BiGGAR Economics

Socio-economic and Community Impact Assessment of Clune Wind Farm

A report to RES
October 2024

BiGGAR Economics

Contents

1. Executive Summary

This report assesses the potential socio-economic and community impacts of Clune Wind Farm (the Proposed Development). Socio-economic assessments of many onshore wind farms over the last decade have found no significant adverse socio-economic effects in Environmental Impact Assessment (EIA) terms. Since there is no reason to expect significant adverse effects in respect to the Proposed Development, socio-economics was scoped out of the EIA.

Nevertheless, noting that socio-economics and community impacts are of interest to local authorities and other key stakeholders, this report provides an assessment of those effects. In particular, socio-economic impacts are considered following the requirements outlined in the fourth National Planning Framework (NPF4) Policy 11(c) regarding the maximisation of the net economic impact.

The assessment focuses on evaluating whether the Proposed Development maximises net economic benefits under each of the five Community Wealth Building (CWB) pillars:

- plural **ownership** of the economy;
- ensuring **financial power** works for local places;
- fair **workforce** opportunities and just labour markets;
- progressive procurement of goods and services, and **spending** retained in the local economy; and
- socially productive use of **land and property**.

The socio-economic structure of the Highlands and future demographic pressures highlight the need for the creation of job opportunities. The assessment of the economic impacts of the Proposed Development estimated that the expenditure associated with development and construction activity could generate:

- £54.9 million Gross Value Added (GVA) and support 590 years of employment in Highland (with peak employment of 540 jobs); and
- £104.7 million GVA and 1,190 years of employment across Scotland (with peak employment of 980 jobs) (including in Highland).

The expenditure required for the operations and maintenance of the Proposed Development could generate:

- £1.8 million GVA each year and support 11 jobs in the Highlands; and
- £4.9 million GVA each year and 38 jobs across Scotland (including in the Highlands).

In addition to these quantifiable economic effects, it is also estimated that the Proposed Development would pay £2.2 million each year in non-domestic rates, helping to support local government services.

This report evaluates whether the Proposed Development meets the requirements outlined in the NPF4 Policy 11(c), regarding the maximisation of the net economic impacts. This includes considering criteria such as the support of a high local supply chain content, the provision of local employment and skills development opportunities, the contribution to the cost for enabling infrastructure and other interventions, the provision of a community benefit package, and the promotion of the continuation of innovative processes to enhance community wealth.

The initiatives committed to by the Applicant include:

- community benefit funding, generating funding of over £0.9 million annually;
- offering a Local Electricity Discount Scheme;
- proposing shared ownership options;
- prioritising local content;
- investing in University of the Highlands and Islands (UHI);
- supporting local estates through rental income arrangements;
- enhancing biodiversity through peatland restoration and regeneration of native woodland;
- increasing access to local tourism assets; and
- delivering green hydrogen for local businesses.

On this basis, the Applicant has demonstrated a meaningful contribution to all five pillars of CWB, and it is therefore reasonable to conclude that the Proposed Development maximises net economic benefits and meets the requirements outlined in NPF4 Policy 11(c).

2. Introduction

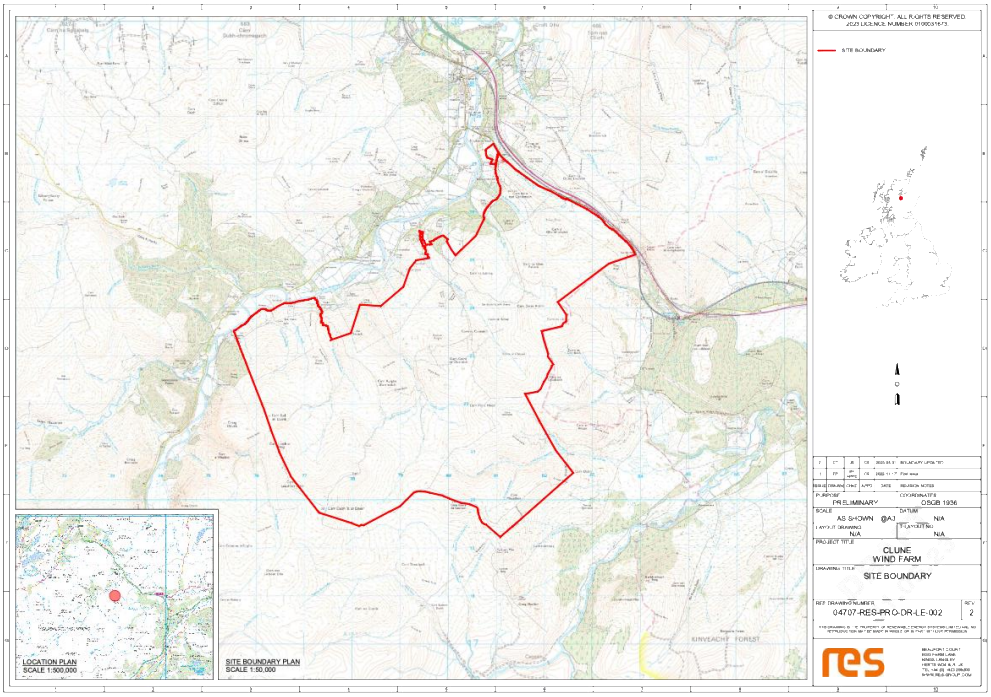
BiGGAR Economics was commissioned by RES to assess the potential socio-economic impacts associated with the Proposed Development.

2.1 Background

The Proposed Development is an onshore wind farm development by RES (the Applicant) located approximately 5.5km south of Tomatin in the Highlands.

The socio-economic assessment has been based on a Proposed Development comprising of 26 turbines, generating a total capacity of approximately 187.2MW, and the provision of a battery energy storage system (BESS) with an indicative capacity of 100 MW.

Figure 2-1: Proposed Development Site



Source: Clune Wind Farm Site Boundary

No significant adverse socio-economic effects are expected to occur, in the terms of the EIA regulations and so socio-economics was scoped out of the EIA.

However, in this report, socio-economic impacts are considered following the requirements outlined in NPF4 Policy 11(c) regarding the maximisation of the net economic impact.

The objectives of this study were to:

- quantify the potential economic impacts of the Proposed Development for the local and national economies;
- outline the potential benefit for the local community under each of the five Community Wealth Building (CWB) pillars; and
- assessing the alignment with the NPF4 Policy 11(c) requirements.

2.2 Report Structure

The report is structured as follows:

- section 3 places the Proposed Development in the context of national and local economic strategies;
- section 4 considers the economic impact from the Proposed Development;
- section 5 offers an overview of local labour market indicators and highlights the Applicant's efforts to enhance local skills;
- section 6 provides context of the industrial structure in the local area and the Applicant's commitment to prioritising local contractors;
- section 7 describes how the Applicant will enhance the financial power of host communities;
- section 8 outlines the Applicant's contribution to the socially productive use of land and property;
- section 9 details the Applicant's shared ownership options available to the local community;
- section 10 presents a case study of the Applicant delivering green hydrogen;
- section 11 contains a conclusion on net economic benefit; and
- Appendix A sets tourism in the area in context and considers the relationship between the proposed wind farm and the local tourism economy.

3. Strategic Context

This section sets out the national and local context and how the Proposed Development would support strategic aims.

3.1 National Strategic Context: Economic and Related Policies

3.1.1 Scotland's National Performance Framework

The National Performance Framework[1] 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 National Performance Framework 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 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 and aims 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.

The National Performance Framework 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 Gross Domestic Product (GDP) and employment measures, the Framework's outcomes reflect the desired fabric of communities and culture, education, the environment, health and wellbeing and 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.

[1] Scottish Government (2023), Scotland's National Performance Framework.

The 11 national outcomes are that people:

- **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.

3.1.2 Programme for Government 2024-25: Serving Scotland

Published in September 2024, the Programme for Government[2] sets out the Scottish Government's commitments with the purpose of improving people's lives by focusing on four clear priorities, including:

- eradicating child poverty;
- growing the economy;
- tackling the climate emergency; and
- ensuring high quality and sustainable public services.

The programme outlines key initiatives under each of the four priorities, several with relevance to the Proposed Development. In particular, the Scottish Government highlights the economic opportunities associated with the path to Net Zero, and the importance of creating the right enabling environment to support businesses which generate jobs and wealth for communities.

3.1.3 Green Industrial Strategy

The Green Industrial Strategy[3], published by the Scottish Government in September 2024, aims to help Scotland realise the economic benefits of the global transition to Net Zero. The strategy highlights Scotland's strengths and opportunities during the transition and outlines six key enabling factors that the Scottish Government and partners will do to foster a positive environment for investment and growth. These include:

[2] Scottish Government (2024), Programme for Government 2024-25: Serving Scotland.
[3] Scottish Government (2024), Green Industrial Strategy.

- supporting investment, ensuring an investment-friendly ecosystem;
- investing in strong research and development foundations;
- supporting the development of a skilled workforce;
- helping supply chain businesses to seize opportunities;
- delivering an agile planning and consenting system; and
- delivering required housing and enabling infrastructure.

The strategy provides a clear direction and focus, highlighting the importance of prioritising resources and investment. The strategy also emphasises the need for coordinated policies to create the right environment and for working collaboratively with partners to maximise economic benefit from the opportunities created by the global transition to Net Zero.

As the largest contributor to Scotland's renewable electricity generation, maximising the wind economy is a key component of this strategy.

3.1.4 Scotland's National Strategy for Economic Transformation

In March 2022, the Scottish Government published the National Strategy for Economic Transformation (NSET)[4], which set out its ambition for Scotland's economy over the next decade. The Scottish Government's vision is to create a wellbeing economy where society thrives across economic, social, and environmental dimensions, which delivers prosperity for all Scotland's people and places. Of particular importance is the ambition to be greener, with a just transition to Net Zero, a nature-positive economy, and a rebuilding of natural capital.

To deliver its vision and address the economy's challenges, five programmes of action have been identified (with a sixth priority of creating a culture of delivery), including:

- establishing Scotland as a world-class entrepreneurial nation;
- strengthening Scotland's position in new markets and industries, generating new, well-paid jobs from a just transition to Net Zero;
- making Scotland's businesses, industries, regions, communities, and public services more productive and innovative;
- ensuring that people have the skills they need to meet the demands of the economy, and that employers invest in their skilled employees; and
- reorienting the economy towards wellbeing and fair work.

The strategy notes that Scotland has substantial energy potential and that it has developed a growing green industrial base. This provides a strong foundation for securing new market opportunities arising from the transition to Net Zero, requiring continued investment and support. Renewable energy also has a role to play in supporting productive businesses and regions across Scotland.

[4] Scottish Government (2022), Scotland's National Strategy for Economic Transformation

3.1.5 National Planning Framework 4

The Fourth National Planning Framework (NPF4)[5] is Scotland's national spatial strategy, setting out the principles to be applied to planning decisions, regional priorities and national developments.

The first of six spatial principles to be applied is a just transition that ensures the transition to Net Zero is fair and inclusive, as is rural revitalisation, supporting sustainable development in rural areas. Applying these and other principles is intended to support the planning and delivery of sustainable places, where emissions reduce, and biodiversity is restored and better connected.

As part of the Policy 11(a), all forms of renewable technologies, including onshore wind and energy storage, will be supported. This is subject to the test outlined in Policy 11(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".* The Proposed Development will support employment and create opportunities for local businesses at both the construction, and operation and maintenance phases. The assessment includes a conclusion on whether this project maximises the net economic impact in the context of NPF4 Policy 11(c).

Policy 11(e) also sets out a number of impacts that should be addressed during project design and mitigation. That list does not include tourism. Whilst not required by NPF4, the Appendix to this report considers whether there could be any implications for tourism since it is an important contributor to the local economy.

Community Wealth Building (CWB) is also recognised 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".

3.1.6 Community Wealth Building

The Scottish Government has adopted the internationally recognised CWB approach to economic development as a key practical means by which it can achieve the wellbeing economy objectives outlined in the NSET.

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. It is a people-centred approach and aims to keep benefits in the hands of local people. CWB is based around the following five principles[6]:

- plural ownership of the economy;
- ensuring financial power works for local places;
- fair employment and just labour markets;

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

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

- progressive procurement of goods and services; and
- socially productive use of land and property.

3.1.7 Onshore Wind Sector Deal

The Onshore Wind Sector Deal[7], published in September 2023, outlines the commitment from the Scottish Government and the onshore wind sector to reach 20 GW of onshore wind by 2030, ensuring maximisation of benefits to Scotland. The Deal highlights the increased potential of onshore wind for a low-carbon and prosperous future, the creation of high-quality job opportunities, and the empowerment of local communities in Scotland.

The document emphasises the following aspects, and the collaborative, sector and government action required to support the development of onshore wind in each of the following:

- **supply chain, skills and the circular economy**: support the enhancement of the current skills and training provision to deliver the needs of the wind industry;
- **community**: onshore wind will continue to collaborate with local communities, offering impactful community benefits;
- **land use and environment**: onshore wind projects will enhance biodiversity and optimise land use and environmental benefits;
- **planning**: reduce the time it takes to determine applications for onshore wind projects by increasing skills and resources;
- **legislative and regulatory**: develop evidence to support a strategic approach to delivering investment and transporting wind turbine components, and improve network connections;
- **technical**: enable cooperative coexistence between onshore wind and safe aviation operations; and
- **implementation and governance**: key milestones to be delivered by agreed dates.

3.1.8 Tourism Strategy: Scotland's Outlook 2030

A collaborative network of industry experts created Scotland Outlook 2030[8], 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 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.

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

[7] Scottish Government (2023). Onshore Wind Sector Deal.
[8] Scottish Tourism Alliance (2020). Scotland 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.

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 Highlands and Islands Enterprise 2023-2028 Strategy

The Highlands and Islands Enterprise Strategy[9], published by Highlands and Islands Enterprise (HIE) for the period 2023 to 2028, focuses on achieving Net Zero, fair and inclusive growth, and regional transformational opportunities.

The renewable energy sector and low carbon economy have been identified as significant economic, social, and industrial opportunities for the region, both now and in the future. Highlands and Islands Enterprise is committed to building on the region's international reputation for excellence in energy and low carbon by securing supply chain opportunities from energy developments, including onshore and offshore wind farms, HIE commits to:

- renewable energy development: support renewable deployment (including onshore wind) and associated supply chain development;
- raise awareness and encourage adoption of the just transition to Net Zero: develop and deliver Net Zero and circular economy awareness and training programmes including those targeted at the young workforce;
- support CWB/benefit from Net Zero: develop awareness of nature-based and circular opportunities for communities.

3.2.2 Our Future Highland 2022-2027

Our Future Highland[10], published by the Highland Council for the period of 2022 to 2027, outlines the strategic priorities for the region over the next five years. These priorities are centred around:

- a fair and caring Highland;
- resilient and sustainable communities;
- accessible and sustainable Highland homes;
- a sustainable Highland environment and global centre for renewable energy; and
- a resilient and sustainable council.

[9] Highlands and Islands Enterprise (2023). Highlands and Islands Enterprise Strategy 2023-28.
[10] The Highland Council (2022). Our Future Highland 2022-2027.

The strategy recognises the scale of the financial and environmental opportunities arising from the huge renewable energy potential in the Highlands, highlighting the need to capitalise on the region's natural capital whilst promoting a just transition to Net Zero in a way that is fair to everyone.

3.3 Summary of Strategic Context

Whilst NPF4 Policy 11(c) does not offer a definition for maximising net economic benefits, other policies including the Onshore Wind Sector Deal, provide context for the intended meaning of maximising economic benefits. This includes supporting the enhancing current skills and training provisions to deliver the needs of the wind industry, prioritising local contractors and supply chains, and collaborating with local communities to offer impactful community benefits and practical routes to shared ownership.

CWB also has a key role in NPF4. The following sections of this report consider the net economic benefits that the Proposed Development could deliver for the Highland region and Scotland, under each of the CWB pillars.

4. Economic Impact

This section estimates the economic impact that could be generated by the Proposed Development.

4.1 Economic Impact Methodology

4.1.1 Modelling the Economic Impact of Onshore Wind Farm Developments

The methodology employed to assess the economic impact of onshore wind developments adheres to industry best practice. It leverages research, conducted by BiGGAR Economics in 2015 on behalf of RenewableUK[11], on the construction and operational costs from numerous onshore wind farm projects across the UK. Furthermore, the approach draws on more recent evidence gathered from a multitude of case studies of construction and operational costs in the sector.

The assessment will consider the following sources of economic impact:

- direct impacts: the economic value generated through the contracts associated with the Proposed Development;
- indirect impacts: the impact from the spending of contractors within their supply chains; and
- induced impacts: the impact from the spending of those workers carrying out contracts for the Proposed Development and on behalf of its contractors.

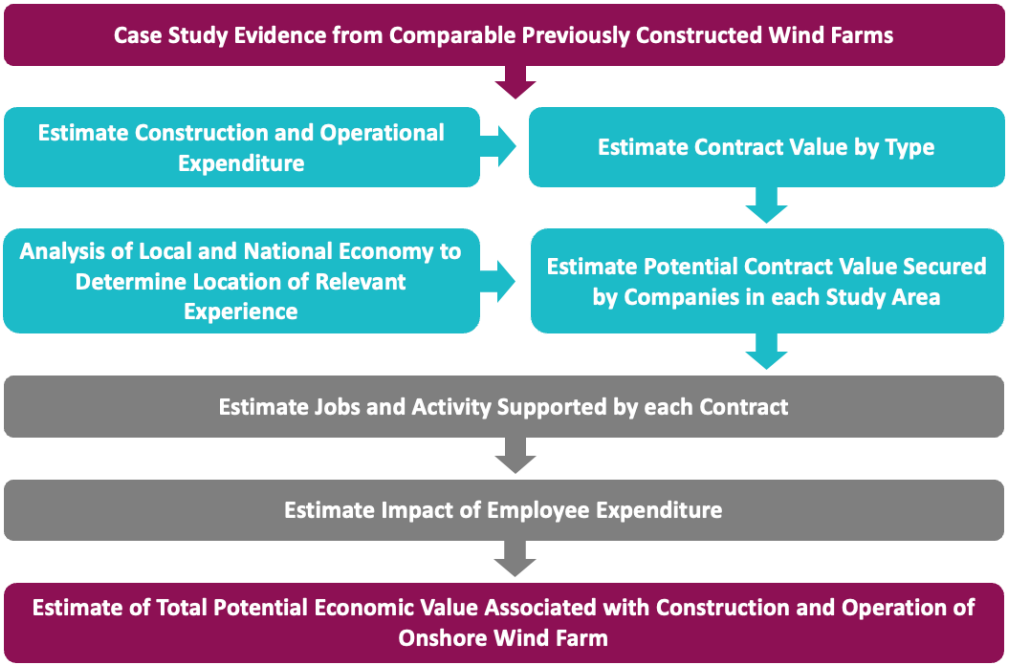
There are four key stages in estimating the value of this activity:

- estimation of the capital and operational expenditure;
- estimation of the value of component contracts that make up total expenditure;
- assessment of the capacity of businesses in the study area to perform and complete component contracts; and
- estimation of economic impact from resultant figures.

This process is illustrated in Figure 4-1.

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

Figure 4-1: Approach to Economic Impact



Source: BiGGAR Economics.

4.1.2 Measures of Economic impact

Economic impacts are reported with respects to the following measures:

- **Gross Value Added (GVA)**: a commonly used measure of economic output, GVA captures the contribution made by an organisation to national economic activity. This is usually estimated as the difference between an organisation's turnover and its non-staff operational expenditure; and
- **Employment**: this is expressed as years of employment for temporary contracts and as annual jobs for operations and maintenance contracts. Years of employment are used to report the short-term employment that is supported by the development and construction of the Proposed Development. As an example, a job that lasts for 18 months would support 1.5 years of employment.

4.1.3 Study Areas

Economic impacts were estimated with respect to the following study areas:

- Highland (the local authority area); and
- Scotland.

4.2 Development and Construction

The research conducted by BiGGAR Economics on behalf of RenewableUK, allowed for the estimation of costs per MW based on a development's number of turbines, its capacity or a combination of the two. For the battery storage components of the

Proposed Development, capital expenditure was estimated based on the capital costs of these technologies per MW of generating capacity.

Based on a Proposed Development of 26 turbines, each with a capacity of 7.2 MW, and the installation of a BESS with a capacity of 100 MW, it was estimated that the total development and construction expenditure could be £427.0 million.

Expenditure was then split according to the following component contracts:

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

As shown in Table 4-1, the largest expenditure component was associated with turbines, equivalent to £183.7 million, or 43% of total development and construction spend. Battery storage could account for 31% of total expenditure, with balance of plant could accounting for 18%, and development and planning, and grid connection each accounting for 4%.

Table 4-1: Development and Construction by Contract Type

	% Capex	Value (£m)
Development and Planning	4%	17.8
Turbines	43%	183.7
Balance of Plant	18%	74.9
Grid Connection	4%	18.7
Battery Storage	31%	131.9
Total	**100%**	**427.0**

Source: BiGGAR Economics Analysis of case study evidence from comparable previously constructed wind farms. Note: Totals may not sum due to rounding.

Drawing on previous experience analysing other wind energy projects, assumptions were then made to account for varying capacities of businesses throughout Scotland to fulfil onshore wind contracts. This was informed by the experience gained by BiGGAR Economics through collaboration with developers in Highland.

On this basis, it was estimated that around 29% of the contracts could be carried out by Scottish businesses, with a value of £124.2 million. It was estimated that spending on businesses based in Highland could be around £81.9 million, equivalent to 19% of total development and construction expenditure.

The largest opportunity for Scottish businesses could be in contracts associated with balance of plant, which could be worth £64.5 million. Balance of plant would also be the largest opportunity for businesses in Highland, worth up to £57.7 million.

Table 4-2: Development and Construction Expenditure by Study Area

	Highland		Scotland	
	%	£m	%	£m
Development and Planning	35%	6.3	62%	11.1
Turbines	2%	4.6	8%	14.1
Balance of Plant	77%	57.7	86%	64.5
Grid Connection	58%	10.8	71%	13.3
Battery Storage	2%	2.6	16%	21.1
Total	**19%**	**81.9**	**29%**	**124.2**

Source: BiGGAR Economics Analysis. Note: Totals may not sum due to rounding.

Having estimated the size of the contracts that could benefit each of the study areas, it was possible to consider the GVA and short-term employment that these could 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)[12] code. Direct GVA was then estimated by applying the relevant turnover per GVA from the UK Annual Business Survey (ABS)[13].

In this way, it was estimated that development and construction contracts associated with the Proposed Development could generate £43.0 million GVA in Highland, and £64.5 million GVA across Scotland.

Table 4-3: Development and Construction, Direct GVA by Study Area (£m)

	Highland	Scotland
Development and Planning	4.8	7.7
Turbines	2.0	7.1
Balance of Plant	29.2	32.7
Grid Connection	5.7	7.0
Battery Storage	1.2	10.0
Total	**43.0**	**64.5**

Source: BiGGAR Economics Analysis. Note: Totals may not sum due to rounding.

In a similar way, it was possible to estimate the number of direct jobs supported by spending in development and construction contracts. This was done by dividing the expenditure in each contract by the turnover per job ratio for the relevant sector. In this way, it was estimated that the development of the Proposed Development could generate 480 direct years of employment in Highland, and 770 direct years of employment in Scotland.

[12] Office for National Statistics (2009), Standard Industrial Classification of industrial activities (SIC 2007)
[13] Office for National Statistics (2020), Annual Business Survey 2018 – Revised

Table 4-4: Development and Construction, Direct Employment by Study Area and Contract Type (Years of Employment)

	Highland	Scotland
Development and Planning	10	50
Turbines	30	100
Balance of Plant	340	380
Grid Connection	70	90
Battery Storage	20	140
Total	**480**	**770**

Source: BiGGAR Economics Analysis. Note: Totals may not sum due to rounding.

Expenditure in development and construction contracts is also expected to generate 'knock-on' effects across the economy. In particular, 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. These are referred to as 'indirect' and 'induced' impacts, respectively.

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[14] 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 Highland.

Adding up direct, indirect and induced impacts, it was estimated that the development and construction of the Proposed Development could generate:

- £54.9 million GVA and 590 years of employment in Highland; and
- £104.7 million GVA and 1,190 years of employment in Scotland (including Highland).

4.3 Operations and Maintenance

The first step in estimating the economic impact from the operations and maintenance of the Proposed Development was to consider the total expenditure required for its operation each year. Based on the number of turbines, the capacity of the turbines, and battery storage, it was estimated that the annual cost of operations and maintenance could be around £7.4 million.

[14] Scottish Government (2022), Supply, Use and Input-Output Tables.

It was further assumed that businesses in Highland could benefit from a total £2.6 million in operations and maintenance contracts (35%) each year, whereas annual expenditure in Scottish contractors could be up to £6.0 million (81%).

Table 4-5: Operations and Maintenance Spending by Study Area

	Highland		Scotland	
	%	£m	%	£m
Operations and Maintenance	35%	2.6	81%	6.0

Source: BiGGAR Economics Analysis.

The total turnover generated in each study 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 that the Proposed Development could generate £1.5 million direct GVA and 9 direct jobs in Highland, and £3.1 million GVA and 25 direct jobs in Scotland.

As for development and construction, 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.

Adding up direct, indirect and induced impacts, it was estimated that during its annual operations and maintenance, the Proposed Development could generate:

- £1.8 million annual GVA and 11 jobs in Highland; and
- £4.8 million annual GVA and 38 jobs in Scotland (including Highland).

4.4 Non-Domestic Rates

The Proposed Development is expected to be liable for non-domestic rates, the payment of which would contribute directly to public sector finances and infrastructure investments supporting the requirements of the NPF4 Policy 11(c). 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[15]. On this basis, it was estimated that the Proposed Development could generate £2.2 million each year in non-domestic rates.

[15] Scottish Assessors Association (2023). Practice Note 2: Valuation of Onshore Wind Turbines

5. Pillar 1: Workforce

This section provides an overview of local labour market indicators in the local area, and the Applicant's commitment to enhancing local skills.

Employment practices can play a defining role in building community wealth. The rise of in-work poverty coupled with the erosion of job security means the reality of employment for many people in the UK is increasingly precarious.

Employers can address these issues by providing fair wages, adhering to progressive employment and proactively supporting the development of the labour market. The approach taken by employers can have a defining effect on the prospects of local people and make a major contribution to building community wealth.

The extent to which the 'Local Area' (defined as the electoral wards of Inverness South, and Badenoch and Strathspey) can capitalise on the jobs associated with the Proposed Development will depend on the skills and workforce available.

This section provides an overview of the current and future local labour market within the Local Area and the broader Highland region, compared to Scotland as a whole. This analysis helps to build a localised perspective, highlighting the strengths of the existing workforce in the area and identifying opportunities for the Applicant to enhance local skills.

5.1 Local Labour Market Indicators

5.1.1 Population Estimates

In 2022, the Local Area had a population of 30,350, accounting for 12.8% of the population in the Highlands (238,100), and 0.6% of Scotland's total population of 5,479,900.

In the Local Area, the working-age population (aged 16 to 64) represented 63.2% of the total population. This figure is comparable to the overall population distribution in Scotland (63.8%), and greater than the average for the Highland region (60.8%).

Table 5-1: Population Estimates, 2022

	Local Area	Highland	Scotland
Total	**30,350**	**238,100**	**5,479,900**
0-15	17.5%	16.0%	16.6%
16-64	63.2%	60.8%	63.8%
65+	19.3%	23.2%	19.6%

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

5.1.2 Population Projections

National Records of Scotland provide population projections at the local authority and Scottish geographic levels. While information is not available at the electoral ward level, current population estimates and future trends at the local authority level can be used to form a view of more localised trends.

By 2043, Highland's population is projected to decline by 2.0%, equivalent to a decline of 4,850 people. Over this period, the working-age population is expected to decrease by 4.8 percentage points, from 60.8% to 56.0%, whilst the proportion of residents aged 65 and older is projected to rise from 23.2% to 29.8%.

During the same period, Scotland's total population is expected to increase by 1.7%, to approximately 5.6 million. However, following a less marked trend than Highland, the working-age population is projected to decrease by 3.5 percentage points, whilst the share of the population aged 65 and over is projected to increase by 5.3 percentage points.

These demographic trends in Highland suggest that a declining working-age population will have to support an increasingly ageing population, presenting a challenge to economic and labour market stability. The creation of employment in the onshore wind sector will be an important driver in retaining people of working age in the region, which will be key in supporting an increasingly older population.

Table 5-2: Population Projections, 2022 - 2043

	Highland		Scotland	
	2022	2043	2022	2043
Total Population	**238,100**	**233,250**	**5,479,900**	**5,574,800**
0-15	16.0%	14.3%	16.6%	14.8%
16-64	60.8%	56.0%	63.8%	60.3%
65+	23.2%	29.8%	19.6%	24.9%

Source: National Records of Scotland (2022), Population Projections for Scottish Areas (2018-based)

5.1.3 Economic Activity

In 2022/23, the economic activity rate in the Highlands was 78.8%, higher than the rate across Scotland (77.9%).

The unemployment rate in the region was 2.7%, lower than the Scottish average of 3.4%. Additionally, the median annual gross income for residents in the Highlands was £29,049, slightly below the overall figure for Scotland, which stands at £29,842.

These labour market indicators suggest that there is a relatively tight labour market in the region. It is therefore essential to retain and attract skilled professionals to the region to enhance its workforce capability.

Table 5-3: Economic Activity Rates, 2023

	Highland	Scotland
Economically Active (%)	78.8%	77.9%
Unemployment Rate (%)	2.7%	3.4%
Median Annual Gross Wage (resident analysis)	£29,049	£29,842

Source: Annual Population Survey – Data for Oct 2022 – Sep 2023. Annual Survey of Hours and Earnings – resident analysis data for 2023.

5.1.4 Education

As illustrated in Table 5-4, the workforce in Highland has lower levels of those with NVQ4+ qualifications than the wider population in Scotland. Across Highland, 44.9% of people have achieved a National Vocational Qualification at Level 4 (NVQ4), equivalent to a higher education certificate. This figure is lower than the 50.0% of individuals in Scotland who hold the same qualification.

These statistics may indicate that fewer jobs in Highland require higher level qualifications compared to the rest of Scotland. However, the Proposed Development and the wider onshore energy sector provide a diverse range of job opportunities, including positions that require higher level qualifications. Jobs of this kind could increase wages and provide pathways for upward mobility, contributing to local economic growth.

Table 5-4: Qualification Levels, 2022

	Highland	Scotland
NVQ4+	44.9%	50.0%
NVQ3+	62.3%	64.8%
NVQ2+	83.8%	79.6%
NVQ1+	91.2%	86.4%
Other Qualifications	3.5%	5.8%
No Qualifications	5.4%	7.8%

Source: ONS (2023), Annual Population Survey Jan 2022 – Dec 2022.

5.1.5 Summary of Local Labour Market

Highland is projected to experience an ageing population over the next two decades, presenting a challenge for economic and labour market stability. Therefore, the creation of employment opportunities in the region will be important in retaining and attracting skilled professionals and those of working age, to support an increasingly ageing population and ensuring economic sustainability.

Statistics show that the workforce in Highland has lower levels of those with NVQ4+ qualifications than the wider population in Scotland, therefore making it important for developers to support education and training opportunities to address the skills gap in the region.

5.2 University of the Highlands and Islands Partnership

Training opportunities can play a defining role in building community wealth by increasing opportunities for local people to access jobs created by projects, such as the Proposed Development. The Onshore Wind Sector Deal details three commitments for Applicants and the wider sector to support fair employment and just labour markets. These include:

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

Aligning with these commitments, the Applicant has partnered with the University of the Highlands and Islands (UHI) and pledged to invest £20,000 a year for the next three years to support students to take extracurricular activities. By increasing opportunities for local people in this way, the Applicant can enhance the local workforce's capabilities, allowing the region to secure employment opportunities and

maximise the opportunities associated with the Proposed Development and the wider sector.

This additional funding will also enhance UHI's reputation and resources, allowing the university to better accommodate the needs of students and the job market. This will support UHI to become an increasingly competitive university, attracting a larger pool of applicants. An influx of students in this way could also contribute to the local economy, as more individuals would need to relocate to the region for their studies.

As such, this investment from the Applicant could enhance the local workforce's capability and also support UHI to become a leading choice for higher education, benefitting students, the labour market and the surrounding community.

5.3 Pillar 1: Workforce Summary

By investing £20,000 a year for the next three years into UHI to support students to take extracurricular activities, the Applicant will support training opportunities and enhance the local workforce's capabilities. This initiative will enhance the local workforce's capability and support UHI to become a leading choice for higher education, benefitting students, the labour market and the surrounding community.

The Applicant's contribution under this pillar will help to address the declining working-age population by attracting students to the region to enhance its workforce capability. By providing employment opportunities which require higher level qualifications, the Proposed Development could also increase wages and provide pathways for upward mobility, both of which foster economic growth.

6. Pillar 2: Spending

This section provides an overview of the industrial structure of the local area, and the Applicant's commitment to prioritising local contractors.

The main driver of the economic activity associated with renewable energy projects, such as the Proposed Development, is the expenditure during the construction, and operations and maintenance, phases. The more expenditure that can be secured by local businesses, the greater the economic impact will be for the community.

Similarly to the first pillar, the extent to which local content is possible will depend on the capacity of the local supply chain to capitalise on the opportunities associated with the Proposed Development.

6.1 Industrial Structure

The employment structure of the Local Area, Highland, and Scotland is considered in Table 6-1. In 2022, the highest proportion of employment in the Local Area was in accommodation and food service activities, accounting for 18.2% of total employment in the region. Employment in this sector was higher than in Highland (12.2%) and Scotland as a whole (8.2%).

Of those working in the Local Area, 7.9% were employed in the construction industry, compared to 6.7% in Highland, and the Scottish average of 5.6%. This sector is one of the primary areas of opportunity for contracts associated with the construction phase of the Proposed Development.

Table 6-1: Industrial Structure, 2022

	Local Area	Highland	Scotland
Accommodation, food service activities	18.2%	12.2%	8.2%
Wholesale and retail trade	16.2%	13.4%	12.8%
Human health and social work activities	12.2%	15.3%	15.1%
Arts, entertainment and recreation	9.4%	3.3%	2.9%
Construction	7.9%	6.7%	5.6%
Professional, scientific, technical activities	7.2%	4.7%	7.4%
Administrative and support services	5.4%	5.1%	7.8%
Education	5.0%	7.1%	8.4%
Public administration and defence	4.5%	4.7%	6.2%
Manufacturing	2.7%	4.7%	6.6%
Other service activities	2.3%	1.2%	1.7%
Information and communication	2.3%	2.0%	3.1%
Real estate activities	2.0%	1.2%	1.4%
Transportation and storage	1.7%	3.7%	4.0%
Agriculture, forestry and fishing	1.5%	11.0%	3.4%
Financial and insurance activities	1.0%	0.7%	3.1%
Mining and quarrying	0.4%	0.3%	1.0%
Water supply; sewerage and waste	0.1%	1.8%	0.7%
Total Jobs	**11,500**	**127,000**	**2,622,000**

Source: Office for National Statistics (2022), Business Register and Employment Survey (BRES) 2022.

With employment in the construction industry being overrepresented in the Local Area and Highland compared to Scotland as a whole, the region is in a good position to benefit from contracts for the construction of the Proposed Development.

6.2 Prioritising Local Supply Chains

Dense local supply chains support local employment and help retain wealth within local communities. Whilst it is not always possible to obtain specialised capital equipment locally, securing less specialised goods and services from local firms can make a big difference.

In 2014, RenewableUK published the "Local Supply Chain in Onshore Wind, Good Practice Guide"[16], which includes guidance for onshore wind developers on how to maximise local content. The report made the following suggestions:

- **maximise your local presence and begin early**: start identifying potential suppliers early by being active and visible locally;
- **partnerships work**: look for partnerships with business groups and local authorities;
- **the developer's role is that of an enabler**: use information on potential suppliers to ensure primary contractors maximise local opportunities;
- **provide the right information, at the right time**: consider adopting an iterative process when communicating with businesses and leave them time to learn and adjust;
- **communicate technical requirements early**: this will give the opportunity for upskilling or the emergence of consortia to occur; and
- **if you can, demonstrate local content in planning**: where possible include a demonstrable commitment to local content in planning and carry out ex-post auditing.

In line with these suggestions, the Applicant has committed to prioritising local companies in the provision of contracts during the development, and construction, and operational phases. The Proposed Development is anticipated to bring economic benefits to the area including job opportunities, employment, and the utilisation of local services. The increased concentration of activity in the construction sector in Highland will be of particular importance.

By prioritising local companies, developers can generate high-quality employment in the region and maximise the impact for local communities. This approach will also provide important data on procurement for future projects in the region.

6.3 Pillar 2: Spending Summary

From a construction perspective, although the benefits will be temporary, the Proposed Development will support a total of 930 years of employment, of which 560 are expected to be based directly in Highland. The opportunities created will be skilled and, although temporary, will therefore offer some contribution to this pillar. The Proposed Development will also generate 11 jobs to support ongoing operations and maintenance in Highland, contributing to the provision of long-term and high-quality local employment opportunities for the region.

By prioritising local content and supporting local supply chains over the life-time of the Proposed Development, the Applicant will generate high-quality employment in the region and maximise the impact for local communities. This will also provide important data on procurement for future projects in the region.

[16] RenewableUK (2014), Local supply chain in onshore wind, good practice guide.

7. Pillar 3: Financial Power

This section describes how community benefit funds can help to enhance the financial power of host communities.

Having the freedom to make decisions about how you live your life is an important determinant of wellbeing. The ability to influence investment decisions that affect your area and ensure they work for local people, communities and businesses is part of this.

Investors can help with this by giving local people some control or influence over investment decisions that affect them. Initiatives such as community benefit funds can be an effective way of doing this, helping to enhance the financial power of host communities.

7.1 Community Benefit Funding

Community benefits, an annual payment that is made by the Applicant to those communities in the proximity of a wind farm, have become a common practice to support local ambitions and needs. While they do not constitute a material consideration at the planning stage, commitment to a comprehensive package of community benefits has a role in fostering a good relationship between the Applicant and the community hosting the development.

To provide a framework on how to deliver community benefits, in 2019 the Scottish government released its 'Good Practice Principles for Community Benefits from Onshore Renewable Energy Developments'[17], which updated previous guidance issued in 2015. The Scottish Government recommends onshore wind developers to deliver community benefit funding worth £5,000 per MW of installed capacity. The document also encourages developers to engage in holistic ways to maximise benefits locally, going beyond a purely monetary approach.

The Applicant is committed to working directly with the communities that host its renewable energy projects to understand how they can best support the local area and help to secure meaningful and long-term economic, social and environmental benefits. This approach will help to deliver a tailored community benefits package for the Proposed Development that is aligned with the local communities' priorities, and could for instance, provided funding for projects that sit outside the parameters of a traditional, application-based fund.

[17] Scottish Government (2019), Scottish Government Good Practice Principles for Community Benefits from Onshore Renewable Energy Developments.

As part of its pre-application consultation, the Applicant sought feedback on ideas, from the local community and stakeholders, for local benefits and priority projects that people would like to see supported or delivered by the Proposed Development if it receives planning consent.

According to the current layout design and installed capacity of about 187.2 MW, the total value of the community benefit funding, that would be become available once the Proposed Development is operational, would be worth £0.9 million annually, which is equivalent to £37.4 million over the project's lifetime. The community benefits package for the Proposed Development could include the Applicant's unique Local Electricity Discount Scheme (LEDS), something that received interest from the local community following the first public exhibition events held in summer 2024. Any unspent funds or proportion of the available funding not allocated to LEDS, could provide the local area with additional benefits elsewhere.

By offering a tailored community benefits package, the Applicant empowers local residents to influence how the available funding from the Proposed Development is used to best meet the needs of the community. This approach not only enhances the wellbeing of the local area by granting financial power to residents, but also contributes to making the area a more appealing place to live and work by improving infrastructure and supporting local initiatives.

The Applicant has expressed an interest in collaborating with other developers based in the region to part-fund larger community projects through this mechanism. The Applicant is also engaging with key stakeholders and the wider community to understand local priorities and help inform the type of community benefit that could delivered in order to maximise impact for the local community.

7.2 Local Electricity Discount Scheme (LEDS)

As part of the community benefit offering, the Applicant has proposed the funding could be used to reduce the electricity bills of those living and working closest to the Proposed Development. For over 10 years, the Applicant has been delivering its unique Local Electricity Discount Scheme (LEDS) which offers an annual discount to the electricity bills of properties closest to a participating renewable energy project, without the need to change energy provider.

The Applicant was the first developer to design such a scheme, following consultation with the communities around its wind farm projects, where discounts on electricity bills came up as a top priority.

The final LEDS discount per property, and extent of eligible area, will be determined following consultation with the local community and will depend on the installed capacity of the final constructed project.

An example of where LEDS is currently being delivered at an existing scheme in the region is Freasdail Wind Farm, in Argyll & Bute, an 11-turbine project, which was developed and constructed by the Applicant, before becoming operational in March 2017. At Freasdail, all residential, business, and community buildings within a 5km radius of the turbines are eligible to apply for an annual £235 (index-linked) discount on their electricity bill, paid directly to the electricity supplier for the operational lifetime of the wind farm.

The practical effect of discounted electricity theoretically enables eligible households to spend more on other goods and services such as food, clothing, transport, and leisure. The value of the electricity discounts therefore represents additional turnover for the sectors that benefit from household expenditure, the money spent by households to meet their everyday needs. Household spending patterns[18] show that those with higher incomes spend a greater proportion of their total expenditure on recreation and hospitality. By enabling residents to spend more on leisure, the provision of support with electricity bills for the local community is therefore likely to generate economic benefits and support jobs in the local hospitality and leisure sectors.

7.3 Pillar 3: Financial Power Summary

The Applicant is willing to offer a package of benefits worth £0.9 million annually, which is tailored to the needs of the community.

As part of this offering, which will become available once the Proposed Development is consented and becomes operational, the Applicant has also proposed to reduce the electricity bills of households proximate to the Proposed Development. At a time of surging energy prices LEDS delivers direct and tangible benefits to local communities, while also supporting home grown, zero carbon electricity generation.

By taking a tailored approach, the Applicant has provided mechanisms for the local community to harness the financial benefits of the Proposed Development and empower local residents to influence how the funds are spent to best meet the needs of the community.

[18] ONS (2023), Family spending in the UK: April 2021 to March 2022.

8. Pillar 4: Land and Property

This section outlines the Applicant's intention to enhance biodiversity and invest in infrastructure.

The quality of the physical environment is a major component of community wealth since it is important for local communities to benefit from common land and property assets in their locality. By supporting biodiversity improvement efforts and creating new on-site leisure and recreational assets that will enhance rather than detract from local biodiversity, developers can support this pillar of CWB.

This chapter provides an overview of the Applicant's initiatives to enhance biodiversity in partnership with local estates and support the wider tourism economy in the Highlands.

8.1 Biodiversity Enhancements

As the Proposed Development is located on local estates, the rent generated for the estate owners can contribute to daily operations, supporting the habitat improvement and restoration efforts in these areas. With funding from Scottish Forestry diminishing due to limited public funds and high inflation, estate owners are turning to private investors. By generating a consistent and long-term income stream through rent from the Proposed Development, estate owners can create long-term employment opportunities for the local community to support daily operations which contribute to biodiversity enhancement.

In addition to the revenue generated through rent, one of the local estates will receive a payment per hectare of land identified as part of the habitat improvement plans, supporting the salary, accommodation and expenses of an additional ranger role to support regenerative woodland planting. Peatland restoration works are also planned to be completed on the site of the Proposed Development, supporting the employment of specialist peat restoration contractors.

Initiatives such as these will both support regeneration, and the creation of native woodland, contributing to the targets outlined in the Capercaillie Emergency Plan[19], and will also support employment opportunities in the local area.

8.2 Recreational and Tourism Spaces

Whilst not required by NPF4, this assessment also considered whether there could be any implications for tourism since it is an important contributor to the local economy (see Appendix: Tourism and Recreation). The assessment found that the

[19] Cairngorms National Park Authority and NatureScot (2024), Capercaillie Emergency Plan 2025 – 2030

Proposed Development is not expected to impact local tourism assets, including local attractions, accommodation providers, recreational trails, and core paths.

Although the tourism economies of the Local Area, the region or wider Scotland are not expected to be impacted by the Proposed Development, the Applicant is committed to supporting the tourism economy and improving the quality of the physical environment to allow communities to benefit from assets in their locality.

As part of this approach, the Applicant has partnered with Highland Tourism Community Interest Company (HTCIC), with the purpose of reinvesting profits from renewable projects, such as the Proposed Development, for the economic benefit of the region. Recognising the scale of the opportunity, the Applicant is keen to ensure that the tourism economy in the Highlands is enriching local communities, boosting the local economy and preserving its environmental assets.

An example of this could be to provide funding for additional car parking and camping spots to ease pressure from overcrowding, particularly along the North Coast 500 route.

The Applicant also intends to provide a limited number of car parking spaces at the site entrance of the Proposed Development to give the general public access to the unofficial walking routes currently being promoted by local interest groups. This will support access to walking trails, which is a key driver of tourism in the region.

8.3 Pillar 4: Land and Property Summary

The revenue generated by the Proposed Development will help to support the operations of local estates, contributing to the restoration and biodiversity enhancement efforts in the region. These initiatives will improve the quality of the physical environment and support several employment opportunities in the local economy.

The Applicant has also expressed an interest in enhancing and supporting local tourism assets to ensure that the tourism economy in the Highlands is enriching local communities, boosting the local economy, and preserving its environmental assets.

The Applicant's initiatives under this pillar, with the purpose of enriching biodiversity and investing in local infrastructure in the locality of the Proposed Development, will enhance the socially productive use of land and property, and therefore the potential for community wealth building.

9. Pillar 5: Ownership

This section describes how the Applicant is maximising community benefits through offering shared ownership options for the local community.

One reason for wealth inequality in the UK is that financial wealth is concentrated amongst a small minority of the population. Often this means that wealth generated locally flows out of an area to remote shareholders, providing little benefit to the host communities. Renewable energy developers can help mitigate this by creating opportunities for communities to acquire equity in local projects and retain some of this wealth, creating sustainable income streams that can be used to support community development.

9.1 Shared Ownership Options

An option for shared ownership for local communities is proposed to be offered. This type of commercial arrangement usually involves one or more of the local communities taking a stake in the proposed wind farm and receiving profits from it.

In 2019, the Scottish Government[20] published guidance on the shared ownership of onshore renewable developments. This guidance aims to advise communities, developers, local authorities, and other stakeholders on how to deliver a shared ownership scheme, with the Scottish Government's ambition being that by 2030 there will be 2 GW of community and locally owned energy.

In the case of the Proposed Development, the Applicant is prepared to enter into discussions on shared ownership, working closely with residents and key stakeholders to understand which model will ensure the most meaningful impact. Details of this model will be finalised at a later stage.

This initiative allows for the local communities to retain some of the wealth generated by the Proposed Development, creating sustainable income streams that can be used to support community development. Collaboration of this kind will help to foster a long-lasting relationship between the Applicant and the community, and ensure that a legacy of economic development can be created.

9.2 Pillar 5: Ownership Summary

The Applicant is open to discussing options for shared ownership and is willing to work closely with residents and key stakeholders to understand which model will

[20] Scottish Government (2019), Scottish Government Good Practice Principles for Shared Ownership of Onshore Renewable Energy Developments.

ensure the most meaningful impact. Exploring shared ownership models with the local community with the view to acquire a meaningful stake of the Proposed Development, could directly support the community wealth building pillar of ownership.

10. Case Study: Delivering Green Hydrogen

This section explores additional ways to generate economic impacts.

One example of the Applicant taking an innovative approach to generating economic impact is through the delivery of green hydrogen in Sweden. An approach of this kind could also be possible in Highland if industry partners were identified who were willing to collaborate with the Applicant.

10.1 Benefits of Green Hydrogen

Green hydrogen is produced by splitting water into hydrogen and oxygen using a renewable source of electricity. This process generates energy without emitting carbon dioxide. As the most abundant chemical element in nature, hydrogen offers an accessible, efficient, and sustainable pathway to achieving Net Zero.

Green hydrogen has an important role to play in decarbonising industry through its diverse applications, including electricity generation, transportation fuel, and energy storage. Being insulated from gas price volatility, green hydrogen can also contribute to a more energy independent UK.

10.2 Delivering Green Hydrogen for Industry

In 2021, the Applicant formed a partnership with Ånge Municipality in Sweden to establish a green hydrogen plant in Alby. The purpose of this collaboration is to provide local industries with access to green hydrogen, utilising available grid capacity. The plant will position Ånge Municipality as a development hub for green energy, anticipated to attract new industries to the area and generate numerous job opportunities.

Building on this approach, the Applicant is willing to offer a similar agreement to local businesses in the Highland region. This initiative aims not only to generate renewable energy for the daily operations of local businesses but also to create local jobs during both the development and construction phases of the project.

11. Conclusion: Net Economic Benefits

The Proposed Development delivers a comprehensive package of economic and wider benefits and so maximises net economic benefits for the local community.

As set out throughout this report, the Applicant has a strong track record in delivering economic and wider benefits to the communities hosting its developments.

11.1 Economic Benefits

The economic benefits of the Proposed Development include:

- economic benefits during the development and construction phase of:
  - £54.9 million GVA and 590 jobs in Highland; and
  - £104.7 million GVA and 1,190 jobs in Scotland.
- annual economic benefits during the operations and maintenance of:
  - £1.8 million GVA and 11 jobs in Highland; and
  - £4.9 million GVA and 38 jobs in Scotland.

The Proposed Development will also support the delivery of local services through the annual payment of £2.2 million in non-domestic rates.

As well as generating economic impacts regionally and nationally, the Applicant has committed to a series of initiatives which contribute to each of the five CWB pillars.

11.2 Contribution to CWB Pillars

11.2.1 Pillar 1: Workforce

By investing £20,000 a year for the next three years into UHI to support students to take extracurricular activities, the Applicant will support training opportunities and enhance the local workforce's capabilities. This initiative will enhance the local workforce's capability and support UHI to become a leading choice for higher education, benefitting students, the labour market and the surrounding community.

11.2.2 Pillar 2: Spending

By prioritising local content and supporting local supply chains over the life-time of the Proposed Development, the Applicant will generate high-quality employment in the region and maximise the impact for local communities. This will also provide important data on procurement for future projects in the region.

11.2.3 Pillar 3: Financial Power

The Applicant is willing to offer a package of benefits worth £0.9 million annually, which is tailored to the needs of the community. As part of this offering, which will become available once the Proposed Development is consented and becomes operational, the Applicant has also proposed to reduce the electricity bills of households proximate to the Proposed Development. At a time of surging energy prices LEDS delivers direct and tangible benefits to local communities, while also supporting home grown, zero carbon electricity generation.

By taking a tailored approach, the Applicant has provided mechanisms for the local community to harness the financial benefits of the Proposed Development and empower local residents to influence how the funds are spent to best meet the needs of the community..

11.2.4 Pillar 4: Land and Property

The revenue generated by the Proposed Development will support biodiversity enhancement through several initiatives including supporting habitat improvement on local estates, contributing to peatland restoration works, and creating native woodland through regeneration. Such initiatives will enhance biodiversity whilst supporting local employment opportunities.

The Applicant has also expressed an interest in enhancing and supporting local tourism assets to ensure that the tourism economy in the Highlands is enriching local communities, boosting the local economy, and preserving its environmental assets.

11.2.5 Pillar 5: Ownership

The Applicant is open to discussing options for shared ownership and is willing to work closely with residents and key stakeholders to understand which model will ensure the most meaningful impact.

11.3 Maximising Net Economic Benefits

The Applicant has demonstrated a meaningful contribution to all five pillars of CWB, and it is therefore reasonable to conclude that the Proposed Development maximises net economic benefits and meets the requirements outlined in NPF4 Policy 11(c).

12. Appendix: Tourism and Recreation

12.1 Tourism Baseline

12.1.1 Sustainable Tourism GVA and Employment

In 2015, Scotland's Economic Strategy[21] outlined six sectors which had the potential to support the growth of Scotland's economy, one of which was sustainable tourism.

In 2022, employment in the sector in Highland increased by 13% compared to the previous year, reaching 17,000 individuals. This marks the second consecutive year of employment growth in the sector following a significant downturn (26%) due to the COVID-19 pandemic. Despite this recovery, employment levels in 2022 remain below the pre-pandemic figure of 19,000. Employment in the sector represents 7.4% of the 229,000 people working in the sustainable tourism sector in Scotland.

As shown in Table 12-1, the sustainable tourism sector generated £278.0 million Gross Value Added (GVA) in Highland, accounting for 8.3% of the total £3,365.8 million GVA generated by the sector across Scotland.

Table 12-1: Sustainable Tourism, 2022

	Highland	Scotland
GVA (£ million)	278.0	3,365.8
Employment	17,000	229,000

Source: Scottish Government (2022), Growth Sector Statistics

12.1.2 Visitors

Tourism data was not available for the Local Area, however a range of statistics are available on visitor numbers and visitor spend for Highland and Scotland, including the Great Britain Day Visitor Survey, the Great Britain Tourism Survey, and the International Passenger Survey.

Table 12-2 shows the latest data available on visitors and level of spending across Scotland. The table shows there were 14.5 million visitors to Highland in 2019, with tourist spend in the region amounting to £1.1 billion. Day visitors accounted for 82.9% of visitors to Highland, followed by domestic overnight visitors (13.5%) and international overnight visitors (3.6%). While the highest total spending was associated with day visitors (£413.2 million), the largest spend per visit came from international overnight visitors, who approximately £395 per, followed by domestic overnight visitors (£252 per visit) then domestic day visitors (£34 per visit).

[21] Scottish Government (2015), Scotland's Economic Strategy.

Highland accounted for 9.0% 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%). As with Highland, international overnight visitors had the highest spend per trip (£694), followed by domestic overnight visitors (£241) and domestic day visitors (£36).

Table 12-2: Visits to Highland by Visitor Type

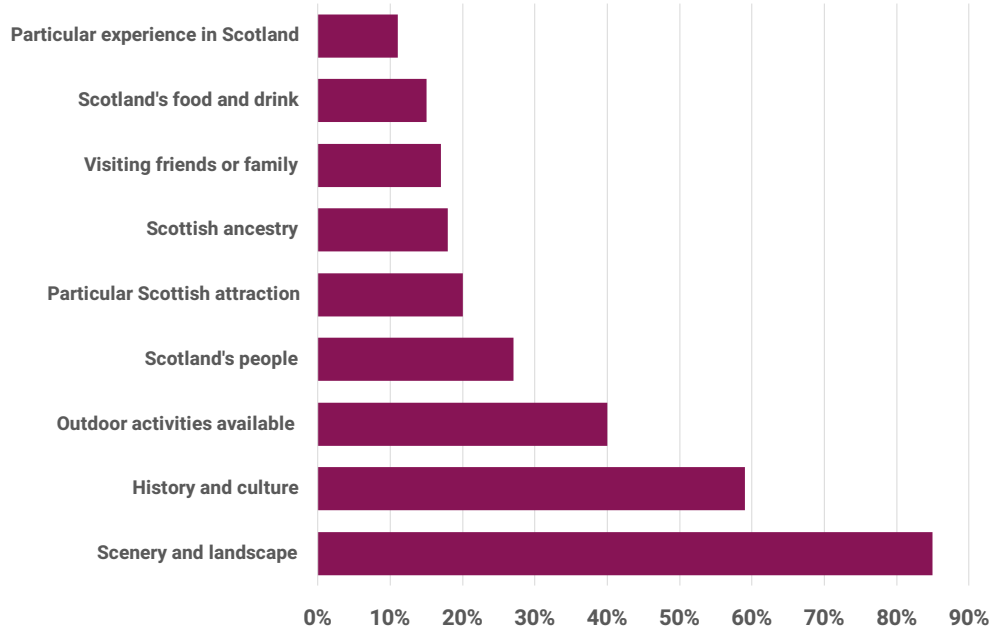
	Highland	Scotland
		Visitor Numbers (million)
Day Visitors	12.0	144.9
Domestic Overnight Visitors	2.0	12.4
International Overnight Visitors	0.5	3.5
Total	**14.5**	**160.9**
		Spend (£ million)
Day Visitors	413.2	5,186.6
Domestic Overnight Visitors	492.0	2,989.3
International Overnight Visitors	205.2	2,458.6
Total	**1,110**	**10,635**

Source: Kantar (2020), Great Britain Day Visitor Survey, Kantar (2020), Great Britain Tourist Survey, NISRA (2020), Domestic Overnight Trips to Northern Ireland and NISRA (2020), External Overnight Tourism Trips to Northern Ireland. Note figures may not sum due to rounding

In a recent visitor survey[22], the top three activities undertaken when visiting the Highlands included hillwalking and hiking, visiting a castle or fort, or visiting a nature reserve. Furthermore, those asked in the Highlands, reported that their main motivations for visiting Scotland were the scenery and landscape, the history and culture, and the outdoor activities available (as illustrated in Figure 12-1).

[22] Visit Scotland (2023). Scotland Visitor Survey 2023, Local Area Factsheet: Highlands

Figure 12-1: Motivations to Visit Scotland



Source: Visit Scotland (2023), Scotland Visitor Survey 2023, Local Area Factsheet: Highlands.

12.2 Assessing the Relationship Between a Wind Farm Development and the Tourism Economy

Tourism and recreation assessments focus on the tourism economy, as defined by the 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. In turn, this decision has to lead to a fall in the employment and spending by visitors at a given attraction or accommodation provider.

As recorded in visitors' surveys, visitors tend to spend time in a given area for a range of reasons. These include, for instance, scenery and landscape; history and culture; and the place's reputation.

When considering individual tourism sites, the extent to which they are susceptible to change in their surroundings varies, based on:

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

In addition, the scale of the impact on the surroundings of a wind farm development is expected to depend on factors, including:

- distance from the wind farm; and
- the interaction between the wind farm and the assets' features.

The interaction between the susceptibility to change of an attraction and the extent to which it will be impacted by the development determine the wind farm's relative impact. For these changes to have an effect, it is then required that they have an impact on the tourism economy, through reduced spending and a reduction in the employment supported by the sector.

12.3 Evidence on Wind Farms and Tourism

Over time, a series of works have considered the relationship between wind farm developments and tourism activity.

A study of potential effects of wind farms on tourism was undertaken in 2008 by the Moffat Centre at Glasgow Caledonian University[23]. 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 effect 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 as a result of their existence would now be apparent.

In 2021, BiGGAR Economics produced a report analysing the relationship between the construction of onshore wind farms and tourism employment at the national, regional and local level. [24]

Nationally, the report found that, while Scotland had experienced a significant increase in onshore wind energy (with the number of turbines increasing from 1,082 in 2009 to 3,772 in 2019), employment in tourism-related sectors had increased by 20%. At the local authority level, those that had seen the largest increase in onshore wind energy also experienced increases in tourism employment equal to, or greater than other areas across Scotland.

The report included case studies of 44 onshore wind farms constructed between 2009 and 2019. This included an updated analysis of 28 wind farms included in a previous report[25] constructed prior to 2015, and 16 additional wind farms constructed between 2015 and 2019. The study reported on changes in tourism-related employment in the small areas within 15km of each wind farm. Of the 28 wind farms previously analysed, the surrounding local areas of 18 experienced an increase in tourism employment above the Scottish average in the years following the construction. Of the 16 local areas surrounding the additional 16 onshore wind farms, 11 experienced increases in tourism employment which outperformed the

[23] Moffat Centre (2008), The Economic Impact of Wind Farms on Scottish Tourism.

[24] BiGGAR Economics (2021), Wind Farms & Tourism Trends in Scotland: Evidence from 44 Wind Farms

[25] BiGGAR Economics (2017), Wind Farms and Tourism Trends in Scotland

Scottish average. These results suggested that tourism employment in local areas across Scotland changed independently of wind farms located in the area.

The report concluded that, there was no pattern or evidence suggesting that the development of onshore wind farms in Scotland had any negative effects on the tourism economies of the country as a whole, local authority areas or the immediate areas surrounding wind farms.

These conclusions are not a surprising finding given that:

- there are high levels of public support for renewable energy; [26]
- as wind farms are well-established in Scotland, tourists might already 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 wind farm; 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.

12.3.1 Local Visitor Attractions

Of the top ten most visited attractions across Highland, as identified by VisitScotland, none are located within 15km of the Project. These regional visitor attractions are shown in Table 12-3.

Table 12-3: Regional Visitor Attractions, Highland

	Number of Visitors	Distance from Site (km)
Glenmore Forest Park	427,791	19km
Culloden Visitor Centre	209,011	23km
Loch Ness by Jacobite	321,980	24km
Inverness Botanic Gardens	105,703	24km
Urquhart Castle	547,518	25km
Glen Affric	135,710	54km
Corrieshalloch Gorge	146,707	80km
Glencoe Visitor Centre	436,924	91km
Glenfinnan Monument	462,235	95km
Dunvegan Castle & Gardens	176,534	154km

Source: VisitScotland (2020), Insight Department: Highland Factsheet 2019.

[26] BEIS (2022). Public Attitudes Tracker: Energy Infrastructure and Energy Sources. Winter 2021, UK.

With the Proposed Development being located nearby Cairngorms National Park, and located between Aviemore and Inverness, many of the tourist attractions are associated with outdoor activities.

Visitor attractions within a 15km radius of the Proposed Development are set out in Table 12-4, alongside a description of them and their distance from the Proposed Development. These were identified through the VisitScotland portal and include both indoor and outdoor tourist attractions in the local area.

Table 12-4: Local Visitor Attractions

	Description	Distance to Site (km)
Findhorn Viaduct	Bridge carrying the Perth to Inverness railway line over the valley of the River Findhorn.	6
Tomatin Distillery and Visitor Centre	Whisky distillery and shop established in 1897, offering tours and tasting sessions.	7
Carrbridge Golf Club	9-hole golf course in beautiful surroundings.	9
Landmark Forest Adventure Park	Adventure Park in Cairngorms National Park, offering water coasters, high-ropes courses and trails.	10
Aviemore Kart Raceway	Outdoor go karting track.	10
The Cairngorm Brewery	Craft brewery offering tasting experiences.	11
Aviemore Activity Centre	Centre offering a range of indoor and outdoor activities, such as swimming and archery.	11
Craigellachie National Nature Reserve	Nature reserve home to a variety of wildlife and trail routes.	11
Spey Valley Golf Course	18-hole gold fcourse bordered by Caledonian pine forests and the River Spey.	11
Kinrara Distillery	Scottish craft gin producer offering gin tasting experiences and shop.	11
Zip Trek Adventure Park Aviemore	Adventure Park offering outdoor activities such as ziplines, canyoning and gorge walking.	12

	Description	Distance to Site (km)
Rothiemurchus	Picturesque location in the Cairngorms National Park, offering a variety of outdoor activities.	13
Tazball Paintball	Paintball and laser combat arena.	13
Boat Of Garten Golf & Tennis Club	18-hole golf course with clubhouse and tennis court.	13
Loch an Eilein	Loch hidden in the forest of Rothiemurchus.	15

Source: VisitScotland (2023)

12.3.2 Local Accommodation Providers

124 accommodation providers were identified in the area surrounding the Proposed Development, identified through online research on the VisitScotland portal, Bookings.com, and Google Maps. The accommodation providers were primarily clustered in and around Aviemore and concentrated along the A9 road in towns such as the Boat of Garten, Carrbridge and Tomatin.

As shown in Table 12-5, of the 124 providers, just 4 were located within 5km of the site, all of which were self-catering providers.

Table 12-5: Local Accommodation Provider

	Number of Accommodation Providers				
Distance from the Site	Self-Catering	Holiday Parks / Hostels	B&B	Hotels	Total
0-5km	4	0	0	0	**4**
5-10km	25	1	3	3	**32**
10-15km	68	6	6	8	**88**
Total	**97**	**7**	**9**	**11**	**124**

Source: Visit Scotland (2023) Accommodation Argyll and Bute. Booking.com. Google Maps.

12.3.3 Recreational Trails and Core Paths

Several trails were identified on Walkhighlands (2024) within 15km of the Proposed Development. These are shown in Table 12-6, alongside a brief description.

Table 12-6: Recreational Trails

	Description	Distance to Site (km)
Upper Findhorn moors and glens, Strathdearn	20.5km circuit among the moors and glens of the Highlands.	6
Geal-charn Mòr, from Lynwilg	12.5km hill walk, summiting Geal-chàrn Mòr and providing views of the Cairngorms.	8
Ellan Wood and the river, Carrbridge	4.5km trail through pine wood forest.	9
Docharn Woods circuit, Carrbridge	7.5km circular walk through Docharn Woods, showcasing views towards the Cairngorms.	9
Craigellachie, Aviemore	5km trail through a nature reserve.	10
Aviemore Orbital	8km with sections along the River Spey.	10
Càrn na h-Easgainn, near Moy	6.25km track through birchwoods before summiting Càrn na h-Easgainn.	10
Speyside Way 6: Boat of Garten to Aviemore	9.5km section, from Boat of Garten to Aviemore, of the larger 135km Speyside Way route.	10
Kincraig to Aviemore	16.5km section of the East Highland Way, passing through Inshriach National Nature Reserve.	11
Speyside Way 7: Aviemore to Kincraig	10.5km section, from Aviemore to Kincraig, of the larger 135km Speyside Way route.	11
River Spey and woodland walk, Boat of Garten	9.75km circular route through woodland home to Capercaillie.	11
Badenoch Way	17.5km trail following the River Spey.	12
Torr Alvie and the Duke of Gordon Monument	A popular 5.25km ridge walk providing views over Strathspey.	12
Loch Garten and Garten woods	A 9km circular walk visiting Garten pinewoods.	14
Rothiemurchus Forest and the Iron Bridge	7.5km trail through Caledonian forest with views of the Cairngorms.	14

	Description	Distance to Site (km)
Lairig Ghru	Famous 30.5km hill-pass through the Cairngorms, from Speyside to Deeside.	14
Riverside Walk, Kincraig	2.7km walk along the River Spey.	14
Loch an Eilein, Rothiemurchus	Popular 7km trail around Loch an Eilein and Rothiemurchus Forest, with views across to a ruined island castle.	14
Loch Ruthven, near Farr	Short 1km walk to visit Loch Ruthven RSPB Reserve.	15
Inverarnie Esker Trail, Littlemill near Daviot	4.75km ridge walk with impressive views of pools formed by glaciers.	15
Braeriach, circuit from Whitewell	26km summit of the Munro, and the third highest mountain in Britain, Braeriach.	15

Source: Walkhighlands (2024)

There are also several core paths[27] within 15km of the Proposed Development, including:

- Path: LBS114
- Path: National Cycle Route 7 by A9
- Path: Allt Neacrath loop
- Path: Distillery Wood
- Path: LBS61
- Path: LBS57
- Path: LBS58
- Path: LBS59
- Path: LBS56
- Path: LBS53
- Path: LBS123
- Path: LBS62
- Path: LBS122
- Path: LBS113
- Path: LBS138
- Path: LBS30
- Path: LBS40
- Path: LBS116d

[27] Scottish Government Spatial Data (2024). Core Paths - Scotland

- Path: LBS43
- Path: LBS39
- Path: LBS41
- Path: LBS145
- Path: LBS32
- Path: LBS38
- Path: LBS126
- Path: LBS31
- Path: LBS37
- Path: LBS36
- Path: LBS35
- Path: LBS1g
- Path: LBS44
- Path: LBS33
- Path: LBS34
- Path: LBS137
- Path: LBS1f
- Path: LBS42
- Path: LBS67
- Path: LBS29
- Path: LBS69
- Path: LBS66
- Path: LBS72
- Path: GR5
- Path: LBS70
- Path: GR6
- Path: LBS71
- Path: LBS121
- Path: LBS64
- Path: LBS116c
- Path: GR1
- Path: LBS111
- Path: LBS128
- Path: GR4
- Path: GR3
- Path: School Wood circuit
- Path: LBS46
- Path: LBS47
- Path: LBS48
- Path: LBS1e
- Path: LBS125
- Path: LBS49
- Path: Littlemill Esker Trail
- Path: LBS110

12.4 Impact on Local Tourism and Recreation Sites

Having considered the impact of wind farms on the local tourism economy, the analysis here focuses on whether the Proposed Development is likely to have any impacts on individual attractions, accommodation providers, and core paths and recreational trails, within a 15km radius.

12.4.1 Visitor Attractions

The tourism and recreation baseline has identified 15 visitor attractions. None of which are within a 5km radius of the Proposed Development.

The closest attraction, **Findhorn Viaduct**, is located 6km to the north of the site. The viaduct supports the Perth to Inverness railway line over the valley of the River Findhorn. The motivation to visit this site is likely to be associated with the architecture of the attraction itself or its history. Since the Proposed Development will not affect these features, the Proposed Development is not expected to impact the motivation to visit this attraction.

Tourists with an interest in whisky, gin or beer are likely to visit **Tomatin Distillery and Visitor Centre**, **The Cairngorm Brewery**, or **Kinrara Distillery**, all of which offer tours and tastings sessions. The Proposed Development will not affect these features, and therefore the Proposed Development is not expected to impact the motivation to visit these attractions.

As shown in Figure 12-1, outdoor activities rank among the top three reasons why tourists choose to visit the Highlands. This is a reflection of the large variety of outdoor activities found in the region, of which the following are within a 15km vicinity of the Proposed Development:

- **Carrbridge Golf Club**
- **Landmark Forest Adventure Park**
- **Aviemore Kart Raceway**
- **Aviemore Activity Centre**
- **Spey Valley Golf Course**
- **Zip Trek Adventure Park Aviemore**
- **Rothiemurchus**
- **Tazball Paintball**
- **Boat Of Garten Golf & Tennis Club**

For all of these attractions, the motivation to visit is associated with the activity in which they host, and therefore is not expected to be affected by the presence of the Proposed Development. For this reason, the Proposed Development is not expected to impact these attractions.

Other attractions likely to be of interest to those keen to explore the scenery and nature associated with the Cairngorm National Park, may explore attractions such as **Craigellachie National Nature Reserve** and **Loch an Eilein**. The motivation to visit

these attractions is likely to be linked to the reputation and characteristics of the Cairngorm National Park, with it being the largest national park in the UK. The Proposed Development will not affect these features, and therefore the Proposed Development is not expected to impact the motivation to visit these attractions.

12.4.2 Tourism Accommodation

As highlighted in the tourism baseline, the local accommodation providers in the vicinity of the Proposed Development are predominantly clustered in and around Aviemore, with many others concentrated along the A9 road in towns such as Boat of Garten, Carrbridge and Tomatin. With this in mind, many tourists are likely to choose to stay at these providers due to their proximity to key attractions in the region.

Many of these accommodation providers are located within Cairngorm National Park, allowing them to benefit from the combination of accessibility to local tourist attractions and their proximity to the iconic Highland scenery. The Proposed Development will not affect these features, and therefore the Proposed Development is not expected to impact the motivation to visit these accommodation providers.

12.4.3 Recreational Trails and Core Paths

In assessing the potential impact of the Proposed Development on the drivers of tourism, the key features of recreational trails and core paths identified have been considered below.

There a number of famous hill walks within 15km of the Proposed Development, including **Braeriach, circuit from Whitewell**, classified as a Munro, the **Lairig Ghru**, a hill-pass through the Cairngorms. The motivation to use these trails is likely to be associated with an interest in hiking and the reputation of these particular walks, neither of which are expected to be affected by the Proposed Development.

Additional hill and ridge walks in the area include **Geal-charn Mòr, from Lynwilg**, as well as **Torr Alvie and the Duke of Gordon Monument**, and the **Inverarnie Esker Trail, Littlemill near Daviot**. The appeal of these trails is largely associated with the landscapes in which they feature, and therefore the Proposed Development is not expected to impact the motivation to use these trails.

Kincraig to Aviemore, **Speyside Way 6: Boat of Garten to Aviemore**, and **Speyside Way 7: Aviemore to Kincraig** are all shorter sections of longer walks, these being the East Highland Way and the Speyside Way. It is not expected that the presence of the Proposed Development during these brief sections will affect the motivation of walkers to complete these longer trails.

With the Cairngorms National Park being home to a quarter of Scotland's native forest, there are several the recreational trails in the area feature woodland trails, including:

- **Ellan Wood and the river, Carrbridge**
- **Docharn Woods circuit, Carrbridge**

- **Càrn na h-Easgainn, near Moy**
- **River Spey and woodland walk, Boat of Garten**
- **Rothiemurchus Forest and the Iron Bridge**

The key motivation for using these trails is likely to be associated with the rich biodiversity of the woodland environment, featuring pine and birch wood forests, as well as offering sightings of the capercaillie. Since the Proposed Development will not affect these features, the Proposed Development is not expected to impact the motivation to use these trails.

There are also a variety of trails identified within 15km of the Proposed Development which follow the River Spey, such as **Aviemore Orbital**, **Badenoch Way**, and **Riverside Walk, Kincraig**. The appeal of these trails is their proximity to the river and the blue space it provides for walkers. Since the Proposed Development will not affect these features, the Proposed Development is not expected to impact the motivation to use these trails.

Two trails identified in the baseline are located within nature reserves including, **Craigellachie, Aviemore** and **Loch Ruthven, near Farr**. The remaining two include, **Upper Findhorn moors and glens, Strathdearn**, a circuit around the moors and glens of the highlands, and **Loch an Eilein, Rothiemurchus**, a popular trail following Loch Eilein. These trails allow walkers to enjoy the scenic features of the Highlands as well as observing Scotland's natural wildlife. Since the Proposed Development will not affect these features, the Proposed Development is not expected to impact the motivation to use these trails.

12.5 Summary: Local Tourism and Recreation

It is important to recognise that a large driver of tourism in the region is associated with the outdoor activities available in the region, which is reflected by the tourist attractions identified, many of which offer these types of activities. Since the Proposed Development will not affect the features associated with many of the attractions identified, the Proposed Development is not expected to impact the motivation to visit these attractions.

With many of the accommodation providers being clustered in Aviemore and along the A9 road, a large proportion of the providers advertise their proximity to nearby attractions and the surrounding landscapes. Since these features are likely to be a key motivator for tourists and the Proposed Development will not affect these features, the Proposed Development is not expected to impact the motivation to visit these accommodation providers.

Many of the recreational trails within the vicinity of the Proposed Development are hill-walking routes, sections of longer walks, or feature the River Spey or nature reserves. Since the Proposed Development will not affect these features, the Proposed Development is not expected to impact the motivation to use these recreational trails.

BiGGAR Economics, Shandwick House, 67 Shandwick Place, Edinburgh, Scotland, EH2 4SD

info@biggareconomics.co.uk

biggareconomics.co.uk