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15. SOCIO-ECONOMICS, LAND USE, RECREATION AND TOURISM

15.1 Introduction

- 15.1.1 This chapter of the Environmental Impact Assessment (EIA) evaluates the effects of the Torrance Wind Farm Extension II (the Proposed Development) on socio-economics, tourism and recreation and has been prepared by Arcus Consultancy Services Ltd (Arcus).
- 15.1.2 The assessment has been undertaken based on the details as outlined in **Chapter 3: Description of Proposed Development**. This includes a consideration of local tourism and recreation activity, employment generation, and any indirect economic effects from the Proposed Development.
- 15.1.3 The Proposed Development comprises four turbines with an individual capacity of 6.6 Megawatts (MW), with total installed capacity of 26.4 MW.
- 15.1.4 This chapter is structured as follows:
- Legislation, policy and guidance;
 - Assessment methodology and significance criteria;
 - Scoping Responses and Consultation;
 - Baseline conditions;
 - Assessment of potential effects;
 - Assessment of cumulative effects;
 - Mitigation measures;
 - Residual effects and
 - Summary.
- 15.1.5 This Chapter of the EIA Report is supported by Figure 15.1 Recreational Routes and Core Paths Plan.

15.2 Legislation, Policy and Guidance

Legislation

- 15.2.1 The Town and Country Planning (Environmental Impact Assessment) (Scotland) Regulations 2017 as amended¹ (the EIA Regulations) establish in broad terms what is to be considered when determining the effects of development proposals on, socio-economics, land use, recreation and tourism. There is no specific legislation or guidance available on methods that should be used to assess the socio-economic impacts of a proposed onshore wind farm development. Therefore, to identify and assess the significance of predicted socio-economic effects, the assessment has been based on professional judgement for the degree of change resulting from the proposals, using methods commonly used in EIAs proposed renewable energy developments, as outlined below.

¹ UK Government (2017) Town and Country Planning (Environmental Impact Assessment) (Scotland) Regulations 2017 (the EIA Regulations) [Online] Available at: <https://www.legislation.gov.uk/uksi/2017/571/contents/made> (Accessed 16/01/2023)

National Policy

- 15.2.2 Scotland's National Strategy for Economic Transformation² sets out how the Scottish Government will deliver the best economic performance possible for Scotland. The Strategy outlines the steps towards driving a green economic recovery to meet the nations climate and nature targets while ensuring we the benefits are maximised as part of a just transition.
- 15.2.3 The document identifies five key themes which are critical to economic growth:
- Stimulating entrepreneurship;
 - Opening new markets;
 - Increasing productivity;
 - Developing the skills we need for the decade ahead; and
 - Ensuring fairer and more equal economic opportunities.
- 15.2.4 The National Performance Framework³ tracks progress towards national outcomes. It shows how well Scotland is performing overall on the 81 national indicators including topics on economy and environment. In terms of economy, the Scottish Government recognises that a strong, competitive economy is essential to supporting jobs, incomes, and our quality of life. The Scottish economy must be environmentally sustainable, inclusive and benefit all our people and communities.
- 15.2.5 The National Planning Framework (NPF4)⁴ sets out a long-term strategy for Scotland's important development and investment opportunities in infrastructure. NPF4 guides spatial development, sets out national planning policies, Designates national developments and highlights the regional spatial priorities in Scotland.
- 15.2.6 NPF4 is a product of engagement and collaboration, which has included 3 rounds of extensive consultation. These three rounds were: the Call for Ideas (2020), the Position Statement (2020), and the Draft NPF4.
- 15.2.7 The 'Call for Ideas' was launched in January 2020 and an analysis of responses was issued in August 2020⁵. The report notes that there was support for maximising the contribution of renewable electricity generation in order to help meet the net zero target in a sustainable way. Some respondents also commented that it is important for NPF4 to create a positive development context for renewable energy, thereby promoting investment in renewable technologies. In the medium to long term, it is suggested that affordable renewable power could transform Scotland's economy.

² Scottish Government (2012) Scotland's National Strategy for Economic Transformation [Online] Available at: <https://www.gov.scot/publications/scotlands-national-strategy-economic-transformation/#:~:text=We%20have%20identified%20five%20key,and%20more%20equal%20economic%20opportunities> (Accessed on 23/01/2023)

³ Scottish Government (2019) National Performance Framework [Online] Available at: [National Outcomes | National Performance Framework](https://www.gov.scot/publications/national-performance-framework-4/) (Accessed 15/01/2023)

⁴ Scottish Government (2023) National Planning Framework 4 [Online] Available at: <https://www.gov.scot/publications/national-planning-framework-4/> (Accessed 19/02/2023)

⁵ Scottish Government (2020) *National Planning Framework 4 Analysis of responses to the call for evidence Executive Study* [Online] Available at: <https://www.gov.scot/publications/npf4-analysis-reponses-call-ideas-executive-summary/> (Accessed 19/02/2023)

- 15.2.8 In November 2020, the Scottish Government issued the Fourth National Planning Framework Position Statement⁶. Within the introduction – Our Future Places – it is recognised that the planning system will have to be rebalanced so that climate change is a guiding principle in all plans and decisions, focussing efforts on encouraging developments that help to reduce emissions. The aim should not be to restrict development, but rather to stimulate that green economy.
- 15.2.9 The Fourth National Planning Framework Position Statement identified the following potential policy change in respect of onshore wind development:
- 15.2.10 *"Updating the current spatial framework for onshore wind to continue to protect National Parks and National Scenic Areas, whilst allowing development outwith these areas where they are demonstrated to be acceptable on the basis of site-specific assessments."*
- 15.2.11 The Draft NPF4 was published for consultation in November 2021 and was approved by Scottish Ministers in January 2023, and adopted the following month on 13th February 2023. The purpose of NPF4 is to manage land-use and development in the long-term public interest, and includes all aspects of national planning policy as per the provisions of the Planning (Scotland) Act 2019, which was passed by the Scottish Parliament in June 2019.
- 15.2.12 NPF4 confirms the Scottish Government's view that the Global Climate Emergency should be a material consideration in applications for appropriately located renewable energy developments. This is evidenced in the National Planning Policies detailed within NPF4. Policy 1 states that:
- 15.2.13 *"When considering all development proposals significant weight will be given to the global climate and nature crises."*
- 15.2.14 Policy 11 of the NPF4 relates to energy and has the specific intent to encourage, promote and facilitate all forms of renewable energy development. Policy 11c is specifically relevant to socio-economics, in that it states:
- 15.2.15 *"Development proposals will only be supported where they maximise net economic impact, including local and community socio-economic benefits such as employment, associated business and supply chain opportunities"*
- 15.2.16 Further information on NPF4 is detailed in the Planning Statement which will accompany the planning application for the Proposed Development.

⁶ Scottish Government – Scotland's Fourth National Planning Framework Position Statement [Online] Available at: <https://www.gov.scot/publications/scotlands-fourth-national-planning-framework-position-statement/> (Accessed 17/02/2023)

Local Planning Policy

- 15.2.17 The North Lanarkshire Partnership Community Plan is the principal local policy document for North Lanarkshire Council⁷ (NLC). It aims to address economic performance, environmental quality and social inclusion issues.
- 15.2.18 One of the main aims of the NLC Community Plan is the Economic Regeneration Framework, which aims to make town centres safe, attractive, accessible focal points for their communities.
- 15.2.19 The North Lanarkshire Local Development Plan (NLLDP)⁸ was adopted on 5 July 2022, superseding the North Lanarkshire Local Plan (2012)⁹.
- 15.2.20 The overall strategic aim of NLLDP is to increase sustainable growth, promote regeneration and ensure North Lanarkshire becomes an even more 'successful place'. It sets out the Policies and Proposals to guide and meet North Lanarkshire's development needs over the next 5-10 years.
- 15.2.21 Planning policy is set out in **Chapter 5: Policy Context** of the EIA Report and addressed in full in the Planning Statement which accompanies the EIA Report.

Guidance

- 15.2.22 The following documents have been considered for the assessment of potential effects of the Proposed Development on, socio-economics, recreation and tourism:
- Institute of Environmental Management and Assessment (IEMA) (2011) The State of Environmental Impact Assessment in the UK¹⁰;
 - NatureScot (2018) Environmental Impact Assessment Handbook¹¹; and
 - Wind Farms and Tourism Trends in Scotland: BiGGAR Economics: Evidence from 44 Wind Farms (2021)¹².

15.3 Assessment Methodology and Significance Criteria

Scope of Assessment

- 15.3.1 This Chapter considers:
- The effect of the Proposed Development on the socio-economic resource, including employment, within the local, regional and national contexts;

⁷ North Lanarkshire Council (2020) The Plan for North Lanarkshire [Online] Available at: [North Lanarkshire Local Plan.pdf](#) (Accessed 25/06/2022)

⁸ North Lanarkshire Council (2021) *The North Lanarkshire Local Development Plan* [Online] Available at: https://www.northlanarkshire.gov.uk/sites/default/files/2022-03/NLLDP%20Non-Graphic%20Policy%20Document_0.pdf (Accessed 21/10/2022)

⁹ North Lanarkshire Council (2012) North Lanarkshire Local Plan [Online] Available at: <https://www.northlanarkshire.gov.uk/sites/default/files/2020-09/NLC%20Local%20Plan%202012.pdf> (Accessed 13/06/2022)

¹⁰ IEMA (2011) The State of Environmental Impact Assessment Practice in the UK [Online] Available at: <https://www.iema.net/assets/uploads/Special%20Reports/iema20special20report20web.pdf> (Accessed 13/10/21)

¹¹ NatureScot (2018) Environmental Impact Assessment Handbook [Online] Available at: <https://www.nature.scot/sites/default/files/2018-05/Publication%202018%20-%20Environmental%20Impact%20Assessment%20Handbook%20V5.pdf> (Accessed 22/11/2021)

¹² BiGGAR Economics (2021) Wind Farm and Tourism Trends in Scotland: Evidence from 44 Wind Farms [Online] Available at: <https://biggareconomics.co.uk/wp-content/uploads/2021/11/BiGGAR-Economics-Wind-Farms-and-Tourism-2021.pdf> (Accessed 22/11/2021)

- The effects on land use in the immediate vicinity of the Proposed Development; and
- The effects on tourist attractions and recreation facilities within and near to the Proposed Development.

15.3.2 The key issues for the assessment of potential effects relating to the Proposed Development are:

- Short-term direct and indirect effects arising from the construction phase;
- Long-term direct and indirect effects that occur during the operational phase but are mitigated at decommissioning; and
- Permanent direct and indirect effects that continue after decommissioning.

Socio-economics

15.3.3 The principal socio-economic assessment criteria relate to the employment effects that the Proposed Development may have within the Study Area, as defined in Section 15.3.9. These effects are defined in terms of Full-Time Equivalent (FTE) jobs and the Gross Value Added (GVA) generated by any jobs created by the Proposed Development.

Land Use

15.3.4 Land use is the anthropogenic management and occupation of the environment, and what the land is used for, both at present and in the future. Developments can affect the ability of the land to be effectively used for its current purpose and also affect the potential use in the future. This can result from direct loss of land to new infrastructure, which is therefore no longer available for the current land-use; and disruption to existing land use operations occurring as a result of the construction and operational activities of a new development (e.g. access restrictions).

Tourism and Recreation

15.3.5 Recreational behaviour will be affected where a development potentially leads to a change in recreational habits or activities. Factors which might lead to change in recreational behaviour include loss, closure, or diversion of routes; obstructing access routes; enhancing access; reduction in amenity or intrusion; enhancement in amenity; and changes in setting and context of the recreational resource.

15.3.6 Where other technical assessments presented within this EIA Report have considered the effects on recreational resources e.g. **Chapter 6 – Landscape and Visual Impact Assessment**, these findings will be drawn upon to inform the assessment of the wider recreational effects.

15.3.7 When assessing tourism, this Chapter deals primarily with amenity, which is defined as the pleasantness of the asset that contributes to its character (i.e., the essence of why the asset is visited). Amenity is inextricably linked with both recreational behaviour and tourism.

Study Area

- 15.3.8 Socio-economic 'Study Areas' are defined either at local, regional, or national scale as follows:
- 'Local' comprises the electoral ward of Fortissat;
 - 'Regional' is defined as the North Lanarkshire Council (the Council) and West Lothian Council (WLC) administrative areas. Although the Site lies entirely within the administrative boundary of North Lanarkshire Council, . The geographical size of the North Lanarkshire and West Lothian Council areas means that the Proposed Development will not affect the entire areas however both Councils have been considered within the Baseline; and
 - 'National' is defined as Scotland.
- 15.3.9 The Land Use 'Study Area' comprises land within the Site and taken by the Proposed Development, either temporarily during construction and decommissioning or permanently after operation and decommissioning.
- 15.3.10 The Primary Study Area for tourism and recreation comprises land within the Site and immediately adjacent in considering direct effects on tourism and recreation receptors.
- 15.3.11 A Secondary Study Area for tourism and recreation, comprising land within 5 km of the Site, is used for assessing indirect effects on tourism and recreation receptors.

Survey Methodology

- 15.3.12 Baseline conditions have been established through desktop studies and consultation including the Scoping Opinion. No surveys specific to the Proposed Development and in support of this assessment have been carried out, however information has been gathered where relevant from surveys undertaken in respect of other, related, disciplines, such as landscape and visual.

Assessment Methodology

Sensitivity of Receptors

- 15.3.13 The sensitivity of the baseline conditions, including the importance of environmental features on or near to the Site or the sensitivity of potentially affected receptors, will be assessed in line with best practice guidance, legislation, statutory designations and/or professional judgement.
- 15.3.14 Table 15.1 details the framework for determining the sensitivity of receptors.

Table 15.1: Framework for Determining Sensitivity of Receptors

Sensitivity of Receptor	Definition
Very High	The asset is of very high socio-economic, land use, recreational or tourism value, or of importance at Scotland or International level, and has little or no capacity to absorb change without fundamentally altering its present character. For example, it is a destination in its own right (for attractions), with a substantial proportion of visitors on a national (Scotland) level and/or possesses priority in national policy.

Sensitivity of Receptor	Definition
High	The asset is of high socio-economic, land use, recreational or tourism value, or of importance to Scotland, and has low capacity to absorb change without fundamentally altering its present character. For example, it is a destination in its own right (for attractions), with a significant contribution to the national (Scotland) economy and/or possesses priority/weight in regional and/or local policy.
Medium	The asset is of some socio-economic, land use, recreational or tourism value, or is of regional importance (e.g. North Lanarkshire and/or West Lothian), and has moderate capacity to absorb change without substantially altering its present character. For example, it is a popular destination among current visitors (for attractions), with a significant contribution to the regional economy and/or possesses priority/weight in regional and/or local policy.
Low	The asset has low socio-economic, land use, recreational or tourism value, or is of local importance (e.g. Fortissat), and is tolerant to change without detriment to its character. For example, it is an incidental destination for current visitors (for attractions).
Negligible	The asset is of little socio-economic, land use, recreational or tourism value, and is resistant to change. For example, an incidental destination for low numbers of current visitors (for attractions) and/or possesses no weight in authority policy.

Magnitude of Change

15.3.15 The magnitude of change will be identified through consideration of the Proposed Development, the degree of change to baseline conditions predicted as a result of the Proposed Development, the duration and reversibility of an effect and professional judgement, best practice guidance and legislation.

15.3.16 The criteria for assessing the magnitude of change is presented in Table 15.2.

Table 15.2: Framework for Determining Magnitude of Change

Magnitude of Change	Definition
High	Total loss or major alteration (positive or negative) of the socio-economic, land use, recreation, or tourism assets/receptors.
Medium	Loss of, or alteration to (positive or negative), one of more key elements of the socio-economic, land use, recreation, or tourism asset's baseline value.
Low	Slight alteration (positive or negative) of the socio-economic, land use, recreation, or tourism asset/receptors.
Negligible	Barely perceptible alteration (positive or negative) of the socio-economic, land use, recreation, or tourism asset/receptors.

Significance of Effect

- 15.3.17 The sensitivity of the asset and the magnitude of the predicted change will be used as a guide, in addition to professional judgement, to predict the significance of the likely effects. Table 15.3 summarises guideline criteria for assessing the significance of effects.

Table 15.3: Framework for Assessment of the Significance of Effects

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

- 15.3.18 Effects predicted to be of major or moderate significance are considered to be 'significant' in the context of the EIA Regulations, and are shaded in light grey in the above table.
- 15.3.19 Effects can be positive negative or neutral and these are specified where applicable in the assessment within this Chapter.
- 15.3.20 Consideration is given to the national, regional and local baseline situation when assessing sensitivity with the magnitude of change determined in proportion to the geographic scale relevant to each receptor.
- 15.3.21 In terms of socio-economic factors, potential effects would be significant if the Proposed Development resulted in any fundamental or material changes in population, structure of community, and economic activity during the operational phase of the Proposed Development. For tourism and recreation factors, potential effects would be significant if the Proposed Development resulted in any fundamental or material changes in key elements/features of the receptor or if effects resulted in major, long-term alterations of the baseline conditions of the attraction, accommodation, recreation route etc.
- 15.3.22 In terms of land use factors, potential effects would be considered significant if the Proposed Development resulted in long-term modification or net loss of an important land use receptor.

Assessment of Socio-Economic Effects

- 15.3.23 The key issues for the assessment of potential effects relating to the Proposed Development are:
- Short-term direct and indirect effects arising from the construction phase;
 - Long-term direct and indirect effects that occur during the operational phase, but are mitigated at decommissioning; and
 - Permanent direct and indirect effects that continue after decommissioning.

Assessment Limitations

- 15.3.24 Data has been collated from published sources and no surveys specific to the Proposed Development and in support of this assessment have been carried out; however, as noted earlier, Site visits related to other environmental topics have, where appropriate, informed the baseline information.
- 15.3.25 Whilst efforts have been made to ensure that the key tourism and recreation facilities in the area have been identified, it is possible that there are a number of local based attractions anticipated as being of no higher than Negligible sensitivity as described in Table 15.1.

15.4 Scoping Responses and Consultation

- 15.4.1 Throughout the scoping exercises, and subsequently during the ongoing EIA process, relevant organisations were contacted with regards to the Proposed Development. No consultation responses were received in relation to Socio-economics, Land Use, Recreation and Tourism.

15.5 Baseline Conditions

Socio Economics

Population - Local Study Area

- 15.5.1 According to 2020 Ward population estimates, Fortissat had a population of 15,680 with 7,808 (49.2%) being male and 7,872 (50.8%) being female. In 2020, 17.8% (2,787) of the population were ages 0-15; 64.4% (10,098) were aged 16-64; and 17.8% (2,796) of the population were aged 65 and over¹³.

Population - Regional Study Area

- 15.5.2 North Lanarkshire is an area of Scotland covering over 180 miles² (470 km²) within Scotland's central belt¹⁴. The area includes a variety of communities ranging from rural settlements to larger towns. North Lanarkshire has an estimated population of 341,400 (as of June 2021)¹⁵. In 2021, there were more females (51.6%) than males (48.4%) living in North Lanarkshire; the 45 to 64 age group was the largest in 2021, with a population of 96,353. In contrast, the 75 and over age group was the smallest, with a population of 25,750.
- 15.5.3 According to the National Records of Scotland, the two main settlements within North Lanarkshire are Motherwell and Wishaw (population of approximately 125,610) and Coatbridge, Airdrie, Chapelhall and Bargeddie (population of approximately 90,690)¹⁶.

¹³ North Lanarkshire Council (2021) Population - Ward and Community Board Population Estimates 2020 [Online] Available at: <https://www.northlanarkshire.gov.uk/your-council/facts-and-figures/population/ward-and-community-board-population-estimates-2020> (Accessed 09/01/2023)

¹⁴ North Lanarkshire Council (2021) North Lanarkshire CLD Partnership Plan 2021-24 [Online] Available at: <https://www.northlanarkshire.gov.uk/sites/default/files/2021-12/CLD%20Partnership%20Plan%20%282021-24%29.pdf> (Accessed 09/01/2023)

¹⁵ National Records of Scotland (2022) Mid-2021 Population Estimates by Council Area in Scotland [Online] Available at: <https://www.nrscotland.gov.uk/files//statistics/council-area-data-sheets/north-lanarkshire-council-profile.html> (Accessed 09/01/2023)

¹⁶ National Records for Scotland (2022) Mid-2020 Population Estimates for Settlements and Localities in Scotland [Online] Available at <https://scotland.shinyapps.io/nrs-settlements-localities-map/> (Accessed 09/01/2023)

- 15.5.4 National Records of Scotland projections¹⁷ signal that between 2018 and 2028, the population of North Lanarkshire is projected to increase from 340,180 to 341,174. This is an increase of 0.3%, which compares to a projected increase of 1.8% for Scotland as a whole. The 0 to 15 age group is projected to see the largest percentage decrease (-9.8%) and the 75 and over age group is projected to see the largest percentage increase (+21.8%). In terms of size, however, 45 to 64 is projected to remain the largest age group.
- 15.5.5 WLC is located in the central belt of Scotland and covers an area of around 427.6 km² with an estimated population of 185,580¹⁸ (as of June 2021). The largest settlements are Livingston (approximately 65,770 residents) and Bathgate (approximately 29,330 residents)¹⁹.
- 15.5.6 In 2021, there were more females (50.9%) than males (49.1%) living in West Lothian. The largest age group within the population is between the ages of 45 and 64, with a population of 52,260. In contrast, the 75 and over age group was the smallest, with a population of 13,486. The average life expectancy was higher for females at 80.5, with males being 77.1, which is below and above the Scottish average, respectively²⁰.
- 15.5.7 The National Records of Scotland projections for West Lothian suggest that between 2018 and 2028, the population of the area will increase from 182,140 to 192,812. This is an increase of 5.9%. As seen with North Lanarkshire, it is projected that the 0 to 15 age group will see the largest percentage decrease (-5.4%) and the 75 and over age group is project to see the largest increase (+39.4%). The 45 to 64 age group is projected to remain the largest age group²¹.

Population - National Study Area

- 15.5.8 According to the last Census (2018 estimation), Scotland's population is approximately 5,438,100²². This is its highest ever population, and an increase of 13,300 people (0.2%) since 2017. Since 1998, Scotland's population has increased by 7%, and has been growing each year since 2000, though the rate of growth over this period has varied.
- 15.5.9 The National Records for Scotland Registrar General's Annual Review of Demographic Trends predict that the population of Scotland will peak in 2028 at 5.48 million. The population is then projected to fall by 1.8% to 5.39 million by 2045²³.

¹⁷ National Records for Scotland (2022) Mid-2021 Population Estimates for Settlements and Localities in Scotland [Online] Available at https://www.nrscotland.gov.uk/files//statistics/council-area-data-sheets/north-lanarkshire-council-profile.html#population_projections (Accessed 09/01/2023)

¹⁸ National Records for Scotland (2022) Mid-2021 Population Estimates by Council Area in Scotland [Online] Available at https://www.nrscotland.gov.uk/files//statistics/council-area-data-sheets/west-lothian-council-profile.html#population_estimates (Accessed 09/01/2023)

¹⁹ National Records for Scotland (2022) Mid-2020 Population Estimates for Settlements and Localities in Scotland [Online] Available at <https://scotland.shinyapps.io/nrs-settlements-localities-map/> (Accessed 09/01/2023)

²⁰ National Records of Scotland (2022) Life Expectancy in 2019-21 by Council Area in Scotland [Online] Accessed here: https://www.nrscotland.gov.uk/files//statistics/council-area-data-sheets/west-lothian-council-profile.html#life_expectancy (Accessed 09/01/2023)

²¹ National Records for Scotland (2022) 2018-based Population Projections by Council Area in Scotland [Online] Available at: https://www.nrscotland.gov.uk/files//statistics/council-area-data-sheets/west-lothian-council-profile.html#population_projections (Accessed 09/01/2023)

²² National Records of Scotland (2019) Mid-Year Population Estimates Scotland, Mid-2019 [Online] Available at: <https://www.nrscotland.gov.uk/files//statistics/population-estimates/mid-18/mid-year-pop-est-18-pub.pdf> (Accessed 09/01/2023)

Employment

Employment - Local Study Area

- 15.5.10 Employment statistics available for Fortissat were limited and so employment statistics for Harthill, the main settlement within the local study area, have been used in this section of the baseline data. According to the 2011 Census, 66.9% of Harthill were within working age. This was made up of:
- 11.6% in part-time employment;
 - 41.6% in full-time employment;
 - 4.9% self employed;
 - 6.4% unemployed;
 - 1.7% employed full time students; and
 - 0.7% unemployed full time students²⁴.

Employment – regional Study Area

- 15.5.11 Nomis Official Labour Market Statistics is a database which provides up to date census data for council areas around the UK, and has been used to determine the baseline for the regional study area.
- 15.5.12 The percentage of the population that were economically active in North Lanarkshire through June 2021 to June 2022 was 69.4%²⁵, which is lower than the Scottish average of 77.1%, and the percentage of people in full time employment was 67.9%, slightly higher than the Scottish average of 66.4%.
- 15.5.13 The employment breakdown within North Lanarkshire by sector between June 2021 and June 2022 is:
- Human Health And Social Work Activities – 14.9%
 - Wholesale And Retail Trade; Repair Of Motor Vehicles And Motorcycles – 14.9%
 - Construction – 11.9%
 - Public Administration And Defence; Compulsory Social Security – 9.7%
 - Manufacturing – 9.0%
 - Transportation And Storage – 9.0%
 - Administrative And Support Service Activities – 7.5%
 - Professional, Scientific And Technical Activities – 4.5%
 - Accommodation And Food Service Activities – 4.5%
 - Education – 3.7%
 - Arts, Entertainment And Recreation – 2.6%
 - Information And Communication – 1.9%
 - Other Service Activities – 1.9%
 - Water Supply; Sewerage, Waste Management And Remediation Activities – 1.5%
 - Electricity, Gas, Steam And Air Conditioning Supply – 0.9%
 - Real Estate Activities – 0.7%
 - Financial And Insurance Activities – 0.7%
 - Mining And Quarrying – 0.1%

²³ National Records for Scotland (2022) The Registrar General's Annual Review of Demographic Trends [Online] Available at: <https://www.nrscotland.gov.uk/files/statistics/rqar/2021/scotlands-population-2021.pdf> (Accessed 09/01/2023)

²⁴ Scotland Census (2011) [Online] Available at: <https://www.scotlandscensus.gov.uk/search-the-census#/explore/snapshot> (Accessed 09/01/2023)

²⁵ Nomis Official Labour Market Statistics – Labour Market Profile North Lanarkshire (2022) [Online] Available at: <https://www.nomisweb.co.uk/reports/lmp/la/1946157426/report.aspx?c1=1946157436&c2=2013265931> (Accessed 09/01/2023)

15.5.14 In West Lothian, the percentage of the population that were economically active through June 2021 to June 2022 was 75.5%²⁶, which is higher than the Scottish average (74.4%), and the percentage of people in full time employment was 71.4%. The employment breakdown by sector between June 2021 and June 2022 is:

- Wholesale And Retail Trade; Repair Of Motor Vehicles And Motorcycles – 19.5%
- Human Health And Social Work Activities – 10.4%
- Construction – 10.4%
- Manufacturing – 10.4%
- Administrative And Support Service Activities – 7.8%
- Information And Communication – 7.8%
- Education – 7.8%
- Transportation And Storage – 6.5%
- Professional, Scientific And Technical Activities – 5.2%
- Public Administration And Defence; Compulsory Social Security – 4.5%
- Accommodation And Food Service Activities – 4.5%
- Arts, Entertainment And Recreation – 1.6%
- Other Service Activities – 1.2%
- Real Estate Activities – 0.8%
- Financial And Insurance Activities – 0.6%
- Water Supply; Sewerage, Waste Management And Remediation Activities – 0.6%
- Electricity, Gas, Steam And Air Conditioning Supply – 0.1%
- Mining And Quarrying – 0.1%

Renewables and Economic Development

15.5.15 The UK renewables industry plays a central role in the economy by producing, transforming and supplying energy in its various forms to all sectors. Scottish Government statistics released in 2019 show turnover from low carbon and renewable energy in Scotland was over £11.1 billion in 2017²⁷. The renewable energy part of this sector accounts for 49% of Scotland's low carbon turnover. The same statistics estimated that the sector supports 46,500 jobs. Scottish onshore wind projects, which support 8,000 jobs, delivered almost half (45.8%) of the UK's turnover from onshore wind in 2016, the latest year for which figures are available. Scotland's turnover from onshore wind activities totalled £1.5 billion in 2016 and achieving 'world leader' status for renewables in 2017²⁸.

²⁶ Nomis Official Labour Market Statistics – Labour Market Profile West Lothian (2022) [online] Available at: <https://www.nomisweb.co.uk/reports/lmp/la/1946157436/report.aspx?town=WEST%20LOTHIAN> (Accessed 13/01/2023)

²⁷ Scottish Government (2019) Annual Compendium of Scottish Energy Statistics [Online] Available at: <https://www.gov.scot/binaries/content/documents/govscot/publications/progress-report/2019/05/annual-energy-statement-2019/documents/annual-compendium-scottish-energy-statistics/annual-compendium-scottish-energy-statistics/govscot%3Adocument/annual-compendium-scottish-energy-statistics.pdf> (Accessed 09/01/2023)

²⁸ WWF (2017) Scotland a 'World Leader' for renewables in 2017 [Online] <https://www.wwf.org.uk/updates/scotland-world-leader-renewables-2017> (Accessed 09/01/2023)

- 15.5.16 The International Energy Agency (IEA) released statistics following analysis of daily data through mid-April 2020 during the COVID-19 pandemic (published in their Global Energy Review 2020) showing that countries in full lockdown, including the UK, experienced an average 25% decline in energy demand per week²⁹. Due to COVID-19, the requirements for electricity security and resilient energy systems are heightened, with the need for clean energy transitions to be at the centre of development for economic recovery. The same analysis also found that in the European Union (EU) from February 2020 to the first week in July of the same year, renewable energy production was higher than fossil fuel generation.
- 15.5.17 Furthermore, figures from Scottish Renewables show the potential for economic boost provided the Government utilise renewable energy to ensure a green recovery from the COVID-19 pandemic, signifying that renewable development could play a key role in the country's economic recovery, including both employment and large-scale financial investment³⁰.
- 15.5.18 The International Energy Agency also comment that the outbreak of COVID-19, the economy would see a collapse in demand for fossil fuels, meaning electricity will play the biggest role in the global energy system in 2020, erasing a decade's growth of global carbon emissions³¹.
- 15.5.19 Investments in renewables now could speed up the recovery from the economic impacts of COVID-19 at a faster rate; investments starting now can put renewable energy production on track to grow five times faster than current plans would indicate and could see the creation of 5.5 million jobs by 2023 in the industry³².
- 15.5.20 Investment in renewable energy generation in North Lanarkshire and West Lothian is not only helping to meet Council and national climate change targets but it has also delivered economic benefits for the area.
- 15.5.21 The Proposed Development will result in an increase in labour intensive employment in the short-term, an improvement in economic competitiveness and productivity in the longer term, and lastly, will deliver wider benefits contributing to other economic and social outcomes, both nationally and locally. The construction phase of the Proposed Development will deliver jobs in the short term and the operational costs are lower than other forms of electricity generation (for which fuel has to be purchased) which will help to improve the national and local economy as well as providing environmental benefits including, the decarbonising of the economy.

²⁹ The International Energy Agency (2019) COVID-19 [Online] Available at: <https://www.iea.org/topics/covid-19> (Accessed 09/01/2023)

³⁰ Scottish Renewables (2020) RENEWABLE ENERGY RESEARCH SHOWS GREEN COVID-19 RECOVERY JOBS AND INVESTMENT BOOST Available at <https://www.scottishrenewables.com/news/648-renewable-energy-research-shows-green-covid-19-recovery-jobs-and-investment-boost> (Accessed 09/01/2023)

³¹ The Guardian (2020) Covid-19 crisis will wipe out demand for fossil fuels, says IEA [Online] Available at: <https://www.theguardian.com/business/2020/apr/30/covid-19-crisis-demand-fossil-fuels-iea-renewable-electricity> (Accessed 11/01/2023)

³² IRENA (2020) The Post-Covid Recovery: an agenda for resilience, development and equality [Online] Available at: https://www.irena.org/-/media/Files/IRENA/Agency/Publication/2020/Jun/IRENA_Post-COVID_Recovery_2020.pdf (Accessed 11/01/2023)

Land Use

- 15.5.22 The entirety of the Site lies within the NLC administrative area and is located on the edge of an area of plateau moorland and settled farmland which lies to the north of the M8 transport corridor, between Edinburgh and Glasgow. The land within the Site which contains the turbines, associated infrastructure and proposed recreational paths covers an area of 106.2 ha.
- 15.5.23 The Proposed Development is situated in an area which is predominantly used for agricultural purposes, specifically sheep farming. The immediate locality of the Proposed Development is rural and commercial forestry, although there are a number of small towns within the local area including Blackridge and Harthill.
- 15.5.24 The land cover on the Site consists of improved and semi-improved grassland, with some areas of coniferous plantation. There are stretches of degraded hedgerow, hedgerow trees and post and wire fences demarcating field boundaries. The lower topography to the south and southeast of the Site is dominated by coniferous woodland with smaller areas of neutral grassland to the south-east near Netherton Farm.
- 15.5.25 The Site is adjacent to the original Torrance Wind Park and Torrance Extension, and occupies undulating farmland and a commercial forestry area in the south, rising between approximately 175 to 200 m Above Ordnance Datum (AOD). The existing on-site farming and forestry operations will continue throughout the construction and operation of the Proposed Development.
- 15.5.26 There is one public road located within the Site, the B718 (named Westcraigs Road), which runs north to south in the east of the Site. The road is accessed off the B7066 from the village of Harthill (NGR 290633, 644389) and off the A89 from the Village of Blackridge (NGR 289881, 667118). The site is accessed primarily from the M8 which is immediately to the south of the Site.
- 15.5.27 There is one residential property located on Site; Netherton Farm. The settlements of Harthill, Eastfield and Blackridge are all within 1 km of the Site Boundary.
- 15.5.28 There are two Core Paths directly adjacent to the north of the Site; NL/212/1 and NL/213/1. The recreational paths which forms part of this application will utilise a disused railway to eventually connect the Site to NL/213/1. It should be noted however that one of the proposed recreational paths only extends to the boundary between North Lanarkshire Council and West Lothian Council. It is anticipated that a separate planning application will be submitted to WLC to complete the link between the proposed recreational path and Core Path NL/213/1. This will provide Harthill with a further recreational route which links to the village of Blackridge to the north.

Recreation and Tourism

Recreational and Tourism Receptors

- 15.5.29 Tourism is a key element in the socio-economic, environmental, and cultural welfare of Scotland. In 2019, prior to the Covid-19 global pandemic, around 17.5 million overnight trips were taken in Scotland (UK and international visitors) for which visitor expenditure totalled around £5.9 billion³³. These figures represent substantial increases on 2018 figures; in 2018, around 15.5 million overnight trips were taken in Scotland, for which visitor expenditure totalled around £5.1 billion³⁴.
- 15.5.30 The most popular activities undertaken by visitors were to go for a meal (5.3 million), go for a drink (3.5 million) and visit family (3 million); whilst equivalent local data is not available, it is considered that broadly similar reasons for visiting the local area will apply. A survey done in 2016 found that in Scotland as a whole, the top reason for visiting were the scenery and landscape (50% of visits) and the history and culture (33%)³⁵; these could also be similar reasons for visiting the local area too.
- 15.5.31 Prior to the Covid-19 global pandemic, North Lanarkshire's tourism sector was seen to be growing with improved opportunities, attractions and events. In 2019, prior to the pandemic, the sector was worth £215.20 million to the North Lanarkshire economy, employed over 3000 people, and attracted 1.82 million visitors to the area. The pandemic significantly impacted the local tourism industry, as seen in that statistics from 2020 indicate these levels dropped to a value of £61.10 million, 1,117 employed and 505,150 visitors³⁶. The 2021 Plan for North Lanarkshire showed that, for sustainable tourism employment, Gross Value Added (GVA) per head is £16,052 compared to a Scotland average of £19,314³⁷.
- 15.5.32 There are already a number of operational and consented wind farms within this area. There are no formally recognised tourist attractions within the Primary Study Area.
- 15.5.33 The formally recognised tourist attractions and activities within the Secondary Study Area is included within Table 15.5 below. Where receptors are considered to be of local importance, they are described below.

³³ VisitScotland (2020) Key Facts on Tourism in Scotland 2019 [Online] Available at: <https://www.visitscotland.org/binaries/content/assets/dot-org/pdf/research-papers-2/key-facts-on-tourism-in-scotland-2019.pdf> (Accessed 10/01/2023)

³⁴ VisitScotland (2019) Key Facts on Tourism in Scotland 2018 [Online] Available at: <https://www.visitscotland.org/binaries/content/assets/dot-org/pdf/research-papers-2/key-facts-on-tourism-in-scotland-2018-v2.pdf> (Accessed 10/01/2023)

³⁵ Visit Scotland, (2016), Scotland Visitor Survey, [Online], Available at: <https://www.visitscotland.org/binaries/content/assets/dot-org/pdf/research-papers/motivations-to-visit-2015-16.pdf> (Accessed 10/01/2023)

³⁶ North Lanarkshire Council (2022) Tourism Strategy and Action Plan 2022-2026 [Online] Available at: https://www.northlanarkshire.gov.uk/sites/default/files/2022-03/CC_2021_00258%20tourism%20strategy%20DIGITAL%20ACCESSIBLE.pdf (Accessed 10/01/2023)

³⁷ North Lanarkshire Council (2021) The Plan for North Lanarkshire [Online] Available at: <https://www.northlanarkshire.gov.uk/sites/default/files/2020-10/The%20Plan%20for%20NLC%20v.3%20accessible.pdf> (Accessed 10/01/2023)

Table 15.5: Recreational Activities and Tourist Attractions within Study Areas

Recreational / Tourist Receptor	Approximate Distance from nearest turbine location	Primary or Secondary Study Area
Polkemmet Country Park (and Scottish Owl Centre)	1.6 km (SE)	Secondary
Forrestburn Hillclimb	3.1 km (W)	Secondary
Blawhorn Moss National Nature Reserve	3.2 km (N)	Secondary
Shotts Golf Club	3.9 km (SW)	Secondary
Drumtassie Fishery	4.9 km (N)	Secondary
Airdrie and District Angling Club	5.3 km (NW)	Secondary

Local Accommodation

- 15.5.34 There are a number of settlements near to the Site which offer a range of accommodation; the nearest settlement offering accommodation is Harthill. Table 15.6 presents local accommodation options close to the Site; this information has been gathered through a search of available online information, and it is acknowledged that there may be additional accommodation available. All accommodation outlined are located within the Secondary Study Area.

Table 15.6: Local Accommodation within Secondary Study Area

Accommodation Name	Address	Approximate Distance from nearest turbine location
The Royal Bar	26 - 28 West Main Street, Harthill ML7 5QD	0.8 km (SE)
Blairmans Guest House	Blairmains, Harthill ML7 5TJ	2.5 km (W)
Tarrareoch Farm B&B	Bathgate EH48 3BJ	3.8 km (NW)
Highlander Hotel	8 South Street, Bathgate EH48 3ER	4.2 km (NE)
Best Western the Hilcroft Hotel	East Main Street, West Lothian EH47 0JU	4.7 km (E)
Station Hotel	92 Station Road, Shotts ML7 4BJ	5.1 km (SW)

Recreational Routes, Including Core Paths

- 15.5.35 There are approximately 17 recognised recreational routes, paths, and trails located within the Primary and Secondary Study Areas, including the National Cycle Network and Core Paths. These routes are detailed in full within Table 15.7 below, although it is acknowledged that public access may not be limited to such formally recognised routes, particularly under consideration of the Land Reform Act (Scotland) 2003³⁸ (Updated 2016³⁹).

³⁸ Legislation - Land Reform (Scotland) Act 2003 [online] Available at: <https://www.legislation.gov.uk/asp/2003/2> (Accessed 10/01/2023)

³⁹ Legislation - Land Reform (Scotland) Act 2016 [online] Available at: <https://www.legislation.gov.uk/asp/2016/18/contents> (Accessed 10/01/2023)

- 15.5.36 The National Cycle Network Route 75 is a 157.9 km route, that links Edinburgh, Glasgow and Portavadie on the Cowal peninsula⁴⁰. It mostly travels along old railways and canal towpaths. The National Cycle Network Route 75 is located approximately 470 m northeast of the Site at its closest point. As part of Scotland’s National Cycle Network, the route is of national importance; however, due to the route’s length, there are extensive sections of the route which are not within close proximity to the Proposed Development.
- 15.5.37 Core Paths are key routes designated by local authorities that make up part of the wider path network in order to provide public access throughout the areas. There are no Core Paths within the Primary Study Area but there are 16 Core Paths within the Secondary Study Area, as designated by the Council and WLC. The nearest Core Path is Route NL/212/1, approximately 260 m northwest of the nearest turbine (T3) and directly adjacent to the north of the Site boundary.
- 15.5.38 There are no further formally recognised Public Rights of Way (PRoW) in the Primary or Secondary Study Areas; however, it is acknowledged that public access may not be limited to such formally recognised routes, particularly under consideration of the Land Reform Act (Scotland) 2003⁴¹ which allows general access rights over any property.
- 15.5.39 A full list of the ‘wider network’ routes and Core Paths within the Study Areas is provided in Table 15.7 below. The assessment provided in the Effects on Recreation and Tourism section of Section 15.6 therefore consider the identified Core Paths as low sensitivity, due to their local importance.

Table 15.7: Identified Routes within Secondary Study Area

Route Name	Approximate Distance from Nearest Turbine	Type of Route
NL/212/1	0.3 km	Core Path
NL/213/1	0.7 km	Core Path
NL/215/1	0.9 km	Core Path
NL/216/1	0.9 km	Core Path
NL/214/1	1.1 km	Core Path
NL/261/1	2.8 km	Core Path
NL/211/1	3.1 km	Core Path
NL/260/1	3.1 km	Core Path
NL/162/1	3.2 km	Core Path
WL/1	3.2 km	Core Path
NL/256/1	4.9 km	Core Path
NL/259/1	4.9 km	Core Path
NL/258/1	5.0 km	Core Path
NL/257/1	5.2 km	Core Path
NL/205/1	5.3 km	Core Path

⁴⁰ Alltrails (2022) NCN National Route 75: Leith to Gourock [online] Available at: <https://www.alltrails.com/trail/scotland/edinburgh/ncn-national-route-75-leith-to-gourock> (Accessed 12/01/2023)

⁴¹ Scottish Government (2003) Land Reform (Scotland) Act 2003 [Online] Available at: <https://www.legislation.gov.uk/asp/2003/2/contents> (Accessed 10/01/2023)

Route Name	Approximate Distance from Nearest Turbine	Type of Route
NL/220/1	5.4 km	Core Path
National Cycle Network Route 75	0.9 km	National Cycle Network

Public Attitudes towards Wind Farm Development

- 15.5.40 The potential for impact on tourism is closely linked to public perception of those visiting the area. This Section provides an overview of studies undertaken to assess public perception of wind farm development across the UK.
- 15.5.41 In 2011, as part of their policy update, VisitScotland commissioned research to learn more about UK consumer attitudes to wind farms. The survey was largely attitudinal based and according to the results, wind farms do not have any significant impacts on the levels of tourism. This finding is supported by the example of Whitelee Wind Farm Visitor Centre which attracted over 120,000 visitors in the first 12 months of opening in 2009. This could be interpreted as an example of onshore wind increasing tourism and recreational amenities however, it is acknowledged this is a site-specific case.
- 15.5.42 Based on this research, VisitScotland published a Position Statement⁴² in 2014 which stated:

"VisitScotland understands and supports the drive for renewable energy and recognises the economic potential of Scotland's vast resource, including the opportunities for wind farm development... There is a mutually supportive relationship between renewable energy developments and sustainable tourism."

⁴² VisitScotland (2014) VisitScotland Position Statement – Wind Farm [Online] Available at: <https://www.visitscotland.org/binaries/content/assets/dot-org/pdf/policies/visitscotland-position-statement---wind-farms---oct-2014.pdf> (Accessed 13/01/2023)

- 15.5.43 A Department for Business, Energy and Industrial Strategy (BEIS)⁴³ survey on public attitudes showed that in Autumn 2021, 87% of the British public said they supported using renewable energy, which had increased from 80% the previous year⁴⁴ (September 2020). The Public Attitudes Tracker showed 80% of people support the development of onshore wind, which is an increase from the level observed in September 2020 (73%). The advance in onshore wind development in Scotland has also been accompanied by an interest in understanding how the impacts of wind farm developments affect local house prices. In recent years, there has been considerable research looking at measurable effects on whether or not properties near, or in sight of, new wind farm developments see price changes that differ from other houses. A topical study conducted by RenewableUK and the Centre for Economics and Business Research concluded that no adverse impacts were found on house prices from a range of wind farm cases across England and Wales and that there was, in fact, a slight beneficial influence on house prices from the cases analysed⁴⁵.
- 15.5.44 Shortly after that study was published, an analysis conducted by Gibbons identified that larger wind farms may reduce the values of properties by up to 12% within a 2 km radius and reduce property prices as far as 14 km away⁴⁶. Subsequently, ClimateXChange did a parallel study based on Scottish property and following Gibbons' approach, but with an increased resolution and precision of the data⁴⁷. This study, undertaken in 2016, concludes that there is no consistent evidence of adverse impacts of wind developments on house price growth and that research sample sizes tend to be too low to be statistically viable and conclude robust results.
- 15.5.45 The BiGGAR Economics report⁴⁸ undertook a case study analysis, as an update to their 2016 report⁴⁹, focusing again on the relationship between wind farm development and the tourism industry in Scotland, focussing on the decade of 2009 to 2019. Given that commercial scale wind farms were first established in Scotland in the mid-1990s, it is considered that if there is any evidence of a detriment to the tourism industry, it would be apparent by this time.

⁴³ Department for Business, Energy and Industrial Strategy (2021) BEIS Public Attitudes Tracker (Autumn 2021, UK) [online] Available at:

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1040725/BEIS_PAT_Autumn_2021_Energy_Infrastructure_and_Energy_Sources.pdf (Accessed 13/01/2023)

⁴⁴ Department for Business, Energy and Industrial Strategy (2020) BEIS Public Attitudes Track (September 2020, Wave 35, UK) [online] Available at:

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/934647/BEIS_PAT_W35_-_Key_findings.pdf (Accessed 13/01/2023)

⁴⁵ RenewableUK (2014) The Effect of Wind Farms on House Prices [Online] Available at:

<https://www.renewableuk.com/news/304411/RenewableUK--Cebr-Study---The-effect-of-wind-farms-on-house-prices.htm> (Accessed 13/01/2023)

⁴⁶ Stephen Gibbons (2015) Gone with the Wind: Valuing the Visual Impacts of Wind Turbines through House Prices. *Journal of Environmental Economics and Management* 72, doi: 10.1016/j.jeem.2015.04.006.

⁴⁷ Heblich *et al.*, (2016) Impact of wind turbines on house prices in Scotland [Online] Available at:

https://www.climatechange.org.uk/media/1359/cxc_wind_farms_impact_on_house_prices_final_17_oct_2016.pdf (Accessed 13/01/2023)

⁴⁸ BiGGAR Economics (2021) Wind Farms & Tourism Trends in Scotland: Evidence from 44 Wind Farms [Online] Available at: <https://biggareconomics.co.uk/wp-content/uploads/2021/11/BiGGAR-Economics-Wind-Farms-and-Tourism-2021.pdf> (Accessed 13/01/2023)

⁴⁹ BiGGAR Economics (2017) Wind Farm and Tourism Trends in Scotland [Online] Available at:

<https://biggareconomics.co.uk/wp-content/uploads/2020/01/Wind-farms-and-tourism-trends-in-Scotland.pdf> (Accessed 13/01/2023)

- 15.5.46 Scotland has seen a significant increase in onshore wind energy development in the decade between 2009 and 2019; the number of turbines increased by 349% from 1,082 to 3,772 and the installed capacity increased from 1.9 GW to 8.0 GW. This decade also saw a 20% increase in employment in tourism-related sectors, suggesting the Scottish tourism sector was not detrimentally impacted by the development of onshore wind.
- 15.5.47 The analysis investigated trends in tourism employment in the areas surrounding wind farm developments using 44 case studies of onshore wind projects in Scotland, including one within WLC. The study assessed the possibility of effects both across local authority's areas as well as within the locality of the wind farm sites, to identify whether effects were felt at a local and regional scale.
- 15.5.48 Analysis of the rates of change in number of onshore turbines and in tourism related employment in local authority areas found that there is no correlation between the two factors; contrarily, it found that areas with the largest increase in onshore wind had also seen a similar if not improved increase to its tourism economy compared to other areas in Scotland.
- 15.5.49 The second stage looked at how tourism employment in the areas more in the vicinity of the wind farm compared to the wider local authority area. This analysis found no negative relationship between the development of onshore wind and local tourism related employment. Additionally, it found that in the majority of cases between 2015 and 2019, tourism employment in the locality outperformed that growth compared to the wider local authority area.
- 15.5.50 Overall, using the 44 case studies as a considerable evidence base, the analysis identified no negative relationship between the development of onshore wind and the tourism sector in Scotland in the decade of 2009 to 2019.

15.6 Assessment of Potential Effects

Effects on Socio-Economics

- 15.6.1 The investment in the Proposed Development has potential to generate a range of economic and social effects and opportunities for local businesses, most notably employment opportunities and local spending. Potential social and economic effects can be divided into:
- Wider effects, which are largely unquantifiable: including effects in the wider economy from renewable energy development, such as research and development, skills development and worker retention.
 - Direct effects: for example, employment opportunities in the construction, operation and maintenance and decommissioning of the Proposed Development. The nature and scale of the economic effects would depend on the total cost and the sources of the materials and labour. Other direct effects include a community investment scheme; the payment of non-domestic rates; and rental income received by the landowner.
 - Indirect effects: such as employment opportunities created down the supply chain by those companies' providing services to the Proposed Development during construction, operation and decommissioning.
 - Induced effects: for instance, employment created by the additional spend of wages into the local economy and the purchasing of basic materials, equipment and office space for staff.

- 15.6.2 The direct, indirect and induced effects are assessed below for each phase of the Proposed Development. This follows a more general assessment of wider benefits.

Wider Economic Benefits

- 15.6.3 In terms of potential supply chain benefits, the Proposed Development provides opportunities for the involvement of local, regional and Scottish suppliers in a range of activities, including research and development, design, project management, civil engineering, component fabrication / manufacture, installation and maintenance. There is expertise in all of these areas in the wider region, although a full wind energy supply chain covering all aspects of wind turbine component manufacture has not yet been developed within the region or indeed within Scotland as a whole. Scotland currently houses wind turbine manufacturing plants in the Highlands. Proposals are also emerging for the location and development of wind turbine manufacturing facilities, including those in and around the east coast, although these are currently primarily for offshore machines.

- 15.6.4 The key consideration in this context is that with an increasing number of wind farm schemes either operational, under development or having gained consent in Scotland, the commercial viability, and job prospects amongst Scottish firms, has improved. Cluster benefits in the industry increase where firms are supported by the spending of other firms within the renewables sector. The net effect is to increase business and employment opportunities within Scotland's renewable energy sector, boosting the performance of local and national economies.

- 15.6.5 In addition, during the construction process there will be opportunities where those employed will develop skills that will be of benefit to the local economy and to local businesses in the longer term. Further, employment generated through the Proposed Development will contribute to diversifying the local economy and help support the retention in the area of the working age population.

Construction Effects

- 15.6.6 During the construction process there will be opportunities where those employed will develop skills that will be of benefit to the local economy and to local businesses in the longer term. Further, employment generated through the Development will contribute to diversifying the local economy and help support the retention in the area of the working age population.

Employment

- 15.6.7 To construct the Proposed Development, GreenGrid Power3 Ltd (the Applicant) will require contractors to give local companies due consideration for the provision of goods and services. If the Development is granted consent, the range of services that may be required to construct the Development include: Among the services that local contractors may be able to provide during the construction phase:

- Haulage and transport services;
- Site clearance;
- Access road, turbine platform construction and other civil engineering services;
- Site and ground investigation services;

- Building construction, electrical, plumbing, roofing, flooring, plastering, decorating and joinery services;
 - Crane companies to provide lifting services;
 - Plant and equipment hire;
 - Fencing, road furniture and signage installation;
 - Supply of building and electrical materials (e.g. aggregates, concrete, cabling, equipment, culvert tubes etc.);
 - Mechanical, electrical, project management and supervisory services;
 - Provision and servicing of temporary welfare facilities; and
 - Supply of fuel and other consumables.
- 15.6.8 As per Policy 11c⁵⁰ of NPF4, the Applicant aims to maximise local and community socio-economic benefits where possible. Local sourcing of equipment is preferred whenever possible, although this procurement will be subject to tendering and may be constrained by the specialist nature of some of the equipment. Local contractors will be encouraged to tender for construction, operation and maintenance work, wherever possible, to ensure maximum benefit to local communities.
- 15.6.9 It is anticipated that a temporary workforce peaking at 60 people will be employed during the 12-month construction period. Calculated by 'job years', one individual working for 12 months would result in 1 job year; therefore, 60 individuals working during the 12-month construction period represents 60 job years.
- 15.6.10 There would also be knock on effects from the direct employment during the construction and development of the Proposed Development as employees spend a proportion of their salaries in the wider economy, creating indirect benefits. Annual research undertaken by the engineering and technology magazine, The Engineer, found in 2019⁵¹ that the average salary for employees in the renewables, energy and nuclear sector was at that time, £51,953, equating to approximately £3.1 million per annum for a workforce of 60 people.
- 15.6.11 Overall, the construction of the Proposed Development will have positive, short-term, direct and indirect effects on the area, through the increase in employment. This will not result in any fundamental or long-term change to population, local services, employment or overall structure of the community, but will represent a minor positive effect at a local level. This is considered **not significant** in terms of the EIA regulations.

⁵⁰ Scottish Government (2022) National Planning Framework 4 [Online] Available at:

<https://www.gov.scot/publications/national-planning-framework-4/pages/3/> (Accessed 19/02/2023)

⁵¹ Open Access Government (2019) UK salaries in renewable energy sector on the rise [Online] Available at:

<https://www.openaccessgovernment.org/salaries-in-renewable-energy/71653/> (Accessed 13/01/2023)

Induced Effects

- 15.6.12 It is likely that there will be some local employment generated as an indirect result of the construction of the Proposed Development. This could include supply chain spin-offs for local businesses and sub-contracted work relating to the transportation of labour and materials. Local shops, cafes, accommodation providers and hotels often experience an increase in turnover during the construction phase as they have opportunities to provide additional services to the developer and their contractors. There are several accommodation options in the local and wider area, and it is expected that local services will be used by temporary construction contractors.
- 15.6.13 There may also be the opportunity for local people, who are employed by the appointed contractors, to work on the Proposed Development. They would be developing skills gained during construction which will be of benefit to both individuals and the local economy in the longer term. Skills gained or improved may include project management and construction skills which would be transferrable to other construction roles, including other wind farm projects.
- 15.6.14 Following the COVID-19 outbreak, experts have said that the construction sector may act as a catalyst for economic recovery. The Build Back Better: COVID-19 Economic Recovery Plan⁵² features a blueprint for a safe return to construction, and sets out recommendations to help stimulate demand for new housing and essential infrastructure emerging from government investment while delivering income to HMRC through training of a new generation of skilled workers post COVID-19. Additionally, Scottish Renewables have emphasized the key role that renewable development could play in the post COVID-19 economic recovery, including both employment and large-scale financial investment⁵³.
- 15.6.15 Overall, the construction of the Proposed Development will have positive, short-term, induced effects on the area, through the increase in employment. This will not result in any fundamental or long-term change to population, local services, employment or overall structure of the community, but will represent a minor positive effect on the economy at a local level. This is considered **not significant** in terms of the EIA Regulations.

Capital Expenditure

- 15.6.16 Based on the BiGGAR Economics report commissioned by RenewableUK⁵⁴, onshore wind Capital Expenditure (CAPEX) is £1.32 million per MW on average. This includes the following elements:
- Turbine: Tower; Blades; and Nacelle;
 - Balance of Plant: Civil and Project Management; Roads; Substation; Buildings; Turbine foundation and hardstanding; Landscaping/forestry/fencing; Mechanical and electrical installation; and

⁵² Birmingham City University (2020) Build Back Better: Covid-19 Economic Recovery Plan [Online] Available at: <https://scottishconstructionnow.com/uploads/documents/Build%20Back%20Better%20-%20a%20Covid-19%20economic%20recovery%20plan%20FINAL.docx.pdf> (Accessed 13/01/2023)

⁵³ Scottish Construction Now (June 2020) Scottish Renewables energy research shows green COVID-19 recovery jobs and investment boost [online] Available at: <https://www.scottishconstructionnow.com/article/scottish-renewables-energy-research-shows-green-covid-19-recovery-jobs-and-investment-boost> (Accessed 13/01/2023)

⁵⁴ RenewableUK (2015) Onshore Wind: Economic Impacts in 2014 [Online] Available at: https://cdn.ymaws.com/www.renewableuk.com/resource/resmgr/publications/reports/onshore_economic_benefits_re.pdf (Accessed 14/10/2021)

- Grid Connection: Engineering services; Construction; Electrical Components; and industrial equipment and machinery.
- 15.6.17 On the basis that the Proposed Development has a capacity of 26.4 MW, the total CAPEX of the Proposed Development would be expected to be approximately £34.8 million.
- 15.6.18 The RenewableUK report estimates that, of these construction costs, regional expenditure would be 12% (in this case North Lanarkshire and West Lothian); national expenditure would be 36% (Scotland); and UK expenditure would be 47%. The remaining 53% of construction costs will be spent outwith the UK.
- 15.6.19 On this basis, it is estimated that, during the construction phase, the Proposed Development (assuming a 26.4 MW scheme) will be worth approximately £16.4 million to the UK economy. Of that approximately £5.9 million is expected to be spent within Scotland (national) and £2.0 million is expected to be spent within North Lanarkshire and West Lothian (regional).
- 15.6.20 The Proposed Development will bring positive, short-term, direct, indirect and induced effects to the national and regional area, through the expenditure on capital costs.
- 15.6.21 The change will be of low magnitude at the regional level (medium sensitivity) and negligible at a national level (high sensitivity). Therefore, minor, positive effects are anticipated at a regional and national level, which is considered **not significant** in terms of the EIA Regulations.

Operational Effects

Employment

- 15.6.22 The Proposed Development will have both direct and indirect effects on employment during operation. The Proposed Development will be regularly maintained by a specialist maintenance team. Employees are likely to include a part-time maintenance engineer (local site operator) and a small number of staff to occasionally service the turbines. Induced effects will include local spending by the Applicant and maintenance contractors.
- 15.6.23 Overall, the operation of the Proposed Development will bring long-term, beneficial, direct, indirect and induced effects to the area, through the increase in employment and business opportunities. This will not result in any fundamental or long-term change to population, local services, employment or overall structure of the community, but effects will be of low magnitude at the local level (of low sensitivity). Employment effects arising from the operational phase are of negligible, positive significance, but this is considered to be **not significant** in terms of the EIA Regulations. However, the Proposed Development will contribute to employment in Scotland.

Operational Expenditure

- 15.6.24 In the 2015 RenewableUK report⁵⁵ on the economic benefits of the UK onshore wind industry, the average cost of an onshore wind farm was £59,867 per MW installed per annum. This includes:
- Turbine Maintenance;
 - Site Maintenance;
 - Operational Management;
 - Land Agreements;
 - Habitat Management costs;
 - Non-domestic rates (business rates);
 - Community Investment and Ownership Scheme; and
 - Other.
- 15.6.25 For the Proposed Development, annual Operational Expenditure (OPEX) is expected to be in the region of £1.6 million per annum (based on a capacity of 26.4 MW). Of this total spend, the report estimates 42% will be spent in the local area, which would include business rates and land agreements with the local landowner, as well as a proportion of the maintenance costs. 87% of the total operation and maintenance expenditure will likely be within the UK.
- 15.6.26 The OPEX for the Proposed Development is not substantial in magnitude in comparison to the annual gross domestic product (GDP) of North Lanarkshire or the value of the renewable industry in Scotland, with the majority of the expenditure taking place at the local, regional or national level. This is considered to be a negligible effect, and **not significant** in terms of the EIA Regulations.

Community Investment

- 15.6.27 The Scottish Government has emphasised the importance of communities benefitting from renewable energy generation, including through community benefit funds and shared ownership schemes as outlined in the Scottish Energy Strategy⁵⁶. The Scottish Government has set targets for community investment in onshore wind to achieve a lasting legacy for communities.
- 15.6.28 The Proposed Development will contribute £5,000 per MW installed capacity to a Community Benefit Fund. Based on an assumed installed capacity of 26.4 MW, this will result in an annual value of approximately £132,000 per year. With a 40-year operational period, this will provide approximately £5.28 million in community benefit.
- 15.6.29 Although not a material consideration for the planning process, the Community Benefit Fund represents a change of medium magnitude for the local community. This is considered a minor, positive long-term, and direct effect and, **not significant** in terms of the EIA Regulations.

⁵⁵ RenewableUK (2015) Onshore Wind: Economic Impacts in 2014 [Online] Available at: https://cdn.ymaws.com/www.renewableuk.com/resource/resmgr/publications/reports/onshore_economic_benefits_re.pdf (Accessed 13/01/2023)

⁵⁶ Scottish Government (2017) Scottish Energy Strategy: The future of energy in Scotland [Online] Available at: <https://www.gov.scot/publications/scottish-energy-strategy-future-energy-scotland-9781788515276/> (Accessed 13/01/2023)

Decommissioning Effects

- 15.6.30 Socio-economic effects during the decommissioning phase are anticipated to be of a similar nature and scale as construction effects thereby representing a minor short-term, positive effect at local level, which is considered not significant in terms of the EIA Regulations.

Effects on Land Use

- 15.6.31 As detailed in the Land Use section of Section 15.5, there are multiple existing land uses operating on Site, including forestry and farming. Outwith these uses, the Site consists of plateau moorland, forestry and settled farmland.
- 15.6.32 The Site covers an area of approximately 106.2 ha. However, the total infrastructure footprint is substantially less. The total new land take of the Proposed Development, consisting of the turbine infrastructure (wind turbine foundations, crane hardstandings, access tracks, recreational paths, construction compound, substation equates to approximately 5.2 ha. This equates to approximately 4.9% of the total land in the Site. Following construction and restoration the temporary construction compound will be removed and the land reinstated, therefore the footprint of the Proposed Development infrastructure on the surface of the ground during operation will be approximately 4.6 ha. This equates to approximately 4.1% of the total land in the Site.
- 15.6.33 As part of the Proposed Development, additional recreational paths will be incorporated into the layout of the wind farm. These new recreational paths are intended to provide all users the option of different circular routes, of varying lengths, around the site. Furthermore, an additional recreational path is proposed from the wind farm site to the existing Core Path NL/2013/1, located approximately 0.7 km to the north. By creating this recreational path local residents will provide greater access between villages of Harthill and Blackridge. As part of the Proposed Development, this recreational path only extends to the boundary between North Lanarkshire Council and West Lothian Council. It is anticipated that a separate planning application will be submitted to WLC to complete the link between the proposed recreational path and Core Path NL/213/1. Policy 11e of the NPF4 details that project design should consider impacts on public access, including impact on long distance walking and cycling routes and scenic routes. In consideration of the proposed recreational path, The Proposed Development design has positive impacts on improved public access, to core path networks to the north of the Site, as well as the National Cycling Route.

Construction Effects

- 15.6.34 The Site is currently predominantly plateau moorland, forestry and settled farmland. Activities may be temporarily affected during the construction phase of the Proposed Development. The Applicant will work with stakeholders to ensure they are able, wherever possible, to continue to operate their activities safely during the construction phase. Access to the residential property within the Site, Netherton Farm, will not be affected during any stage of the Proposed Development.
- 15.6.35 As such, construction effects will be limited and temporary in nature, the magnitude of change is considered to be low.

- 15.6.36 Effects on land use arising from the construction phase is therefore considered to be of Minor significance, which is **not significant** in terms of the EIA Regulations.

Operational Effects

- 15.6.37 The operational phase of the Proposed Development will result in a loss of land which would otherwise continue to be an area of plateau moorland and settled farmland with one financially involved residential property. From the total area within the Site of 106.2 ha, as noted above it is anticipated that the overall land-take as a result of the Proposed Development will be 4.6 ha following post-construction restoration, equating to around 4.1% of the land within the Site.
- 15.6.38 The Proposed Development is partially located within commercial forestry plantation and the construction period will involve the felling of 6.65 ha of forestry within the Site described in **Chapter 8 - Forestry**.
- 15.6.39 In order to comply with the criteria of the Scottish Government's Control of Woodland Removal Policy, compensatory planting would be required. The Applicant is committed to providing appropriate compensatory planting.
- 15.6.40 The existing land uses operating on Site will continue through the operational phase and will be unaffected by the Proposed Development.
- 15.6.41 The change to land use is therefore considered to be of low magnitude, with a small percentage of the land on Site being altered to a wind farm development. The land-take on a medium sensitivity receptor is a long-term, Minor effect on land-use, which is considered to be **not significant** in terms of the EIA Regulations.
- 15.6.42 As stated throughout this Section, the effects of the operational phase of the Proposed Development will not have a significant effect on land-use receptors in accordance with the EIA Regulations.

Decommissioning Effects

- 15.6.43 The operational lifespan of the Proposed Development will be 40 years. Following this, an application may be submitted to retain or replace the turbines, or they could be decommissioned. It is anticipated that there will be no additional land-use effects associated with the decommissioning of the Proposed Development.
- 15.6.44 Disruption to land-use during decommissioning will be similar to that during construction. It is expected that decommissioning will take up to 8 months to complete and will involve the reinstatement of the turbine foundations and associated hardstanding and demolition and removal of control building and compound. The land will be restored with topsoil. This will reduce the permanent land-take for the Proposed Development. There will be minimal permanent land take following decommissioning, largely consisting of the access tracks should the landowner wish to retain these, and presents a negligible effect on land use, which is considered to be not significant in terms of the EIA Regulations. Prior to decommissioning works being undertaken, a comprehensive restoration plan setting out the specific methods of reinstatement will be agreed with the Council.

- 15.6.45 The land-use is a medium sensitivity receptor and the magnitude of effect is expected to be low.
- 15.6.46 As stated throughout this Section, the effects of the Proposed Development will not have a significant effect on land-use receptors in accordance with the EIA Regulations.

Effects on Recreation and Tourism

- 15.6.47 Potential effects on the tourism and recreational resource are categorised as:
- Direct physical effects: for example, temporary diversion of recreational routes during the construction period; and
 - Indirect effects: such as the changes in amenity at tourists and recreational receptors.

Construction Effects – Recreational Routes within Primary Study Area

- 15.6.48 The Land Reform Act (Scotland) 2003⁵⁷ establishes a statutory right to access most land and inland water for recreational use. However, access to areas where construction is taking place or where there is construction related activities will be temporarily restricted under the Construction (Design and Management) Regulations 2015⁵⁸ for health and safety purposes.
- 15.6.49 Informal routes, utilising the network of forest tracks on-site would be temporarily diverted where construction activities or felling is taking place. Notices will be placed in prominent locations around the Site with details of any areas with restricted access. These measures are expected to apply only to routes where the Proposed Development access tracks are proposed to run.
- 15.6.50 The routes within the Site are not designated Core Paths and therefore are considered to be of local importance rather than regional importance. It is considered therefore that these informal recreational routes within the Site are of low sensitivity. The effects on these walking routes within the Site during construction will be limited to temporary access restrictions and general amenity from the construction site. For those routes on which access tracks for the Proposed Development are proposed, there may be some temporary disruption as a result of construction traffic utilising the routes to access the Site.
- 15.6.51 The magnitude of change would be low, given the construction phase will be temporary and restricted to parts of the Site where construction is taking place, and there is alternative access to the surrounding recreational routes.
- 15.6.52 Therefore, the effect on walking routes within the Site is considered to be a short-term and Negligible effect, which is **not significant** in terms of the EIA regulations.

⁵⁷ Scottish Government (2003) Land Reform (Scotland) Act 2003 [Online] Available at: <https://www.legislation.gov.uk/asp/2003/2/contents> (Accessed 13/01/2023)

⁵⁸ Health and Safety Executive (2015) The Construction (Design and Management) Regulations 2015 [Online] Available at: <http://www.hse.gov.uk/construction/cdm/2015/index.htm> (Accessed 13/01/2023)

Construction Effects – Recreational Routes within Secondary Study Area

15.6.53 The network of recreational routes within the Secondary Study Area contains both designated Core Paths and non-designated routes. Therefore, they are considered to be of Medium to Low sensitivity as they are of regional to local importance. The construction phase will have no direct effects on recreational routes within the Secondary Study Area as they are located outwith the Site. Indirect construction effects on amenity and enjoyment of these routes will be localised, as the construction works will only be detectable to route users for short periods along the routes where there is visibility of the Proposed Development. As the routes are of Medium to Low sensitivity, and the magnitude of change is considered to be negligible, the effects are considered to be short-term and negligible, and therefore **not significant** in terms of the EIA regulations.

15.6.54 The following sections outline the assessment of construction effects associated with the Proposed Development on identified recreational routes and Core Paths – as outlined in the Recreational Routes, Including Core Paths section of Section 15.5 and shown in Figure 15.1.

National Cycle Network Route 75

15.6.55 The National Cycle Network Route 75 is located approximately 460 m northeast of the Site, as illustrated on Figure 15.1.

15.6.56 As detailed in the Recreational Routes, Including Core Paths section of Section 15.5, the route is of medium sensitivity. The effects on the route will be indirect and limited to visual disturbance for the period of construction.

15.6.57 Construction effects on amenity and enjoyment of the route will be localised, as the construction works will only be detectable to route users for short periods along the route. As the cycle route has a medium sensitivity and the magnitude is considered to be low, the effects are considered to be short-term and minor, and therefore **not significant** in terms of the EIA Regulations

Core Paths

15.6.58 As detailed in the Recreational Routes, Including Core Paths section of Section 15.5, and illustrated on Figure 15.1, there are 16 Core Paths within the Secondary Study Area, with two Core Paths located directly adjacent to the north of the Site.

15.6.59 As locally designated paths, and paths of low recreation and tourism value, they are of low sensitivity. The paths nearby the Site will experience views of the construction of the Proposed Development due to the route passing nearby areas of construction activity; however, this construction activity will be short-term.

15.6.60 As a result of a number of Core Paths being nearby to the Site, short-term management measures may be required. Given the temporary short-term nature of the change, and the small section of the route that is affected, magnitude of change is predicted to be medium.

- 15.6.61 As the Core Paths are considered to be of low sensitivity and the magnitude of change is predicted to be medium, construction effects are assessed as minor, short-term and therefore **not significant** in terms of the EIA Regulations.

Construction Effects – Tourism and Recreation Receptors within Primary Study Area

- 15.6.62 There are no tourism and recreation receptors located within the Primary Study Area. Therefore, there will be no effect on Tourism and Recreation Receptors within the Primary Study Area (the Site) which is **not significant** in terms of the EIA regulations.

Construction Effects – Tourism and Recreation Receptors within Secondary Study Area

- 15.6.63 Offsite receptors such as the assets identified in Table 15.5 and the accommodation providers detailed in Table 15.6, are unlikely to be affected by the construction of the Proposed Development. Due to the intervening distance of these receptors from the Site, it is considered that the magnitude of effect would be low, on low sensitivity receptors. Furthermore, as detailed in the Public Attitudes towards Wind Farm Development section of Section 15.5, it is not likely that these receptors would receive reduced visitor numbers as a result of the wind farm. Therefore, this signifies a short-term, negligible effect which is considered to be **not significant** in terms of the EIA regulations.

- 15.6.64 Local shops, cafes, accommodation providers and hotels often experience an increase in turnover during the construction phase as they have opportunities to provide additional services to the developer and their contractors. The Proposed Development will result in a short-term effect at local level, resulting in a minor positive effect, which is, however, **not significant** in terms of the EIA Regulations.

- 15.6.65 As stated throughout this Section, the effects of the construction phase of the Proposed Development are considered to be **not significant** on tourism and recreation receptors in accordance with the EIA Regulations.

Operational Effects

- 15.6.66 Visual effects associated with the Proposed Development may occur at receptor locations, when people are looking towards the Proposed Development and from locations where clear views of the turbines are accessible. The visual effects of the Proposed Development on tourism and recreational resources are assessed in **Chapter 6: Landscape and Visual Impact Assessment** of the EIA Report. It should be noted that there is a distinction between a visual effect and effects on recreational amenity. Effects on recreational amenity are described as effects that would influence the recreational value *e.g.* use or enjoyment of an asset such as a walking route, a hill or other attraction.

Operational Effects – Recreational Routes within Primary Study Area

- 15.6.67 The Site will be accessible to the public at all times of the year as per the Land Reform Act (Scotland) 2003. However, temporary exclusions may be required for onsite routes (e.g. Those informal routes within the Primary Study Area) for health and safety reasons during times where essential maintenance is required and when maintenance vehicles are utilising the route to access the Proposed Development. Where these exclusions are required, clear signage advising of the restrictions will be provided. Such measures are expected only to apply to routes through which Proposed Development access tracks run. This would represent a low magnitude of change on low sensitivity receptors, representing a negative, long-term, Negligible effect which is **not significant** in terms of the EIA Regulations.
- 15.6.68 The operation of the Proposed Development is therefore not expected to alter the features or characteristics of any informal recreational routes within the Primary Study Area. It is expected that the Proposed Development will have no impact on the behaviour of visitors/tourists that use paths within the Study Area during operation. Therefore, the effect assessed is considered to be negligible on a Medium to Low sensitivity receptor, therefore resulting in a Negligible effect which is **not significant** in terms of the EIA Regulations.

Operational Effects – Recreational Routes within Secondary Study Area

- 15.6.69 The identified recreational routes and Core Paths receptors for assessment of operational effects are:
- National Cycle Network Route 75; and
 - Core Paths
- 15.6.70 There will be no direct effects on any of the aforementioned receptors during the operation of the Proposed Development.
- 15.6.71 Surveys of the public's attitudes to wind farms and a case study analysis of 44 wind farms in Scotland provide no clear evidence that the presence of wind farms in an area has an adverse impact on local tourism (see the Public Attitudes towards Wind Farm Development section of Section 15.5 of this Chapter). Access to routes and paths will be unaffected. Tourists using the recreational routes and Core Paths may have a particular sensitivity to visual effects; however as detailed above, the magnitude of change for Tourism and Recreation is expected to be low on a Medium sensitivity receptor. Hence, even where significant visual effects are predicted, this does not necessarily elicit a significant, adverse change to a particular tourism or recreational receptor. The following paragraphs summarise the visual effects, as assessed within **Chapter 6: Landscape and Visual Impact Assessment**.
- 15.6.72 **Chapter 6: Landscape and Visual Impact Assessment** presents an assessment of visual effects potentially experienced from recreational routes and Core paths. The study area used for this was 2 km which includes the following National Cycle Route 75 and Core Paths within the Secondary Study Area;
- National Cycle Network Route 75;
 - Core Path NL/212/1;
 - Core Path NL/213/1;
 - Core Path NL/214/1;
 - Core Path NL/215/1; and
 - Core Path NL/216/1.

- 15.6.73 On the National Cycle Network Route 75; the landscape assessment identifies indirect visual effects that are considered to be a large magnitude of change, reducing to medium with the level of screening within the wider landscape and settlement areas along the route. This represents a significant visual effect to users of the path, due to the proposed Development being readily visible, alongside a large number of wind farm developments within the wider landscape.
- 15.6.74 The visual effect on Core Path NL/212/1 are deemed to be significant. The core path offers clear and open views of the existing Torrance Wind Farm I & II. The core path rises to an elevation of 248m AOD and the nearest turbines T3 and T4 are at 198 and 196m AOD respectively below the core path. When travelling the route from the west, the core path users would approach the Site with partial screening of the turbines by rising land, and then as the route ascends Blairmuckhill Road, the turbines would be viewed in an open landscape. There would be a large magnitude of change arising from the Development along this route within 2 km of the proposed Development, reducing to medium with the level of screening within the wider landscape and settlement areas along the route, and thus the visual effect is deemed to be significant.
- 15.6.75 The landscape chapter assessed the visual effect on Core Path NL/213/1 as being significant during due to a large magnitude of change arising from the proposed Development along this route within 2 km of the proposed Development. The magnitude of change reduces to medium with the level of screening within the wider landscape and settlement areas along the route. The proximity of the core path means the recreational receptors along this route will feel part of the wind farm as they travel south from Blackridge to Blairmuckhill Road. When travelling the route from the north, the core path users would approach the Site with partial screening of the turbines by local woodland cover in proximity to the route, along the southern boundary of Blackridge, but the open section of the route affords views to the south and south west.
- 15.6.76 Core Path NL/214/1 has been assessed as having significant visual effects as a result of the proposed Development due to a medium to large magnitude of change arising from the Development along this route within 2 km of the proposed Development, reducing to medium with the level of screening within the wider landscape and settlement areas along the route. When travelling the route in a southerly direction, the land rises, and the proposed Development is behind the core path user. When travelling north, towards Harthill, the proposed Development would be viewed beyond Harthill and the M8 corridor with a large number of wind farm developments also visible.

- 15.6.77 Visual effects on Core Path NL/215/1 have been assessed as being significant, with a large magnitude of change arising from the proposed Development along this route within 1.5 km of the proposed Development. The core path offers clear and open views of the existing Torrance Wind Farm I & II in the north, and also the West Benhar Wind Farm (in construction), but views are restricted in areas of commercial forestry south of Eastfield. When travelling the route in a southerly direction, the land rises, and the proposed Development is behind the core path user. When travelling north, towards Eastfield, the proposed Development would be viewed beyond Eastfield and Harthill and the M8 corridor and in the context of a number of operational turbines in the local landscape.
- 15.6.78 Core Path NL/216/1 is a route on a narrow tarmac path west of Eastfield. The Proposed Development would be viewed in the context of the wider wind farm development in the local landscape. When travelling east, towards Eastfield, the proposed Development would be partially screened by coniferous woodland to the north of the core path, and viewed beyond Eastfield and Harthill and the M8 corridor with a large number of wind farm developments also visible. Visual effects are assessed as being significant, with a medium change of effects.
- 15.6.79 Despite significant visual effects being identified for localised parts of the Core Paths detailed above, it is considered that the effects on these Core Paths in terms of Tourism and Recreation remains **not significant**, as assessed in the Sections above. It is considered unlikely that the majority of local path users will cease to use the routes for recreational purposes, as a result of the Proposed Development. While it is acknowledged that there would be some temporary disruption to path usage during maintenance, this would be minimised as far as practicable and restricted only to where there would be a risk to public health and safety eg. Not the whole path network within the Site. The Site would therefore still be open to public recreation.
- 15.6.80 Whilst visual effects may be identified as significant due to proximity and clear visibility of the Proposed Development, as detailed in the Section above, there is no evidence to suggest that the presence of wind turbines deters local tourism. Whilst tourists may have a particular sensitivity to visual effects, access to the routes will remain largely unaffected.
- 15.6.81 Hence, even despite significant visual effects predicted on sections of particular Core Paths, adverse effects of the operational phase of the Proposed Development on these receptors, in terms of Tourism and Recreation, will be Minor and **not significant** in accordance with the EIA Regulations.

Operational Effects - Tourism and Recreation Receptors within Primary and Secondary Study Area

- 15.6.82 As detailed above, the operation of the Proposed Development is not expected to alter the features or characteristics of tourism assets within the Primary or Secondary Study Area. It is expected that the Proposed Development will have no impact on the behaviour of visitors and tourists that visit the receptors during operation and recreational activities at the identified receptors, such as walking on the paths and routes can continue uninterrupted through operation of the Proposed Development.

- 15.6.83 The magnitude of change is assessed to be Low for assets within the Primary Study Area and Negligible for those within the Secondary Study Area. Therefore, the effect assessed is considered to be Negligible to Minor, and therefore **not significant** in terms of the EIA Regulations.

Decommissioning Effects - Recreation and Tourism

- 15.6.84 Effects during the decommissioning phase are anticipated to be of a similar nature and scale as construction effects, and are therefore **not significant** in terms of the EIA Regulations.

15.7 Mitigation of Residual Effects

- 15.7.1 The effect of the temporary closure of any informal recreational routes within the Site during the construction period is considered to be a short-term, Negligible to Minor effect. The mitigation proposed for this effect is that, where temporary closures, access restrictions or diversions are required for health and safety purposes, notices will be placed in prominent locations around the Site with details of any areas with restricted access and where routes have been diverted.
- 15.7.2 This mitigation proposed is not considered to change the significance of the effect as any diversions will still present a slight alteration to the baseline of the asset; however, the effect remains **not significant** in terms of the EIA Regulations.

15.8 Assessment of Cumulative Effects

- 15.8.1 The appropriate scale for considering cumulative development depends on the nature of the potential effect. These are considered in turn, for each category of potential effect.
- 15.8.2 There are 69 wind farms within 25 km of the centre point of the Site (NGR 289,988 665,071), either operational, consented or in the planning process, as set out in Table 15.8.

Table 15.8: Wind Energy Developments Included within the 25 km of the Site

Wind Farms	Status of Wind Farm	Number of Turbines	Height to blade tip of Turbines (m)	Direction of Cumulative Site from the Development
<i>Torrance I</i>	<i>Operational</i>	<i>3</i>	<i>120</i>	<i>East</i>
<i>Torrance II</i>	<i>Operational</i>	<i>2</i>	<i>125</i>	<i>East</i>
<i>Southrigg 1</i>	<i>Operational</i>	<i>1</i>	<i>125</i>	<i>East</i>
<i>Wester Hasockrigg</i>	<i>Operational</i>	<i>1</i>	<i>78</i>	<i>South West</i>
<i>West Benhar Wind Farm</i>	<i>Operational</i>	<i>8</i>	<i>150</i>	<i>South</i>
<i>Drumduff Wind Farm</i>	<i>Operational</i>	<i>3</i>	<i>120</i>	<i>North</i>
<i>Burnhead Wind Farm</i>	<i>Operational</i>	<i>13</i>	<i>127</i>	<i>North</i>
<i>Nether Bracco Farm</i>	<i>Operational</i>	<i>1</i>	<i>100</i>	<i>North West</i>

<i>Black Law Wind Farm Extension Phase 1</i>	<i>Operational</i>	<i>23</i>	<i>127</i>	<i>North</i>
<i>Black Law Wind Farm Extension Phase 2</i>	<i>Operational</i>	<i>11</i>	<i>117</i>	<i>North</i>
<i>Tormywheel Wind Farm</i>	<i>Operational</i>	<i>15</i>	<i>111</i>	<i>North</i>
<i>Climpy Road</i>	<i>Operational</i>	<i>1</i>	<i>102</i>	<i>North</i>
<i>Greendykeside</i>	<i>Operational</i>	<i>2</i>	<i>100</i>	<i>North West</i>
<i>Easter Glentore Wind Turbine, The Shetland Centre</i>	<i>Operational</i>	<i>1</i>	<i>102</i>	<i>North West</i>
<i>Gardrum Farm</i>	<i>Operational</i>	<i>1</i>	<i>86</i>	<i>North</i>
<i>Gardrum Farm 2</i>	<i>Operational</i>	<i>1</i>	<i>86</i>	<i>North</i>
<i>Whiterigg Wind Turbine</i>	<i>Operational</i>	<i>1</i>	<i>77</i>	<i>North</i>
<i>Polmont Golf Club</i>	<i>Operational</i>	<i>1</i>	<i>77</i>	<i>North</i>
<i>Pates Hill Wind Farm</i>	<i>Operational</i>	<i>7</i>	<i>107</i>	<i>South East</i>
<i>Upper Haywood Forth</i>	<i>Operational</i>	<i>1</i>	<i>67</i>	<i>North</i>
<i>Black Law Wind Farm</i>	<i>Operational</i>	<i>54</i>	<i>110</i>	<i>North</i>
<i>Damhead Farm</i>	<i>Operational</i>	<i>1</i>	<i>100</i>	<i>West</i>
<i>Pearie Law Wind Farm</i>	<i>Operational</i>	<i>6</i>	<i>125</i>	<i>South East</i>
<i>Harburnhead Wind Farm</i>	<i>Operational</i>	<i>22</i>	<i>125</i>	<i>South East</i>
<i>Muirhall Wind Farm (Stallashaw Moss)</i>	<i>Operational</i>	<i>6</i>	<i>125</i>	<i>South East</i>
<i>Muirhall Wind Farm Extension</i>	<i>Operational</i>	<i>2</i>	<i>145</i>	<i>South East</i>
<i>Muirhall Wind Farm South</i>	<i>Operational</i>	<i>3</i>	<i>146</i>	<i>South East</i>
<i>Braidenhill Farm</i>	<i>Operational</i>	<i>1</i>	<i>77</i>	<i>North West</i>
<i>Bellstane Farm</i>	<i>Operational</i>	<i>1</i>	<i>86</i>	<i>North West</i>
<i>AG Barr Factory wind turbine</i>	<i>Operational</i>	<i>1</i>	<i>70</i>	<i>North West</i>
<i>Rosti Turbine, Strutherhill</i>	<i>Operational</i>	<i>1</i>	<i>110</i>	<i>South West</i>
<i>Lochhead Farm</i>	<i>Operational</i>	<i>3</i>	<i>100</i>	<i>South West</i>
<i>Lochhead Farm Extension</i>	<i>Operational</i>	<i>2</i>	<i>100</i>	<i>South West</i>
<i>Marshall Farm 1</i>	<i>Operational</i>	<i>1</i>	<i>119</i>	<i>South West</i>
<i>Marshall Farm 2 (aka Netherburn West)</i>	<i>Operational</i>	<i>1</i>	<i>100</i>	<i>South West</i>
<i>Whitehill Farm, Stonehouse</i>	<i>Operational</i>	<i>1</i>	<i>77</i>	<i>South West</i>
<i>Tanhill Farm 1</i>	<i>Operational</i>	<i>1</i>	<i>77</i>	<i>South West</i>
<i>Westtown Farm, Stonehouse</i>	<i>Operational</i>	<i>1</i>	<i>77</i>	<i>South West</i>
<i>Southfield Farm</i>	<i>Operational</i>	<i>1</i>	<i>67</i>	<i>South West</i>
<i>Auchnotroch Farm</i>	<i>Operational</i>	<i>1</i>	<i>84</i>	<i>South West</i>
<i>Lampits Farm</i>	<i>Operational</i>	<i>2</i>	<i>64</i>	<i>South East</i>
<i>Shotlinn Farm, Nr Chapelton</i>	<i>Operational</i>	<i>1</i>	<i>77</i>	<i>South West</i>
<i>Burnbrae Farm</i>	<i>Operational</i>	<i>1</i>	<i>66</i>	<i>South West</i>
<i>Haspielaw Farm</i>	<i>Operational</i>	<i>1</i>	<i>78</i>	<i>South West</i>

<i>Blantyre Muir Wind Farm</i>	<i>Operational</i>	<i>3</i>	<i>111</i>	<i>South West</i>
<i>Blantyre Muir Wind Farm Extension</i>	<i>Operational</i>	<i>3</i>	<i>115</i>	<i>South West</i>
<i>Kirkton Farm, Dunfermline</i>	<i>Operational</i>	<i>1</i>	<i>100</i>	<i>North East</i>
<i>Tulliallan Concrete Works</i>	<i>Operational</i>	<i>1</i>	<i>74</i>	<i>North East</i>
<i>Southrigg 2 (aka Rigg Wind Turbine)</i>	<i>Consented</i>	<i>1</i>	<i>149</i>	<i>East</i>
<i>Forrestfield Wind Farm</i>	<i>Consented</i>	<i>4</i>	<i>125</i>	<i>West</i>
<i>Drumelzie</i>	<i>Consented</i>	<i>1</i>	<i>126</i>	<i>North</i>
<i>Brownhill Farm</i>	<i>Consented</i>	<i>2</i>	<i>149</i>	<i>South</i>
<i>Easter Drumclair Wind Farm</i>	<i>Consented</i>	<i>2</i>	<i>150</i>	<i>North</i>
<i>Hartwood Wind Farm Resubmission</i>	<i>Consented</i>	<i>7</i>	<i>132</i>	<i>South West</i>
<i>Greengairs East Wind Farm</i>	<i>Consented</i>	<i>8</i>	<i>150</i>	<i>North West</i>
<i>Tormywheel Wind Farm Extension</i>	<i>Consented</i>	<i>3</i>	<i>126</i>	<i>South East</i>
<i>Heathland Wind Farm</i>	<i>Consented</i>	<i>14</i>	<i>180</i>	<i>South East</i>
<i>Longhill Burn Wind Farm</i>	<i>Consented</i>	<i>8</i>	<i>200</i>	<i>South East</i>
<i>Greengairs Wind Farm</i>	<i>Consented</i>	<i>9</i>	<i>125</i>	<i>North West</i>
<i>Albert Bartlett</i>	<i>Consented</i>	<i>1</i>	<i>126</i>	<i>North West</i>
<i>Watsonhead Farm</i>	<i>Consented</i>	<i>2</i>	<i>150</i>	<i>South West</i>
<i>Greenwall Farm</i>	<i>Consented</i>	<i>1</i>	<i>55</i>	<i>South</i>
<i>South Lanarkshire Council Roads Depot</i>	<i>Consented</i>	<i>1</i>	<i>50</i>	<i>South West</i>
<i>Kittymuir Farm</i>	<i>Consented</i>	<i>2</i>	<i>77</i>	<i>South West</i>
<i>Lampits Farm 2</i>	<i>Consented</i>	<i>1</i>	<i>64</i>	<i>South East</i>
<i>Low Blackwoodyards Farm</i>	<i>Consented</i>	<i>1</i>	<i>67</i>	<i>South West</i>
<i>Dewshill Wind Farm</i>	<i>Application</i>	<i>3</i>	<i>150</i>	<i>West</i>
<i>Marshall North Wind Turbine</i>	<i>Application</i>	<i>1</i>	<i>180</i>	<i>South West</i>
<i>Bughtknowes Farm</i>	<i>Scoping</i>	<i>1</i>	<i>127</i>	<i>South East</i>

Socio-Economics

- 15.8.3 Regional socio-economic effects have been defined as at the scale of the North Lanarkshire and WLC area. The beneficial socio-economic effects associated with the Proposed Development would be increased and prolonged as a result of the construction and operation of cumulative wind farm developments, benefiting both the construction and energy generation sectors. However, even with the addition of the Proposed Development, the combined effect with other wind farms would be considered unlikely to lead to a fundamental change in economic activity within North Lanarkshire and West Lothian. This is considered to be **not significant** in the terms of this EIA, and in terms of the EIA Regulations.

- 15.8.4 Potential exists in the future, should a large enough number of wind farms be consented in the area, for job creation to occur to support the industry. However, at a regional level, the sustaining of jobs, in construction in particular, is considered not significant.
- 15.8.5 The greater the capacity of consented and constructed developments in the area, the more likely it is that the local area can benefit from supply chain opportunities. Additionally, it is likely that operations and maintenance operations of the Proposed Development will be based locally as there would be enough opportunity locally to employ full time employees and companies however, these effects are **not significant** in terms of the EIA Regulations.

Land Use

- 15.8.6 It is estimated that the footprint of the Proposed Development throughout operation, following completion of construction, will be approximately 5.2 ha, equating to approximately 4.9% of the total land in the Site. The current land use of the Site will remain unaffected given the percentages of land-take when considered relative to the total land within the Site.
- 15.8.7 Additionally, cumulative wind farms in the area, such as the existing Torrance Wind Farms, the Southrigg turbine and the West Benhar Wind Farm, demonstrate that existing land use will continue in tandem with the operation of the wind farms.
- 15.8.8 The cumulative effects of wind farms during construction and operation are considered to be of negligible magnitude, for a receptor of low sensitivity and therefore, not significant in terms of the EIA Regulations.

Tourism and Recreational Effects

- 15.8.9 Cumulative visual effects on outdoor recreational and tourism facilities resulting from the Proposed Development in conjunction with other wind farms in the Study Areas are assessed in **Chapter 6: Landscape and Visual Impact Assessment**.
- 15.8.10 Cumulative effects on the amenity of tourism and recreation receptors during operation are strongly linked to visual effect. As set out in the Public Attitudes towards Wind Farm Development section of Section 15.5, there is no evidence that tourism is adversely impacted by wind farms. It is therefore presumed that windfarms have no noticeable effect on tourism, and no significant cumulative effects from the Proposed Development are anticipated, which is therefore **not significant** in terms of the EIA Regulations.
- 15.8.11 Overall, it is assessed that wind farm development does not have a noticeable effect on tourism, and no cumulative effects from the Proposed Development are anticipated.

15.9 Summary of Effects

- 15.8.12 Table 15.9 provides a summary of the effects detailed within this Chapter; where no effects were identified these are not summarised but detailed in the assessments.

Table 15.9: Summary of Effects

Receptor	Potential Effect	Significance of Effect	Mitigation Proposed	Residual Effect
Construction Phase				
Local employment	Direct and indirect effects through increase in employment	Minor, positive	None proposed	Minor, positive
Skill development and indirect employment	Indirect and induced employment opportunities and skill development	Minor, positive	None proposed	Minor, positive
Local economy	Capital expenditure within the local area	Minor, positive	None proposed	Minor, positive
Land use	Land take and change of land use	Minor, negative	None proposed	Minor, negative
Informal Recreational routes within the Primary Study Area	Short-term access restrictions and diversions at times of essential maintenance	Negligible	None proposed	Negligible
Recreational routes within the Secondary Study Area	Reduced visual amenity for temporary periods throughout the walks	Negligible	None proposed	Negligible
Tourism and Recreational Receptors within Secondary Study Area, including accommodation providers	Potential reduced visual amenity due to construction of Proposed Development Local shops and accommodation may experience increase in turnover when providing services to contractors	Negligible Minor, positive	None proposed None proposed	Negligible Minor, positive
Operational Phase				
Local employment	Increased employment and business opportunities	Negligible	None proposed	Negligible
Local and regional economy	Operational expenditure to the regional	Negligible	None proposed	Negligible
Land use	Land take and change of land use	Minor, negative	None proposed	Minor, negative
Recreational routes within the Primary Study Area	Temporary exclusions to access during times of essential maintenance	Negligible	None proposed	Negligible

Receptor	Potential Effect	Significance of Effect	Mitigation Proposed	Residual Effect
Recreational Routes within Secondary Study Area	Reduced visitor numbers due to presence of wind farm	Negligible	None proposed	Negligible
Tourism and Recreation Receptors within Secondary Study Areas	Reduced visitor numbers	Negligible	None proposed	Negligible

15.9 Statement of Significance

- 15.9.1 The renewables industry is an important economic asset to the UK and Scotland, and supports a substantial and growing number of employment opportunities.
- 15.9.2 Although not significant in terms of the EIA Regulations, the Proposed Development will further contribute to the beneficial economic effect of renewable energy, and associated skills base within Scotland.
- 15.9.3 The establishment of a local community fund will make a valuable contribution to the local community surrounding the Site although not significant in terms of the EIA Regulations. There is further potential for enhancements from participation in shared ownership. The Proposed Development also includes the proposed recreational paths which will provide new recreational options of different circular routes of varying lengths for all users. These proposed recreational paths also include one path which will link the wind farm site to the existing Core Path NL/2013/1, located approximately 0.7 km to the north. This path represents a benefit to locals in the area that will provide greater access between villages of Harthill and Blackridge.
- 15.9.4 No significant effects in terms of the EIA Regulations are predicted on socio-economics, tourism and recreation and land-use receptors during the construction, operation or decommissioning phases of the Proposed Development.
- 15.9.5 There are a number of recreational opportunities within the Secondary Study Area, including tourism activities and recreational routes. There will be no significant direct or indirect effects on tourism or recreation as a result of the Proposed Development both in isolation or cumulatively, although access to some areas of land within the Site will be temporarily restricted to the public during the construction and decommissioning phases for health and safety reasons. The residual effects are considered to be **not significant** in terms of the EIA Regulations.
- 15.9.6 The effect on existing land-use within the Site is **not significant** in terms of the EIA Regulations.