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16. Socio-economics including tourism and recreation

16.1 Introduction

- This chapter presents the preliminary assessment of the likely significant effects of the Proposed Development with respect to socio-economics, including tourism and recreation. The preliminary assessment is based on information obtained to date. It should be read in conjunction with the description provided in **Chapter 4: Description of the Proposed Development** and with respect to relevant parts of the following chapters:
 - Chapter 6: Landscape and Visual Impact Assessment which assesses the visual effects on tourism and recreational receptors including Public Rights of Way (PRoW).
- 16.1.2 This chapter describes:
 - the legislation, policy and technical guidance that has informed the assessment (Section 16.2);
 - consultation and engagement that has been undertaken and how comments from consultees relating to socio-economics have been addressed (Section 16.3);
 - the methods used for baseline data gathering (Section 16.4);
 - the overall baseline (Section 16.5);
 - embedded measures relevant to socio economics (Section 16.6);
 - the scope of the assessment for socio-economics (Section 16.7);
 - the methods used for the assessment (Section 16.8);
 - the preliminary assessment of socio-economics effects: climate change and energy security effects (**Section 16.9**);
 - the preliminary assessment of socio-economics effects: economy and community (Section16.10);
 - the preliminary assessment of socio-economics effects: tourism and recreation (Section 16.11);
 - preliminary assessment of cumulative (inter-project) effects (Section 16.12);
 - a summary of the preliminary significance conclusions (Section 16.13); and
 - an outline of further work to be undertaken for the Environmental Statement (ES) (Section 16.14).

Limitations and assumptions

The Draft ES has been produced to fulfil the Applicant's consultation duties and enable consultees to develop an informed view of the likely significant effects of the Proposed Development. There are no limitations relating to socio-economics that affect the robustness of the assessment of the likely significant effects of the Proposed Development. The assessment has been completed using professional judgement and has been informed by the findings of the LVIA (Chapter 6).



- The information provided in this Draft ES is preliminary, the final assessment of likely significant effects will be reported in the ES. The Draft ES has been produced to fulfil Pennant Walters's consultation duties and enable consultees to develop an informed view of the likely significant effects of the Project.
- There are no limitations relating to socio-economics that affect the robustness of the preliminary assessment of the potential likely significant effects of the Project.

16.2 Relevant legislation, planning policy and technical guidance

This section identifies the legislation, planning policy and technical guidance that has informed the assessment of effects with respect to socio-economics. Further information on policies relevant to the Project is provided in **Chapter 5: Legislation and policy overview**.

Legislation

16.2.2 A summary of the relevant legislation is given in **Table 16.1**.

Table 16.1 Legislation relevant to the socio-economics assessment

Legislation	Legislative context
Climate Change Act 2008 (as amended)	The Climate Change Act 2008 (as amended) introduces a clear, credible, long-term framework for the UK to achieve its goals of reducing carbon dioxide emissions and for adapting to the impacts of climate change. One of the key provisions of the amended Act is the introduction of legally binding targets on greenhouse gas emissions comprising reductions of at least 100% greenhouse gas emissions by 2050, against a 1990 baseline. The generation of electricity by renewable means such as wind energy is considered to be a key contributor towards meeting these targets.
Well-being of Future Generations (Wales) Act 2015	This Act places a duty on public bodies (including Welsh Ministers) to carry out sustainable development through their decision making. The Act puts in place seven well-being goals to help ensure that public bodies are all working towards the same vision of a sustainable Wales. The wellbeing goals act together to ensure outcomes across economic, environmental and social sustainability strands.
Environment (Wales) Act 2016 (as amended)	The Environment (Wales) Act 2016 (as amended), under Part 2, places a duty on the Welsh Ministers to ensure that the net Welsh greenhouse gas emissions account in 2050 is at least 100% lower than the 1990 baseline.

Planning policy

A summary of the relevant national and local planning policy is given in **Table 16.2**.



Table 16.2 Planning policy relevant to the socio-economics assessment

Policy	Policy context						
National planning policy							
Future Wales: The National Plan 2040 ¹	Policy 17 Renewable and Low Carbon Energy and Associated Infrastructure states that decision makers must give significant weight to the need to meet international climate change commitments and Welsh Government targets to generate 70% of consumed energy by renewable means by 2030.						
	Policy 18 Renewable and Low Carbon Energy Developments of National Significance states that proposals qualifying as Developments of National Significance will be permitted subject to Policy 17 and the criteria listed under Policy 18. Criteria 2 requires that there are no unacceptable adverse visual impacts on nearby communities and individual dwellings. The cumulative impacts of existing and consented renewable energy schemes should also be considered.						
	Policy 33 National Growth Area – Cardiff, Newport and the Valleys sets out the overall strategic view for development in the South East which includes the area covered by Rhondda Cynon Taf County Borough Council. Amongst other provisions, the Policy sets out support for investment in the Valleys that improves well-being, increases prosperity and addresses social inequalities.						
Planning Policy Wales, Edition 11, (2021) ²	Paragraph 5.5.1 states that tourism can be a catalyst for investment, growth and job creation whilst 5.5.2 states that the planning system should encourage sustainable tourism where it contributes to economic regeneration.						
	Paragraph 5.5.5 states that (inter alia) rights way are important tourism and recreation assets both in their own right and as part of linking other attractions.						
TAN 16: Sport, Recreation and Open Space (2009) ³	TAN 16 sets out the importance to Public Rights of Way (PROW) and their ability to connect wider open space and recreational corridors.						
TAN 23: Economic Development (2014) ⁴	TAN 23 supports the economic development of Wales and highlights the importance of delivering sustainable growth in rural areas.						
Local planning policy							
Rhondda Cynon Taf Local Development Plan up to 2021 (Adopted March 2011) ⁵	Policy AW 7 - Protection and Enhancement of the Built Environment requires that developments affecting Public Rights of Way are only permitted where criteria related to the loss can be replaced with equivalent or greater provision.						

¹ Welsh Government (2021) Future Wales: The National Plan 2040 (Online) available at: https://gov.wales/future-wales-national-plan-2040 (Accessed October 2022).

² Welsh Government (2021) Planning Policy Wales, Edition 11. (Online) Available at:

https://gov.wales/sites/default/files/publications/2021-02/planning-policy-wales-edition-11_0.pdf (Accessed October 2022)

³ Welsh Government (2009) TAN 16: Sport, Recreation and Open Space. (Online) Available at: https://gov.wales/sites/default/files/publications/2018-09/tan16-sport-recreation-open-space.pdf (Accessed October 2022)

<sup>2022).

4</sup> Welsh Government (2014) TAN 23: Economic Development (Online). Available at:

https://gov.wales/sites/default/files/publications/2018-09/tan23-economic-development.pdf (Accessed October 2022).

Facility Rhondda Cynon Taf (2011) Rhondda Cynon Taf Local Development Plan up to 2021 (Adopted March 2011). Available at:



Policy	Policy context
	Policy AW 12 – Renewable & Non-Renewable Energy supports renewable energy proposals where it is demonstrated there is no unacceptable effect on public health and residential amenity and should be designed to minimise resource use.
	Policy AW 13 - Large Wind Farm Development sets out criteria for consideration of large scale (over 25MW) wind farm developments related to location, siting scale and impacts.

Technical guidance

There is no specific guidance for undertaking an assessment of socio-economic effects and no prescribed method for determining either the sensitivity of socio-economic receptors or the significance of effects on receptors. However, the guidance in National Policy Statement (NPS) EN1 (DECC, 2011) section 5.12 has been taken into account in forming the scope of the assessment which focuses on the number of jobs created, the economic value of the scheme, effects on tourism and cumulative effects. The NPS also notes that socio-economic impacts may be linked to other impacts (notably visual impacts on tourism).

16.3 Consultation and engagement

Overview

The assessment has been informed by consultation responses and ongoing stakeholder engagement. An overview of the approach to consultation is provided in **Chapter 4:**Approach to Environmental Impact Assessment.

Scoping Opinion

A Scoping Direction was issued by the Planning and Environmental Decisions Wales (PEDW), on behalf of the Welsh Ministers, on 01 December 2021. A summary of the relevant responses received in the Scoping Opinion in relation to socio-economics, and confirmation of how these have been addressed within the assessment to date is presented in **Table 16.3**.

Table 16.3 Summary of EIA Scoping Direction responses for socio-economics

Consultee	Consideration	How scoping response has been addressed in this Draft ES
PEDW ID.63	The approach [to Socio-Economics] set out in the SR is considered appropriate.	This chapter of the ES sets out consideration of socio-economics.

https://www.rctcbc.gov.uk/EN/Resident/PlanningandBuildingControl/LocalDevelopmentPlans/LocalDevelopmentPlan20062021.aspx (Accessed October 2022).



Consultee	Consideration	How scoping response has been addressed in this Draft ES				
PEDW ID.64	The approach [to Population and Human Health] set out in the SR is considered appropriate.	Aspects of population and health within the context of socio-economic factors are considered in Sections 16.5 and 16.9 to 16.12 of this Draft ES chapter. Other aspects are considered in other chapters of the Draft ES where relevant.				
Rhondda Cynon Taf County Borough Council	One further point to note however is that the ES does not appear to scope the potential impact to PROWs. The site is crossed by several PROWs and information on what consideration is being given to effected paths will be required. With new landscaping etc. to be provided the expectation is that these routes will become more popular with improved facilities and that they will serve as important crossing points for non-motorised users travelling in the area and wanting to access the countryside. As such full details of any impacts should be included within the ES.	This chapter has assessed the potential impacts on PRoW. This chapter considers the effects on users of the PRoW within Section 16.11. Visual impacts are considered in Chapter 6: Landscape and Visual Impact Assessment.				

Technical engagement

To date no specific technical engagement has taken place with consultees in relation to socio-economics. However, engagement will take place with officers of Rhondda Cynon Taf County Borough Council to consider the proposed approach to the incorporated measures to reduce effects on users of the Public Rights of Way (PRoW).

16.4 Data gathering methodology

There is no prescribed methodology or standard guidance for this aspect of an EIA. The method adopted is therefore one of determining the existing circumstances (the baseline) through desk-based analysis, utilising a range of statistical information. This statistical information has been drawn from a number of sources and covers various geographies, from ward level through to the national level.

Study area

The study area for baseline data covers the site contained within the proposed red line application boundary ('Site boundary') and grid connection corridor, together with the wider county borough, regional and national context.

Climate change and energy security

16.4.3 The baseline study covers the national (Wales) area as a whole.



Economy and Community

- The baseline study covers Wales, Rhondda Cynon Taf County Borough Council area and the wards⁶ of:
 - Cymmer (location of windfarm);
 - Tonyrefail West (neighbouring ward to wind farm);
 - Tonyrefail East (location of windfarm);
 - Church Village (grid connection);
 - Llantwit Fardre (grid connection);
 - Pontypridd West (grid connection);
 - Ton-Teg (grid connection);
 - Beddau and Tyn-y-Nant (neighbouring to both);
 - Llantrisant and Talbot Green (neighbouring to both);
 - Pen-y-Graig (neighbouring to windfarm location);
 - Pontypridd Town (neighbouring to grid);
 - Porth (neighbouring to windfarm location);
 - Treforest (neighbouring to grid connection).

Tourism and recreation

The tourism baseline study considers tourism at local (Rhondda Cynon Taf County Borough Council), regional (South East Wales) and national (Wales) level. The recreation baseline, related to Public Rights of Way (PRoW) and open access land, has focussed on the local context within 5km as informed by the LVIA in **Chapter 6**.

Desk study

A summary of the organisations that have supplied data, together with the nature of that data is outlined in **Table 16.4**.

Table 16.4 Data sources used to inform the socio-economics assessment

Organisation	Data source	Data provided
Department for Business, Energy and Industrial Strategy	Renewable electricity by local authority 2014-2020 ⁷	Installed capacity of renewable energy for Rhondda Cynon Taf County Borough Council.

⁶ The Local Democracy and Boundary Commission for Wales has recommended changes to the wards in Rhondda Cynon Taf County Borough Council which have been accepted (the names above reflect the existing wards).

⁷ BEIS (2021) Renewable electricity by local authority 2014-2020. (Online) Available at: https://www.gov.uk/government/statistics/regional-renewable-statistics (Accessed August 2022).



Organisation	Data source	Data provided
Welsh Government	Energy Generation in Wales 2020 Report ⁸	Renewable energy generation stats.
Nomisweb StatsWales	Local Authority Profile ⁹ Population estimates by local authority, region and age and 2021 Census ¹⁰ 2011 Ward Profiles ¹¹	Data related to demography, occupations, employment/unemployment, out-of-benefits for Rhondda Cynon Taf County Borough and at ward level.
Welsh Government StatsWales	Welsh Index of Multiple Deprivation 2019 ¹²	Data for measures of deprivation by Lower Super Output Area (LSOA) and district level.
Welsh Government	Welsh Government Tourism profiles for South East Wales Region ¹³ and Local Authorities ¹⁴	Data for spend and visitor trips by region and local authority area.
Natural Resources Wales	GIS of PRoW	The location of PRoWs was confirmed using the Definitive maps. The presence or absence of Open Access areas designated under the Countryside and Rights of Way Act 2000 were obtained from Natural Resources Wales website.
Rhondda Cynon Taf County Borough Council	Rhondda Cynon Taf Tourism Strategy ¹⁵	Baseline information on tourism information and tourism priorities.

Survey work

No survey work has been undertaken to inform the assessment of potentially significant 16.4.7 effects related to socio-economics. The assessment is based on published data sources.

^{8 (}Regen for) Welsh Government (2022) Energy Generation in Wales 2020. (Online) Available at: https://www.regen.co.uk/wpcontent/uploads/Energy-Generation-in-Wales-2020-Final.pdf (Accessed August 2022).

⁹ Nomisweb (2022) Local Authority Profiles (Online). Available at: https://www.nomisweb.co.uk/reports/lmp/la/contents.aspx (Accessed August 2022).

¹⁰ StatsWales (2021) Population estimates by local authority, region and age. (Online) Available at: https://statswales.gov.wales/Catalogue/Population-and-Migration/Population/Estimates/Local-Authority/populationestimates-bylocalauthority-region-age (Accessed August 2022). And Census 2021 data https://census.gov.uk/census-2021-results (Accessed August 2022)

¹¹ Nomisweb (2021) 2011 Ward Profiles (Online) Available at: https://www.nomisweb.co.uk/reports/lmp/ward2011/contents.aspx (Accessed August 2022).

12 Welsh Government (2019) Welsh Index of Multiple Deprivation (Online). Available at:

https://statswales.gov.wales/Catalogue/Community-Safety-and-Social-Inclusion/Welsh-Index-of-Multiple-Deprivation/WIMD-2019#:~:text=The%20Welsh%20Index%20of%20Multiple,several%20different%20types%20of%20deprivation. (Accessed August

¹³ Welsh Government (2021) Tourism profile – South East Wales 2017-2019 (Online). Available at: https://gov.wales/sites/default/files/statistics-and-research/2021-03/tourism-profile-south-east-wales-2017-2019.pdf (Accessed April

¹⁴ Welsh Government (2021) Tourism profile – Wales Local Authorities 2011-19 (Online). Available at: https://gov.wales/sites/default/files/statistics-and-research/2021-03/tourism-profile-wales-local-authorities-2011-19.pdf (Accessed August 2022).

¹⁵ Rhondda Cynon Taf County Borough Council (2021) Rhondda Cynon Taf Tourism Strategy (Online) Available at: https://www.rctcbc.gov.uk/EN/Tourism/TourismStrategy/TourismStrategy.aspx (Accessed August 2022).



16.5 Overall baseline

Current baseline

Renewable energy - economic value in Wales

- A study of the economic opportunities from onshore wind development in Wales was undertaken in 2013 for the Welsh Government (Regeneris Consulting Ltd and Welsh Economy Research Unit, 2013)¹⁶. The research highlighted the potential economic benefits from onshore wind development which may be felt in the local areas in which wind farms are developed and within the wider Welsh economy. Economic benefits derive from investment involved in the planning and development of schemes, construction of the turbines and in operation through ongoing maintenance. The research noted that the extent to which economic benefits from construction will flow directly into the Welsh economy will partly depend on the availability of skilled labour and manufacturing capacity, but that local suppliers are often well placed to supply some types of goods, such as aggregates and non-specialist engineering services. There are generally greater opportunities for investment in operations and maintenance to remain in the Welsh economy, including opportunities for locally-based maintenance staff.
- Overall, the study concluded that there is an opportunity for Wales to secure gross value added (GVA) of £2.3 billion between 2012 and 2050, with over 2,000 full time equivalent (FTE) jobs created in this period based on delivering 2GW of onshore wind capacity by 2025. It was noted that this would require measures to overcome barriers in the planning system and in the grid and road infrastructure, as well as a proactive approach to supply chain development. It was also noted that those local economies that stood to gain the most from development were those with a strong presence of construction and manufacturing firms.
- A more recent study by the Institute of Welsh Affairs (2018)¹⁷ estimated that the GVA of new renewable electricity over construction period and 15 years operation would be worth around £5.2bn to the Welsh economy with 10,650 annual FTE jobs over this period.

Renewable energy – capacity in Wales

- Welsh Government Ministers have a duty to ensure the Welsh carbon emissions in 2050 are 100% lower than the 1990 baseline (alternatively known as 'net zero'); placed on them by the Environment (Wales) Act 2016 (as amended). Additionally, in September 2017, the Welsh Cabinet Secretary for Energy, Planning and Rural Affairs (Welsh Government, 2017)¹⁸ proposed the following targets for Wales:
 - Wales to generate 70% of its electricity consumption from renewable energy by 2030.
 - 1GW of renewable electricity capacity in Wales to be locally owned by 2030.

¹⁶ Regeneris Consulting Ltd and Welsh Economy Research Unit, Cardiff Business School for Renewables UK Cymru, Welsh Government (2013) Economic Opportunities for Wales from Future Onshore Wind Development (Online) Available at: https://www.renewableuk-cymru.com/wp-content/uploads/Wales-Onshore-economic-benefit.pdf (Accessed August 2022).

¹⁷ Institute of Welsh Affairs (2018) The Economic Costs and Benefits of Renewable Energy Transition. Prepared by Cardiff Business School and Welsh Economy research Unit for IWA. Available at: in Wales https://www.iwa.wales/wp-content/media/2018/04/IWA WP3.2 EconomicCostsandBenefits-4.pdf (Accessed August 2022)

¹⁸ Welsh Government (2017) Welsh Cabinet Secretary for Energy, Planning and Rural Affairs - Energy Generation Targets for Wales: Statement to Assembly Members (Online) Available at: https://gov.wales/lesley-griffiths-high-ambition-clean-energy (Accessed April 2022).



- By 2020 all new renewable energy projects to have at least an element of local ownership.
- The Energy Generation in Wales 2020 report (Regen for Welsh Government, 2022)¹⁹ sets out the latest data on energy generation from renewables. The report states that capacity has increased in Wales in recent years. It set out that 7.7TWh of energy generated in Wales was from renewables and by the end of 2020 Wales had 1,273MW of onshore wind capacity, equivalent to 39% of renewable generation in Wales. The report (Regen for Welsh Government, 2022) also notes that Rhondda Cynon Taf County Borough has the fourth largest installed capacity for renewable energy within Wales (240MW installed capacity) and contributes around 7% of Wales generation. BEIS data for 2020 states that the installed capacity may be higher at 355MW (BEIS, 2021).²⁰

Economy and community – employment and benefit claimant status

- As described in **Section 16.4** the study area includes the ward level geographies that will be used to assess the potential impact of the Proposed Development. The Proposed Development is located within Rhondda Cynon Taf County Borough, which has a population of 237,700 (ONS, 2021)²¹. The Proposed Development site location partly falls within the wards of:
 - Cymmer; and
 - Tonyrefail East.
- The grid connection corridor (outside the Proposed Development boundary) falls within the wards of:
 - Pontypridd West;
 - Llantwit Fardre;
 - Church Village; and
 - Ton-Teg.
- However, it could have an economic effect on surrounding towns and villages both within the Rhondda Cynon Taf County Borough area. The labour market profiles of the wards set out above, for neighbouring wards, for Wales as a whole, are therefore included in **Table 16.5**.

¹⁹ (Regen for) Welsh Government (2022) Energy Generation in Wales 2020. (Online) Available at: https://www.regen.co.uk/wp-content/uploads/Energy-Generation-in-Wales-2020-Final.pdf (Accessed August 2022).

²⁰ BEIS (2021) Renewable electricity by local authority 2014-2020. (Online) Available at: https://www.gov.uk/government/statistics/regional-renewable-statistics (Accessed August 2022).

²¹ ONS (2022) Census 2021. Available via:

https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates/datasets/populationandhouseholdestimateswalescensus2021 (Accessed August 2022).



Table 16.5 Labour Market Profiles (Key Statistics)

Area		Population age 16-64*	Employed (economical ly active)*+	Unemploye d*+	Out of work claimants**			
Wales	Percentage	61.2%	76.5%	3.5%	3.3%			
Rhondda Cynon Taf County Borough	Total	150,200	116,800	3,900	4,765			
	Percentage	62.1%	77.0%	3.3%	3.2%			
Cymmer	Total	3,386	2,317	269	140			
	Percentage	61.3%	65.8%	11.6%	4.1%			
Tonyrefail East	Total	3,660	2,629	209	105			
	Percentage	60.8%	69.9%	7.9%	2.9%			
Church Village	Total	3,901	2,614	149	75			
	Percentage	63.1%	80.5%	5.7%	2.1%			
Llantwit Fardre	Total	3,914	3,296	153	55			
	Percentage	62.4%	80.6%	4.6%	1.5%			
Pontypridd West (Graig)	Total	1,844	1,210	81	70			
	Percentage	70.1%	71.8%	5.9%	4.3%			
Ton-Teg	Total	1,948	1,777	102	50			
	Percentage	50.2%	74.4%	5.7%	2.5%			
Tonyrefail West	Total	4,223	2,948	248	90			
	Percentage	61.5%	72.1%	8.4%	2.0%			
Beddau and Tyn-y-Nant	Total	5,067	3,390	296	125			
	Percentage	63.8%	76.1%	7.8%	2.5%			
Llantrisant and Talbot Green	Total	4,181	3,827	217	75			
	Percentage	59.5%	77.8%	6%	1.8%			
Pen-y-Graig	Total	3,446	2,453	236	135			



Area		Population age 16-64*	Employed (economical ly active)*+	Unemploye d*+	Out of work claimants**
	Percentage	62.3%	68.7%	9.6%	4.0%
Pontypridd Town	Total	1,698	1,373	81	55
	Percentage	59.1%	76.4%	5.9%	3.2%
Porth	Total	3,764	2,768	245	100
	Percentage	63.0%	71.9%	8.9%	2.6%
Treforest	Total	4,230	2,260	440	125
	Percentage	81.6%	52.4%	19.5%	2.9%

Source: Nomisweb (2021) Labour Market Profiles

- Rhondda Cynon Taf County Borough has a similar percentage of working age (16-64) population to Wales. The number of people who were economically active in Rhondda Cynon Taf as at June 2022 was 116,800. This equates to 77.0% of the working age population (16-64 year olds). This is similar to the Wales figure (76.5%). The area has a higher number of people who are unemployed (3.3%) and also claiming Department of Work and Pensions (DWP) benefits than the average for Wales (3.5%).
- Of the six wards where the Proposed Development (and grid connection corridor) is located, four have a lower percentage of people classed as economically active (Cymmer 65.8%, Tonyrefail East 69.9%, Pontypridd West 71.8%, and Ton-Teg (74.4%) than the Rhondda Cynon average (77.0%), although the figures reflect the timeframes covered by these data (2011 Census), rather than necessarily reflecting lower levels of economic activity at present in actuality. The rates of employment are substantially higher in all wards than the County Borough average. However, these rates are also based on 2011 census data which is the latest comparable data available at ward level. As data from the 2021 census is released over the coming months/years new data will become available at ward level.

Economy and community – Local Economic Activity

- The working age population of Rhondda Cynon Taf is broadly similar to the Welsh average (see **Table 16.5**). There are differences in occupation groups although the percentage splits are broadly similar between Rhondda Cynon Taf and Wales as a whole (see **Table 16.6**). The percentage of people employed in management and professional occupations (groups 1-3) across Wales as a whole (totalling 45.5%) is higher than Rhondda Cynon Taf (37.62%). The profile for the remaining occupations is broadly similar to the Wales average. However, Rhondda Cynon Taf has higher percentages of those employed in skilled trades (group 5) (12.9%) and process plant and machine operatives (group 8) than across Wales as a whole (8.2%).
- There are variations across the two wards that the Proposed Development is located in. With regards to the percentage of people occupied in professional occupations (group 1-3) Cymmer (23.4%) and Tonyrefail East (27.7%) have a lower percentage of people than

^{*2020} ONS mid-year population estimates for Wales, LAs and wards.

^{*+}July-Sep 2021 for Wales; July 2021-June 2022 for LAs. 2011 Census data for ward figures.

^{**} As at June 2022.



the county and national average. Across the remaining wards the figures vary. The percentage of people employed in skilled trades occupations (group 5) is higher than the Rhondda Cynon Taf borough average and national average in both these wards (Cymmer (13.7%) and Tonyrefail East (14.4%)). The percentage of people employed in skilled trades is similar across the remaining wards with only Porth (14.5%) having a higher figure.



 Table 16.6
 Employment by occupation (percentage)

Occupation Group	Wales	Rhondda Cynon Taf	Cymmer	Tonyrefail East	Church Village	Llantwit Fardre	Pontypridd West (Graig)	Ton-Teg	Tonyrefail West	Beddau and Tyn-y-Nant	Llantrisant and Talbot Green	Pen-y-Graig	Pontypridd Town	Porth	Treforest
Managers, directors and senior officials	8.8	6.3	5.9	7.7	10.6	11.4	7.5	9.2	8.5	7.8	10.2	6.8	9.1	7.4	5.1
2. Professional occupations	21.7	17.9	9.6	10.8	20.9	22.1	13.8	20.4	14.3	16	23.4	9.6	22.4	12.2	10.8
3. Associate professional and technical occupations	14.8	13.0	7.9	9.2	13.7	13.9	10.6	11.7	8.7	12.8	15	6.7	14.2	10.6	10.9
Group 1- 3 total	45.5	37.6	23.4	27.7	45.2	47.4	31.9	41.3	31.5	36.6	48.6	23.1	45.7	30.2	26.8
4. Administrative and secretarial occupations	9.7	8.4	11.5	10.6	12.2	13.4	11.3	14.7	11.6	12.5	11.3	10.5	14.4	12.3	7.9
5. Skilled trades occupations	10.7	12.9	13.7	14.4	10.3	11.3	11.4	10.1	13.2	12.9	10.9	15	11	14.5	7.7
6. Caring, leisure and other service occupations	9.4	10.9	14.2	11.6	9.1	8.9	11.4	9.4	12.5	10	8	12.9	7.6	12.4	8.6
7. Sales and customer	7.3	9.8	9.2	9.4	8	7.4	11.7	9.7	9.5	10.5	8	10.1	7.6	9.1	18



Occupation Group	Wales	Rhondda Cynon Taf	Cymmer	Tonyrefail East	Church Village	Llantwit Fardre	Pontypridd West (Graig)	Ton-Teg	Tonyrefail West	Beddau and Tyn-y-Nant	Llantrisant and Talbot Green	Pen-y-Graig	Pontypridd Town	Porth	Treforest
service occupations							,		,						
8. Process plant and machine operatives	6.5	8.2	12.5	13.5	5.9	5.3	6.9	6.4	10.1	8.4	5.8	12.3	5.8	9.9	5
9. Elementary occupations	10.6	11.4	15.5	12.7	9.4	6.2	15.3	8.4	11.6	9.3	7.3	16.1	7.9	11.6	25.8

Source: Nomisweb (2022) Labour Market Profiles (2011 Census data for wards)



Economy and community - Earnings

The earnings by place of residence for Rhondda Cynon Taf are shown in **Table 16.7**. The table shows that earnings within Rhondda Cynon Taf (£520.20) are lower than the Welsh national average (£562.80). With regards to hourly pay, Rhondda Cynon Taf (£14.01) is slightly below the national average (£14.19).

Table 16.7 Employment by occupation (percentage)

	Wales 2021	Rhondda Cynon Taf 2021
Gross Weekly Pay (£)	562.80	520.20
Hourly Pay (£)	14.19	14.01

Source: StatsWales - Average (median) gross weekly/hourly earnings by Welsh local areas and year (2022)

Economy and community – Business Enterprises

The Welsh Government measures active businesses within Wales each year. The percentage increase in the number of active businesses between 2010 and 2020 was higher in Rhondda Cynon Taf (25.5%) than across Wales as a whole (15.5%) (see **Table 16.8**).

Table 16.8 Active business enterprises actual/percentage change (2010-2020)

Location	2010	2015	2020	Percentage increase
Wales	90,435	95,010	104,445	15.5%
Rhondda Cynon Taf	5,170	5,745	6,490	25.5%

Source: StatsWales Active Business Enterprises by area and year (2022)

Economy and community – Deprivation

- The Welsh Index of Multiple Deprivation (WIMD, 2019¹²) is an official Welsh Government measure of deprivation in Wales. The WIMD includes a number of different measures in small geographic areas called Lower Super Output Areas (LSOA). The WIMD is designed to allow comparison of deprivation across the country with LSOAs ranked from 1 (most deprived) to 1,909 (least deprived).
- As part of the WIMD a ranking for each LSOA is provided for eight measures of deprivation (income, employment, health, education, access to services, community safety, physical environment, and housing). An overall score is also given (the Index).

 Table 16.9 sets out the ranking for the LSOAs covering the Site and the LSOAs for the surrounding ward LSOAs which could be impacted by the Proposed Development.



Table 16.9 Welsh Index of Multiple Deprivation (WIMD) Ranking

				•	•	,			
LSOA	Overall	Income	Employment	Health	Education	Access to services	Community safety	Physical environment	Housing
Cymmer 1	742	769	748	819	694	504	1,090	453	733
Cymmer 2	853	891	702	579	959	1130	524	925	797
Cymmer 3	96	122	80	78	66	827	610	1611	692
Cymmer 4	83	95	76	67	81	435	461	1218	1157
Tonyrefail East 1	637	495	535	569	502	1296	754	1031	1221
Tonyrefail East 2	805	1047	905	666	849	233	348	1083	1259
Tonyrefail East 3	87	96	49	34	207	561	1046	1582	931
Tonyrefail East 4	1641	1559	1353	1215	1555	1117	1824	1489	1502
Tonyrefail West 1	577	618	546	466	618	537	1379	904	556
Tonyrefail West 2	185	236	172	131	101	564	761	864	1284
Tonyrefail West 3	1723	1653	1660	1306	1506	1488	1662	606	1909
Tonyrefail West 4	920	1043	777	630	722	1232	1188	528	814
Graig 1	642	753	825	740	381	811	337	1531	221
Graig 2	268	410	250	250	283	425	278	1115	461
Beddau 1	1460	1442	1232	864	1193	1881	1402	454	1586
Beddau 2	658	615	521	488	566	1318	674	1605	825
Beddau 3	1753	1465	1366	1803	1740	1637	1694	1101	1895
Llantwit Fardre 1	1736	1600	1442	1401	1390	1827	1758	1259	1814
Llantwit Fardre 2	1879	1886	1821	1822	1736	1525	1897	914	1789
Llantwit Fardre 3	1712	1490	1437	1407	1576	1740	1801	844	1807
Llantwit Fardre 4	1670	1450	1507	1418	1209	1842	1398	1257	1523



LSOA			ent		_		≥	ent	
	Overall	Income	Employment	Health	Education	Access to services	Community safety	Physical environment	Housing
Church Village 1	501	354	488	459	664	926	561	1032	791
Church Village 2	1872	1862	1722	1833	1775	1909	1480	825	1849
Church Village 3	1907	1881	1880	1883	1713	1907	1863	1471	1908
Ton Teg 1	1518	1506	1354	1095	908	1451	1000	1215	1821
Ton Teg 2	1651	1745	1408	1315	1573	1645	1101	375	1872
Ton Teg 3	1193	1114	918	791	998	1570	688	1270	1257
Rhondda 1	709	872	778	568	887	388	736	419	712
Rhondda 2	480	317	663	328	603	704	952	466	1148
Rhondda 3	1297	1303	1256	844	1179	1131	745	836	953

- The Proposed Development is located across four LSOA (Cymmer 1, Cymmer 3, Cymmer 4, Tonyrefail East 2). There are variations in terms of deprivation within these wards. Cymmer 3 and Cymmer 4 are within the 10% most deprived LSOAs in Wales based on the overall measure of deprivation whilst Cymmer 1 and Tonyrefail East 2 are within the 30-50% most deprived.
- Overall, 27 of the 154 LSOAs in the Rhondda Cynon Taf (8.1%0 are within 10% most deprived LSOAs in Wales reflecting pockets of deprivation within the County Borough. Those in the study area include Cymmer 3, Cymmer 4, Tonyrefail West 3, Tonyrefail East 3.
- The WIMD health domain covers a number of specific indicators including GP recorded chronic conditions, limiting long term illness, premature deaths and cancer incidence. Within Rhondda Cynon Taf County Borough 26 LSOAs are in the 10% most deprived LSOAs in Wales (equivalent to the 8.1% of LSOAs) including Cymmer 3, Cymmer 4, Tonyrefail East 3, Tonyrefail West 3.

Tourism and Recreation – Regional Tourism

Tourism is worth around £6.3 billion to the Welsh economy (Welsh Government, 2020)²². The Welsh Government's strategy Welcome to Wales: Priorities for the visitor economy 2020-25 (Welsh Government, 2020b)²³ sets out the overall approach to promoting and

²² Welsh Government (2020) Welcome to Wales: Priorities for the visitor economy 2020-2025 Summary of Evidence Base. (Online) Available at: https://gov.wales/sites/default/files/publications/2020-01/welcome-to-wales-priorities-for-the-visitor-economy-2020-to-2025-summary.pdf (Accessed September 2022).

²³ Welsh Government (2020) Welcome to Wales: Priorities for the visitor economy 2020-2025 (Online) Available at: https://gov.wales/sites/default/files/publications/2020-02/welcome-to-wales-priorities-for-the-visitor-economy-2020-2025.pdf (Accessed September 2022).



developing the visitor economy to deliver sustainable and ongoing benefits from tourism. Four Regional Tourism Fora have been established to help drive tourism strategies for North, Mid, South-West and South-East Wales to improve the competitive performance of tourism so that it makes a stronger contribution to the economic and social prosperity of Wales working with Visit Wales, local authorities, tourism businesses.

- The tourism sector contributes significantly to the region's economy. The latest regional tourism data in the Tourism Profile South-East Wales 2017-2019 (Welsh Government, 2021a)¹³ shows that annual average tourism expenditure in South-East Wales stood at £2.17 billion in 2017-19, which was a 6% decrease in expenditure of £2.30 billion in 2016-18. Expenditure in South East Wales accounted for 35% of tourism expenditure in Wales as a whole. The effects of the Covid-19 are not reflected in these figures.
- In 2017-2019, South-East Wales accounted for 23% of overnight domestic trips, 50% of international visits and 40% of day visits to Wales. The tourism market indicates:
 - the importance of international visitors with the visitor numbers spread evenly across many countries with France (10% of visitors), USA (9%), Ireland (9%) providing the largest percentage of visitors to the South-East.
 - the South-East region does not follow a typical high and low seasonal pattern with a larger proportion of overnight domestic trips between January and March than across other regions.
 - a large proportion of day visits are made by people living in Wales. The large percentage of day visits compared to other regions (40%) reflects the larger population base in the area.

Tourism and Recreation - Local Tourism

- The Rhondda Cynon Taf Tourism Strategy (Rhondda Cynon Taf, 2021) ²⁴ sets out the approach to developing the visitor economy in Blaenau Gwent. The Strategy recognises the value of landscape, culture and heritage. The Strategy identifies the ambition of being the premier destination for 'experience' based attractions and visits and identifies the Zip World Tower attraction at the former Tower Colliery site in Rhigos as reflecting this ambition. The Strategy references a STEAM tourism study that estimated that tourism was worth just over £179 million to the local economy in 2019 and employed more than 2,000 people.
- The latest local wide tourism data available is set out in the Welsh Government's Tourism Profile Wales Local Authorities 2011-2019 (Welsh Government, 2021b)¹⁴. This shows that Rhondda Cynon Taf has had a similar number of domestic overnight trips in recent years compared to the start of the reporting period (122,000 in 2017-19 compared to 125,000 in 2011-13.
- In terms of tourism spend from domestic overnight visitors this stood at £12m for Rhondda Cynon Taf in 2017-19. This was higher than the spend in 2011-13 which stood at £11m and higher for all reporting periods except 2016-18 (£14m).
- With regards to international nights spent in the local authority areas for Rhondda Cynon Taf the number of visitors stood at 84,300 in 2017-19 which was lower than previous reporting years. However, with regards to visitor spend, Rhondda Cynon Blaenau Gwent had a similar figure in 2017-19 (£4.3m) compared to previous reporting years (Welsh Government, 2021b). These figures are prior to the COVID-19 pandemic.

²⁴ Rhondda Cynon Taf County Borough Council (2021) Tourism strategy https://www.rctcbc.gov.uk/EN/Tourism/TourismStrategy/TourismStrategy.aspx (Accessed September 2022).



Tourism and Recreation – Recreation

- The Public Rights of Way (PRoWs) footpaths that cross the site are illustrated in **Figure 16.1** with their location in relation to the site layout illustrated in **Figure 16.2**:
 - the access to the Site crosses a PRoW footpath (Route number RH|ANT|75/1) near the A4233;
 - the proposed access crosses three footpaths RH|ANT|998/1, RH|ANT|94/2, RH|CYM|999/1 east of the western construction compound;
 - a footpath (Route number RH|ANT|181/1) in the east of the site between T4 and T5;
 - a footpath (Route number RH|ANT|95/1) in the south of the site, south of T6 and T7;
 - a footpath (Route number 331/75/1) in the north of the Site close to T2; and
 - a footpath in the south of the Site (Route number 331/112/1, 331/113/1) close to T5.
- The overhead grid connection within the Site boundary forms part of the DNS application whilst the connection not within the Site boundary will be undergrounded and will be subject to a separate application by WPD. It is assumed that in the worst-case scenario would be the provision of a 33kv overhead line on wooden poles within the Site. The onsite grid connection is likely to cross footpath RH|ANT|95/1. There are no bridleways or byways affected directly by the Proposed Development.
- Open access land (Open Country) which relates to the Countryside and Rights of Way Act (CRoW Act) (2000) lies within the Site due to the site being over 300m. Access land is present across the northern slopes and a proportion of the summit with a further small area of access land located to the north of Tonyrefail. However, this is not common land.
- Footpath RH|ANT|75/1 forms part of the Penrhys Pilgramage Way which is a 21 mile long path along PRoW from Llandaff Cathedral in Cardiff to Penrhys in the Rhondda. There are five historic Parks and Gardens within 10km with Ynysangharad Park; Miskin Manor; Hensol Castle; Talygarn (with access via PRoW) contributing to the tourism resource of the area. There are six golf courses: Pontypridd Golf Club; Rhondda Golf Course: Whitehall Golf Course: Llantrisant and Pontyclun Golf Club; Creigiau Golf Course; and St Mary's Golf.

Future baseline

- 16.5.31 It is unlikely that the future baseline will alter markedly in the short to medium term. With regards to climate change and renewable energy generation, there can be expected to be an ongoing gradual shift away from fossil fuels towards renewables.
- The economic profile of Rhondda Cynon Taf is expected to be based largely on the same sectors as set out within the current baseline with higher percentages of those employed in process plant and machinery and skilled trades than across Wales as a whole. The number, and percentage, of those who are economically active is expected to continue as within the existing baseline with no significant changes to demographics or employment activities that would suggest changes to these key baseline statistics. The effects of the COVID-19 pandemic on the local economy, and whether any effects are likely to be temporary or permanent, are not fully known at this stage.
- The wider South-East region draws a number of day visitors and has a high proportion of international visitors (primarily linked to visits to Cardiff). The trend for this type of visit is likely to continue in the medium term. The visitor economy has been affected by COVID-19 pandemic with restrictions placed on visitor attraction opening and both domestic and international travel. However, it is not possible to say with certainty whether these



temporary effects on the visitor economy that have been experienced in the short term during the pandemic may be reflected in the future baseline and engender shifts in tourism visits and spend in the area.

16.6 Embedded measures

A range of environmental measures have been embedded into the Proposed Development as outlined in **Chapter 4. Table 16.10** outlines how these embedded measures will influence the socio-economics assessment.

Table 16.10 Summary of the embedded environmental measures

Receptor	Potential changes and effects	Embedded measures	Compliance mechanism
Construction			
Footpath Route number RH ANT 75/1	Potential conflict between PRoW users and site traffic	PRoW RH ANT 75/1 crosses the access road near the Site entrance on the A4233 (see Figure 16.2).	Changes to the Definitive Map and Statement via application to RCTCBC
		The footpath will require closure during the access road construction phase only to allow for the creation of the access road. Following construction of the road the route could then remain open. However, a change to the definitive map will be required to show the route as being stopped up as it crosses the access road (see Figure 16.3). However, following construction of the access road equivalent access could be provided through appropriate permissive path crossing provision.	under Town and Country Planning Act S257 or Highways Act 1980 S119 following consent of the DNS. CEMP
		This route will also require management with information boards and signage provided to advise recreational users of the construction works taking place. Users may have to wait for a short period of time before crossing the access road (with such restrictions likely to last for minutes rather than hours) when abnormal loads or high traffic loads are expected. At such times staff (a banksman) will manage such temporary restrictions.	



Receptor	Potential changes and effects	Embedded measures	Compliance mechanism
Footpath Route number RH ANT 998/1 RH ANT 94/2 RH ANT 999/1	Potential conflict between PRoW users and site traffic	These footpaths merge along the route of the proposed access route to the east of the western construction compound. It is envisaged that similar measures outlined above would ensure that access is appropriately managed during construction of the access road and the wind farm development.	Changes to the Definitive Map and Statement via application to RCTCBC under Town and Country Planning Act S257 or Highways Act 1980 S119 following consent of the DNS.
			CEMP
Footpath Route number RH ANT 181/1	Potential conflict between PRoW users and site traffic	This footpath crosses the proposed access road between T4 and T5. It is envisaged that similar measures outlined above would ensure that access is appropriately managed during construction of the access road and the wind farm development.	Changes to the Definitive Map and Statement via application to RCTCBC under Town and Country Planning Act S257 or Highways Act 1980 S119 following consent of the DNS.
Access land	Changes to access	The site will remain open for access. However, temporary measures, such as fencing of construction sites, will be required during construction to restrict access and ensure safety of potential users.	CEMP
Operation			
Footpath Route number RH ANT 75/1	Potential conflict between PRoW users and site traffic	A permissive path to link the footpath across the road could be provided. However, the access road will be open for members of the public to use in any event. Signage will be provided to show that the PRoW route continues either site of the access road. In the operational phase very limited traffic (for maintenance) would be expected but signage could	DNS condition



Receptor	Potential changes and effects	Embedded measures	Compliance mechanism
		also signal to users of the potential of vehicles to be using the route.	
Footpath Route number RH ANT 998/1 RH ANT 94/2 RH ANT 999/1	Potential conflict between PRoW users and site traffic	Permissive paths to link the footpath across the access road could be provided. However, the access road will be open for members of the public to use in any event. Signage will be provided to show that the PRoW routes continue either site of the access road. In the operational phase very limited traffic (for maintenance) would be expected but signage could also signal to users of the potential for vehicles to be using the route.	DNS condition
Footpath Route number RH ANT 181/1	Potential conflict between PRoW users and site traffic	A permissive path to link the footpath across the road could be provided. However, the access road will be open for members of the public to use in any event. Signage will be provided to show that the PRoW route continues either site of the access road. In the operational phase very limited traffic (for maintenance) would be expected but signage could also signal to users of the potential of vehicles to be using the route.	DNS condition
Access land	Changes to access	In the operational phase access will be permitted. No fencing etc will be used around the wind turbines or access roads that could limit access to the site.	DNS condition

16.7 Scope of the assessment

The Proposed Development

All the activities and consequent environmental changes associated with the construction, operation and decommissioning of the Proposed Development, as set out in **Chapter 4**, have been considered.



Spatial scope

- The spatial scope of the assessment of the socio-economics topic covers the area of the Proposed Development contained within the red line boundary, together with the Zones of Influence (ZoIs) that have formed the basis of the study area described in **Section 16.4**.
- The spatial scope of the assessment of socio-economic effects covers the area of the Site contained within the red line planning boundary, the grid connection corridor, together with the wider county, regional and national context, which has formed the basis of the study area described in **Section 16.4**:
 - Climate change and energy security the assessment covers the national (Wales) area as a whole;
 - **Economy and community** the assessment covers Wales, Rhondda Cynon Taf County Borough and the wards of:
 - Cymmer;
 - Tonyrefail East;
 - ▶ Church Village;
 - Llantwit Fardre;
 - Pontypridd West (Graig);
 - Ton-Teg:
 - Tonyrefail West
 - Beddau and Tyn-y-Nant;
 - ▶ Llantrisant and Talbot Green;
 - Pen-y-Graig;
 - Pontypridd Town;
 - Porth; and
 - Treforest.
 - Tourism and recreation considers tourism at local (Rhondda Cynon Taf County Borough), regional (South East Wales) and national (Wales) level. The recreation baseline, related to Public Rights of Way (PRoW) and open access land, has focussed on the local context within 5km as informed by the LVIA in **Chapter 6**.

Temporal scope

The temporal scope of the assessment of the socio-economic effects is consistent with the period over which the development would be carried out and therefore covers the construction and operational periods. It is assumed that the construction would take approximately 24 months with the start of development (and therefore completion) dependent on the consenting timescales. The scheme is designed for an operational lifespan of 30 years.

Potential receptors

The principal socio-economics receptors that have been identified as being potentially subject to effects are summarised in **Table 16.11**.



Table 16.11 Socio-economic receptors subject to potential effects

Receptor	Reason for consideration
Climate change and energy security	The Proposed Development includes the provision of renewable energy which may have an effect on meeting targets for addressing climate change, renewable energy provision and energy security.
Economy and community	There is potential for effects through the provision of jobs and economic benefits for the local area.
Tourism and recreation	The Proposed Development has the potential for effects on the visitor economy and recreation, including the variety of PRoW within and close to the Site.

Likely significant effects

The effects on socio-economic receptors which have the potential to be significant and have been taken forward for detailed assessment are summarised in **Table 16.12**.

Table 16.12 Socio-economic receptors scoped in for further assessment

Receptor	Likely significant effects
Climate change and energy security	Delivery of national climate change mitigation targets and renewable energy generation targets.
Economic and community	Potential job creation; impacts on expenditure within the local community, region and nationally; community benefits accruing from the Proposed Development.
Effects on the attractiveness of the area as a tourist destination	Potential for impacts on tourism/visitor spend.
Impacts on Public Rights of Way	Impacts on the use of PRoW that cross the Site for recreational purposes.

16.8 Assessment methodology

- The generic project-wide approach to the assessment methodology is set out in **Chapter 2: Approach to Environmental Impact Assessment**. However, whilst this has informed the approach that has been used in this socio-economics assessment, it is necessary to set out how this methodology has been applied, and adapted as appropriate, to address the specific needs of this socio-economics assessment.
- As discussed in **Section 16.7**, the assessment methodology adopted is based on determining potential effects on the baseline conditions using knowledge gained from previous wind farm developments and using professional judgement. Where possible, the significance will be assessed by way of a comparison of the factor (e.g. construction jobs) with the variance of related factors within the local economy. Where effects cannot be



quantified, the assessment of significance will be undertaken using professional judgement and experience.

Significance evaluation methodology

- The EIA Regulations require that a final judgement is made about whether or not each effect is likely to be significant. The effects have been evaluated on the basis of a professional assessment of the magnitude of the effect and the value of the receptor or importance of the policy. In this assessment, effects are considered to be significant or not significant according to the matrix in **Table 16.13**.
- In respect of the policy context the sensitivity definitions used for the socio-economic assessment are: National (Wales), Regional (South-East Wales), County (Rhondda Cynon Taf County Borough Council (RCTCBC) area) or local (within the wards identified in **Section 16.7**).

Climate Change and energy security

The impact on climate change is assessed in the context of applicable policy and targets. The significance is based on the magnitude of change towards achievement of the policies and targets that apply to Wales.

Economy and Community

16.8.6 Conclusions on potential effects are reached based upon the magnitude of the predicted change likely to occur to the baseline situation. The sensitivity of the receptor is a further consideration to be taken into account.

Tourism and Recreation

- The effect on tourism has been assessed using surveys commissioned by a range of organisations into the public perception of wind turbines both in Wales and other parts of the UK. For the purpose of this assessment a 5km study area was drawn around the Proposed Development in order to identify the main tourist facilities and recreational locations that have the potential to be affected by the Proposed Development. Effects are most likely to result from the visual impact of the Proposed Development upon tourism receptors. The 5km study area is based upon the groups of PRoW, open access land, paths and trails, considered likely or certain to sustain significant visual effects as a consequence of operation of the proposed turbines as determined in the LVIA (Chapter 6). Potential effects have been considered using professional judgement.
- How this results in a predicted level of significance is set out within **Table 16.13**.

Table 16.13 Matrix of EIA Significance

	Magnitude of cl	Magnitude of change					
	High	Medium	Low	Very low			
tivity High – Wales	Major (Significant)	Major (Significant)	Moderate (Significant)	Minor (Not significant)			



	Magnitude of change					
	High	Medium	Low	Very low		
Medium – Regional level (South East Wales)	Major (Significant)	Moderate (Significant)	Minor (Not significant)	Negligible (Not significant)		
Low – County level (RCTCBC)	Moderate (Significant)	Minor (Not significant)	Negligible (Not significant)	Negligible (Not significant)		
Very Low – local (within 5km)	Minor (Not significant)	Negligible (Not significant)	Negligible (Not significant)	Negligible (Not significant)		

Preliminary assessment of socio-economic effects: 16.9 Climate change and energy security

Baseline conditions

The current baseline is set out in **Section 16.5**. 16.9.1

Predicted effects and their significance

Operation

- The Proposed Development is a wind farm of up to 30MW. For the purposes of the Draft 1692 ES and this socio-economics assessment, candidate turbines generating 24.2MW have been assessed²⁵ with final generation output dependent on the final turbine chosen for the scheme. The annual generation of 24.2MW could be expected to supply the domestic electricity needs of approximately 15,376 average households^{26,27}. By way of comparison for the potential number of homes to be provided with power, the RCTCBC area is estimated to have 103,300 households as of 2021 (Census, 2022)²⁸.
- In the context of national policy for greater renewable energy, the proposal makes a 1693 positive contribution. The Welsh Government revoked TAN 8 (and the approach to Strategic Search Areas (SSA)), which included nominal targets for energy generation within each SSA, on publication of Future Wales: The National Plan 2040 in February 2021. There are no specific targets set out for the delivery of renewable energy generation for Pre-Assessed Area (PAA) for Wind or those outside the PAA for wind. However, the Welsh Government does set out an overall target for generation of consumed power by 2030 of 70% by renewable sources. In 2020, it was estimated that this figure stands at 56% (up from 51% in 2019). The Energy Report (Welsh Government, 2022) notes that the conditions are challenging for delivery of renewable energy. It notes that Rhondda Cynon

²⁵ This reflects analysis within the carbon balance (appendix to Chapter 2 of this ES).

²⁶ Assuming a rated capacity of 24.2 MW and load factor average for Wales of 28.2% which takes into account the intermittent nature of the wind, the availability of the wind turbines and array losses. The load factor is based on Department of Energy and Climate Change (2022). Long term average figures for Wales and the UK - Energy Trends Section 6: Renewables (ET6.1 Renewable Electricity Capacity and Generation, July 2022. (Online) Available at:

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/437811/et6_1.xls (Accessed September 2022).

27 Homes Equivalent = rated capacity of wind farm (kW) x average load factor for wind x number of hours in a year / average household energy consumption (MWh) (annual UK average domestic household consumption is 3,880 kWh)

²⁸ ONS (2022) Population and household estimates, Wales Census 2021. Available at:

https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates/datasets/populationandhousehold estimateswalescensus2021 (Accessed September 2022).



Taf has one of the highest lowest installed capacities for renewable energy (240MW of electrical installed capacity) with BEIS data for 2021 stating this stands at 357MW²⁹. The potential for 24.2MW capacity to be delivered would provide an additional 10% capacity above the Welsh Government figures. This is considered to be substantial within the context of local renewable energy generation.

- Additionally, targets have been set for local ownership of 1GW of renewable energy capacity by 2030 and for new energy projects to have at least an element of local ownership. Currently 859MW of generated power from renewable sources is within local ownership (Welsh Government, 2022). The applicant (Pennant Walters) is a business registered in Wales, and therefore meets the Welsh Government's definition of local ownership (Welsh Government, 2020c)³⁰. The Proposed Development would contribute to the Welsh Government's local ownership target.
- The scale of the Proposed Development will go some way to meeting national wind energy priorities and help ensure that Wales moves towards net zero carbon in 2050, which is a legal duty placed on Ministers under the Environment (Wales) Act 2016 (as amended). The social and economic benefits that are derived from the proposed development will include the strengthening of the nation's security of supply and the mitigation of climate change.
- The Proposed Development is also relevant in the national and local policy context of action to tackle CO₂ emissions, with its potential to reduce the levels of CO₂ emitted to the air. **Table 16.14** shows how the proposed wind farm could reduce emissions going into the atmosphere by replacing that generated through fossil fuels.

Table 16.14 Emissions to atmosphere if wind farm output replaces fossil fuel output based on a 24.2MW wind farm operating at 28.2% average load factor

Emissions to atmosphere avoided (tonnes) 31					
	Annual	Total (30 years)			
Carbon dioxide (CO ₂)	25,772	773,160			

Note: Carbon dioxide is the main gas implicated in global warming.

Overall, the Proposed Development is considered to have moderate positive (**significant**) effects on this receptor.

16.10 Preliminary assessment of socio-economic effects: Economy and community

Baseline conditions

16.10.1 The current baseline is set out in **Section 16.5**.

²⁹ BEIS (2021) Renewable electricity: Installed Capacity (MW) at Local Authority Level - as at end of 2020. Available at: https://www.gov.uk/government/statistics/regional-renewable-statistics (Accessed September 2022).

³⁰ Welsh Government (2020) Policy Statement: Local ownership of energy generation in Wales – benefitting Wales today and for future generations. (Online) Available at: https://gov.wales/sites/default/files/publications/2020-02/policy-statement-local-ownership-of-energy-generation. in wales and (Accessed Sentember 2022)

generation-in-wales.pdf (Accessed September 2022).

31 Based on BEIS Digest of UK Energy Statistics estimated carbon dioxide emissions per GWh of electricity supplied by all of fossil fuels of 432 tonnes per GWh of electricity supplied. Figures are derived as follows: 24.15 MW × 8,760 hours/year × 0.282 (capacity factor) = 59,658 MWh



Predicted effects and their significance

Construction - Employment and expenditure

- The total average construction phase cost for onshore wind farms in Wales has been estimated as £1.133m per MW of installed capacity (Regeneris Consulting Ltd and Welsh Economy Research Unit, 2013). The construction and development of the Mynydd y Glyn wind farm could involve an investment of approximately £27.4m (based on a maximum output of 24.2 MW) based on the 2013 estimations. The study estimated that 35% of the development cost would remain in Wales equating to an estimated £9.6m expenditure in Wales during construction.
- The construction phase would create the opportunity for direct economic benefits to Wales, and in particular the local authority area of RCTCBC and wider South-East region through the opportunities available to local firms to bid for mechanical, electrical and civil engineering contracts. Criteria for selecting the wind turbine manufacturer and civil and electrical contractors would be based on price specifications and guarantees to ensure that performance and technical specifications are met in full.
- Most of the jobs associated with the Proposed Development would occur in the construction phase and there is the potential for some of the work to be undertaken by local firms. The Proposed Development is expected to involve the creation of up to 41 jobs during construction. In addition, it is likely that some of the quarry materials needed for the development (e.g. for road aggregate and hardcore) could be procured from local quarries. In relation to the baseline, which shows higher unemployment in the wards around the Proposed Development (although generally low rates of employment currently in Rhondda Cynon Taf and Wales generally), the development may therefore support some local employment generation.
- Other indirect benefits to the local economy would come through an increased spend in bed and breakfast and other accommodation and the use of other local services and facilities during the construction phase.
- Overall, the construction of the wind farm is likely to have a minor (not significant) positive effect on the socio-economic profile of the area, as there is potential for economic benefit to local construction firms, quarries, accommodation establishments and other local services.

Operation - Employment and expenditure

It is expected that the Proposed Development would directly employ four FTE for maintenance during the operational phase. Their duties will include compliance with statutory environmental requirements. It has been estimated that the operation and maintenance of onshore wind farm involves an average expenditure of £38,600 per MW per annum, with 76% of that expected to be retained in Wales (Regeneris Consulting Ltd and Welsh Economy Research Unit, 2013). For a scheme of up to 24.2MW that would result in approximately £934,120 of expenditure annually, with approximately £709,931 being retained in Wales.

Operation - Business Rates

At present, all Non-Domestic Rates ('business rates') (NDR) are based on the rateable value of properties. The rates are collected by local authorities and are then given to the Welsh Government. The Welsh Government then distributes to the 22 local authorities based on different social and economic factors. Therefore, the local council (RCTBC) would see no direct financial benefit from the wind farm but would benefit indirectly via the



redistribution of rates from Welsh Government. However, it is difficult to quantify any direct benefit that would accrue for the local authority.

Operation - Community Benefits

The Applicant (Pennant Walters) is conscious of its role and the Proposed Development's role within the community and wants to ensure that the local community shares some of the financial benefits of the having the wind farm in the area. This will be implemented by a Community Benefits Fund, the mechanism for which is set out in 'Project Benefits Statement' prepared by Pennant Walters. It is proposed a Community Interest Company (CIC) would manage the fund – it is proposed the CIC is to be represented by Pennant Walters together with community stakeholder representatives. The Applicant has already provided some £4m in payments to qualifying projects within Wales from its existing operational projects – all of which Pennant Walters remain involved in³².

16.11 Preliminary assessment of socio-economic effects: Tourism and recreation

Baseline conditions

16.11.1 The current baseline is set out in **Section 16.5**.

Predicted effects and their significance

Construction

- The PRoWs that cross the Proposed Development Site are discussed in **Section 16.5**. As outlined in **Section 16.6** there will be a requirement for measures to address any effects on these PRoWs, including via appropriate management, diversions and closures (where necessary). There is potential for some disruption to the PRoWs, with some limited interventions required, although the measures identified under either of the options should reduce the likelihood of any significant issues for users.
- Indirect effects resulting from the construction activities, such as the use of the local highway network for deliveries which could potentially affect visitors travelling to the area, are discussed within **Chapter 12** of this Draft ES.

Operation

- The measures set out in **Section 16.6** will ensure alternative provision of permissive routes and signage where existing PRoWs cross the access roads. This will reduce the likelihood of significant issues for user experience over the lifetime of the development but there will be some inevitable effects on users. The implementation of the measures outlined in both options should, however, ensure no significant effects on these receptors. The Proposed Development does not restrict people's rights to access the open access land with no fencing etc around the development to restrict access.
- Visual effects on tourism and recreational receptors have been assessed in the LVIA section of the Draft ES (**Chapter 6**). The assessment has concluded that, from consideration of the extensive network of long distance paths, National Cycle Network

³² See https://pennantwalters.co.uk/site/ for details of community funds provided to other schemes.



(NCN) routes, historic parks and gardens, golf courses and open access land, significant visual effects would be experienced from:

- long distance paths: from some locations along Penrhys Pilgrimage Way, Cistercian Way (Wales), Glamorgan Ridgeway Walk / Taff-Ely Ridgeway Walk, Ogwr Ridgeway Walk, Rhymney Valley Ridgeway Walk, and Capital Walk – Cardiff;
- NCN routes from localised sections of: the NCN route 4 between London and Fishguard in west Wales; the NCN route 881 between Pontypridd and NCN route 47 by Lluest-Wen Reservoir; the NCN route 47 between Newport and Fishguard that forms part of the Celtic Trail West;
- partly restricted views from Pontypridd Golf Club and more open views from Rhondda Golf Course; and
- some parts Open Access land and PRoW within 5km of proposed turbines and Open Access land between 5km-10km of the Site.
- Effects on heritage assets that may contribute to the tourism resource are considered in **Chapter 7: Historic Environment**. No significant effects have been assessed for impacts on heritage assets within the area. There is no possibility for any shadow flicker effects on tourist accommodation (mitigation has been identified for residential receptors in **Chapter 15: Shadow Flicker**).
- A number of studies have in the past been commissioned into the potential effects of wind turbines upon tourists. These are summarised within the British Wind Energy Association (now RenewableUK) study 'The impact of wind farms on the tourism industry of the UK' (BWEA, 2006)³³. It found that surveys demonstrate that the effect of wind farms on tourism is negligible at worst, with many respondents taking a positive view to wind farms.
- In 2013 a survey commissioned for RenewableUK Cymru (YouGov, 2013)³⁴ found 64% of respondents in Wales supported the development of wind power in their local area. For South-East Wales this was higher at 74%. The survey also found that 65% of people said a wind farm would not put them off visiting an area whilst only 26% suggested that it might dissuade them. For South-East Wales, these figures stood at 72% and 19% respectively.
- Furthermore, a 2014 study for Welsh Government (Regeneris Consulting and The Tourism Company for Welsh Government, 2014)³⁵ regarding the impact of wind farms and their associated grid infrastructure on the Welsh tourism sector, found that there is:
 - a negligible impact on the national tourism sector from wind farms;
 - limited evidence of local tourism impacts to date;
 - a clear majority of people that do not react negatively to wind farm developments or change their visiting behaviour as a result;
 - complex reactions to wind farms which may change over time;
 - higher sensitivity to wind farms for certain visitor markets;
 - some potential for positive impacts, often requiring further investment;

³³ British Wind Energy Association (2006) The impact of wind farms on the tourism industry of the UK. (Online) Available at: https://www.northumberland.gov.uk/NorthumberlandCountyCouncil/media/Planning-and-Building/planning%20policy/Core%20strategy/Evidence%20based/EB14-Evaluation-of-the-impacts-of-onshore-wind-farms-ontourism.pdf (Accessed September 2022).

³⁴ YouGov (2013) YouGov RenewableUK Cymru Poll Results. Commissioned by RenewableUK Cymru

³⁵ Regeneris Consulting and The Tourism Company for Welsh Government (2014) Study into the Potential Economic Impact of Wind Farms and Associated Grid Infrastructure on the Welsh Tourism Sector (Online) Available at: https://gov.wales/sites/default/files/publications/2019-06/potential-economic-impact-of-wind-farms-on-welsh-tourism_0.pdf (Accessed September 2022).



- no evidence that wind farms on visitor routes deter tourists; and
- no negative impacts during construction.
- The study found that there was no evidence of significant impacts on tourism to date in areas where wind farms have had an established presence for a number of years (Powys, Anglesey and the South Wales Valleys). Overall, there is no evidence to suggest that the tourism industry has been affected by wind farms operating in Wales or across the UK. Additionally, no significant effects have been identified on any cultural heritage assets that might support the tourism resource of the area (see **Chapter 7: Historic Environment**). It is concluded that the Proposed Development would not have a significant adverse effect upon the local tourism industry or recreational routes.

Grid connection corridor

It is assumed that the worst case scenario is the provision of a 33kv overhead line on wooden poles within the Site boundary. The proposed grid connection within the Site boundary is likely to cross footpath RH|ANT|95/1 (although this is to be confirmed). During construction, management of the footpath will be required to ensure safe construction practices and avoid any potential conflict with PRoW users (as set out in the embedded measures). No measures will be required during operation as the footpaths will be able to be fully open and in use. No significant effects are likely.

16.12 Preliminary assessment of cumulative (inter-project) effects

- A preliminary cumulative effects assessment (CEA) has been undertaken for the Proposed Development which considers the combined impacts with other developments on the same single receptor or resource (inter-project effects). The detailed methodology followed in identifying and assessing potential cumulative effects is set out in **Chapter 2**.
- 16.12.2 Consideration has been given as to whether any of the socio-economic receptors that have been taken forward for assessment in this chapter are likely to be subject to cumulative socio-economic effects because of socio-economic effects generated by other developments.

Overview

The socio-economic cumulative assessment is concerned with the evaluation of the effects that could be generated were the Proposed Development to be constructed and operational along with other wind farm developments in the area.

Cumulative socio-economic effects

16.12.4 Cumulative effects can arise from the construction and operation of other wind farms, which can lead to cumulative economic, energy security and climate change benefits. The Proposed Development is located within 5.1km of the consented Headwind Taff Ely scheme for seven turbines and 7.6km of the consented scheme for one turbine at Land at Graig yr Hufen Road and within 5.2km of a scheme at Twyn Hywel for 20 turbines which is at scoping stage. The Site is also within 10.1km of the proposed Development of National Significance (DNS) at Upper Ogmore Wind Farm comprising seven turbines which is at DNS examination stage.



- The development of the Proposed Development along with the development of some or all of these proposed wind turbines would lead to an additional local and regional impact on the economy, which would be beneficial during construction and operation for:
 - employment (directly and indirectly); and
 - the related industries of wind energy and the supply chain.
- Also, it is likely that local communities within the area would benefit from the generation of community funds.
- The delivery of some or all of these windfarms would also support the achievement of positive effects in relation to meeting the Welsh Government's climate change and renewable energy targets.
- In addition to windfarms there are seven solar farms proposed that are at DNS preapplication stage. The delivery of these would also contribute to the positive effects associated with delivery of renewable energy and carbon reductions and, although construction processes are different turbines, there could be expected additional positive impacts on the local and regional economy.
- The cumulative visual effects of turbines could dissuade visitors from visiting the area and therefore impact on tourism and recreation. **Chapter 6: Landscape and Visual Impact Assessment Table 6.6** sets out the sets out the wind turbines that are proposed, consented or operational within the area that have been included in the cumulative assessment of visual effects on recreational receptors.
- The effects are assessed in **Section 6.12** and **6.13**. There are 41 wind energy developments in total within 24km of the Proposed Development comprising:
 - 30 operational schemes comprising 234 turbines in total;
 - five consented schemes comprising 24 turbines in total;
 - one in planning comprising of eight turbines; and
 - five at scoping stage comprising 39 turbines in total.

The largest operational wind farm is Pen y Cymoedd (comprising 76 turbines) which is 13.2km from the Proposed Development.

- 16.12.11 The cumulative assessment considers where a magnitude of change could potentially result in a cumulative visual effect that would be significant with the Proposed Development's turbines present that would otherwise be not significant if the Proposed Development's turbines were not to become operational. The key consideration is the additional or incremental effect that would be generated by the introduction of the Proposed Development. The LVIA's cumulative assessment is informed by two scenario-based assessments^{36.}
- Under Scenario One, the assessment finds that, in the majority of cases, the contribution of operational and consented wind energy schemes to the overall magnitude of turbines visible from recreational receptors is limited by surrounding built development and tree cover. In most cases the visibility of operational and consent schemes would have a modest (not significant) visual impact with only the addition of the Proposed Development itself that would result in a significant effect. Where recreational receptors are located on elevated land it has been found that in some locations significant effects are already

³⁶ The Chapter LVIA cumulative assessment is based on two development scenarios as described in Chapter 6 Section 6.13: Scenario One includes other existing (and under construction) and consented wind energy developments, and Scenario Two includes other existing (and under construction), consented and proposed (subject of a formal planning application and Scoping Opinion) wind energy developments.



experienced from other operational turbines and the introduction of the Proposed Development would have a non-significant contribution to the turbine presence. In other cases the Proposed Development would contribute to potential significant cumulative effects but the principal contributor to this is the other consented or operational scheme. The LVIA concludes that there is no potential for the addition of the Proposed Development to result in significant visual effects where these would not arise in relation to either Proposed Development or one or more of the other wind energy schemes alone.

- Under Scenario Two (the worst case scenario as in reality not all developments may be granted planning consent), the additional contribution of other proposed wind energy schemes to the overall magnitude of turbines visible from recreational receptors are considered to not give rise to additional significant visual effects. The closest site (Twyn Hywel) has relatively weak visual pathways to the Proposed Development and there would be no cumulative visual effects. The separation distances to other additional wind farms would be too weak to give rise to any significant visual effects.
- Therefore, under both scenarios the visual effects on recreational receptors finds that there are no additional significant effects to those identified for the Proposed Development by itself (as considered in **Section 6.11**).

16.13 Preliminary significance conclusions

A summary of the results of the preliminary socio-economic assessment is provided in **Table 16.15**



 Table 16.15 Preliminary summary of significance of effects

Receptor and summary of predicted effects	Sensitivity/ importance/ value of receptor ¹	Magnitude of change ²	Significance ³	Summary rationale
Climate change and energy security - operational	National	Low	Moderate (Significant)	The Proposed Development is for a windfarm to provide 30MW. For this Draft ES turbines generating 24.2MW have been assessed. Output of 24.2MW would provide enough electricity to power around 15,376 homes. The installation of 24.2 MW represents a significant contribution to the installed capacity within RCTCBC and would contribute to the achievement of the Welsh Government's target for 70% of energy consumption to be provided by renewable sources by 2030 and the target for local ownership of renewable energy generation in Wales.
Economy and community employment and expenditure – construction phase	Regional	Low	Minor (Not Significant)	Positive contribution to the Welsh economy with potential investment of £9.6m during the construction phase. Much of this spend would take place in the region. Employment of around 41 FTE would be expected in the construction phase.
Economy and community employment and expenditure – operational phase	National	Very low	Minor (Not significant)	Expenditure of around £709,931 into the Welsh economy. Expected ongoing employment of around 4 FTE.
Economy and community non domestic rates – operational phase	County	Low	Negligible (Not significant)	There is potential for boosts to Rhondda Cynon Taf County Borough Council funds from redistribution of increased business rate funds via the redistribution of funds by Welsh Government.
Tourism and recreation - construction	Local	Medium	Negligible (Not significant)	A number of PRoWs footpaths cross the site whilst the site also includes some access land. The implementation of suitable environmental measures as outlined in Table 16.10 will ensure that no significant effects are experienced by receptors.
Tourism and recreation – operational phase	County	Medium	Minor (Not significant)	There would be some impact on the existing PRoWs footpaths as some would require permanent amendments with new permissive routes across the access road. Access land will remain open with



Receptor and summary of predicted effects	Sensitivity/ importance/ value of receptor ¹	Magnitude of change ²	Significance ³	Summary rationale
				no fencing etc blocking access to the site. The embedded environmental measures would ensure that the user experience is not significantly impacted.
				There would be some visual impacts on some locations of existing recreational receptors including long distance footpaths, national cycle routes and golf courses. However, overall, given that studies suggest that wind turbines do not dissuade visitors no significant effects are assessed.

- 1. The sensitivity/importance/value of a receptor is defined using the criteria set out in **Section 16.8** and is defined as very low (local), low (county), medium (regional) and high (national).

 2. The magnitude of change on a receptor resulting from activities relating to the development is defined using the criteria set out in **Section 16.8** and is defined as very low, low, medium and
- The significance of the environmental effects is based on the combination of the sensitivity/importance/value of a receptor and the magnitude of change and is expressed as major (significant), moderate (potentially significant) or minor/negligible (not significant), subject to the evaluation methodology outlined in Section 16.8.



16.14 Further work to be undertaken

The Final ES will be informed by engagement with officers of RCTCBC to explore the measures identified for users of PRoWs.