Economic and Community Impact Report

A report to SSE Renewables
December 2024

BiGGAR Economics

Contents

1. Executive Summary

BiGGAR Economics was commissioned by SSE Renewables, to assess the economic impact of Glentarken Wind Farm (the Proposed Development).

The Proposed Development is an onshore wind farm located on the Drummond Estate, located between St Fillans and Lochearnhead in Perthshire, with an installed wind capacity of 74.4 MW. The Proposed Development also includes the installation of a battery energy storage system (BESS) with a capacity of up to 50 MW.

The Proposed Development will generate a number of direct economic benefits through its construction and operation. It is estimated that The Proposed Development during its construction and development would generate up to:

- £14.0 million Gross Value Added (GVA) and 156 person-years of gross temporary employment generated in Perth and Kinross and Stirling during construction; and
- £48.3 million GVA and 564 person-years of employment across Scotland.

During its 50-year operational period The Proposed Development would generate up to:

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

The development, construction and operation of the Proposed Development will also provide benefits to the economy of Perth and Kinross and Stirling. As a responsible developer SSE is committed to maximising local economic impacts through its procurement and, where possible, will seek to maximise opportunities for local people, supply chains and economies surrounding their sites.

Throughout the operation of the Proposed Development, SSE will provide a package of community benefits. SSE is committed to offering £5,000 per MW installed wind capacity each year (and index linked to CPI) into a community benefit fund. The annual funding of around £372,000 will be used to support the aspirations and needs of the wider region, as well as the communities located close to the Proposed Development.

The Proposed Development will also contribute towards public finances through the payment of £892,000 million in non-domestic rates each year. These will support the provision of public services in Perth and Kinross and Stirling.

2. Introduction

BiGGAR Economics was commissioned by SSE Renewables to assess the potential socio-economic impacts from the construction and operation of the Glentarken Wind Farm.

2.1 Project Background

Glentarken Wind Farm is a proposed onshore wind farm development located between the local authorities of Perth and Kinross and Stirling (Figure 2-1). It is expected that the Proposed Development would be comprised of 12 turbines, each with a generating capacity of up to 6.2 MW, resulting in a total installed capacity of up to 74.4 MW. It is also expected to include the provision of a BESS, with an indicative capacity of approximately 50 MW.

Figure 2-1 Glentarken Wind Farm Site Location

Source: BiGGAR Economics

2.1.1 SSE

SSE Renewables are one of the UK's leading developers and operators in renewable energy generation. They are part of SSE Plc, responsible for 14,000 employees, 4,457 MW of renewable generation capacity, and a project pipeline of around 10GW of renewable energy projects across Europe, the UK and Ireland[1]. These projects span a range of renewable technologies including onshore wind. SSE have contributed a total of 2GWs of installed capacity of onshore wind in the UK and Ireland across 51 wind farms[2]. Of these 51 onshore wind farms, 24 are located in Scotland.

2.2 Report Structure

The remainder of this report is structured as follows:

- section 3 places the development in the context of national, regional, and local economic strategies;
- section 4 considers the socio-economic context where the project sits;
- section 5 considers the supply chain development plan for Glentarken Wind Farm;
- section 6 sets out the economic impact of the construction and operation of Glentarken Wind Farm under the commitment and ambitious scenario;
- section 7 outlines the tourism sector of the area and considers the relationship between the proposed wind farm and the local tourism economy; and
- section 8 gives details on the proposed community investments that SSE have considered as a part of the wind farm development.

[1] SSE (2024) *SSE in Numbers*. Accessed: https://www.sse.com/about-us/
[2] SSE (2024) *Onshore Wind*. Accessed: https://www.sse.com/our-technologies/onshore-wind/

3. Strategic Context

This section considers national, regional, and local strategies and how Glentarken Wind Farm supports their delivery.

3.1 National Strategic Context

3.1.1 National Performance Framework

The National Performance Framework[3] (NPF) sits at the top of the policy hierarchy in Scotland, with all other policies and strategies designed to meet its purpose and outcomes.

The "purpose" of the NPF is:

"To focus on creating a more successful country with opportunities for all of Scotland to flourish through increased wellbeing, and sustainable and inclusive economic growth".

The NPF explicitly 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 NPF is designed to give a more rounded view of economic performance and progress towards achieving sustainable and inclusive economic growth and wellbeing across Scotland and aims to:

- create a more successful country;
- give opportunities to all people living in Scotland;
- increase the wellbeing of people living in Scotland;
- create sustainable and inclusive growth; and
- reduce inequalities and give equal importance to economic, environmental, and social progress.

The NPF sets out 11 outcomes, underpinned by 81 indicators, that combine to give a better picture of how the country is progressing towards these goals. As well as GDP and employment measures, the NPF's outcomes reflect the desired fabric of communities and culture, education, the environment, health and wellbeing and

[3] Scottish Government, Scotland's National Performance Framework.

measures to help tackle poverty. It is these indicators on which the Scottish Government focuses its activities and spending to help meet the national outcomes.

The 11 national outcomes are:

- **children and young people**: grow up loved, safe and respected so that they realise their full potential;
- **communities**: live in communities that are inclusive, empowered, resilient and safe;
- **culture**: are creative and their vibrant and diverse cultures are expressed and enjoyed widely;
- **economy**: have a globally competitive, entrepreneurial, inclusive, and sustainable economy;
- **education**: are well educated, skilled and able to contribute to society;
- **environment**: value, enjoy, protect, and enhance their environment;
- **fair work and business**: have thriving and innovative businesses, with quality jobs and fair work for everyone;
- **health**: are healthy and active;
- **human rights**: respect, protect and fulfil human rights and live free from discrimination;
- **international**: are open, connected and make a positive contribution internationally; and
- **poverty**: tackle poverty by sharing opportunities, wealth, and power more equally.

Onshore wind, and the expansion of onshore wind, will contribute to many of these intended outcomes. Onshore wind will contribute to the protection of the environment through the reduction of greenhouse gas emissions. Further, throughout the development and lifetime of onshore wind projects high value jobs will be generated enabling greater access to quality work. Given the localised nature of onshore wind opportunities for fair work will be increasingly generated for rural communities.

3.1.2 National Strategy for Economic Transformation

Released in March 2022 by the Scottish Government, the National Strategy for Economic Transformation (NSET) 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.

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.

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.

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.

3.1.3 National Planning Framework 4

The National Planning Framework 4 (NPF4)[4] is Scotland's national spatial strategy that outlines principles required for planning decisions, national developments and regional priorities.

It consists of six spatial principles designed to achieve a just and equitable net zero transition. The first spatial principle is designed to ensure that this transition is fair and inclusive, supports rural sustainable developments, and ensures rural revitalisation. It is intended that through this focus the planning and delivery of sustainable places will be supported and therefore limit and reduce the emissions and biodiversity loss of rural areas.

In the context of energy generation, Policy 11 is relevant to the socio-economic impact of the Proposed Development. Paragraph (c) 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".

3.1.4 Community Wealth Building

Community Wealth Building (CWB) is an approach to local economic development that aims to keep wealth circulating locally to ensure more inclusive, resilient, and sustainable local economic development. CWB is based around five principles[5]:

- plural ownership of the economy;
- ensuring financial power works for local places;

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

[5] See Centre for Local Economic Strategies - https://cles.org.uk/community-wealth-building/how-to-build-community-wealth/

- fair employment and just labour markets;
- progressive procurement of goods and services; and
- socially productive use of land and property.

The Scottish Government has adopted the internationally recognised Community Wealth Building (CWB) approach to economic development as a key practical means by which we can achieve our wellbeing economy objectives outlined in the National Strategy for Economic Transformation (NSET).

Community wealth building is also recognised as part of the National Planning Framework 4 (section 3.1.3), with policy 25 stating that " development proposals which contribute to local or regional community wealth building strategies and are consistent with local economic priorities will be supported."

3.1.5 Tourism Strategy: Scotland's Outlook 2030

Following on from the Tourism Scotland 2020 (TS2020) strategy[6], a collaborative network of industry experts created Scotland's Outlook 2030, a strategy document which is 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.

The strategy recognises the effects on tourism of climate change, technological advancements, Brexit and changing consumer behaviour and highlights the need for collaboration between government, communities, and the public and private sectors[7].

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

- 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.

[6] Scottish Tourism Alliance (2012). Tourism Scotland 2020
[7] Scottish Tourism Alliance (2020). Scotland's Outlook 2030

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.

3.2 Regional Strategic Context

3.2.1 Stirling's Economic Strategy 2022

Stirling's Economic Strategy[8] 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.
- 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.

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

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 to have a greater stake in their local economy.

3.2.2 Stirling Council 10 year Strategy 2020-2030

Thriving Scotland is Stirling's 10 year strategy spanning 2020-2030. 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;

[8] Stirling Council (2022) *Stirling's Economic Strategy 2022.* Accessed: https://investinstirling.com/2022/03/stirlings-new-economic-strategy/#:~:text=Structured%20around%20three%20core%20themes,Tackle%20inequality

- a thriving organisation that is efficient, high performing, innovative, solution focused, and collaborative.

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

- Social and economic equality;
- Financial sustainability;
- Carbon net zero;
- Strong economy;
- Community viewpoint.

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.

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

3.2.3 Perth and Kinross Local Outcomes Improvement Plan 2022-2032

The Perth and Kinross Local Outcomes Improvement Plan 2022-2032[9] seeks to identify and reduce social and economic inequalities across their region to create prosperity and opportunity. The five strategic priorities identified in their Local Outcomes Improvement Plan are:

- Reducing poverty;
- Improving physical and mental wellbeing;
- Improving digital connectivity
- Advancing learning and development; and
- Increasing employability.

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.

[9] Perth and Kinross Community Planning Partnership (2022) *Perth and Kinross Local Outcomes Improvement Plan 2022-2032.* Accessed: https://www.pkc.gov.uk/media/40553/Community-Plan-Local-Outcomes-Improvement-Plan-2022-2032/pdf/LOIP_2022-2032.pdf?m=638049792076130000

3.2.4 Perth and Kinross Local Development Plan 2

Perth and Kinross Local Development Plan 2[10] (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.

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 clear, they want to:

- Improve long-term resilience and robustness of the natural and build 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
- Promote sustainable electricity generation development from a diverse range of sources including the expansion and repowering of renewables.

The Plan highlights its support for onshore wind, having published a Spatial Framework for onshore wind development across Perth and Kinross.

3.2.5 Perthshire Tourism Action Plan

The Perthshire Tourism Action[11] seek 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. They intend to grow their visitor economy by:

- Restoring the value of tourism to pre-COVID-19 levels and extending the season to year-round visits
- Place Perthshire as a leading responsible tourism destination in Scotland
- Increase the benefits, and positive impact, of tourism across Perthshire's communities
- Promote digital marketing across Perthshire's destinations

[10] Perth and Kinross Council (2019) *Local Development Plan 2.* Accessed: https://www.pkc.gov.uk/media/45242/Adopted-Local-Development-Plan-2019/pdf/LDP_2_2019_Adopted_Interactive.pdf?m=1576667143577

[11] Perth and Kinross Council (2021) *Perthshire Tourism Action Plan (2021-2025).* Accessed: https://www.investinperth.co.uk/wp-content/uploads/2021/10/MASTER_-Perthshire-Tourism-Action-Plan-2021-25.pdf

3.3 Summary of Strategic Context

As discussed, onshore wind is increasingly being positioned in national strategies as a clear way of combating net zero and growing alternative energy generation industries. Stirling, Perth and Kinross can benefit from this expansion and take advantage of high skilled, high value jobs set to be created throughout project lifetimes.

However, it is of importance that the correct infrastructural and skills training is developed in conjunction, and in anticipation, of this transition to ensure that full economic benefits can be enjoyed.

4. Local Economic Context

This section considers the socio-economic context for Glentarken Wind Farm.

The socio-economic baseline for the Proposed Development focuses on the following study areas:

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

Figure 4-1: Study Areas

4.1 Demographics

4.1.1 Population Estimates

In 2021 the population of the Local Area was 23,288, or 9.4% of the Perth and Kinross, and Stirling.

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

The Local Area, along with Perth and 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 and Kinross and Stirling (22.6%) and Scotland (19.6%).

Table 4-1 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**

Source: Population estimates - local authority based by five year age band - Data for 2022.

4.1.2 Population Projections

As Perth and 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.

As Table 4-2 details, in Perth and Kinross and Stirling, the proportion of those aged 16-64 is expected to decrease to 56.9% by 2043. 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 and Kinross and Stirling aged 65 and over is expected to increase to 29.0%, above the Scottish average of 24.9%.

As Perth and 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 4-2 Population Projections

	Perth and Kinross and Stirling		Scotland	
	2022	2043	2022	2043
Total	**247,300**	**254,044**	**5,479,900**	**5,574,819**
% 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%**

Source: Welsh Government (2021), 2018-based local authority projections for Wales, 2018 to 2043; England is from ONS. Population projections - local authority based by single year of age; Scotland, National Records of Scotland (2020), Population Projections for Scottish Areas (2018-based)

4.2 Industrial Structure

The industrial structure of the Local Area, Perth and Kinross and Stirling and Scotland is set out in Table 4-3. 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.

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.

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 4-3: Sectoral Employment

	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%

Source: Annual Population Survey - Data for Oct 2022-Sep 2023 and the annual survey of hours and earnings - resident analysis data for – 2023

4.3 Economic Activity

As shown in Table 4-4, Perth and Kinross and Stirling has a higher share of its working age population which is economically active (80.9%) compared to Scotland as a whole (77.5%).

The unemployment rate in Perth and Kinross and Stirling (3.4%) was below the Scottish average (3.6%) in 2023. In 2022, the median annual gross wage was also slightly higher for residents of Perth and Kinross and Stirling (£34,277) than for residents of Scotland (£33,332).

Table 4-4 Economic Activity, 2022

	Perth and Kinross and Stirling	Scotland
Economic Activity Rate	80.9%	77.5%
Unemployment Rate	3.4%	3.6%
Medium Annual Gross Income (full-time workers)*	£34,277	£33,332

Source: Annual Population Survey - Data for Jan 23- Dec 2023 and the annual survey of hours and earnings - resident analysis data for – 2022.

4.4 Education

As shown in Table 4-5, 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 and 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 compared to the national average of 50%.

Very high levels of population with NVQ1&2, depending on sector of training, this is easily added to, opportunities could emerge through the project under the community wealth fund to facilitate further training to access high value jobs created through this, and future projects.

Education levels in the region suggest a diverse labour pool that would benefit from high value, meaningful jobs, generated through the energy transition and correlate well with this project.

Table 4-5 Education Levels

	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%

Source: annual population survey - Data for Jan 2021-Dec 2021

4.5 Scottish Index of Multiple Deprivation

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.

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 4-6: SIMD Index

	Local Area	Perth and Kinross and Stirling
1 (20% Most Deprived)	0%	4%
2	7%	11%
3	37%	21%
4	43%	33%
5 (20% Least Deprived)	13%	31%
Number of small areas	**31**	**308**

4.6 Summary of Local Economic Context

The proportion of working age population is projected to decline across Stirling, Perth and 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 (Strathearn, Trossachs and Teith) will follow a similar trend in their population.

While deprivation levels in the Local Area is 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 the region and Scotland. However, upon closer examination these high employment numbers are largely from the manufacturing of food and beverages.

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.

5. Supply Chain Development Plan

This section sets out the level of content that could be achieved under the commitment and ambition scenario, as well as initiatives aimed at maximising local economic activity.

5.1 Background

5.1.1 Supply Chain Development Methodology

Assumptions on the supply chain content achieved during the development, construction and operational phases of Glentarken Wind Farm have been based on two scenarios:

- **commitment scenario**: the level of content that is achievable based on the existing supply chain; and
- **ambition scenario**: the level of content that could be realised through extensive developer engagement to maximise local economic benefits.

The analysis relies on BiGGAR Economics expertise and understanding of the onshore wind sector, including evaluations of built developments in the Southwest of Scotland and evidence from Renewable UK's onshore wind industry prospectus[12]. The assessment also considers any supply chain opportunities linked to battery storage.

The supply chain development plan assesses the capacity of local supply chains to fulfil the following contract types:

- development and planning;
- balance of plant;
- turbines;
- grid connection;
- battery storage; and
- operations and maintenance.

5.1.2 Study Area

The assumptions on content cover three study areas:

- Perth and Kinross and Stirling; and

[12] RenewableUK (2021) The onshore wind industry prospectus.

- Scotland.

5.2 Commitment Scenario

This section sets out the assumptions underpinning the commitment scenario. The analysis relies on BiGGAR Economics understanding of the businesses already present within each of the study areas considered. All the figures below are based on BiGGAR Economics' experience and analysis.

5.2.1 Development and Planning

Based on BiGGAR Economics' analysis, project development contracts are expected to be worth £67.1 million, which is equivalent to around 4% of Capex.

Under the commitment scenario, it is expected that Perth and Kinross and Stirling will mainly benefit from land agreements and part of the planning and consent contracts. Local businesses could also be involved in the delivery of some of the pre-construction engineering activity required on site.

A relatively high level of Scottish content is expected across most contracts, aside from project financing and project management, which will be performed either elsewhere in the UK or abroad.

5.2.2 Balance of Plant

Balance of plant contracts for Glentarken Wind Farm could be worth £29.8 million or around 16% of Capex.

Most of the activity required during this phase of works involves construction and civil engineering. While there is no primary civils contractor based in Perth and Kinross or in Stirling, it is expected that local companies could contribute as subcontractors or as suppliers of materials and plant equipment. On this basis, it was estimated that local businesses could attract up to 34% of spending in balance of plant contracts. Contractors based either in Scotland or elsewhere in the UK will benefit from the remaining expenditure.

5.2.3 Turbines

Turbine contracts could constitute around 39% of the Capex required to build Glentarken Wind Farm for a total spending of £74.4 million.

Given the lack of turbine manufacturing capacity within the UK, it is expected that turbines will be imported. As either Perth and Kinross and Stirling have no coast, the turbines will be delivered at a Scottish port within another local authority area. It is also expected that local transport will rely on a company with operations somewhere else in Scotland. However, there will be opportunities for businesses based in Perth and Kinross and Stirling to deliver ancillary services including engineering services, skip and other plant hire, security services and cleaning services.

5.2.4 Grid Connection

Based on BiGGAR Economics' analysis, grid connection is expected to cost £7.8 million, equivalent to around 4% of Capex.

The main opportunities with regards to grid connection contracts in Perth and Kinross and Stirling and Scotland are engineering services and grid connection and substation construction. Over 73% of grid connection contracts could be carried out by businesses based within Scotland.

5.2.5 Battery Storage

Contracts for battery storage are expected to be worth £69.5 million or around 37% of CAPEX. Activity has been split across two subcategories: battery supply (including storage block, storage balance of system and power equipment) and installation. It was assumed that the main opportunities for suppliers within Scotland and Perth and Kinross and Stirling would be in installation contracts, with no Scottish content expected for battery supply.

5.2.6 Operations and Maintenance

Each year around £1.9 million could be spent in operations and maintenance contracts. Businesses located in Perth and Kinross and Stirling could mostly benefit from contracts on site management, habitat management, turbine maintenance and land agreements. Overall Scottish contractors are expected to attract £3.9 million of spending.

5.2.7 Summary of Content Under the Commitment Scenario

Overall, it is expected that under the commitment scenario 10% of CAPEX will benefit businesses in Perth and Kinross and Stirling and 30% will benefit those based in Scotland. Assumptions on content by contract and study area are set out in Table 5-1.

Table 5-1 Commitment Scenario – Content Assumptions

	Perth and Kinross and Stirling	Scotland
Construction and Development		
Development and Planning	52%	91%
Turbines	2%	10%
Balance of Plant	34%	89%
Grid Connection	35%	73%
Battery Storage	2%	16%
Capex	**10%**	**30%**
Operations and Maintenance		
Operations and Maintenance	**45%**	**92%**

Source: BiGGAR Economics Analysis

5.3 Ambition Scenario

This section sets out the main differences in local content that could be achieved from the extensive engagement programme set out as part of the Supply Chain Development Plan.

5.3.1 Development and Planning

Compared to the commitment scenario, under the ambition scenario suppliers from Perth and Kinross and Stirling were expected to perform a larger share of pre-construction works, planning and consent activities. A limited level of project management activity was also assumed to take place in Perth and Kinross and Stirling. Similarly, under this scenario almost all the spending in development and planning activity will benefit businesses operating in Scotland.

5.3.2 Balance of Plant

As for the commitment scenario, the primary balance of plant contractor was assumed to be a Scottish company. However, under the ambition scenario, the primary contractor is expected to engage more extensively with local businesses. This will lead to around 37% of spend in balance of plant contracts benefitting companies based in Perth and Kinross and Stirling. A larger share of balance of plant contracts will be carried out by Scottish-based companies compared to the commitment scenario.

5.3.3 Turbines

Under the ambition scenario, the focus on maximising local benefits from turbines-related contracts will be on ancillary services (e.g., engineering services, skip and other plant hire, security services and cleaning services). There will also be a larger probability that the transportation of turbines from the port to the site and their assembly will be carried out by businesses based in Scotland.

5.3.4 Grid Connection

The ambition scenario assumes that almost all of spending for grid connection will be captured by businesses located within the UK. Similarly, Scottish businesses are expected to carry out most contracts, though they will be less likely to supply the electrical components and industrial equipment and machines required. Businesses in Perth and Kinross and Stirling are expected to attract around 61% of spending in grid connection contracts.

5.3.5 Battery Storage

It was assumed that the installation of the battery storage element of the development would be carried out by businesses based in Scotland, with a limited level of spend retained in Perth and Kinross and Stirling.

5.3.6 Operation and Maintenance

Under the ambition scenario, up to 57% of spending in operations and maintenance contracts could be secured by businesses in Perth and Kinross and Stirling. Local businesses were assumed to deliver habitat management and operational

management contracts. Under the ambition scenario, the level of Scottish content could be around 98%.

5.3.7 Summary of Content Under the Ambition Scenario

Overall, it is expected that under the ambition scenario 12% of Capex could benefit businesses in Perth and Kinross and Stirling, and 33% those based in Scotland. Assumptions on content by contract and study area are set out in Table 5-2.

Table 5-2 Ambition Scenario - Content Assumptions

	Perth and Kinross and Stirling	Scotland
Construction and development		
Development and Planning	65%	100%
Turbines	2%	15%
Balance of Plant	37%	100%
Grid Connection	61%	79%
Battery Storage	2%	16%
Capex	**13%**	**34%**
Operations and Maintenance		
Operations and Maintenance	**57%**	**98%**

Source: BiGGAR Economics Analysis

6. Economic Impact Scenarios

This section estimates the economic impact from supported by Glentarken Wind Farm under the commitment and ambition scenario.

6.1 Commitment Scenario

6.1.1 Construction and Development

Based on the opportunities set out in the Supply Chain Development Plan, it was estimated that under the commitment scenario total spending in capital expenditure (CAPEX) could be £19.6 million in Perth and Kinross and Stirling, £56.8 million in Scotland (inclusive of Perth and Kinross and Stirling).

Balance of plant contracts are the largest economic opportunity across the two study areas, accounting for up to £10.2 million in contracts across Perth and Kinross and Stirling and £26.4 million in Scotland.

Table 6-1 Commitment Scenario: Development and Construction by Study Area (£m)

	Perth and Kinross and Stirling	Scotland
Development and Planning	3.7	6.5
Turbines	1.6	7.1
Balance of Plant	10.2	26.4
Grid Connections	2.8	5.7
Battery Storage	1.4	11.1
Total	19.7	56.8

Source: BiGGAR Economics Analysis. *Totals may not add up due to rounding

To estimate the direct GVA from each of the main contract categories, each contract was split into sub-contracts. The turnover under each sub-contract was then divided by an appropriate sectoral turnover per GVA ratio. In this way, it was estimated that construction and development contracts could generate £11.3 million direct Gross Value Added (GVA) in Perth and Kinross and Stirling, and £29.4 million direct GVA in Scotland, as shown in Table 6-2.

Table 6-2 Commitment Scenario: Direct GVA by Contract Type and Study Area

	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 Connections	1.5	3.0
Battery Storage	0.7	5.3
Total Direct GVA	11.4	29.4

Source: BiGGAR Economics Analysis. *Totals may not add up due to rounding

Similarly, the turnover associated with each contract was divided by the turnover per job of the sector delivering it. In this way, it was estimated that Glentarken Wind Farm could support 129 direct years of employment in Perth and Kinross and Stirling, 358 direct years of employment in Scotland.

Table 6-3 Commitment Scenario: Direct Employment by contract type and study area

	Perth and Kinross and Stirling	Scotland
Development and Planning	13	32
Turbines	15	57
Balance of Plant	73	155
Grid Connections	20	38
Battery Storage	10	76
Total Direct Years of Employment	131	358

Source: BiGGAR Economics Analysis

To estimate indirect and induced impacts, it was necessary to multiply the direct GVA and direct employment supported by each contract by the relevant sectoral GVA and employment Type 1 and Type 2 economic multipliers.

Adding together direct, indirect and induced impacts, it was estimated that Glentarken Wind Farm could generate a total £14.0 million GVA and support 156 years of employment in Perth and Kinross and Stirling, and £48.3 million GVA and 564 years of employment in Scotland.

Table 6-4 Commitment Scenario: Total GVA Impacts

	Perth and Kinross and Stirling	Scotland
Direct GVA	11.3	29.4
Indirect GVA	0.9	11.1
Induced GVA	1.8	7.9
Total GVA	14.0	48.4

Source: BiGGAR Economics Analysis. *Totals may not add up due to rounding

Table 6-5 Commitment Scenario: Total Employment Impacts

	Perth and Kinross and Stirling	Scotland
Direct Years of Employment	129	358
Indirect Years of Employment	10	132
Induced Years of Employment	16	73
Total Years of Employment	155	563

Source: BiGGAR Economics Analysis

6.1.2 Operations and Maintenance

A similar approach was adopted to estimate the economic impact from operations and maintenance contracts. Under the commitment scenario, it was estimated that Perth and Kinross and Stirling could benefit from £1 million in operations and maintenance contracts, with Scottish businesses potentially benefitting from £1.9 million.

Table 6-6 Commitment Scenario: Operations and Maintenance Spending by Study Area

	Perth and Kinross and Stirling	Scotland
Turnover (£ million)	1.9	3.9
% of Opex	45%	92%

Source: BiGGAR Economics Analysis

By applying relevant economic ratios and multipliers, it was estimated that each year the spending required for the operation and maintenance of Glentarken Wind Farm could generate £1.3 million GVA and support 9 jobs in Perth and Kinross and Stirling, and £3.1 million GVA and 25 jobs in Scotland.

Table 6-7 Commitment Scenario: Operations and Maintenance Total Impact

	Perth and Kinross and Stirling	Scotland
GVA (£ million)	1.3	3.1
Employment	9	25

Source: BiGGAR Economics Analysis

6.2 Ambition Scenario

6.2.1 Construction and Development

In a similar way as for the commitment scenario, it was possible to estimate the impact from construction and development spending under the ambition scenario. Based on the assumptions set out as part of the Supply Chain Development Plan, total spending in Capex could reach £23.6 million in Perth and Kinross and Stirling, and £65.0 million in Scotland.

As under the commitment scenario, balance of plant contracts are expected to generate the largest revenue for businesses in Perth and Kinross and Stirling, and Scotland. More extensive engagement with suppliers could result in balance of plant contracts worth £11.1 million being secured by businesses in Perth and Kinross and Stirling and £29.8 million for businesses across Scotland.

Table 6-8 Ambition Scenario: Development and Construction by Study Area

	Perth and Kinross and Stirling	Scotland
Development and Planning	4.6	7.1
Turbines	1.7	10.9
Balance of Plant	11.1	29.8
Grid Connections	4.8	6.1
Battery Storage	1.4	11.1
Total	**23.6**	**65.0**

Source: BiGGAR Economics Analysis. *Totals may not add up due to rounding

To estimate the direct GVA from each of the main contract categories, the turnover under each contract was divided by the relevant sectoral turnover per GVA ratio. In this way, it was estimated that under the ambition scenario construction and development contracts could generate £13.3 million direct GVA in Perth and Kinross and Stirling, and £33.8 million direct GVA in Scotland.

Table 6-9 Ambition Scenario: Direct GVA by Contract Type and Study Area

	Perth and Kinross and Stirling	Scotland
Development and Planning	3.1	4.4
Turbines	0.9	5.8
Balance of Plant	6.2	15.1
Grid Connections	2.5	3.2
Battery Storage	0.7	5.3
Total Direct GVA	**13.4**	**33.8**

Source: BiGGAR Economics Analysis. *Totals may not add up due to rounding

The direct employment supported by capital spending was estimated by applying turnover per job ratios to the CAPEX captured by each study area. Under the ambition scenario, Glentarken Wind Farm could support 156 years of employment in Perth and Kinross and Stirling, and 421 years of employment in Scotland.

Table 6-10 Ambition Scenario: Direct Employment by contract type and study area

	Perth and Kinross and Stirling	Scotland
Development and Planning	20	36
Turbines	16	91
Balance of Plant	77	176
Grid Connections	34	42
Battery Storage	10	76
Total Years of Employment	**157**	**421**

Source: BiGGAR Economics Analysis

Indirect and induced impacts were estimated by applying the relevant Type 1 GVA and employment multipliers. Adding direct, indirect and induced impacts, it was estimated that under the ambition scenario Glentarken Wind Farm could generate £16.8 million GVA and support 190 years of employment in Perth and Kinross and Stirling; £55.9 million GVA and 666 years of employment in Scotland.

Table 6-11 Ambition Scenario: Total Economic Impact

	Perth and Kinross and Stirling	Scotland
GVA (£million)	16.8	55.9
Total Years of Employment	190	666

Source: BiGGAR Economics Analysis

6.2.2 Operations and Maintenance

The same approach as applied for the estimation of the economic benefits from operations and maintenance as part of the commitment scenario was also applied to the ambition scenario. Based on the assumptions set out in the Supply Chain Development Plan, it was estimated that annual spending on operations and maintenance could be up to £2.4 million in Perth and Kinross and Stirling, and £4.2 million in Scotland.

Table 6-12 Ambition Scenario: Operations and Maintenance Spending by Study Area

	Perth and Kinross and Stirling	Scotland
Turnover (£ million)	2.4	4.2
% of Opex	57%	98%

Source: BiGGAR Economics Analysis

To estimate the direct economic impact from this spending, the turnover across each of the operations and maintenance contracts was divided by the relevant turnover per GVA and turnover per job ratios. Indirect and induced impacts were estimated by applying Type 1 and Type 2 multipliers.

Adding together direct, indirect and induced benefits, it was estimated that under the ambition scenario spending in operations and maintenance contracts could result in £0.7 million GVA and 8 jobs across Perth and Kinross and Stirling, and £1.6 million GVA and 19 jobs across Scotland.

Table 6-13 Ambition Scenario: Operations and Maintenance Total Impact

	Perth and Kinross and Stirling	Scotland
GVA (£ million)	1.6	3.3
Employment	12	27

Source: BiGGAR Economics Analysis

7. Tourism and Recreation

This section sets out the tourism context, including the size of the tourism economy and a baseline of attractions in the area, and considers the impact of the Proposed Development on tourism and recreation.

7.1 Local Tourism Context

7.1.1 Sustainable Tourism GVA and Employment

In the Scottish Government's 2015 economic strategy, sustainable tourism was identified as one of six growth sectors[13] where Scotland had a comparative advantage.

As shown in Table 6-1, in 2022 the sustainable tourism sector generated £232.3 million GVA in Perth and Kinross and Stirling, accounting for less than 1% of the total £3,365.8 million GVA generated by the sector across Scotland. Over the same year, the sustainable tourism sector employed 14,000 people in Perth and Kinross and Stirling.

Table 7-1 Sustainable Tourism: Employment and GVA, 2022

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

Source: Scottish Government (2023), Growth Sector Database. GVA Figures are for 2021.

7.1.2 Day Visitors, Domestic Overnight Visitors, and International Visitors

By using data from the Great Britain Day Visitor Survey (GBDVS)[14], the Great Britain Tourism Survey[15] and the International Passenger Survey[16], it is possible to capture how tourism contributes to the local economy.

As shown in Table 6-2, 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

[13] Scottish Government (2015). Scotland's Economic Strategy
[14] Kantar (2024). The Great Britain Day Visitor Survey Annual Report 2021-23
[15] Kantar TNS (2020). The Great Britain Tourism Survey Annual Report 2017-2019
[16] ONS (2021). International Passenger Survey 2019

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.

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 7-2 Visits to Perth and Kinross and Stirling by Visitor Type

	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	**5.23**	**157.8**
		Spend (£ million)
Day Visitors	112	5,186.6
Domestic Overnight Visitors	225	2,989
International Overnight Visitors	26	459
Total	**363**	**8,634.6**

Source: Kantar TNS (2020), The Great Britain Day Visitor Survey Annual Report 2017-19. Data for domestic overnight visitors represent the average between 2017 and 2019, Source: Kantar TNS (2020), The Great Britain Tourism Survey Annual Report 2019.

7.1.3 Local Visitor Attractions

A series of local visitor attractions within 15km from the Proposed Development are listed below in Table 6-3. 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.

Table 7-3 Local Visitor Attractions

Site	Description	Distance to Nearest Turbine Location (km)
St Fillans Golf Club	A popular golf course located in St Fillans, celebrated for its stunning views of the mountains and Loch Earn.	4km

Site	Description	Distance to Nearest Turbine Location (km)
Loch Tay Safaris	A unique cruise on Loch Tay Kenmore exploring the history, heritage and folklore of Perthshire largest loch.	6km
Falls of Dochart	Located at the western end of Loch Tay, the Falls of Dochart runs through the small town of Killin.	8km
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	9km
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.	9km
Killin Golf Club	A picturesque nine hole course set in the beautiful scenery of the Perthshire Highlands.	9km
Highland Safaris 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.	23km

Source: VisitScotland (2023). Killin, Lochearnhead. * Whilst the centre of Highland Safaris are outwith 15km, many of activities are based within 15km of the Proposed Development.

7.1.4 Local Accommodation Providers

Through an online search on the VisitScotland portal, and Google Maps, 95 accommodation providers were identified in the area surrounding the Proposed Development. These include 12 providers within 5km, a further 53 between 10 and 10km, and 30 within 10-15km.

Table 7-4 Local Accommodation Providers (Within 15km)

Distance from Site (km)	Number of Providers
0-5km	12
5-10km	53
10-15km	30
Total	**95**

Source: VisitScotland (2021), Accommodation Killin; Google Maps.

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 6-5. Most properties identified are self-catering accommodation (66%).

Table 7-5 Accommodation by Type and Location

	Number of Accommodation Providers by Type				
Location	**B&B & Guest House**	**Camping & Holiday Park**	**Hotel**	**Self-Catering**	**Total**
Killin	4	-	1	5	**10**
Morenish and Kiltyrie	1	4	-	11	**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**

Source: VisitScotland (2023), Accommodation Skye. Bookings.com. Google Maps.

7.1.5 Recreational Trails & Core Paths

Within 15km of the Proposed Development, 31 recreational trails were identified based on a web search of walkhighlands.co.uk[17]. These are described in Table 6-6 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 2km from the closest turbine.

[17] 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

Table 7-6 Recreational Trails

Recreational Route	Description	Distance to Nearest Turbine Location (km)
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.	2km
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	3km
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.	3km
Dundurn - St Fillans Hill	Dundurn is a small but steep isolated rocky knoll, offering fine views.	3km
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.	6km
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.	6km
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.	6km
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.	7km
Comrie to Loch Freuchie	From part of the Scottish National Trail, this section runs for 50km. This walk includes a lonely hill crossing and miles of remote but beautiful and empty glens.	7km
Kingarth and Funtulich circuit, Glen Lednock	This straightforward circuit takes in the beautiful and peaceful middle reaches of Glen Lednock's farmland.	7km

Recreational Route	Description	Distance to Nearest Turbine Location (km)
Acharn Woods, Killin	An easy walk leading through dense mature forestry plantations.	8km
Rob Roy Way: Strathyre to Killin	Leaving Strathyre, this trail follows a forest track above the east side of the glen at first.	8km
Loch Tay from Killin	A short walk offering great views over Loch Tay and the Rivers Lochay and Dochart	8km
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.	8km
Creagan na Beinne, Ardtalnaig	A very rounded hill, a Corbett above the southern side of Loch Tay.	8km
Rob Roy Way: Ardtalnaig to Aberfeldy	This path follows the very scenic minor road on the south side of Loch Tay for the first 7.5km from Ardtalnaig. The next section climbs the Falls of Acharn.	9km
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.	9km
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.	9km
The Tarmachan Ridge	One of the easier Munros to reach in good weather, due to a high level start point.	9km
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.	9km
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	10km
The Deil's Cauldron &	This excellent circular walk from the attractive village of Comrie visits the	10km

Recreational Route	Description	Distance to Nearest Turbine Location (km)
Melville Monument, Comrie	Cauldron as well as having an optional ascent to the Melville Monument.	
Meall Corranaich and Meall a'Choire Lèith	These two Munros form the westward end of the great Ben Lawers ridge.	11km
Callander to Comrie	Climb out of Callander to a fine viewpoint right on the boundary between the Highlands and Lowlands.	11km
Water of Ruchill and Cultybraggan, Comrie	This circular walk heads upriver beside the attractive Water of Ruchill from Comrie village.	11km
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.	12km
Bogton Braes circuit, Comrie	This circular walk leads through the attractive pastoral countryside of lowland Perthshire.	12km
Meall nam Maigheach	The trail passing between Glen Lyon and Loch Tay.	13km
Auchnafree Hill from Loch Turret	Auchnafree Hill has an indistinguished summit of a rather sprawling moorland. It overlooks the impressive glacial trench of Loch Turret.	13km
Meall Ghaordaidh from Glen Lochay	A less distinguished Munro starting from with an ascent from Glen Lochay.	14km

7.1.6 Core Paths

Using Perth and Kinross and Stirling Councils website, it was possible to identify core paths. The closest path is 700m form the nearest turbine, the Tarken Lodge (LL&TTNP) - Allt an Fhionn - Glen Tarken (code STFI/101).

7.2 Evidence on Wind Farms and Tourism

Over time, several studies have considered the relationship between wind farm developments and tourism activity.

The most comprehensive study of potential effects of wind farms on tourism was undertaken in 2008 by the Moffat Centre at Glasgow Caledonian University[18]. The study was based on what could happen and found that, although there may be minor effects on tourism providers and a small number of visitors may not visit Scotland in the future, the overall impact on tourism expenditure and employment would be very limited.

Since this study, wind farms have become a more common feature in Scotland and any negative effects on the tourism economy because of their existence would now be apparent.

To assess whether any negative effects have been realised, in 2021 BiGGAR Economics undertook an analysis examining the relationship between wind farm developments and tourism[19]. The study, which considered 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.

The analysis found that 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 study found no correlation between tourism employment and the number of turbines at the national or local authority level.

The research also analysed the impact onshore wind has on tourism employment proximate to developments. Areas within 15km 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 and after, allowing for the exclusion of construction impacts on tourism (such as wind farm related workers staying at local accommodation).

There is no research evidence that shows fears of negative effects on Scotland's tourism economy have materialised as a result of wind farm developments.

Following this analysis, no link was found between the development of a wind farm and tourism related employment. Of the 16 local areas included in the study, 11

[18] Moffat Centre (2008), The Economic Impact of Wind Farms on Scottish Tourism.
[19] BiGGAR Economics (2021). Wind Farms and Tourism Trends in Scotland

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.

The 2021 study also reassessed 28 wind farms constructed between 2009 and 2015 analysed in a previous 2017 study[20]. The analysis found 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.

Overall, the conclusion of this study was that published national statistics on employment in sustainable tourism demonstrates that there is no relationship between the development of onshore wind farms and tourism employment at the level of the Scottish economy, at the local authority level, nor in the areas immediately surrounding wind farm developments. Therefore, there is no research evidence that shows fears of negative effects on Scotland's tourism economy have materialised as a result of wind farm developments.

7.3 Impact on Recreation and Tourism

The research considered in the previous section points to the lack of a relationship between the tourism economy and wind farm developments. However, it seems appropriate to consider whether the Proposed Development will have any impact on it. This is done in detail within Socio Economics, Tourism and Recreation of the Environmental Impact Assessment Report. The focus in this report is on a high-level account of the key motivations leading visitors to spend time at the attractions identified earlier.

Consideration of the tourism economy in this context is based on spending of visitors and the employment supported by the sector. For a change in spending to take place it is necessary that, as a result of a wind farm development, visitors change their behaviour. This may result, for instance, in deciding not to visit the area, not recommending the area or not visiting again. The changed behaviour has, in turn, to affect visitors' spending.

As recorded in visitors' surveys, visitors tend to spend time in an area for a range of reasons. These may include scenery and landscape; history and culture; and the place's reputation. Views are just one of these factors and are more likely to be an important reason when it comes to the choice of recreational walks and outdoor nature-based attractions. Even in those cases, however, they may be one among a host of factors influencing visitors' choice.

[20] BiGGAR Economics (2017). Wind Farms and Tourism in Scotland

The extent to which a given attraction is susceptible to change in its surroundings varies based on:

- its relative importance for the local tourism economy;
- its users; and
- the reasons behind the attraction's appeal (its views, its heritage value, its historical value).

The extent to which a wind farm development may impact on a tourism asset is expected to depend on factors, including:

- distance from the wind farm, as a proxy for how visible the wind farm is; and
- the interaction between the wind farm and the assets' features.

Overall, existing evidence suggests that at wind farm sites across Scotland there have not been any negative impacts on tourism activity. As wind farms are well established within Scotland, any negative impacts on the tourism economy would have been apparent by now. This is not a surprising finding given that:

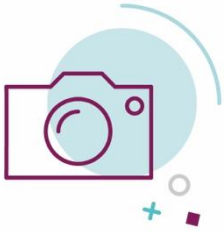
- there are high levels of public support for renewable energy;
- as wind farms are well-established in Scotland, tourists already might expect to see wind farms when visiting Scotland, especially rural Scotland;
- the factors that determine the success of the tourism sector do not include the presence or otherwise of an onshore windfarm; and
- issues that influence tourism include the ability and willingness to travel, economic performance (and so whether tourists have disposable income available for leisure trips), exchange rates, the quality of the overall tourism product, the effectiveness of destination marketing and the quality and value for money of the services offered by tourism businesses.

7.3.1 Local Visitor Attractions

This section provides an overview of the motivations affecting visitors' decisions to spend time at the visitor attractions identified in Table 7-3. The tourism baseline identified a number of attractions located within 15km of the Proposed Development, including:

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

The Glen Olge Viaduct offers a good viewpoint, and forms part a of the popular recreational route, the Rob Roy way and National Cycle Route. 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. This finding is in line with the LVIA chapter.



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.

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. This finding is in line with the LVIA chapter.

St Fillins 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.

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 identifies that the Proposed Development would occupy only a very limited part of the panoramic view which includes the castle.

7.3.2 Accommodation Providers

A review of tourism activity within 15km 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.

The baseline analysis identified 12 accommodation providers within 5km 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. None of these features is expected to be affected by the Proposed Development.

The marketing of the remaining accommodation providers focuses on a range of dimensions, including their modern amenities, accessibility to local walks and lochs, and proximity to Edinburgh and Glasgow. Given their relative distance from the Proposed Development, it is unlikely that these accommodation providers will be affected by it.

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, it highlighted that the visibility is limited to a small part of the area around the park.

Some of the accommodation providers will also experience a positive impact from hosting contractors during the construction and ongoing maintenance of the Proposed Development.

7.3.3 Recreational Trails

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

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 Cycle Route. 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.

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.

Within 15km from the Proposed Development there, are also a number of core paths. The closest path is 700m from the nearest turbine, the Tarken Lodge (LL&TTNP) - Allt an Fhionn - Glen Tarken (code STFI/101.).

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).

Therefore, it is unlikely that there would be an effect on the tourism economy as a whole due to the Proposed Development.

8. Community Wealth Building Approach

This section considers approach of the SSE to maximise net economic impact for the local community.

8.1 Community Wealth Building

As highlighted in section 3.1.4, Community Wealth Building is a community centred approach to local economic development, a key consideration within the National Planning Framework 4 and recognised as a practical means to achieve the objectives set out in NSET.

A community wealth building approach can ensure projects deliver a net economic benefit for host communities. As a person-centred approach, it can help to provide a more nuanced understanding of localised economic effects of the Proposed Development.

8.2 Pillar 1: Spending

This pillar focuses on local procurement, aiming to shorten supply chains and retain wealth within communities in which a given development is situated in. It emphasises spending money on goods and services in ways that support local businesses and encourages supply chain development. In the context of onshore wind development, the Onshore Wind Sector Deal[21] contains three commitments relevant to spending, and supply chains. This includes:

- Seek opportunities for clustering operations and maintenance (O&M) activities;
- Publish statistics on local content in the supply chain and O&M arrangements; and
- Establish collaborative approach to promoting supply chain opportunities to support increased local content.

SSE is committed to maximising the use of local suppliers throughout the development and operational phases of all its projects, including for the Proposed Development. SSE plans to engage in early and open discussions with the supply chain, and potential businesses within Perth and Kinross and Stirling to share project plans for the Proposed Development. This approach aims to identify opportunities for local involvement and support any required investment ahead of construction.

[21] Scottish Government (2023) The Onshore Wind Sector Deal

Perth and Kinross is home to two neighbouring wind farms operated by SSE, Griffin Wind Farm and Calliachar Wind Farm. These are both located south of Aberfeldy and have been operational since 2012/13. It is anticipated that SSE will highlight additional opportunities for companies already involved in the operations and maintenance phases of existing developments to participate in similar activities for the Proposed Development.

SSE is also engaged in various research initiatives to expand supply chain capacity at a national level. This includes being a founding member of the Coalition for Wind Industry Circularity (CWIC), which aims to establish a UK supply chain for refurbishing wind turbine components and sponsoring the Scottish Renewables Supply Chain Impact Statement 2024[22], which highlights key businesses and talent in Scotland's renewable energy sector.

As part of its Sustainable Procurement Code[23], SSE has outlined expectations for suppliers and contractors. These include building local relationships and implementing measures to maximise opportunities for local people and businesses near SSE sites and throughout the wider region. This applies to all suppliers contracted by SSE, including those involved in the Proposed Development.

8.3 Pillar 2: Workforce and Skills

This pillar is about increasing fair work and developing local labour markets that support the wellbeing of communities. An assessment of this pillar entails understanding whether the Proposed Development will lead to opportunities for fair work that will benefit its host community, including promoting fair work standards and providing opportunities for wider skills development. The Onshore Wind Sector Deal contains three commitments relating to skills.

- Establish a working group to examine skills gap to delivering 2030 ambitions and publish a paper setting this out;
- Enhance current skills and training provision by collaborating with further and higher education sector; and
- Commit to an appropriate number of apprenticeships, training opportunities and skilled jobs across the sector and related industries.

In 2023 and 2024, SSE hosted a series of public exhibitions for the Proposed Development in the nearby towns of St. Fillans and Lochearnhead. The purpose of these events is to engage with community groups, residents, business owners, and other interested parties. This helps design the process and raises awareness of opportunities related to the proposed development.

[22] Scottish Renewables (2024) Scotland's Renewable Energy Industry: Supply Chain Impact Statement 2023/24
[23] SSE (2023) Sustainable Procurement Code

In central Scotland, SSE Renewables projects include two neighbouring wind farms, Griffin and Calliachar, as well as one of SSE's oldest onshore wind farms, Drumderg. SSE also owns various hydro projects, including power stations around the areas of Loch Tay and Loch Earn, both of which are in very close proximity to the proposed site for the development.

As such, SSE is familiar with the local workforce and has an understanding of the local labour market capacity. Ongoing local community engagement is expected to help identify areas of development and workforce opportunities specific to the Proposed Development.

At sector level, SSE works across the sector and with research partners to help examine the skills gaps in the onshore wind industry and ways to address these gaps. For example, they recently commissioned the University of Edinburgh to identify the overlap of skills in the energy industry.

SSE also support localised skills development through community benefit funding, specifically through their Sustainable Development Fund (see section 8.5 for more details). For example, Career Ready (a UK-wide social mobility charity) was awarded £59,000 to provide an employability and work experience program in Perth and Kinross.

SSE has various policies in place that reflect their operational standards. This includes being an accredited Living Wage and Living Hours employer. SSE also invests in internal career programmes and apprenticeships to develop skills within the sector.

8.4 Pillar 3: Ownership

This pillar is about understanding the ownership model for Proposed Development and the extent to which ownership is inclusive. The emphasis in this pillar is about creating an inclusive economy that has democratic and social forms of ownership which generate community wealth.

Community ownership is a central element of the Onshore Wind Sector Deal. Successfully implementing community ownership requires an understanding of the community's needs, aspirations, and ability to manage complex projects. SSE are committed to open discussions about community ownership, should there be interest in pursuing it for the Proposed Development.

8.5 Pillar 4: Financial Power

This pillar focuses on ensuring that local and financial institutions benefit people, communities, and the planet. This involves leveraging local wealth and resources, such as anchor institutions, community councils, investment banks, regional cooperative banks, and non-profit organisations.

In the context of onshore wind development, this approach to community benefits can provide a mechanism to support local development and sustainability. In 2013, SSE launched a Sustainable Development Fund, which operates across local authority areas where it has developed new wind farms since 2012. This includes five local authorities in Scotland, including Perth and Kinross. For each development, 50% of the community investment fund is directed towards a regional fund annually, with the remaining 50% set aside for the local community fund. This an approach unique to SSE.

The local community fund can be used for various projects, tailored to the specific needs of local communities. SSE plans to engage with community bodies to establish effective governance, administration, and arrangements for the wind farm. A case study of a similar wind farm in Perth and Kinross demonstrates the types of projects that can be supported by this funding.

Griffin and Calliachar Community Benefit Fund

Griffin Wind Farm has a capacity of 156.4 MW and is located near Calliachar Wind Farm with 32.2MW both located south of Aberfeldy in Perthshire. Through the Griffin and Calliachar wind farms, a contribution of around £600,000 per year available for community and charitable projects. Funding is also committed to the regional Sustainable Development Fund.

Following community consultation, the Griffin and Calliachar community panel allocated £250,000 for a new enterprise fund, managed by Growbiz, to boost the local economy with business grants. Within a year, 30 projects received over £180,000. One successful project is Aran bakery in Dunkeld, where Flora Shedden, a previous participant on the Great British Bake Off, used £5,000 to restore a derelict

building and open a community bakery. The funding provided the missing support that was needed to kick-start the business[24].

The Sustainable Development Fund enables the funding of strategic projects within a region, benefitting regional communities beyond those closest to renewable assets. In Perth and Kinross, the Sustainable Development Fund has contributed approximately £920,000 to regional projects and initiatives between 2013 and 2023[25].

Whilst the split of the community benefit fund for Glentarken Wind Farm is not yet defined, a portion of the funding is expected to be allocated to a regional fund.

8.6 Pillar 5: Land and Property

The quality of the physical environment significantly contributes to community wealth and is influenced by land and property decisions. This pillar focuses on enhancing the social, ecological, financial, and economic value that local communities derive from their land and property assets.

The onshore wind sector deal includes a commitment to collaborate on a national approach for measuring and documenting biodiversity enhancements related to land and property.

SSE plans to implement the Biodiversity Net Gain (BNG) approach, which aims to leave the natural environment in a measurably better state after development. This involves assessing and comparing the biodiversity value of a site before and after construction to ensure a positive impact.

To facilitate this, SSE has developed a new BNG toolkit that will be used across all developments, including for the Proposed Development. The Project Toolkit will assess and quantify the impact of the Proposed Development on local biodiversity and help to guide any mitigation and enhancements measures for the site. In following this approach, SSE aims to contribute to knowledge creation and help to standardise the integration of biodiversity considerations into the decision-making process of onshore wind developments.

[24] SSE Renewables (2018) A Decade of Clean Growth : SSE's Contribution to the Onshore Wind Revolution
[25] SSE Renewables (2023) Sustainable Development Fund

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