12. Socio-economics, Tourism and Recreation

Executive Summary

This chapter assesses the potential socioeconomic, recreation and tourism effects of the Proposed Development.

The population of Perth and Kinross and Stirling is increasing at a similar rate to that of Scotland. At the same time, the population of Perth and Kinross and Stirling is expected to age, growing older than that of Scotland as a whole. While the Local Area is less deprived than Scotland as a whole, economic activity is concentrated in a few sectors, including accommodation and food services activities and wholesale and retail trade, which collectively employ 36.3 % of those in employment.

During the development and construction phase, it is estimated that the Proposed Development will generate up to:

- £14.0 million Gross Value Added (GVA) and 156 years of employment in Perth and Kinross and Stirling; and
- £48.3 million GVA and 564 years of employment in Scotland.

During each year of the operational phase, it is estimated that the Proposed Development could generate up to:

- £1.3 million GVA and 9 jobs in Perth and Kinross and Stirling; and
- £3.1 million GVA and 25 jobs in Scotland.

The Proposed Development would also provide community benefit funding of up to £372,000 annually.

It was estimated that the Proposed Development would pay £892,000 each year in non-domestic rates, helping to support local government services.

The most recent evidence on the relationship between wind farms and tourism suggests that there are no adverse effects on the tourism economy resulting from the development of onshore wind. An assessment of the likely effects of the Proposed Development on specific local tourism assets, accommodation providers and routes found no significant adverse effects are expected.

Overall, there were **no significant adverse** effects identified. While the beneficial construction and operation socioeconomic effects are not significant in EIA terms, they would be important to the local and national economies, contributing to sustainable economic growth.

12.1 Introduction

12.1.1 This chapter considers the likely significant effects on socio-economics, tourism and recreation associated with the construction and operation of the Proposed Development. The specific objectives of the chapter are to:

- describe the socio-economic, tourism and recreation baseline;
- describe the assessment methodology and significance criteria used in completing the impact assessment;
- describe the potential effects, including direct, indirect, and cumulative effects;
- describe the mitigation measures proposed to address likely significant effects; and
- assess the residual effects remaining following the implementation of mitigation.

12.1.2 The assessment has been carried out by BiGGAR Economics. Simon Cleary, the author, has considerable experience in carrying out socioeconomics, tourism, and recreation assessments of onshore wind farms across Scotland.

12.1.3 This Chapter is supported by the Figures (**EIAR Volume 2**) and Technical Appendices (TAs)(**EIAR Volume 4**) listed in **Table 12-1,** which are referenced throughout the Chapter.

Table 12-1: Supporting Figures and Technical Appendices

Document Location	Document Description
Figure 12.1: Visitor Attractions, Amenities and Other Features	A figure illustrating key visitor attractions, core paths and recreational trails.
Technical Appendix 12.1: Methodology	Provides details of the assessment methodology.
Technical Appendix 12.2: Recreation and Outdoor Access Plan	Provides detail of how existing public access would be managed during the construction and operation of the Proposed Development.

12.2 Assessment Methodology and Significance criteria

Legislation Policy and Guidance

12.2.1 There is no specific legislation, policy, or guidance available on the methods that should be used to assess the socioeconomic impact of a proposed onshore wind farm. The methodology adopted here has however, been based on established best practice, including that used in UK Government and industry reports on the sector.

12.2.2 In particular, the assessment draws on studies by BiGGAR Economics on the UK onshore wind energy sector, including a report published by RenewableUK and the then Department for Energy and Climate Change ('DECC')[1] in 2012 on the direct and wider economic benefits of the onshore wind sector to the UK economy. An update to this analysis is featured in a report published by RenewableUK[2].

12.2.3 The economic impact assessment methodology from those assessments has been integrated with evidence from BiGGAR Economics' experience in assessing the impact from similar developments across Scotland, and the United Kingdom (UK).

[1] RenewableUK (2012). Onshore Wind: Direct and Wider Economic Impacts

[2] RenewableUK (2015). Onshore Wind: Economic Impacts in 2014

12.2.4 Similarly, there is no formal guidance on the methods that should be used to assess the effects that wind farms may have on tourism and recreation. The assessment has been undertaken in line with established best practice in assessing the tourism and recreation effects of onshore wind farm proposals.

12.2.5 For recreational assets, guidance has been provided by NatureScot ('NS')[3] on how to assess effects on recreational amenity and the approach outlined has been used. This takes into consideration a number of potential effects, including direct effect on facilities, such as limitation or restrictions on access, and effects on the intrinsic quality of the resources enjoyed by people. In general, this guidance would consider recreational and access impacts to potentially be significant if:

- permanent or long-term effects on the resources on which enjoyment of the natural heritage depends, in particular where facilities have been provided by NS or others under statutory powers;
- permanent or long-term change that would affect the integrity and long-term sustainable management of facilities which were provided by NS or others under statutory powers;
- where there are recreational resources for open air recreation pursuits affected by the Proposed Development which have more than local use or importance, especially if that importance is national in significance;
- major constraints on or improvements for access or accessibility to designated natural heritage sites;
- where mitigation and/or compensatory or alternative recreational provision is considered to be inadequate.

Assessing significance

12.2.6 The full assessment methodology, including criteria for assessing sensitivity of receptors, magnitude of change and cumulative effects, as well as overall significance criteria and approach to mitigation, is detailed in **TA 12.1 (EIAR Volume 4).**

Scope of Assessment

12.2.7 The assessment of socio-economic, tourism and recreation considers the following main potential impacts upon the following receptors associated with the construction and operation of the Proposed Development:

12.2.8 The following effects were identified at the scoping stage for consideration in this assessment:

- Direct, indirect and induced effects on economic activity during construction, including changes in GVA and changes in employment;
- Direct, indirect, and induced effects on economic activity during the operation and maintenance phase, including changes in GVA and changes in employment;
- Effects on the tourism economy of Perth and Kinross and Stirling via impacts on key visitor attractions;
- Effects on tourism and recreation assets, including accommodation providers, located within 15km of the Proposed Development;
- Effect from the payment of non-domestic rates throughout the operation and maintenance phase;
- Cumulative effects during construction on economic activity;
- Cumulative effects during construction on tourism and recreation activity; and
- Cumulative effects during operation on economic activity, tourism, and recreation.

[3] Scottish Natural Heritage (2018). Environmental Impact Assessment Handbook

12.2.9 The assessment is based on the Proposed Development as described in **Chapter 2: Development Description (EIAR Volume 2)**.

Consultation

12.2.10 **Table 12-2** summarises the consultation undertaken throughout the EIAR process, including Scoping and further pre-application consultation, relevant to socio-economics, tourism and recreation.

Table 12-2: Consultation

Organisation and Type of Consultation	Response	How Response has been Considered
Perth and Kinross Council	The Perth & Kinross Local Development Plan (2019) highlight various policies that are of relevance with respect to the proposal. Policy 33 should be referenced, with the Proposed Development assessment against a list of criteria. The key determining policy issues for this specific proposal at this location include: the principle of the development and its contribution towards renewable generation targets/net zero agenda, landscape/visual impact, recreational interests (including identified core path STFI /101), impact on/from flooding and the water environment, cultural heritage & historic environment, biodiversity/ecological impact, airfield safeguarding, as well as traffic / transport and or construction management impacts.	The Perth and Kinross Local Development Plan is referenced in **paragraph 12.3.13.** Recreational routes, including the core path STFI 101 are assessed in **paragraph 12.5.52 and paragraph 12.5.59**. A Planning Statement has also been produced in support of this EIAR.

12.2.11 Full details of all consultation undertaken is provided in **TA 1.2: Consultation Register (EIAR Volume 4**).

Potential Effects Scoped Out

12.2.12 On the basis of the desk-based work undertaken, the professional judgement of the Environmental Impact Assessment ('EIA') team and experience from other relevant projects, the following topic areas have been 'scoped out' of detailed assessment:

- Direct, indirect, and induced effects on economic activity during decommissioning;
- Effects on the tourism economy during decommissioning; and
- Tax Revenues during Construction phase.

Method of Baseline Characterisation

Extent of the Study Area

12.2.13 The baseline description considered the Study Areas of:

- the Local Area (as defined as the electoral wards of Strathearn, Trossachs and Teith);
- Perth and Kinross and Stirling (as defined as the Stirling Council Authority area and the Perth and Kinross Council Authority area); and
- Scotland.

12.2.14 The Study Areas considered for the economic analysis were:

- Perth and Kinross and Stirling; and
- Scotland.

12.2.15 For the tourism and recreation assessment, the analysis focussed on the area within a 15 km radius of the Proposed Development (i.e., from the closest turbine). This is consistent with the approach commonly used in similar assessments.

12.3 Socio-economic Baseline Conditions

Strategic Context

Scotland's National Strategy for Economic Transformation 2022

12.3.1 Released in March 2022 by the Scottish Government, the National Strategy for Economic Transformation (NSET)[4] identifies Scotland's economic ambitions over the coming decade. The Scottish Government seek to create a wellbeing centred economy centred to generate equitable prosperity across economic, social, and environmental dimensions. This approach intends to generate a greener economy that works towards a just and equitable transition for Scotland and reach net zero by developing a nature-positive economy.

12.3.2 A key long-term challenge identified in the strategy is to address deep-seated regional inequality. Rural and island populations face a unique challenge of falling labour supply due to ageing populations and outward migration, and limited access to public infrastructure and housing. This generates a self-re-enforcing cycle that NSET seeks to address.

12.3.3 The NSET seeks to address issues like these through five, cross-sector spanning, programs of action (with a sixth priority of creating a culture of delivery). These programmes include:

- establishing Scotland as a world-class entrepreneurial nation;
- strengthening Scotland's position in new markets and industries, generating new well-paid jobs from the transition to net zero;
- making Scotland's businesses, industries, regions communities and public services more innovative;
- ensuring that people are equipped with the relevant skills to meet the demands of the economy and that employers invest in employees to bridge skill gaps; and
- reorientate the economy towards fair work and wellbeing.

12.3.4 Within this strategy, Scotland has phenomenal potential in expanding its green industrial base due to its geographical advantages of onshore and offshore wind, wave and tidal, hydro and potential for hydrogen expansion. These renewable energy developments (both new and repowered) will play a significant role in supporting businesses and regions across Scotland.

National Performance Framework

12.3.5 Scotland's National Performance Framework[5], first published in 2018, sets out the ambitions of the Scottish Government to provide a vision for national wellbeing across a range of economic, social, and environmental factors. The framework includes 'increased wellbeing' as part of its purpose and combines measurement of how well Scotland is doing in economic terms with a broader range of wellbeing measures. The National Performance Framework is designed to give a more rounded view of economic performance and progress towards achieving sustainable and inclusive economic growth and wellbeing across Scotland.

[4] Scottish Government (2022). National Strategy for Economic Transformation: Delivering Economic Prosperity

[5] Scottish Government (2018). National Performance Framework

12.3.6 The aims for Scotland set out in the National Performance Framework are to:

- Create a more successful country;
- Give opportunities to all people living in Scotland;
- Increase the well-being of people living in Scotland;
- Create sustainable and inclusive growth; and
- Reduce inequalities and give equal importance to economic, environmental and social progress.

12.3.7 The National Performance Framework also sets out outcomes and indicators which illustrate the progress Scotland is making towards achieving the aims of the National Performance Framework. The outcomes outlined in the National Performance Framework are that people in Scotland:

- Grow up loved, safe and respected so that they realise their full potential;
- Live in communities that are inclusive, empowered, resilient and safe;
- Are creative and their vibrant and diverse cultures are expressed and enjoyed widely;
- Have a globally competitive, entrepreneurial, inclusive, and sustainable economy;
- Are well educated, skilled and able to contribute to society;
- Value, enjoy, protect, and enhance the environment;
- Have thriving and innovative businesses, with quality jobs and work for everyone;
- Are healthy and active;
- Protect and fulfil human rights and live free from discrimination;
- Are connected and make a positive contribution internationally; and
- Tackle poverty by sharing opportunities, wealth and power.

12.3.8 The construction and operation of the Proposed Development will contribute to the achievement of the national outcomes set out in the National Performance Framework, with the project advancing the development of a competitive, inclusive, and sustainable economy in Scotland.

National Planning Framework 4

12.3.9 The Fourth National Planning Framework ('NPF4')[6] is the national spatial strategy for Scotland. The document considers Scotland's spatial principles, national planning policy, national developments, and regional priorities. The NPF4 recognises the global climate emergency, and the role renewable energy developments play in the transition to net zero. Policy 11 (energy) includes paragraph (c) which states that "*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*". This chapter considers how the Applicant intends to maximise economic benefits through wider engagement with the local community and suppliers.

Perth and Kinross Local Outcomes Improvement Plan 2022-2032

12.3.10 The Perth and Kinross Local Outcomes Improvement Plan 2022-2032[7]seeks to identify and reduce social and economic inequalities across their region to create prosperity and opportunity.

12.3.11 The five strategic priorities identified in their Local Outcomes Improvement Plan are:

- reducing poverty;
- improving physical and mental wellbeing;

[6] Scottish Government (2023). National Planning Framework 4.

[7] Perth and Kinross Community Planning Partnership (2022) Perth and Kinross Local Outcomes Improvement Plan 2022-2032

- improving digital connectivity;
- advancing learning and development; and
- increasing employability.

12.3.12 Perth and Kinross Community Planning Partnership have identified Climate Change as a further cross-cutting issue. They have since established a Climate Change Working Group in response to the afore mentioned government commitments to reaching a just transition and carbon reduction targets by 2030 and net zero by 2045. The working group seeks to identify and address, specific inequalities that arise form climate change and impact the region. This is a collaborative process between cross-sector stakeholders to produce strategies for maximum impact

Perth and Kinross Local Development Plan 2

12.3.13 Perth and Kinross Local Development Plan 2[8](2019) details the policies and proposals by Perth & Kinross Council designed to guide regional development through to 2029. It sets out the strategic vision for Perth and Kinross that promotes sustainable development and sustainable economic growth to develop regional strengths making it an attractive region to live and work, while recognising the role of 'placemaking' in protecting regional assets.

12.3.14 Amongst policies on developing a successful and sustainable place, a natural and resilient place, and a connected place, Perth and Kinross Council seek to build a low-carbon place. They take a future thinking approach to planning and seek to remove the burden of Climate Change from future generations by creating Zero Waste lifestyles. Their key objectives are:

- improve long-term resilience and robustness of the natural and built environment to climate change;
- ensure development and land uses contribute positively to helping minimise causes of climate change;
- protect the natural and built environment, ensuring that new developments consider sustainable design and construction;
- protect and enhance the character of the areas landscape;
- conserve habitats and species of importance; and
- promote sustainable electricity generation development from a diverse range of sources including the expansion and repowering of renewables.

12.3.15 Policy 33 (Renewable & Low Carbon Energy) also supports the development of renewable & low carbon energy proposals.

Stirling's Economic Strategy 2022

12.3.16 Stirling's Economic Strategy[9] establishes a clear vision for Stirling's future economy. It is centred on three core themes: sustainability, inclusivity, and a thriving economy. The strategy seeks to achieve these goals through eight strategic actions:

- support new and established business to develop and grow;
- work with employability partners, education providers and employers to ensure access to fair work and skills opportunities.

[8] Perth and Kinross Council (2019) Local Development Plan 2.

[9] Stirling Council (2022) Stirling's Economic Strategy 2022

- take forward a community wealth building approach to how anchor institutions in Stirling both purchase and use resources and assets;
- support the city centres and town centres to be vibrant;
- support Stirling's rural economy;
- embrace the opportunities of the green economy;
- focus on higher value employment to reduce inequalities; and
- attract and encourage investment in Stirling.

12.3.17 The strategy recognises a gap in regional skills required for delivering the demands of net zero, highlighting the need for investment in technical green jobs.

12.3.18 Renewables, and particularly onshore wind, will work to support the development and diversification of Stirling's rural economies creating opportunities for communities and tackling inequalities. It contributes to this through high value jobs, and community wealth building. Through community wealth building, communities have a greater stake in their local economy.

Stirling Council 10 year Strategy 2020-2030

12.3.19 Thriving Scotland is Stirling's 10-year strategy spanning 2020-2030[10]. This strategy works as a blueprint for how they intend to transform services to achieve four overarching aims:

- thriving communities that are empowered, engaged, and participating across Stirling;
- a thriving workforce who feels empowered and valued, happy where they work, and adopt a 'Think How' working approach;
- thriving partnerships between public, private, and third sector organisations that generates clear collaboration in regional and national programmes;
- a thriving organisation that is efficient, high performing, innovative, solution focused, and collaborative.

12.3.20 Through these aims, Stirling hopes to achieve five strategic outcomes:

- social and economic equality;
- financial sustainability;
- carbon net zero;
- strong economy; and
- community viewpoint.

12.3.21 Carbon reduction for net zero has been closely considered in this report within the context of social and economy equality. Quality of life is intended to improve through the creation of green jobs and reducing employment deprivation contributing to the upskilling of local workers.

12.3.22 Onshore wind fits well within these commitments and intended outcomes, generating high value jobs and contributes to carbon reduction for net zero.

Summary of Strategic Context

12.3.23 The Scottish Government considers the renewable energy sector as a key driver of economic growth, having the potential to make a substantial contribution to economic transformation. Nationally, regionally and locally, the renewables sector provides substantial opportunities for economic growth.

[10] Stirling Council (2022) Stirling's Economic Strategy 2022

The construction and operation of the Proposed Development will support these aims and contribute to job creation within key sectors of the local economy.

Socio-economic Baseline

12.3.24 The aim of the socio-economic baseline is to set the Proposed Development and its potential for economic benefits within existing socio-economic conditions. This section considers the socio-economic structure of three Study Areas:

- The Local Area (as defined as the electoral wards of Strathearn, Trossachs and Teith);
- Perth and Kinross and Stirling; and
- Scotland.

Population Estimates

12.3.25 As shown in **Table 12-3**[11], in 2022 the population of the Local Area was 23,288, or 9.4 % of that of Perth & Kinross and Stirling.

12.3.26 The proportion of residents in the Local Area aged 16-64 years old (59.2 %) is lower than that of Perth & Kinross and Stirling (61.6 %) and the national average (63.8 %). The proportion of the Local Areas residents aged 16-64 years old (59.1 %) is in line with the average for Perth & Kinross and Stirling (61.6 %), but lower than the national average (63.8 %).

12.3.27 The Local Area, along with Perth & Kinross and Stirling have a higher share of residents aged 65+ than Scotland as a whole. More than a quarter of the population of the Local Area is aged over 65 years old, a larger population share than that accounted by the same age group across Perth & Kinross, Stirling (22.6 %) and Scotland (19.6 %).

Table 12-3: Population Estimates, 2022

	Local Area	Perth and Kinross and Stirling	Scotland
% under 16	15.3 %	15.8 %	16.6 %
% aged 16-64	59.1 %	61.6 %	63.8 %
% aged 65+	25.6 %	22.6 %	19.6 %
Total	23,288	247,300	5,479,900

Industrial Structure

12.3.28 The industrial structure of the Local Area, Perth & Kinross, Stirling and Scotland is set out in **Table 12-4**[12]. The accommodation and food service activities sector, alongside the wholesale and retail sector, are the largest employers in the Local Area, collectively employing 36.3 % of those in employment.

12.3.29 In terms of the construction sector, 6.4 % of workers in the Local Area were employed in this sector, compared to 5.6 % in Scotland. This industry could particularly benefit from contracts relating to the Proposed Development. Whilst employment in manufacturing, is marginally higher in the Local Area (7.9 %) than across Scotland (6.6 %), this is mostly in manufacturing of food and beverage products.[13].

[11] National Records of Scotland (2023), Mid-2022 population estimates Scotland.

[12] Office for National Statistics (2023), Business Register and Employment Survey (BRES) 2022

[13] Office for National Statistics (2023), Business Register and Employment Survey (BRES) 2022

12.3.30 The opportunities that could arise during the construction of the Proposed Development have the potential to address the ageing population of the local and regional areas, by retaining the local workforce and by attracting younger workers.

Table 12-4 :Industrial Structure, 2022

	Local Area	Perth and Kinross and Stirling	Scotland
Accommodation and food service activities	23.0 %	11.5 %	8.2 %
Wholesale and retail trade; repair of motor vehicles and motorcycles	13.3 %	14.1 %	12.8 %
Human health and social work activities	10 %	10.6 %	15.1 %
Education	8.9 %	8.5 %	8.4 %
Manufacturing	7.9 %	6.0 %	6.6 %
Professional, scientific and technical activities	6.6 %	6.0 %	7.4 %
Arts, entertainment and recreation	6.6 %	3.3 %	2.9 %
Construction	6.4 %	6.4 %	5.6 %
Administrative and support service activities	3.3 %	6.3 %	7.8 %
Real estate activities	3.1 %	1.6 %	1.4 %
Water supply; sewerage, waste management and remediation activities	2.1 %	0.9 %	0.7 %
Agriculture, forestry and fishing	1.9 %	6.6 %	3.4 %
Transportation and storage	1.6 %	2.4 %	4.0 %
Information and communication	1.3 %	2.7 %	3.1 %
Public administration and defence; compulsory social security	1.2 %	5.8 %	6.2 %
Other service activities	1.2 %	1.4 %	1.7 %
Financial and insurance activities	1 %	2.4 %	3.1 %
Mining and quarrying	0.3 %	0.1 %	1.0 %
Electricity, gas, steam and air conditioning supply	0.2 %	2.8 %	0.7 %

Economic Activity

12.3.31 As shown in **Table 12-5**, in 2023 Perth & Kinross and Stirling have a higher share of their working age population which is economically active (80.9 %) compared to Scotland as a whole (77.5 %). The unemployment rates in Perth & Kinross and Stirling (3.4 %) was below the Scottish average (3.6 %) in 2023. In 2023, the median annual gross wage was also slightly higher for residents of Perth & Kinross and Stirling (£36,753) than for residents of Scotland (£35,518)[14].

Table 12-5: Economic Activity, 2023

	Perth and Kinross and Stirling	Scotland
Economic Activity Rate	80.9 %	77.5 %
Unemployment Rate	3.1 %	3.4 %
Medium Annual Gross Income (full-time workers)	£36,753	£35,518

[14] ONS (2024) Annual Survey Of Hours And Earnings - Resident Analysis Data For – 2022.

Education

12.3.32 As shown in **Table 12-6**, Perth and Kinross and Stirling has a smaller proportion of residents with no qualifications (4.9 %) than the Scottish average (7.8 %). Additionally, the proportion of Perth & Kinross and Stirling's population aged 16-64 who have achieved at least an NVQ1 qualification (91.5 %) is above the Scottish average of 86.4 %. Similarly, the proportion of residents with NVQ4+ qualifications, which are equivalent to degree level, is 51.3 % in comparison to the national average of 50 %.

Table 12-6: Education Levels, 2021

	Perth and Kinross and Stirling	Scotland
NVQ4+ aged 16-64	51.3 %	50.0 %
NVQ3+ aged 16-64	68.4 %	64.8 %
NVQ2+ aged 16-64	85.3 %	79.6 %
NVQ1+ aged 16-64	91.5 %	86.4 %
Other Qualifications aged 16-64	3.6 %	5.8 %
No qualifications aged 16-64	4.9 %	7.8 %

Scottish Index of Multiple Deprivation

12.3.33 The Scottish Index of Multiple Deprivation (SIMD) is a relative measure of deprivation which ranks small areas of Scotland across seven dimensions: income, employment, education, health, access to services, crime, and housing. These areas are ranked based on which 20 % (quintile) they belong to. Small areas in the first quintile represent 20 % of the most deprived areas in Scotland. Conversely, small areas in the fifth quintile represent the least deprived areas in Scotland.

12.3.34 There are 308 small areas across Perth and Kinross and Stirling, 4 % of which are in the most deprived quintile compared to 31 % who are in the least deprived. This reflects a largely affluent regional base. This trend is reflected in the Local Area case reporting minimal deprivation across the first two quintiles and 43 % across the fourth quintile.

Table 12-7: SIMD Index

	Local Area	Perth & Kinross and Stirling
1 (20 % Most Deprived)	0 %	4 %
2	7 %	11 %
3	37 %	21 %
4	43 %	33 %
5 (20 % Least Deprived)	13 %	31 %

Summary of Local Economic Context

12.3.35 The proportion of working age population is projected to decline across Stirling, Perth & Kinross over the coming years, with its proportion of 65+ set to grow faster than that of the rest of Scotland. It is likely that the Local Area will follow a similar trend in their population.

12.3.36 While deprivation levels in the Local Area are lower than the wider region, economic activity remains concentrated in only a few sectors, including accommodation and food service activities and wholesale and retail trade. Manufacturing was reported as a high employer in the Local Area compared to that of

Perth & Kinross and Stirling, and Scotland. However, upon closer examination these high employment numbers are largely from the manufacturing of food and beverages.

12.3.37 Expansion in the onshore wind sector could provide an opportunity to diversify the local area's economic base. The regional area is reported to have high education levels and the expansion of this industry would work to retain skilled labour in the local area facilitating the retention of younger people.

Future Baseline

Population Projections

12.3.38 As detailed in **Table 12-8**[15], in Perth & Kinross and Stirling, the proportion of those aged 16-64 is expected to decrease to 56.9 % by 2043. This is equivalent to a decrease of 7,600 people in this age category. This decrease is larger than that occurring across Scotland over the same period, with the population aged 16-64 expected to reach 60.3 % of the total population. The population of Perth & Kinross and Stirling aged 65 and over is expected to increase to 29.0 %, above the Scottish average of 24.9 %.

12.3.39 As Perth & Kinross and Stirling is set to experience a declining working age population and an increasingly old population, it becomes more important for the region to attract and retain people of working age. The economic opportunities created by the Proposed Development will contribute towards this.

Table 12-8: Population Projections, 2022-2043

	Perth and Kinross and Stirling		Scotland	
	2022	**2043**	**2022**	**2043**
% under 16	15.8 %	14.1 %	16.9 %	14.8 %
% aged 16-64	61.6 %	56.9 %	64.2 %	60.3 %
% aged 65+	22.6 %	29.0 %	18.9 %	24.9 %
Total	247,300	254,044	5,479,900	5,574,819

12.4 Tourism and Recreation Baseline Conditions

Strategic Context

Scotland's Outlook 2030

12.4.1 In 2020 the Scottish Tourism Alliance, a collaborative network of industry experts, published Scotland's Outlook 2030[16], a strategy focused on creating a world-leading tourism sector in Scotland that is sustainable in the long-term. The strategy is focused on four key priorities:

- people;
- places;
- businesses; and
- experiences.

12.4.2 The strategy recognises the effects of climate change, technological advancements, Brexit and changing consumer behaviour on tourism and highlights the need for collaboration between government, communities, and the public and private sectors.

12.4.3 There are six conditions that the strategy has highlighted as being crucial for success:

[15] National Records of Scotland (2022), Population Projections 2018--2043.

[16] Scottish Tourism Alliance (2020) Scotland's Outlook 2030

- using technological advancements and information to understand changes and trends in tourist behaviours;
- ensuring policies are in place that support the vision;
- enabling investment opportunities into Scotland's tourism market;
- improving transport and digital infrastructure;
- greater collaboration between businesses in the industry; and
- positioning Scotland as a great place to live and visit locally and globally.

12.4.4 A main commitment of the strategy is to address the effects of energy demand associated with tourism and make the sector commit fully to Scotland's ambition of becoming a net-zero society by 2045.

Perthshire Tourism Action Plan

12.4.5 The Perthshire Tourism Action plan seeks to make Perthshire a leading sustainable destination in Scotland that positively grows tourism across Perthshire delivering the best for their environment, visitors, businesses, and communities. The intention is to grow the visitor economy by:

- restoring the value of tourism to pre-COVID-19 levels and extending the season to year-round visits;
- placing Perthshire as a leading responsible tourism destination in Scotland;
- increasing the benefits, and positive impact, of tourism across Perthshire's communities; and
- promoting digital marketing across Perthshire's destinations.

Local Tourism Context

12.4.6 As shown in **Table 12-9**[17] in 2022 the sustainable tourism sector employed 15,000 people in Perth & Kinross and Stirling, and 229,000 across Scotland. The sustainable tourism sector generated £232.3 million GVA in Perth and Kinross and Stirling in 2021, accounting for less than 1 % of the total £3,365.8 million GVA generated by the sector across Scotland in the same year.

Table 12-9: Sustainable Tourism: Employment and GVA, 2022

	Perth and Kinross and Stirling	Scotland
GVA (£m)	£232.3	£3,365.8
Employment	15,000	229,000

Visitors

12.4.7 By using data from the Great Britain Day Visitor Survey (GBDVS)[18], the Great Britain Tourism Survey (GBTS)[19] and the International Passenger Survey, it is possible to capture how tourism contributes to the local economy.

12.4.8 Employment in tourism was highly impacted by Covid-19 as the sector was particularly sensitive to the regulations and behaviour changes caused by the pandemic. The GBTS reported regional domestic tourism based on three-year annual averages, due to small sample sizes. As 2020 and 2021 both represent atypical tourism activity due to Covid-related restrictions on travel, data for 2017-2019 has been provided to give a more typical view on the performance of the sector.

[17] Scottish Government (2023), Growth Sector Database.

[18] Kantar TNS (2020), The Great Britain Day Visitor Survey Annual Report 2017-19

[19] Kantar TNS (2020), The Great Britain Tourism Survey Annual Report 2019.

12.4.9 As shown in **Table 12-10**[20], in 2019 there were 5.2 million visitors to Perth and Kinross and Stirling, with tourist spend in the region amounting to £363 million. Day visitors accounted for 78.5 % of visitors to Perth and Kinross and Stirling, followed by domestic overnight visitors (21 %) and international overnight visitors (0.5 %). The highest total spend was associated with domestic overnight visitors, with a total spend of £225 million.

12.4.10 Perth and Kinross and Stirling accounted for 3.2 % of total visitors across Scotland, which in 2019 received 161 million visitors, spending £10.6 billion. Day visitors accounted for the largest share of visitors across Scotland (90.1 %), followed by domestic overnight visitors (7.7 %) and international overnight visitors (2.2 %).

Table 12-10: Number of Visitors and Spending in Perth and Kinross and Stirling and Scotland

	Perth and Kinross and Stirling	Scotland
Visitor Numbers (million)		
Day Visitors	4.1	144.9
Domestic Overnight Visitors	1.1	12.4
International Overnight Visitors	0.03	0.5
Total	5.2	160.9
Spend (£ million)		
Day Visitors	112	5,186.6
Domestic Overnight Visitors	225	2,989
International Overnight Visitors	26	459
Total	363	10,634.5

Local Visitor Attractions

12.4.11 A series of local visitor attractions within 15 km from the Proposed Development are listed below in **Table 12-11,** and illustrated on **Figure 12.1 (EIAR Volume 2).** The attractions were identified through an online search and the VisitScotland portal and are ordered based on their proximity to the Proposed Development, measured as distance from the nearest turbine. The Highland Safaris and Red Deer Centre has been listed as although the centre is out with 15 km, many of its activities are based within 15 km of the Proposed Development.

Table 12-11: Local Visitor Attractions

Site	Description	Distance to Nearest Turbine
St Fillans Golf Club	A popular golf course located in St Fillans, celebrated for its stunning views of the mountains and Loch Earn.	4 km
Loch Tay Safari's	A unique cruise on Loch Tay Kenmore exploring the history, heritage and folklore of Perthshire largest loch.	6 km
Falls of Dochart	Located at the western end of Loch Tay, the Falls of Dochart runs through the small town of Killin.	8 km

[20] Kantar TNS (2020), The Great Britain Day Visitor Survey Annual Report 2017-19 & Kantar TNS (2020), The Great Britain Tourism Survey Annual Report 2019.

Site	Description	Distance to Nearest Turbine
Edinample Castle	Edinample Castle is a late 16th-century tower house on the southern shores of Loch Earn near Balquhidder in the Stirling council area of Scotland. It was designated as a Category A listed building in 1971	9 km
Glen Ogle Viaduct	Built in 1866, the viaduct consists of twelve arched spans 139 ft long and 44ft high in total. This attraction forms part of a popular Rob Roy way and National Cycle Route.	9 km
Killin Golf Club	A picturesque nine-hole course set in the beautiful scenery of the Perthshire Highlands.	9 km
Highland Safari's and Red Deer Centre	Highland Safaris and Red Deer Centre, situated in Aberfeldy, offers a range of experiences and activities, including axe throwing, archery, and offroad land rover experiences.	23 km

Local Accommodation Providers

12.4.12 A series of accommodation providers were identified using VisitScotland's accommodation database and a web search of local accommodation on Google Maps. As shown in **Table 12-12**[21], 95 accommodation providers were identified within 15 km of the Proposed Development. These include 12 providers within 5 km, 48 between 5 km and 10 km, and 30 between 10 km and 15 km.

Table 12-12: Local Accommodation Providers (Within 15)

Distance from Proposed Development	Number of Providers
0-5 km	12
5-10 km	48
10-15 km	30
Total	**95**

12.4.13 A split of accommodation providers by their type and the area where they are (based on geographical features or closest settlement) is provided in **Table 12-13**[22]. Most properties identified are self-catering accommodation (66 %).

Table 12-13: Accommodation by Type and Location

	Number of Accommodation Providers by Type				
Location within 15 km of the Proposed Development	**B&B & Guest House**	**Camping and Caravan**	**Hotel**	**Self-Catering**	**Total**
Killin	4	-	1	5	10
Morenish and Kiltyrie	1	4	-	6	16
Lochearnhead	3	1	3	15	22
Shores of Loch Tay	-	-	2	16	18
St Fillans	1	1	1	8	11
Comrie	2	2	4	8	16
Total	11	8	11	63	95

[21] VisitScotland (2024) Accommodation Database & Google Map (2024).

[22] VisitScotland (2024) Accommodation Database & Google Map (2024).

Recreational Trails

12.4.14 Within 15 km of the Proposed Development, 31 recreational trails were identified based on a web search of walkhighlands.co.uk[23]. These are described in **Table 12-14** with an approximation of their distance from the site at the closest point.

The closest recreational route to the site is part of the Rob Roy Way: Killin to Ardtalnaig, which is located 2 km from the closest turbine (**Figure 12.1, EIAR Volume 2**).

Table 12-14: Recreational Trails, within 15km of Proposed Development

Recreational Route	Description	Distance to Nearest Turbine
Rob Roy Way: Killin to Ardtalnaig	This section climbs across high moorland on the south side of Loch Tay before descending to Ardeonaig to follow the road to Ardtalnaig.	2 km
Creag Uchdag from Glen Lednock	Creag Uchdag is a little known summit rising above the boggy plateaux and broken crags between Loch Tay and Glen Lednock	3 km
St Fillans Viewpoint circular	Climb up to this fine viewpoint looking along the length of Loch Earn, before descending back through the attractive village of St Fillans.	3
Dundurn - St Fillans Hill	Dundurn is a small but steep isolated rocky knoll, offering fine views.	3 km
Ben Chonzie via Glen Lednock	An easier ascent by Munro standards, Ben Chonzie can be climbed in a long half day and is the highest summit in a large area of heather moorland.	6 km
Meall na Fearna, from Loch Earn	Meall na Fearna is an eastern outlier of Ben Vorlich, its summit rising above a rather boggy, knolly plateau.	6 km
Ben Vorlich and Stùc a' Chròin	These two munros are on the southern fringe of the Highlands. Ben Vorlich is a very popular hillwalk from Loch Earn and a fine viewpoint, whilst the continuation to Stùc a' Chròin is a more serious walk with steep, rocky ground.	6 km
Auchmore Circuit, Killin	An easy circuit following tracks and minor roads to the southeast of Killin, passing above Auchmore House and with views towards the Lawers range.	7 km
Comrie to Loch Freuchie	From part of the Scottish National Trail, this section runs for 50 km. This walk includes a lonely hill crossing and miles of remote but beautiful and empty glens.	7 km
Kingarth and Funtulich circuit, Glen Lednock	This straightforward circuit takes in the beautiful and peaceful middle reaches of Glen Lednock's farmland.	7 km
Acharn Woods, Killin	An easy walk leading through dense mature forestry plantations.	8 km
Rob Roy Way: Strathyre to Killin	Leaving Strathyre, this trail follows a forest track above the east side of the glen at first.	8 km
Loch Tay from Killin	A short walk offering great views over Loch Tay and the Rivers Lochay and Dochart	8 km
Sròn a'Chlachain and Creag Buidhe, Killin	This short but steep hill climb from Killin reveals a classic view down the length of Loch Tay.	8 km
Creagan na Beinne, Ardtalnaig	A very rounded hill, a Corbett above the southern side of Loch Tay.	8 km

[23] Walkhighlands (2024). Killin and Aberfeldy, Loch Tay and Glen Lyon. Crieff and Strathearn. Available at: https://www.walkhighlands.co.uk/perthshire/loch-tay.shtml. And Walkhighlands (2024). Crieff and Strathearn. Available at: https://www.walkhighlands.co.uk/perthshire/crieff.shtml

Recreational Route	Description	Distance to Nearest Turbine
Rob Roy Way: Ardtalnaig to Aberfeldy	This path follows the very scenic minor road on the south side of Loch Tay for the first 7.5 km from Ardtalnaig. The next section climbs the Falls of Acharn.	9 km
Rob Roy Way: Callander to Strathyre	This part of the Rob Roy Way heads out of Callander, passing through a forested section to reach the shores of Loch Lubnaig.	9 km
Ben Lawers and Beinn Ghlas	Ben Lawers is one of the most popular Munros in Scotland. It is the culminating point of the sprawling range of mountains on the north side of Loch Tay. A second Munro - Beinn Ghlas - is crossed en-route.	9 km
The Tarmachan Ridge	One of the easier Munros to reach in good weather, due to a high level start point.	9 km
Edramucky Trail, Ben Lawers	A short nature trail beginning at the Ben Lawers car park, giving easy access to the mid-level slopes of the mountain and a National Nature Reserve.	9 km
Meall Greigh, Meall Garbh and An Stùc	The eastern three Munros of the Lawers range give an excellent circuit of the corrie holding Lochan nan Cat, the finest feature of the range	10 km
The Deil's Cauldron & Melville Monument, Comrie	This excellent circular walk from the attractive village of Comrie visits the Cauldron as well as having an optional ascent to the Melville Monument.	10 km
Meall Corranaich and Meall a'Choire Lèith	These two Munros form the westward end of the great Ben Lawers ridge.	11 km
Callander to Comrie	Climb out of Callander to a fine viewpoint right on the boundary between the Highlands and Lowlands.	11 km
Water of Ruchill and Cultybraggan, Comrie	This circular walk heads upriver beside the attractive Water of Ruchil from Comrie village.	11 km
Beinn nan Oighreag, Glen Lochay	Ranking amongst the highest of the Corbetts. Starting from Glen Lochay following an old path to the shielings of the Allt Dhuin Crois.	12 km
Bogton Braes circuit, Comrie	This circular walk leads through the attractive pastoral countryside of lowland Perthshire.	12 km
Meall nam Maigheach	The trail passing between Glen Lyon and Loch Tay.	13 km
Auchnafree Hill from Loch Turret	Auchnafree Hill has an undistinguished summit of a rather sprawling moorland. It overlooks the impressive glacial trench of Loch Turret.	13 km
Meall Ghaordaidh from Glen Lochay	A less distinguished Munro starting from with an ascent from Glen Lochay.	14 km

Core Paths

12.4.15 Using Perth and Kinross and Stirling Councils website, it was possible to identify core paths. The closest path is 700 m from the nearest turbine, the Tarken Lodge (Loch Lomond and the Trossachs National Park (LLTNP)) - Allt an Fhionn - Glen Tarken (code STFI/101) (**Figure 12.1, EIAR Volume 2**).

12.5 Assessment of Likely Effects

Economic Impact

Potential Construction Effects

12.5.1 The assessment of the economic impact arising from the development and construction of the Proposed Development utilises the extensive work that BiGGAR Economics has carried out in the onshore wind sector. This includes an evaluation of existing wind farm developments carried out in 2015 by BiGGAR Economics on behalf of RenewableUK. The analysis has been updated over time drawing on evaluations of individual wind farm developments and on experience with developers working across Scotland. This body of research and experience provides the evidence to estimate costs per MW based on a development's number of turbines and its capacity.

12.5.2 The Proposed Development is expected to be up to 12 turbines with a total generating capacity >50 MW. The analysis also considers the impacts associated with the installation of a battery energy storage system ('BESS') with indicative capacity of up to 50 MW. It is estimated that the total development and construction expenditure would be approximately £189 million[24]. Expenditure was split according to the following component contracts:

- development and planning;
- turbine;
- balance of plant; and
- grid connection.

12.5.3 The greatest expenditure component is normally associated with turbines, equivalent to £74.4 million, or 39 % of total development and construction spend. A similarly large expenditure is associated with the battery storage component, equivalent to £69.5 million. Thereafter, balance of plant contracts, amounting to £29.8 million (16 % of total expenditure), development and planning (4 %) and grid connection (4 %)[25].

Table 12-15: Development and Construction by Contract Type

	% of CAPEX	Value (£m)
Development and Planning	4 %	7.1
Turbines	39 %	74.4
Balance of Plant	16 %	29.8
Grid Connection	4 %	7.8
Battery Storage	37 %	69.5
Total	100 %	188.6

12.5.4 In assessing the economic impacts arising from the development and construction of the Proposed Development, it is necessary to make assumptions on the ability of businesses within each Study Area to carry out contracts.

[24] BiGGAR Economics Analysis.

[25] BiGGAR Economics Analysis. Note: Totals may not add up due to rounding

12.5.5 Based on the evidence from similar developments and the Applicants established work with contractors, it has been estimated[26] that approximately 30 % of the Proposed Development's contracts could be carried out by Scottish businesses, with a value of £56.8 million. It has been estimated that spending on businesses based in Perth & Kinross and Stirling could be approximately £19.6 million, equivalent to 10 % of total development and construction expenditure. The greatest opportunity for Scottish businesses is expected to be in contracts associated with balance of plant, which could be worth up to £26.4 million. Balance of plant contracts are also likely to be the largest opportunity for businesses in Perth and Kinross and Stirling, worth around £10 million.

Table 12-16: Development and Construction Expenditure

	Perth and Kinross and Stirling		**Scotland**	
	%	£m	%	£m
Development and Planning	52 %	3.7	91 %	6.5
Turbines	2 %	1.6	10 %	7.1
Balance of Plant	34 %	10.2	89 %	26.4
Grid Connection	35 %	2.8	73 %	5.7
Battery Storage	2 %	1.4	16 %	11.1
Total	10 %	19.6	30 %	56.8

12.5.6 Having estimated the size of the contracts that could benefit Perth and Kinross and Stirling, as well as Scotland as a whole, it was possible to estimate the Gross Value Added (GVA) and short-term employment that these are likely to support. This was done by splitting each contract category into its component contracts and assigning each to an industrial sector, based on its Standard Industrial Classification (SIC)[27] code. Direct GVA was then estimated by applying the relevant turnover per GVA from the UK Annual Business Survey (ABS)[28].

12.5.7 It was estimated[29] that the development and construction of the Proposed Development is likely to generate £11.3 million direct GVA in Perth and Kinross and Stirling and £29.4 million direct GVA in Scotland.

Table 12-17: Development and Construction, Direct GVA (£m)

	Perth and Kinross and Stirling	**Scotland**
Development and Planning	2.6	4.1
Turbines	0.8	3.7
Balance of Plant	5.8	13.3
Grid Connection	1.5	3.0
Battery Storage	0.7	5.3
Total	**11.3**	**29.4**

[26] BiGGAR Economics Analysis. Note: Totals may not add up due to rounding

[27] Office for National Statistics (2009), Standard Industrial Classification of industrial Activities (SIC 2007).

[28] Office for National Statistics (2020), Annual Business Survey 2018 - Revised.

[29] BiGGAR Economics Analysis. Note: Totals may not add up due to rounding

12.5.8 Similarly, it was feasible to estimate the number of direct jobs supported by spending in construction and development contracts. This was achieved by dividing the expenditure in each contract by the turnover per job ratio for the relevant sector. It was estimated that the development and construction of the Proposed Development will generate 129 direct years of employment in Perth and Kinross and Stirling and 358 direct years of employment in Scotland.

Table 12-18: Development and Construction, Direct Employment (Years of Employment)

	Perth and Kinross and Stirling	Scotland
Development and Planning	13	32
Turbines	15	57
Balance of Plant	73	155
Grid Connection	20	38
Battery Storage	10	76
Total	**129**	**358**

12.5.9 Expenditure in development and construction contracts is also expected to generate 'knock-on' effects across the economy. Specifically, it will be associated with further rounds of expenditure along the supply chain and with the spending of the wages and salaries of those involved in the development and construction of the Proposed Development. These are referred to as 'indirect' and 'induced' impacts.

12.5.10 To estimate indirect and induced impacts, it was necessary to apply the relevant Type 1 and Type 2 GVA and employment multipliers from the Scottish Government Input-Output Tables[30] to direct GVA and direct employment. Since the multipliers refer to sectoral interactions occurring at the level of the Scottish economy, it was necessary to adjust them when considering impacts taking place in Perth and Kinross and Stirling.

Table 12-19: Development and Construction, Total Employment (Years of Employment)

	Perth and Kinross and Stirling	Scotland
Direct Employment Impact	129	358
Indirect Employment Impact	10	132
Induced Employment Impact	16	73
Total Employment Impact	**156**	**564**

Table 12-20: Development and Construction, Total GVA (£m)

	Perth and Kinross and Stirling	Scotland
Direct GVA Impact	11.3	29.4
Indirect GVA Impact	0.9	11.1
Induced GVA Impact	1.8	7.9
Total GVA Impact	**14.0**	**48.3**

12.5.11 By combining the direct, indirect, and induced impacts it was estimated[31] that the development and construction of the Proposed Development will generate a total of:

- £14.0 million GVA and 156 years of employment in Perth and Kinross and Stirling; and

[30] Scottish Government (2020), Supply, Use and Input-Output Tables.

[31] BiGGAR Economics Analysis. Note: Totals may not add up due to rounding

- £48.3 million GVA and 564 years of employment in Scotland.

12.5.12 The peak level of employment during the development and construction of the Proposed Development was estimated to be[32]:

- 87 years of employment in Perth and Kinross and Stirling; and
- 298 years of employment in Scotland.

12.5.13 The peak level of employment supported by the Proposed Development represents less than 0.25 % of Perth and Kinross and Stirling's employment and was therefore considered of negligible magnitude. Economic activity with respect to the Scottish economy was also considered to be of negligible magnitude, as the peak employment supported by the Proposed Development represents far less than 0.25 % of Scotland's workforce.

12.5.14 Given its expected socioeconomic trends, the sensitivity of the Perth and Kinross and Stirling economy compared to the Scottish economy was considered low. Based on this, the effect of activity associated with the Proposed Development and construction of the Proposed Development on the Perth and Kinross and Stirling economy was assessed as **negligible (beneficial)**, which is not significant in terms of this EIA. The effect significance with respect to the Scottish economy was assessed as negligible (beneficial), which is not significant in terms of this EIA.

Potential Operational Effects

12.5.15 The initial stage in determining the economic impact stemming from the operations and maintenance of the Proposed Development involved assessing the annual total expenditure necessary for its operation. Based on the number of turbines and the Proposed Development's capacity, it was estimated that the annual cost of operations and maintenance (OPEX) is likely to amount to approximately £4.3 million.

12.5.16 It was further assumed that businesses in Perth and Kinross and Stirling could benefit from a total £1.9 million in operations and maintenance contracts (45 % of OPEX) annually, and that annual expenditure in Scottish contractors could be up to £3.9 million (92 % of OPEX).

Table 12-21: Operations and Maintenance Expenditure

	Perth and Kinross and Stirling		**Scotland**	
	%	£m	%	£m
Operations and Maintenance	45 %	1.9	92 %	3.9

12.5.17 The total turnover generated in each area was then divided by the turnover per GVA and turnover per job ratios of the sectors expected to carry out operations and maintenance contracts. In this way, it was estimated[33] that the Proposed Development is likely to generate £1.0 million direct GVA and 7 direct jobs in Perth and Kinross and Stirling, and £2.0 million direct GVA and 16 direct jobs across Scotland.

12.5.18 As with the development and construction of the Proposed Development, it was necessary to estimate the indirect and induced impacts associated with operations and maintenance contracts. This was done by applying the relevant Type 1 and Type 2 GVA and employment multipliers.

Table 12-22: Operations and Maintenance, Total Employment (Jobs)

[32] BiGGAR Economics Analysis. Note: Totals may not add up due to rounding

[33] BiGGAR Economics Analysis. Note: Totals may not add up due to rounding

	Perth and Kinross and Stirling	Scotland
Direct Employment Impact	7	16
Indirect Employment Impact	1	6
Induced Employment Impact	1	4
Total Employment Impact	**9**	**25**

Table 12-23: Operations and Maintenance, Total Annual GVA (£m)

	Perth and Kinross and Stirling	Scotland
Direct GVA Impact	1.0	2.0
Indirect GVA Impact	0.1	0.6
Induced GVA Impact	0.2	0.5
Total GVA Impact	**1.3**	**3.1**

12.5.19 By combining the direct, indirect, and induced impacts it was estimated[34] that the operations and maintenance of the Proposed Development will generate:

- £1.3 million GVA and 9 jobs in Perth and Kinross and Stirling; and
- £3.1 million GVA and 25 jobs in Scotland.

12.5.20 Based on the levels of economic activity relative to the size of their economies, the magnitude of these impacts was assessed as negligible with respect to the economies of Perth and Kinross and Stirling and Scotland. The sensitivity of the Perth and Kinross and Stirling economy was considered as low.

12.5.21 Therefore, the effect of the Proposed Development during its operation has been assessed as **negligible (beneficial)** with respect to the Perth and Kinross and Stirling and Scottish economies, which is Not Significant in terms of this EIA.

Wider Economic Impact

Non-Domestic Rates

12.5.22 The Proposed Development is expected to generate revenue for local authorities in Scotland, including Perth & Kinross Council and Stirling Council, through the annual payment of non-domestic rates.

12.5.23 To estimate the economic impact generated by non-domestic rates, it was first necessary to consider the rateable value of the development and apply the appropriate poundage rate. This was done by applying guidance developed by the Scottish Assessors Association to information about the performance of the Proposed Development.

12.5.24 Using this approach, it was projected that over its operational period, the Proposed Development is expected to make an annual contribution of approximately £892,000 to public finances. Across its 50-year operational lifespan, this contribution towards non-domestic rates is anticipated to accumulate to around £44.6 million.

12.5.25 The Proposed Development would contribute to local authorities, supporting additional spending on public services, although the distribution of non-domestic rate revenues would normally be determined nationally.

[34] BiGGAR Economics Analysis. Note: Totals may not add up due to rounding

12.5.26 The magnitude of the impact has been assessed as negligible for both the Perth & Kinross, Stirling and Scottish economies. When combined with the sensitivity to change of economic activity within these two Study Areas, it is assessed that this effect would be **negligible (beneficial)** for both of these receptors which is Not Significant in terms of this EIA.

Community Benefit Fund

12.5.27 In its publication outlining good practice principles for community benefits arising from onshore wind developments[35], the Scottish Government discusses the approach that developers should take when developing community benefit proposals with the local community. The recommended community benefit of £5,000 per MW, has the intention of creating value and achieving a lasting legacy for communities.

12.5.28 The Applicant has committed to offering £5,000 per MW of usable capacity per year, index linked, in community investment for the local area. The community investment fund from the Proposed Development is equivalent to up to £372,000 annually, or £18.6 million over the anticipated 50-year operational life of the Proposed Development. The fund will be distributed to support projects across the communities living in proximity of the Proposed Development, as well as wider regional funding, supporting projects across Perth and Kinross Council and potentially Stirling Council.

Tourism Assessment

Evidence on the Impacts of Wind Farms on Tourism

12.5.29 In 2008, the Moffat Centre at Glasgow Caledonian University studied the potential effects of wind farms on tourism[36]. The study analysed the possible effects of wind farm development and concluded that, while tourism may be affected in small numbers, the overall impact on tourism expenditure and employment would be limited. This study is now dated and since 2008, wind farms have become increasingly common across Scotland. It would be expected that, with the growth in onshore wind since the completion of the Moffat Centre study, any negative effects wind farms have on tourism would now be apparent in tourism employment statistics.

12.5.30 BiGGAR Economics produced a study on the effect that onshore wind has on tourism employment in 2021[37] (referred to as the 2021 study). The 2021 study, which analysed 16 onshore wind farms constructed between 2015 and 2019 in Scotland, reported on the effect these wind farms had on tourism employment at the national, regional, and local level.

12.5.31 In the 2021 study, tourism employment was considered over the period 2015 to 2019. During this period, the number of wind farms increased in Scotland and in almost all local authority areas, while employment in tourism also grew. The analysis found no correlation between tourism employment and the number of turbines at the national or local authority level.

12.5.32 The 2021 study also analysed the impact onshore wind has on tourism employment proximate to developments. Areas within 15 km areas of the wind farms constructed between 2015 and 2019 were analysed, comparing employment in tourism in 2015 and 2019, before the construction of the wind farms

[35] Scottish Government (2018) Scottish Government Good Practice Principles for Community Benefits from Onshore Renewable Energy Developments

[36] Glasgow Caledonian University/Moffat Centre (2020) Economic Impacts of Wind farms on Scottish Tourism

[37] BiGGAR Economics (2021). Wind Farms and Tourism Trends in Scotland: Evidence from 44 Winds Farms

and after, allowing for the exclusion of construction impacts on tourism (such as wind farm related workers staying at local accommodation).

12.5.33 The 2021 study found no link between the development of a wind farm and employment in the tourism sector. Of the 16 local areas included in the study, 11 experienced an increase in tourism employment between 2015 and 2019. In 12 of the local areas, employment grew faster or decreased less than the rate for the corresponding local authority.

12.5.34 The 2021 study also reassessed 28 wind farms constructed between 2009 and 2015 analysed in a previous 2017 study finding that, in the years following the construction of the 28 wind farms, 19 of the small areas experienced an increase in tourism employment, including four areas where tourism employment had fallen between 2009 and 2015. In 16 local areas, employment grew quicker or decreased less than in the corresponding local authority area.

12.5.35 The 2021 study concluded that there was no pattern suggesting the development of a wind farm would result in a reduction in tourism employment at a national, regional or local level.

12.5.36 Nevertheless, tourism makes an important contribution to the economy in Perth and Kinross and Stirling and so the following assessment considers whether there may be any impact on specific tourism-related businesses.

Determinants of Tourism Activity

12.5.37 Based on existing evidence on visitors' behaviour and the tourism businesses, activity is mostly driven by the following factors:

- the ability and willingness of tourists to travel;
- economic performance (and so whether tourists have disposable income available for leisure trips);
- exchange rates;
- the quality of the overall tourism service;
- the effectiveness of destination marketing; and
- the quality and value for money of the services offered by tourism businesses.

12.5.38 There exists no relationship between most of these factors and onshore wind farms. The assessment of tourism impacts considered whether visitor attractions and the motivations for visiting them would be affected by the Proposed Development.

12.5.39 For a change in tourism activity to happen, the following conditions would need to be met:

- the construction and/or operation of the proposed development has some impact (s) on the area;
- visitors, or potential visitors are aware of such impact (s);
- visitors, or potential visitors, react by changing their behaviour. for example, by changing the length of stay, where they choose to visit or the activities that they undertake;
- the quality of the overall tourism service;
- the change in behaviour results in a change in their level of spending; and
- these changes in visitor spending result in a change in performance of the tourism sector, for example a change in employment.

Visitor Attractions and Accommodation Providers – Effects During Construction and Operation

12.5.40 This section considers whether the Proposed Development would impact visitor behaviour in a way that would reduce visitor numbers to local attractions and affect the local tourism economy. VisitScotland identified seven local attractions were identified within 15 km of the Proposed Development including:

- two golf courses;
- two experience based attractions;
- one nature based attraction;
- one bridge; and
- one castle.

12.5.41 This assessment has been carried out in line with the guidance from NS (details in **paragraph 12.2.5** and **TA 12.1**) and considers relevant findings from the LVIA, Traffic and Transport, Cultural Heritage and Noise Chapters.

12.5.42 The Glen Ogle Viaduct offers a good viewpoint, and forms part of the popular recreational route, the Rob Roy way and National Cycle Route 7. It also brings visitors with an interest in Scottish railway heritage or bridge design. It is not expected these motivations will be affected by the Proposed Development. Therefore, the effect is expected to be negligible and **not significant**. This finding is in line with the **LVIA chapter** as there is no visibility of the Proposed Development from Glen Ogle.

12.5.43 Recreational and experience-based attractions such as safari tours, axe throwing, or land rover experiences at Highland Safaris and Red Deer Centre or cruises (Loch Tay cruises) are unlikely to be affected by the Proposed Development. This is because they attract visitors for a range of recreational activities they offer. Therefore, the effect is expected to be negligible and **not significant**.

12.5.44 The one nature-based attraction – Falls of Dochart – attracts visitors based on its picturesque scenery. Visitors often pass through as part of a walk from the nearby village of Killin. Given its distance from the Proposed Development, it is unlikely that visitors motivations for spending time there will be affected. Therefore, the effect is expected to be negligible and **not significant**. This is in line with the findings from the **LVIA chapter**, which identified limited visibility of the Proposed Development.

12.5.45 St Fillans Golf Club and Killin Golf Club attract visitors with an interest in recreational activity, in particular golf. It is not expected that these motivations will be affected by the Proposed Development. Based on the **LVIA Chapter 5**, visibility from St Fillans is limited to certain areas, such as the southern shore and St Fillans Hill, but does not disrupt key views of Loch Earn or its surroundings. In Killin, visibility is restricted to a single blade tip, and this is further obstructed by forestry on the slopes above Loch Tay, ensuring no significant visual effects for these locations. Therefore, the effect is expected to be negligible and **not significant.**

12.5.46 Visitors to Edinample Castle are driven to visit the site due to an interest in Scottish history, architecture, or the views across Loch Earn. It is not expected that these aspects will be affected by the Proposed Development. **LVIA Chapter 5** also identifies that the Proposed Development would occupy only a very limited part of the panoramic view which includes the castle. Therefore, the effect is expected to be negligible and **not significant**.

12.5.47 Similarly, a review of tourism activity within 15 km from the Proposed Development has identified 95 accommodation providers, including:

- 12 providers around Killin;
- 16 providers across Morenish and Kiltyrie;
- 22 providers across Lochearnhead;
- 18 providers across the Shore of Loch Tay;
- 11 providers around St Fillans; and
- 16 providers around Comrie.

12.5.48 The baseline analysis identified 12 accommodation providers within 5 km of the Proposed Development. These are mostly clustered around St Fillans. These accommodation providers market themselves based on the views of Loch Earn, proximity to Loch Lomond and Trossachs National Park and numerous recreational trails (these are considered in detail in the recreational trails assessment section below). None of these features are expected to be affected by the Proposed Development.

12.5.49 The marketing of the remaining accommodation providers focuses on a range of dimensions, including their modern amenities, accessibility to local walks and lochs, and closeness to Edinburgh and Glasgow. Given their relative distance from the Proposed Development, it is unlikely that these accommodation providers will be affected by it, so the impact is expected to be negligible and **not significant**.

12.5.50 These results are broadly in line with **LVIA chapter**. Although the assessment found a significant visual impact on one accommodation provider, the Loch Earn Leisure Park located to the east side of Loch Earn in St Fillans, it highlights that the visibility is limited to a small part of the area around the park. This is also the only caravan park in the area, therefore it is unlikely that visitors interested in this type of accommodation providers would be discouraged from staying there. The **Noise chapter** also assesses construction and operations effects as not significant. Therefore, the overall effect is expected to be **negligible** and **not significant**.

12.5.51 Some of the accommodation providers will also experience a positive impact from hosting contractors during the construction and ongoing maintenance of the Proposed Development. Therefore, there is expected to be a beneficial effect.

Recreational Trails – Effects During Construction and Operation

12.5.52 Within 15 km of the Proposed Development, 31 recreational trails were identified. They have been assessed based on whether there would be a reduction in visitors or recreational users in the area.

12.5.53 This assessment has been carried out in line with the guidance from NS (details in **paragraph 12.2.5** and **TA 12.1**) and considers relevant findings of the LVIA, Traffic and Transport, Cultural Heritage, and Noise Chapters.

12.5.54 A total 31 recreational walks are located within a distance within 15 km from the Proposed Development.

12.5.55 The LVIA chapter indicates that there are significant visual impacts associated with open views of the Proposed Development from recreational receptors, the majority of which are found at elevated areas related to recreational hill walkers. The Proposed Development would not directly impact any long-distance recreational routes within Loch Lomond and The Trossachs National Park (LLTNP), including the Rob Roy Way and National Cycling Route 7. Visibility of the Proposed Development is limited due to the 'constrained views within narrow glens and passes' and 'intervening upland ridgelines'. Limited visibility is possible along certain routes, such as through Loch Earn to St Fillans, and from a short section of the Rob Roy Way south of Lochearnhead. These include views from hills that form ridges around Loch Earn

and Loch Tay such as Ben Chonzie, Ben Vorlich, Ben Lawers and the Tarmachan ridgeline, as well as Glen Lednock. While there are significant visual impacts, these effects are localised and concentrated to short sections of the routes, leaving views largely unaffected.

12.5.56 Taking into account the numerous locations of recreational activity nearby, it is unlikely that the presence of the Proposed Development would affect tourism and recreational activity as a whole in the area as there are alternative viewpoints which are uninterrupted by the Proposed Development. Motivations for walking on these trails range from appreciation of their surrounding scenery to spending time outdoors and exercising and these motivations will not to be altered in the presence of the Proposed Development.

12.5.57 For the recreational trails identified, the following assessment applies:

- There would be no expected impact on access to this route as a result of the Proposed Development;
- It is not expected that the nature of the Proposed Development would result in intense levels of effect which would damage recreation on the route;
- Given that there would be no change to the Proposed Development over time, there would be no potential for any effects on the route to increase over time;
- The route forms part of a cluster of recreational trails in the area and therefore its scarcity value is relatively low; and
- Any visitors who prefer not to view manmade structures on recreational paths would have the opportunity to use other routes in the area with no visibility of the Proposed Development.

12.5.58 Consequently, the effect of the Proposed Development on those recreational trails has been assessed as negligible, and therefore **not significant.**

Core Paths – Effects During Construction and Operation

12.5.59 This assessment has been carried out in line with the guidance from NS (details in **paragraph 12.2.5** and **TA 12.1, EIAR Volume 4**).

12.5.60 The baseline assessment identified a key core path, the Tarken Lodge (LLTNP) - Allt an Fhionn - Glen Tarken (code STFI/101), 700m from the Proposed Development. The LVIA chapter indicates that for the majority of the paths there is no, or limited visibility and they are unlikely to have an impact on areas of tourism economy. However, a significant visual effect is found for the STFI/101 core path. Compared to recreational trails, which form part of the tourism offering of the local area, core paths tend to be used as walking routes by residents. On this basis, core paths were considered to have relatively low sensitivity with respects to the tourism economy. The assessment of impacts in the Traffic and Transport chapter, due to the temporary increase during the construction phase in traffic in the area's road network, also showed no significant effects on users of core paths after the implementation of the Construction Traffic Management Plan (CTMP).

12.5.61 Therefore, the overall effect is expected to be **negligible** and **not significant**.

12.6 Cumulative Effects

12.6.1 There may be cumulative effects on socio-economics if the Proposed Development supports the development of a local supply chain, which other wind farm developments in the area may benefit from. This would benefit local businesses and increase the economic impact in the study areas.

12.6.2 Based on the **LVIA chapter** findings, the Proposed Development does not result in significant cumulative effects under most scenarios, as there are no consented or application wind energy developments in close proximity, and the influence of existing operational wind farms, such as Calliachar and Griffin, is limited due to their distance (over 20 km). The perception of a 'landscape with wind farms' is maintained within the existing visual and landscape context, rather than shifting to a more intensified impact.

12.6.3 However, under the scoping scenario that includes the potential Glen Lednock scheme, some localised significant cumulative effects are identified for specific viewpoints, landscape character types, and special landscape qualities. This is primarily due to the increased horizontal extent of wind energy development and its intensified presence in key views. Despite these findings from the **LVIA chapter**, the overall perception of a 'landscape with wind farms' remains consistent across all scenarios, and no broader transformative effects are anticipated.

12.6.4 There is not a large number of onshore wind developments in the surrounding area and opportunities to use recreational routes with no visibility of any development. Therefore, it is not expected that there would be any significant cumulative effects on tourism and recreation assets as a whole.

12.7 Additional Mitigation

Mitigation During Construction

12.7.1 No mitigation measures have been identified with regards to socioeconomics, tourism and recreation during the construction period as no significant effects were identified after taking into account the CTMP related to the core paths and other paths in the Proposed Development Area, the mitigation measures for Cultural Heritage, the Biodiversity Enhancements and Management and **TA 12.2: Recreation and Outdoor Access Plan (EIAR Volume 4)**.

Mitigation During Operation

12.7.2 No mitigation measures have been identified with regards to socioeconomics, tourism and recreation during the operational period as no significant effects were identified.

12.8 Assessment of Residual Effects

Residual Construction Effects

12.8.1 After accounting for mitigation associated with construction activity, the effect from the Proposed Development was assessed as:

- A negligible (beneficial) effect on the economy of Perth and Kinross and Stirling;
- A negligible (beneficial) effect on the economy of Scotland;
- A negligible (adverse) effect on local tourism economy;
- A negligible (adverse) effect on recreational walks;
- A negligible (beneficial) effect on accommodation providers; and
- A negligible (adverse) effect on visitor attractions.

Residual Operational Effects

12.8.2 After accounting for mitigation associated with operational activity, the effect from the Proposed Development was assessed as:

- A negligible (beneficial) effect on the economy of Perth and Kinross and Stirling;
- A negligible (beneficial) effect on the economy of Scotland;

- A negligible (adverse) effect on local tourism economy;
- A negligible (adverse) effect on recreational walks;
- A negligible (beneficial) effect on accommodation providers; and
- A negligible (adverse) effect on visitor attractions.

12.9 Monitoring

Construction Phase Monitoring

12.9.1 No monitoring is required with regards to socioeconomics, tourism and recreation during the construction period.

Operation Phase Monitoring

12.9.2 No monitoring is required with regards to socioeconomics, tourism and recreation during the operational period.

12.10 Summary

Table 12-24: Summary of Potential Significant Effects

Likely Significant Effect	Mitigation Proposed	Significance	Outcome/ Residual Effect
Construction			
£14.0 million GVA and 156 years of employment in Perth and Kinross and Stirling	N/A	Negligible and beneficial	Not significant
£48.3 million GVA and 564 years of employment in Scotland.	N/A	Negligible and beneficial	Not significant
Effects on Local tourism economy	N/A	Negligible and adverse	Not significant
Effect on recreational walks and core paths	N/A	Negligible and adverse	Not significant
Effect on accommodation providers	N/A	Negligible and beneficial	Not significant
Effect on visitor attractions	N/A	Negligible and adverse	Not significant
Operation			
£1.3 million GVA and 9 jobs in Perth and Kinross and Stirling	N/A	Negligible and beneficial	Not significant
£3.1 million GVA and 25 jobs in Scotland.	N/A	Negligible and beneficial	Not significant
Up to £372,000 annual community benefit payments	N/A	Negligible and beneficial	Not significant
Payment of non-domestic rates	N/A	Negligible and beneficial	Not significant
Effect on local tourism economy	N/A	Negligible and adverse	Not significant
Effect on recreational walks and core paths	N/A	Negligible and adverse	Not significant
Effect on accommodation providers	N/A	Negligible and beneficial	Not significant
Effect on visitor attractions	N/A	Negligible and adverse	Not significant