative worker. Furthermore, the periodic replacement of solar infrastructure would also likely require temporary jobs during the operational phase, although they have not been estimated quantitatively at this stage. At this preliminary stage, the majority of operational jobs supported by the Project are assumed to be additional, on the assumption that agricultural jobs onsite are expected to be retained during the operational phase, with sheep grazing continuing throughout the operational period. The financial income provided to landowners for use of the agricultural land may even help to support farm employment in the future, at a time when the agricultural industry generally is in decline. Interviews with landowners are being carried out to better understand whether there will be any socio-economic impacts on their farming operations and agricultural jobs during the operational phase of the Project.
- 16.1.139 Given the scale of direct operational jobs, net additional operational jobs are considered to be negligible and are therefore not set out here.
- 16.1.140 Overall, the Project would have a negligible impact on operational employment at the LCA level, supporting around 10-12 direct jobs. On a high sensitivity, this leads to a direct, long-term, minor beneficial effect that is not significant.

Provision of education, skills and training

16.1.141 The Project will support operational employment opportunities, across a range of different professions, consisting of operation and maintenance crews (including technical professions such as electrical engineers, field service engineers, HV senior authorised persons and performance managers), landscaping, and occasional repair teams. The types of skills required to be supported by these outlined in Table 16-15. These should be considered preliminary estimates.

16.1.142 As in the construction phase, the jobs supported would also support long-term skills development for local residents, which would contribute to addressing identified skills shortages in the green and low carbon sector. Many of the skills that will be developed among local residents will support career opportunities associated with Energy Island in the future. Similarly, upskilling local residents to access the skills required by operational employment opportunities (Table 16-15) would be supported by activities undertaken by local Further Education colleges. There would likely also be opportunities to develop skills required by new roles across the industry, such as drone surveyors.

Table 16-15 - Types of jobs supported during the operational phase

Job name	Responsibilities	Skills
Electrical Engineers	The electrical engineer would advise on the mechanical systems and would help to reinstall broken panels and maintain solar plants in an optimum operating condition.	Degree in engineering or related field with an understanding of engineering principles. Understanding of mechanical and electrical engineering principles, ability to use CAD software and familiarity with industry standards.
Field Service Engineers	The primary role would be to maintain solar plants in an optimum operating condition, through playing an active role in risk assessment and the performance of preventative and corrective maintenance of relevant components and systems.	At a minimum, Field Service Engineers would be electrically trained to a Level 3 Electrical NVQ and be able to pass an LV1 assessment. Recognised electrical qualification and/or experience would be an advantage.
Senior Engineer	To provide technical leadership ensuring the quality of preventative and corrective maintenance	A strong understanding of health and safety legislation and broad knowledge of solar PV operation and maintenance.

Job name	Responsibilities	Skills
	activities and reporting. Ensuring standards defined by the Engineering team are implemented and adhered to.	Experience in the management of complex repair projects, PV operation and maintenance techniques, and writing and reviewing risk assessments and method assessments.
High Voltage (HV) Senior Authorised Person	To ensure the optimum safe performance of PV solar plants within a region by undertaking preventative and corrective maintenance activities on HV and LV (Low Voltage) systems. Full control and ownership of the HV systems.	Educated to a minimum higher national certificate qualification in electrical engineering or equivalent. Working knowledge of HV distribution systems and the ability to read schematic drawings and understand content. Knowledge of relevant health and safety regulations. Experience as a Senior Authorised Person would also be required.
Performance Managers	Performance managers will monitor, maintain, and look to optimise the solar power performance. These managers will be responsible for collecting data on various factor to see where improvements can be made, for example factors would include the system, voltage, and temperature.	Degree in engineering or related field with an understanding of engineering principles. Understanding of mechanical and electrical engineering principles, ability to use CAD software and familiarity with industry standards.
Landscape Monitoring and Managers	Responsible for monitoring and maintaining the Site. This role involves ensuring the landscape remains in optimal condition and oversees plant health.	Ability and proficiency in operating various equipment and performing basic labouring tasks to maintain the landscape
CCTV and security	Responsible for protecting the site during the operational phase of the Project. They monitor surveillance systems and control access to site security.	Basic understanding of security practices

16.1.143 Overall, the Project is considered to have a low magnitude of impact in relation to education, skills and training for local residents and businesses. This will be reviewed for the ES once more information is available and commitments have

been developed. On a medium sensitivity, this leads to a direct, long-term, minor beneficial effect that is not significant.

Impact of community power

- 16.1.144 The Applicant is proposing that a proportion of the site is community owned. The community solar scheme is expected to have capacity of approximately 5MW with an operational life of up to 60 years. The Applicant anticipates it will continue to provide maintenance and management for the community solar scheme during the operational stage via an Operations and Management (O&M) Agreement.
- 16.1.145 The Applicant has agreed heads of terms and exclusivity with Menter Môn, a community company set up for the local community in the Anglesey area. Menter Môn also benefits from experience managing renewable energy projects. The terms of the Investment Agreement are currently being negotiated, however it is intended that the proposed asset transfer will take place once the site reaches its commercial operations date (following construction). The Applicant is working with IACC to develop effective governance that ensures the income generated from the community solar scheme is directed in line with IACC's 'Proximity Principle'.
- 16.1.146 Engagement with IoACC is ongoing to ensure the scheme aligns with community priorities and delivers positive benefits. More detail will be provided in the ES. The effect on community power will be determined in the ES, given the beneficiaries of the community power scheme are not yet known, as the Applicant's plans evolve for the community solar scheme and the priorities for the funds obtained via the community solar scheme are agreed with IoACC and enshrined into the Interface Agreement with Menter Môn.

Changes to land uses

Brownfield land

- 16.1.147 With respect to the brownfield land within the PEIR boundary, the Former Oil Depot site is the preferred location to deliver the BESS, Project Substation and some solar PV including the community solar, during the operational phase of the Project. Engagement is ongoing with the Freeport around the impact that planned Project uses for this site could have on the emerging Freeport proposals, with a more detailed assessment to be provided in the final ES. A worst-case scenario

for this site has been assessed at this stage, which does still leave some potential space for commercial floorspace to be brought forward at the site (outside of the scope of this Project). Feedback is invited from stakeholders (such as IoACC) during statutory consultation on the current proposals for the site.

Agricultural land

- 16.1.148 The impact on agricultural land during the operational phase has the potential to lead to a loss in agricultural output. More detail on the scale of the loss of agricultural output, and its knock-on socio-economic implications, will be provided in the ES.
- 16.1.149 As noted in the PEIR Chapter 12: Soils and Agriculture, once the Project is operational, it will continue to support agriculture and will be farmed by way of sheep grazing, or fodder production with associated land management of the grassland. The design has been chosen to enable agricultural uses. For example, minimum heights of the panels have been designed to allow sheep to move freely under the PV Arrays.
- 16.1.150 Whilst the Project has the potential to reduce agricultural incomes for farm businesses affected during the operational stage, this is countered by the alternative incomes received by the leasing of the land for the Project, which would lead to an overall beneficial impact for these landowners.
- 16.1.151 The conclusion of the impact on the changes to land uses effect during the operational phase of the Proposed Development will be considered in further detail in the ES, as plans develop and more information emerges on the expected impacts on agricultural land uses. The economic support provided to small farms through the landowner agreements has the potential to create a positive socio-economic impact through this change in land uses. Until this is fully understood, the socio-economic impact is assumed to be neutral for the purposes of this assessment, but the effect is not formally concluded on at this stage.

Changes to local tourism assets

- 16.1.152 The Project will likely adversely impact the visual amenity of a limited number of local tourism assets, with the effect likely to reduce throughout the operational period through embedded mitigation measures.

- 16.1.153 The Amenity and Recreation Assessment (PEIR Volume III, Appendix 6-4) concludes that in relation to heritage assets that contribute towards recreational amenity, there would be no significant changes that would impact the assets' importance, suggesting the value of such assets to the local tourism landscape would not be significantly impacted. Furthermore, the assessment also concludes that whilst some views from Parys Mountain would be affected by the project, the scale of change is likely to be small in the context of the sweeping, panoramic views that make up the wider view from the Mountain. Most visitors to Parys Mountain use the Bodafon Circular Walk, where views are restricted due to overgrown vegetation. Furthermore, as with Parys Mountain, the ability and consequently the desire to roam openly across Myndd Bodafon is limited by overgrown vegetation, particularly in the Spring and Summer. It is conjectured that most visitors keep to the recognised Bodafon Circular Walk where views are largely not possible.
- 16.1.154 The most prominent change would result from the recreational amenity of Llyn Alaw reservoir from the operation of the Project.
- 16.1.155 As noted in the Chapter 6: Landscape and Visual, the Llwydiarth Fawr Bed and Breakfast directly to the west of Maen Hir South is likely to be impacted in visual terms. This impact has been reduced as the design has evolved, in terms of where panels are located, with panels being removed from one of the original fields where they were proposed. Whilst it is acknowledged that there is the potential for there to be some adverse consequences on this specific tourism asset, which will need to be explored further as mitigation measures are progressed, in the context of available short-term accommodation bedspaces in the LA, this is not considered likely to impact the overall tourism offer in the LA.
- 16.1.156 As stated in PEIR Chapter 6: Landscape and Visual, the Project would retain all existing PRoWs running through the PEIR Boundary. Further to this, the proposed PV Arrays will sit at least 15-metres either side from existing PRoWs, in accordance with the embedded design measures for the Project, limiting the visual impact for visitors and residents.

- 16.1.157 The extent of large visual effects, where the Project would form major alterations to key elements, features, qualities and characteristics of the landscape, would generally be limited to the land within the PEIR Boundary. Based on this, it is unlikely that changes to recreational and visual amenity associated with local tourism assets and PRowS would affect overall tourist visits to the LA.
- 16.1.158 The PEIR assessment is based on parameter plans, and further design evolution will take place following statutory consultation. This preliminary assessment should be considered a worst-case assessment, with the effect conservatively concluded on. More work will be done in the ES to further understand the impact on individual tourism assets.
- 16.1.159 At this stage, it is conservatively assumed that the impact of the Project overall on local tourism assets on current and future residents, visitors and businesses would be low. On a high sensitivity receptor, this leads to a direct, long-term, moderate adverse effect that is significant.

16.6 Additional Mitigation

- 16.1.160 The PESS Plan provides an initial outline of the range of broad commitments the Applicant is considering making towards supporting local jobs and skills, including supporting apprenticeship opportunities during the duration of the Project, engaging local education providers to maximise opportunities for local residents, and offering local procurement opportunities to businesses. The PESS Plan provides broad commitments under consideration by the Applicant related to employment and skills initiatives associated with the Project in the construction and operational phases. Additional mitigation measures will be developed and confirmed with the Applicant and reflected in the ES.
- 16.1.161 The Applicant is committed to supporting a number of initiatives to support long-term skills development for local residents and is also considering local supply chain and procurement options. Emerging employment and skills commitments being developed by the Applicant ahead of the DCO submission include the following:
- Participate in an EIP working group focused on collaboration with other major projects on skills and employment outcomes for Island residents.

- Identifying apprenticeship opportunities that may be delivered during the Project's duration, so a numeric target can be proposed within the Outline Skills Plan at submission.
- Exploring and developing a target for a proportion of jobs created by the Project to go to local residents.
- Ensuring diverse and equal opportunities recruitment practices are developed and implemented on the Project.
- Raising awareness and identifying initiatives that can support local students into future employment opportunities through initiatives delivered as part of the Project.
- Continuing to engage with local colleges and other educational institutions to assess their capacity to develop residents' skills relevant to the Project. This includes skills required for both the construction and the operational phase.
- Ensuring jobs created by the Project that could be sourced regionally or locally are advertised on regional and/or local job boards for at least three weeks in English and Welsh.
- Engaging with the IoACC regarding the 'Careers Pathway Pilot' to determine how the Project could best support the programme in the future.
- Continuing engagement and supporting M-Sparc with their STEM programme. The Applicant could support the programme by offering employees to go into the classes and talk with the students about the benefits of renewable energy.
- Developing a support programme for local schools that includes:
 - Employee encounters – opportunities to learn from employers about work – visiting speakers, industry lectures and mentoring.
 - Workplace experience – for students to explore opportunities through site visits or visitor experience.
 - Enterprise advisor – nominated member of staff to support as an enterprise advisor/education coordinator.
- Enhance local business participation in the renewable energy sector during all phases of the Project, by identifying procurement opportunities in the

supply chain for local businesses and promoting opportunities on the IoACC website.

- Preserve the Welsh language through bilingual signage and job advertisements as well as support for Welsh immersion programmes.

16.1.162 The emerging commitments are being designed to address the key issues and priorities in the area, and are aimed at maximising local benefits. The PESS Plan has been provided as part of the consultation materials. As the preparation of the DCO application advances, more details will be included to reflect the more detailed plans and logistics of the Project. A more detailed strategy will be provided within an Outline Supply Chain, Employment and Skills Plan (OESS) submitted as part of the DCO application. The OESS will inform commitments made in the final ESS, which will be agreed with IACC pre-commencement of construction.

16.7 Residual Effects

16.1.163 The impact of education, skills and training during the construction and operational phases increases after considering the likely additional employment and skills related mitigation presented above. For the provision of education, skills and training during construction, the magnitude of impact rises from medium to high, which on a medium sensitivity leads to a residual effect that is major beneficial and significant. For education skills and training during operation sees the impact magnitude increase from low to medium, which on a medium sensitivity leads to a moderate beneficial effect that is significant. All other residual effects are the same as the potential effects set out in Section 16.4.

16.1.164 The preliminary likely significant socio-economic effects are summarised in the table below. Where the assessment year is not stated, the sensitivity, magnitude of impact and effect significance are considered to be the same in all assessment years.

Table 16-16 Summary of socio-economic effects

Effect	Receptor	Spatial scale	Sensitivity	Impact	Effect
Construction effects					
Direct and indirect construction jobs supported by the delivery of the Project	Residents and workers	LCA	High	Medium	Major beneficial
Provision of education, skills, training and supply chain	Residents and businesses	Local Authority	Medium	High	Major beneficial
Changes in demand for temporary workers accommodation	Residents and visitors	LCA Local Authority	Low	Medium	Minor adverse
Changes to land uses	Residents, workers, businesses and visitors	PEIR Boundary	Brownfield land - Medium Agricultural land - Low	N/A	N/A
Operational effects					
Operational employment (direct, indirect and induced) supported by the Project	Residents and workers	LCA	High	Negligible	Minor beneficial

Effect	Receptor	Spatial scale	Sensitivity	Impact	Effect
Provision of education, skills and training	Residents and businesses	Local Authority	Medium	Medium	Moderate beneficial
Impact on community power	Residents and businesses	-	N/A	N/A	N/A
Changes to land uses	Residents, workers and businesses	PEIR Boundary	Brownfield land - Medium Agricultural land - Low	N/A	N/A
Changes to local tourism assets	Residents, businesses and visitors	Local Area	High	Low	Moderate adverse

16.8 Effect interactions

16.1.165 There are not currently any effect interactions anticipated relating to socio-economics at this stage. Whilst changes to local tourism assets (from a visual perspective) are considered within Chapter 6: Landscape and Visual, the effect of changes to local tourism assets are assessed against different receptor groups and hence there are not anticipated to be any effect interactions. The following will be assessed further in the ES:

- Project lifetime effects: the potential for effects that occur throughout more than one phase of the Project (construction, operation and decommissioning), to interact to potentially create a more significant effect on a receptor than if just assessed in one phase in isolation (e.g. a wide-ranging skills programme throughout all phases, once fully developed).
- Technical topic interaction effects: the potential for effects related to socio-economics to interact with effects assessed in other technical chapters.

16.9 References

- 16-i Department for Energy Security & Net Zero, 2023. Overarching National Policy Statement for Energy (EN-1).
- 16-ii ONS, 2023. Annual Survey of Hours and Earnings - Workplace Analysis.
- 16-iii Alternatively the 60-minute travel time will be defined by wards in the case of data unavailability at the TTWA level.
- 16-iv Isle of Anglesey County Council, 2017. Anglesey and Gwynedd Joint Local Development Plan 2011-2026
- 16-v ONS, 2024. Annual Population Survey.
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- 16-viii Isle of Anglesey County Council, 2024. North Anglesey Socio-economic Impact Report.
- 16-ix ONS, 2024. Annual Population Survey.
- 16-x ONS, 2023. Business Register and Employment Survey 2022.
- 16-xi CITB, 2023. Workforce and Mobility Skills in the UK Construction Sector 2022. Department for Transport, 2023. National Travel Survey 2022 – Purpose of Travel.
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- 16-xiii Isle of Anglesey County Council, 2019. North Anglesey Economic Regeneration Plan
- 16-xiv CITB, 2023. CITB's Annual Construction Skills Network report.
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16-xxxiii North Wales Regional Skills Partnership, 2023. North Wales Skills and Employment Plan 2023-2025

16-xxxiv ONS, 2023. Earnings and Hours Worked, Work and Residence-Based Travel to Work Area: ASHE Tables 11 and 12.

16-xxxv North Wales Regional Skills Partnership, 2023. North Wales Skills and Employment Plan 2023-2025

- 16-xxxvi ONS, 2023. Census 2021 – Origin destination data; NB : the local authorities Isle of Anglesey, Conwy and Gwynedd are used as a proxy for the LCA due to data unavailability in this instance.
- 16-xxxvii Anglesey County Council, 2011. Anglesey Energy Island Programme – Potential Outcomes and Performance Measures.
- 16-xxxviii Isle of Anglesey County Council and Stena Line, 2024. Anglesey Freeport.
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