

13 Socio-economics, Tourism and Recreation

Contents

13.1	Executive Summary	13-1
13.2	Introduction	13-1
13.3	Legislation, Policy and Guidelines	13-2
13.4	Consultation	13-2
13.5	Assessment Methodology and Significance Criteria	13-2
13.6	Baseline Conditions	13-6
13.7	Receptors Brought Forward for Assessment	13-18
13.8	Likely Effects	13-18
13.9	Residual Effects	13-27
13.10	Cumulative Assessment	13-27
13.11	Summary	13-29
13.12	References	13-32

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13 Socio-economics, Recreation and Tourism

13.1 Executive Summary

- 13.1.1 The Proposed Development consists of up to 18 turbines and an installed capacity anticipated to be in excess of 100MW. This chapter has assessed the potential socio-economic, tourism and recreation effects of the Proposed Development.
- 13.1.2 The baseline assessment found that the ward of Aird and Loch Ness has a relatively older population than Highland and Scotland, with slower population growth expected. Economic activity in Highland is higher than the Scottish average and wages are comparable, but the share of the population of working age both in Aird and Loch Ness and in Highland is relatively smaller than the Scottish average.
- 13.1.3 The economic impact of the Proposed Development has been assessed for its development, construction and 50-year operational life time. It was estimated that:
- during the development and construction phase, the Proposed Development would cost approximately £99 million and could generate up to:
 - £14.4 million Gross Value Added (GVA) and 196 years of employment in Highland; and
 - £36.6 million GVA and 494 years of employment in Scotland.
 - during each year of the operational phase, expenditure on operations and maintenance would be £2.7 million and could generate up to:
 - £0.8 million GVA and 11 jobs in Highland; and
 - £1.6 million GVA and 26 jobs in Scotland.
- 13.1.4 It is expected that there would be a community benefit fund associated with the Proposed Development, which will build on the existing Bhlaraidh Community Fund.
- 13.1.5 There would also be benefits to the public sector from the annual payment of around £1.3 million in non-domestic rates. This revenue will contribute to the delivery of local public services.
- 13.1.6 A review of the latest research evidence suggests that there is no evidence of wind farm developments adversely affecting the tourism economy of Scotland. However, an assessment of the potential effect of the Proposed Development on local tourism assets, accommodation providers and tourism routes was undertaken and found no expected adverse effects.

13.2 Introduction

- 13.2.1 This chapter assesses the impact of the Proposed Development on socio-economics and tourism during its development and construction, operation and decommissioning phases. The assessment has been undertaken by BiGGAR Economics Limited, a specialist economic consultancy, and has been led by Simon Cleary. Simon is the Economics Director at BiGGAR Economics and has ten years' experience in assessing the economic, tourism and recreation impacts of renewable energy developments across the UK. He has developed the quantitative model that is used to evaluate such projects and is now considered best practice in the industry. He has led numerous studies of onshore wind energy supply chains and has a strong understanding of the supply chain opportunities available, particularly in Highland and Scotland.
- 13.2.2 The assessment presented in this chapter identifies significant effects that are likely to occur when considering the Proposed Development against the existing tourism, recreation and employment baselines. Measures to enhance potential beneficial effects and potential beneficial cumulative effects are also considered.

13.2.3 This assessment was conducted on the presumption of the Proposed Development numbering 18 turbines, with a generating capacity of 5.6MW each, producing a total generating capacity anticipated to be in excess of 100MW. This is an indicative capacity; actual installed capacity may be greater or less dependent on turbine model selection. Turbine model selection would be through a competitive tender process that would take place post-consent.

13.3 Legislation, Policy and Guidelines

13.3.1 There is no specific legislation, policy or guidance available on the preferred methods to assess the socio-economic impacts of a proposed onshore wind farm development. The proposed method is based on established best practice, including that used in UK Government and industry reports on the sector.

13.3.2 This assessment draws on two studies by BiGGAR Economics on the UK onshore wind energy sector, a report published by RenewableUK and the then Department for Energy and Climate Change (DECC) in 2012 on the direct and wider economic benefits of the onshore wind sector to the UK economy (DECC & RenewableUK, 2012) and a subsequent update to this report published by RenewableUK in 2015 (RenewableUK, 2015).

13.3.3 Similarly, there is no formal guidance on the methods that should be used to assess the effects that wind farm developments may have on tourism and leisure interests. The assessment is based on best practice and draws on BiGGAR Economics' experience in assessing the socio-economic, tourism and recreation impacts of onshore wind developments across Scotland.

13.4 Consultation

13.4.1 Consultation has been undertaken with statutory and non-statutory organisations to inform the scope of the assessment reported in this EIA. The consultation responses relevant to the assessments in chapter are summarised in Table 13.1

Table 13.1 – Consultation Responses

Consultee	Consultation Response	Comment/Action Taken
VisitScotland	VisitScotland asks that effects on tourism be considered.	Tourism and recreation effects have been considered in Section 13.8, with reference to specific tourism assets and accommodation providers.
Highland Council	Highland Council asks that all stakeholders affected, including tourists and tourism related business, are considered. The assessment should also consider the number of jobs and draw from wind farm development experience in this location.	Tourism and recreation effects, including on tourism related businesses, are considered in Section 13.8. The economic assessment builds on previous assessments of developments in the area, in particular BiGGAR Economics' study of SSE Projects in the Great Glen.

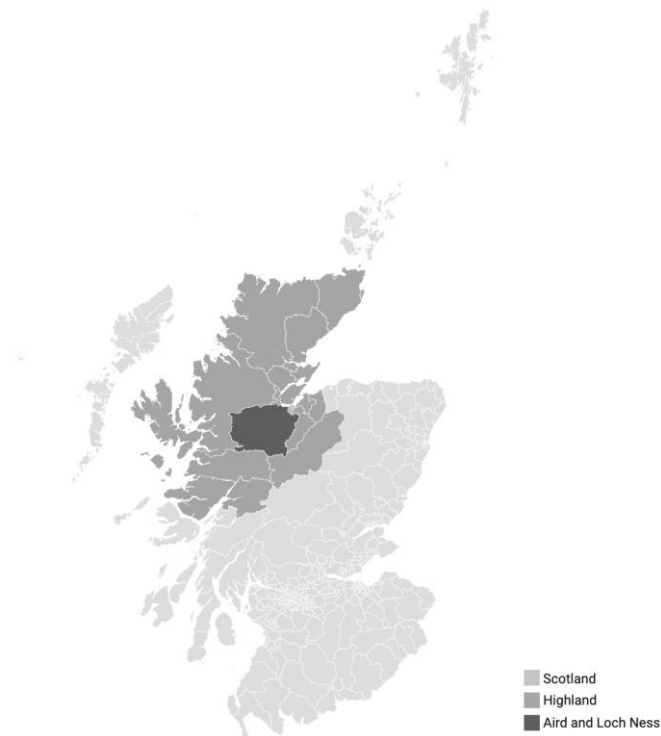
13.5 Assessment Methodology and Significance Criteria

Study Area

13.5.1 The study areas for the socio-economic assessment in this chapter are:

- Local Area (Aird and Loch Ness electoral ward);
- Highland; and
- Scotland.

Figure 13.1 – Study Areas for Socio-economic Assessment



- 13.5.2 The tourism assessment focused on relevant assets located within 15km from the boundary of the Proposed Development, consistent with other studies that have considered local tourism effects associated with wind farm development. The area defined in this way includes the settlements of Invermoriston, Fort Augustus, Drumnadrochit, Foyers, Whitebridge and Cannich.

Desk Study

- 13.5.3 The assessment was conducted through desk-based research. No site visit was necessary, as the authors are familiar with the local economic conditions.

Assessment of Socio-Economic Effects

- 13.5.4 The assessment of economic effects was undertaken using a model that has been developed by BiGGAR Economics specifically to estimate the socio-economic effects of wind farm developments. This model was also the basis of an assessment of the UK onshore wind sector (DECC & RenewableUK, 2012), which was subsequently updated in 2015 (RenewableUK, 2015). These assessments were based on case studies of the local, regional and national socio-economic effects of wind farms that have been developed in the UK in recent years.
- 13.5.5 This approach is considered industry best practice in the assessment of the socio-economic effects of the onshore wind sector. This model has been used by BiGGAR Economics to assess the socio-economic effects of numerous wind farms across the UK, with the results being accepted as robust at several public inquiries.
- 13.5.6 The assumptions are based on three main sources:
- the analysis undertaken in the 2015 report on behalf of RenewableUK, which uses evidence from existing wind farms around the UK. This report examined the size and location of contracts for their development, construction, and operation and maintenance phases;
 - BiGGAR Economics' experience of evaluating the economic impact of nearby wind farms; and
 - assessment of the economies of the relevant study areas, based on analysis of local, regional and national statistics.

13.5.7 Alongside consideration of the direct GVA and employment supported by the Proposed Development, the assessment considered indirect and induced impacts. Indirect impacts capture the effect of direct spending on the supply chain of the businesses where this spending occurs. Induced impacts refer to the economic activity that is supported by the spending of employees where direct and indirect jobs have been supported.

Stages in Socio-Economic Analysis

13.5.8 To begin estimating the economic activity supported by the Proposed Development, it is first necessary to calculate the expenditure during the construction and development phase, and the operation and maintenance phase. The total expenditure figure is then divided into its main components using assumptions regarding the share that could be expected by main and sub-contractors. This provides an estimate for each main component contract that can be secured by companies in Highland and Scotland.

13.5.9 There are three sources of economic activity:

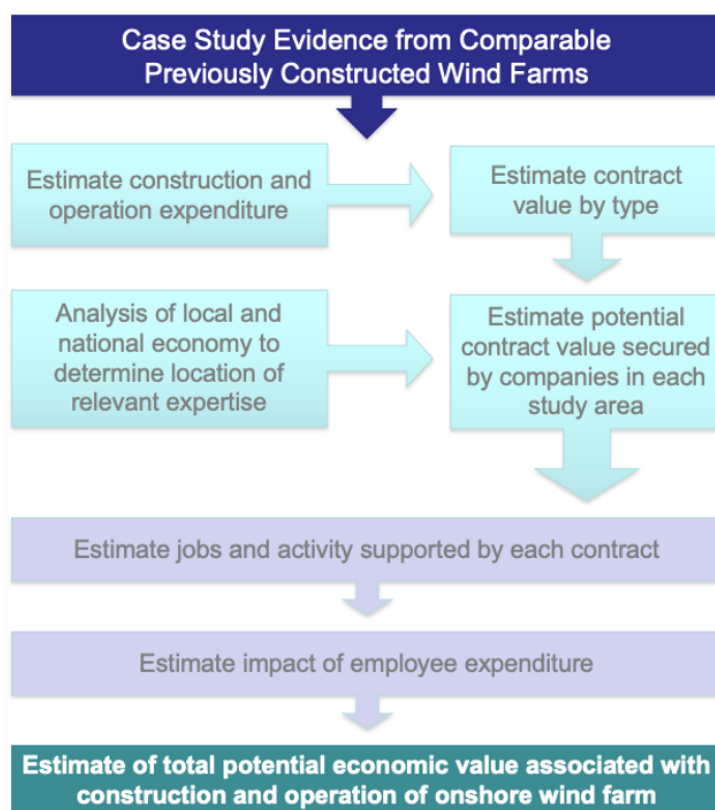
- component contracts and the jobs they support;
- wider spending in the supply chain (indirect impact); and
- spending of people employed in these contracts (induced impact).

13.5.10 There are four key stages of this model, which are illustrated in Figure 13.2 –:

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

13.5.11 This methodology is considered best practice in the assessment of the socio-economic benefits linked to an onshore wind development.

Figure 13.2 – Approach to Direct and Indirect Economic Impact Assessment



Recreation and Tourism Assessment

13.5.12 The potential effects of wind farm developments on tourism and recreation are well-researched. Key studies have been referenced, including:

- The Economic Impacts of Wind Farms on Scottish Tourism (Glasgow Caledonian University / Moffat Centre, 2008);
- A Report on the Achievability of the Scottish Government's Renewable Energy Targets (Scottish Parliament Economy, Energy and Tourism Committee, 2012); and
- Wind Farms and Tourism Trends (BiGGAR Economics, 2017).

13.5.13 Tourism and recreation assets and visitor accommodation are identified within 15km of the Proposed Development.

Assessment of Likely Effect Significance

13.5.14 The significance of the effect of the Proposed Development on each tourism and recreation asset and the economy of each study area is considered by determining the type and magnitude of change on each.

13.5.15 The impact magnitude is assessed using the economic model and professional judgement, considering the socio-economic effects from the Proposed Development on Highland and Scotland.

13.5.16 The significance of effects from the Proposed Development on tourism and recreation assets is assessed with reference to evidence from research and comparable wind farm developments.

13.5.17 The significance of effects on each economic, tourism and recreational asset is determined based on the criteria provided below in Table 13.2. Major and moderate effects are considered significant in relation to the EIA Regulations.

Table 13.2 – Significance Criteria

Significance	Description
Major	Major loss/improvement to key elements/features of the baseline conditions such that post-development character/composition of baseline condition will be fundamentally changed. For example, a major long-term alteration of socio-economic conditions, a major reduction/improvement of recreational assets, or a substantial change to tourism spend.
Moderate	Loss/improvement to one or more key elements/features of the baseline conditions such that post-development character/composition of the baseline condition will be materially changed. For example, a moderate long-term alteration of socio-economic conditions, a moderate reduction/improvement in the recreational asset, or a moderate change to tourism spend.
Minor	Changes arising from the alteration will be detectable but not material; the underlying composition of the baseline condition will be similar to the pre-development situation. For example, a small alteration of the socio-economic conditions, a small reduction/improvement in the recreational asset, or a small change in tourism spend.
Negligible	Very little change from baseline conditions. Change is barely distinguishable, approximating to a “no change” situation.

Requirements for Mitigation

- 13.5.18 Where applicable mitigation measures are identified, these will be highlighted. However, mitigation requirements in socio-economics, tourism and recreation assessments are generally limited and none have been identified within this assessment.

Assessment of Residual Effect Significance

- 13.5.19 The significance of residual effects has been assessed based on the same criteria as outlined in Table 13.2.

Limitations to Assessment

- 13.5.20 The assessment of tourism assets was undertaken based on the existing assets prior to the COVID-19 pandemic, when no restrictions were in place. Since then, changes will have occurred. With no tourism activity taking place at the time of writing, tourism businesses have been required to close and expectations are that the negative impacts on the tourism economy will continue during the peak summer tourism season in 2021.
- 13.5.21 By the time of construction and operation and maintenance, it is expected that these measures will be lifted. However, uncertainty remains as to the state and composition of the tourism industry in Highland at that time.
- 13.5.22 The same limitations apply to baseline economic indicators, in particular unemployment and economic activity rates.

13.6 Baseline Conditions

Strategic Economic Context

National Performance Framework

- 13.6.1 Scotland’s National Performance Framework (NaPF) explicitly includes ‘increased well-being’ as part of its purpose and combines measurement of how well Scotland is doing in economic terms with a

broader range of well-being measures. The NaPF is designed to give a more rounded view of economic performance and progress towards achieving sustainable and inclusive economic growth and well-being 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.

13.6.2 The NaPF 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 NaPF's outcomes reflect the desired fabric of communities and culture, education, the environment, health and well-being 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.

13.6.3 The Proposed Development would contribute to achieving several of the national outcomes through the development and operation of the windfarm as well as through community investment and development.

Scotland's Economic Recovery from Covid-19

13.6.4 The growth of the renewable energy sector was a priority for the Scottish Government prior to the Covid-19 pandemic. The importance of the sector as a driver of economic recovery and transformation is difficult to overstate.

13.6.5 In June 2020, the report of the Advisory Group on Economic Recovery (AGER) (Advisory Group on Economic Recovery, 2020b) to the Scottish Government highlighted the importance of renewable energy to national economic recovery. Recommendations in the report included "*prioritisation and delivery of green investments*", including that the green economic recovery is central to recovery overall and that Scotland should lever its natural advantages, such as "*the almost limitless quantities of renewable energy from wind, wave and tidal power*".

13.6.6 The Scottish Government's response (Scottish Government, 2020c) outlines how it intends to implement the recommendations made in the AGER report, prioritising a sustainable recovery that supports all parts of Scotland, while meeting climate environmental targets.

13.6.7 The 2020/21 Programme for Government (Scottish Government, 2020d) indicates the longer term economic strategic priorities for Scotland. The programme focuses on economic recovery, emphasising that the aim is not a return to business as usual, but a transition to a "*fairer, greener and wealthier country*". The Programme is centred around three commitments:

- the creation of new jobs, good jobs and green jobs;
- promoting lifelong health and wellbeing; and
- promoting equality and supporting young people to reach their potential.

13.6.8 Investment in renewable energy is part of the Scottish Government's first commitment. In particular, the plan sets out a range of measures to "*protect biodiversity, create green jobs and accelerate a just transition to net-zero*". Specific commitments made include –£100 million in investment for a Green Job Fund and –£60 million to help industrial and manufacturing sectors decarbonise, grow and diversify.

13.6.9 Consequently, the renewable energy sector can make an important contribution to national and regional economic recovery and transformation in Scotland. Projects drive economic recovery when they are labour intensive in the short term, improve economic competitiveness and productivity in the long term, and deliver wider benefits, including environmental benefits.

Climate Change Act

- 13.6.10 In September 2019, the Scottish Parliament unanimously passed the Climate Change (Emissions Reduction Targets) (Scotland) Bill (Scottish Parliament, 2019), which sets a legally binding target of achieving "net-zero" carbon emissions by 2045. This is five years earlier than the previous target. Within this legislation, interim targets were set for the reduction of emissions by 75% of the baseline by 2030.

Highland and Islands Enterprise 2019-2022 Strategy

- 13.6.11 Highlands and Islands Enterprise's (HIE) Strategy (Highlands and Islands Enterprise, 2019) sets out a vision for Highland and Islands to be a successful, inclusive and prosperous region with a growing population.

- 13.6.12 Particularly important to Highland is to:

- attract major investments;
- retain young people and prevent out-migration;
- support local communities to meet their needs through a place-based approach; and
- address the climate emergency through decarbonising the economy.

- 13.6.13 Energy has been identified as one of the main regional opportunities in the area, with opportunities in the onshore wind supply chain and significant expansion in the offshore wind sector.

The Future of Energy in Scotland

- 13.6.14 In December 2017, the Scottish Government released the Scottish Energy Strategy (Scottish Government, 2017), which set out the Government's vision for Scotland's energy future.

- 13.6.15 In 2016, 54% of all electricity consumed in Scotland was generated renewably, with a target of producing 100% from renewable sources by 2020. Renewable energy consumption in Scotland increased to 70% in 2017, 76% in 2018 and then to 90% in 2019 (Scottish Government, 2020). By 2030, the Scottish Government wants the proportion of all energy, including heat and transport, supplied from renewable sources to increase to 50%. In 2018, the overall share of energy produced from renewable sources stood at 21%.

- 13.6.16 The Scottish Government has also highlighted that renewables present an economic opportunity as an expanding market which will continue to support Scottish growth. The Scottish Government will continue to support businesses in this sector.

- 13.6.17 Additionally, the Scottish Government has emphasised the importance of communities benefitting from renewable energy generation, including through community benefit funds and shared ownership (Scottish Government, 2017).

Socio-economic Indicators

Population

- 13.6.18 In 2019 the population of the Local Area was 11,427. In the same year, Highland had a total population of 235,830, accounting for 4.3% of Scotland's population of 5,463,300 (National Records of Scotland, 2020). The Local Area had a smaller proportion of the population within working age; 59.9% compared to 60.9% in Highland and 64.0% nationally. The Local Area had also a higher proportion of its population aged 65 and over, 23.9% compared to Highland (22.5%) and Scotland (19.1%), as shown in Table 13.3.

Table 13.3 – Population (2019)

Age Groups	Population / Proportion per Age Group		
	Local Area	Highland	Scotland
Total	11,427	235,830	5,463,300
0-15	16.2%*	16.6%	16.9%
16-64	59.9%*	60.9%	64.0%
65+	23.9%*	22.5%	19.1%

Source: National Records of Scotland (2020) Mid-2019 Population Estimates Scotland. * National Records of Scotland (2019) Mid-2018 Population Estimates Scotland.

- 13.6.19 The population of the Highland Council area is expected to decrease by 1.0% over the period 2018-43, compared to growth in Scotland of 2.5% (National Records of Scotland, 2020). The regional population is also expected to have a higher proportion of the population aged over 65 (29.8%) compared to Scotland (24.9%). The share of the population of working age is expected to decrease to 56.0% in Highland, compared to 60.3% in Scotland (Table 13.4).

Table 13.4 – Population Projections (2018-2043)

Age Groups	Population / Proportion per Age Group			
	Highland		Scotland	
	2018	2043	2018	2043
Total	235,540	233,250	5,438,100	5,574,819
0-15	16.7%	14.3%	16.9%	14.8%
16-64	61.2%	56.0%	64.2%	60.3%
65+	22.1%	29.8%	18.9%	24.9%

Source: National Records of Scotland (2020), Sub-National Population Projections (2018-2043).

- 13.6.20 Data on population projections is not available at the level of Aird and Loch Ness ward. However, projections commissioned by the Highland Council suggest that different areas of Highland will see different population changes over time. In particular, while the population of Highland overall is expected to remain steady there is expected to be growth in Inverness. Other areas, such as Badenoch and Strathspey and Lochaber, expected to have a decrease in population (Highland Council, 2018).

Economic Activity

- 13.6.21 Data on economic activity was not available at the geographical level of the Local Area. In 2019 the economic activity rate, a measure of how many people of working age participate in the labour market, was higher in Highland at 81.2% than in Scotland as a whole (77.5%). Additionally, the unemployment rate was 3.1%, lower than the Scottish average of 3.5% (Office for National Statistics, 2020).
- 13.6.22 The median annual pay of full-time workers was £29,700 in Highland, compared to £30,000 in Scotland, a difference of about 1% (Table 13.5).

Table 13.5 – Economic Activity and Earnings (2019)

Metric	Highland	Scotland
Economic Activity Rate (16-64)	81.2%	77.5%
Unemployment Rate (16-64)	3.1%	3.5%
Median Annual Pay of Full-time Workers	£29,700	£30,000

Source: ONS (2020), Annual Population Survey, Jan 2019 – Dec 2019. ONS (2020), Annual Survey of Hours and Earnings, 2019.

Employment

- 13.6.23 As can be seen in Table 13.6, accommodation and food services (22.9%), construction (14.3%), wholesale and retail trade (12.9%), and education (11.4%) comprise more than 61% of employment in the Local Area. While the share of employment in wholesale and retail trade in the Local Area (12.9%) is similar to that across Highland (13.3%) and Scotland (13.3%), employment across the other three sectors is larger than in Highland and Scotland.
- 13.6.24 Highland has a large rural area and agriculture, forestry and fishing are a relatively important industry accounting for 10.2% of employment, compared to 3.3% in Scotland (Office for National Statistics, 2020). The Local Area has a lower concentration of employment in this sector (2.9%) than Highland and Scotland, however this may be an underestimate as the Business Register Employment Survey (BRES) statistics do not include some elements of employment in farm agriculture.
- 13.6.25 The relatively high share of employment in construction in the Local Area (14.3%) compared to Highland (6.3%) and Scotland (5.5%) indicates that local businesses should be well-placed to secure balance of plant contracts. At the same time, both the Local Area (3.6%) and Highland (4.7%) at large have a lower share of people working in professional, scientific and technical services, compared to a national average of 7.1%. This sector is often involved in the development phase of a wind farm.

Table 13.6 – Industrial Structure (2019)

Industry	Local Area	Highland	Scotland
Accommodation & food services	22.9%	13.3%	8.2%
Administration and support activities	5.0%	4.7%	7.8%
Agriculture, forestry and fishing	2.9%	10.2%	3.3%
Arts, entertainment and recreation	3.6%	3.1%	2.7%
Construction	14.3%	6.3%	5.5%
Education	11.4%	7.0%	7.9%
Electricity, gas, steam and air conditioning	2.9%	0.7%	0.7%
Financial and insurance	0.6%	0.8%	3.2%
Human health and social work activities	4.3%	16.4%	15.4%
Information and communication	1.4%	2.0%	3.3%
Manufacturing	2.1%	4.7%	6.5%
Mining, quarrying and utilities	1.4%	0.4%	1.1%
Professional, scientific and technical services	3.6%	4.7%	7.1%

Industry	Local Area	Highland	Scotland
Public administration and defence	1.4%	4.7%	6.0%
Real estate activities	1.4%	1.4%	1.5%
Transport and storage	5.0%	4.7%	4.1%
Water supply, sewerage and waste	0.0%	1.6%	0.7%
Wholesale and retail trade	12.9%	13.3%	13.3%
Other service activities	1.0%	1.2%	1.7%
Estimated Total Employees	3,500	128,000	2,602,000

Source: ONS (2020), Business Register and Employment Survey, 2019.

Socio-economics Summary

- 13.6.26 The Local Area has an older population than Highland and Scotland, and this population is expected to decline. The share of the population of working age is smaller than the Highland and Scottish average. Employment is concentrated across accommodation and food services, construction, wholesale and retail trade and education. Economic activity is higher in Highland than across Scotland as a whole, whereas wages are comparable.

Recreation and Tourism

Tourism Context

Scotland's Outlook 2030

- 13.6.27 A collaborative network of industry experts created Scotland's Outlook 2030, following on from the Tourism Scotland 2020 (TS2020) strategy, which is focused on creating a world-leading tourism sector in Scotland that is sustainable in the long-term.
- 13.6.28 The strategy is focused on four key priorities:
- people;
 - places;
 - businesses; and
 - experiences.
- 13.6.29 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 (The Scottish Tourism Alliance, 2020).
- 13.6.30 There are six conditions that the strategy has highlighted as being crucial for success:
- using technological advancements and information to understand changes and trends in tourist behaviours;
 - ensuring policies are in place that support the vision;
 - enabling investment opportunities into Scotland's tourism market;
 - improving transport and digital infrastructure;
 - greater collaboration between businesses in the industry; and
 - positioning Scotland as a great place to live and visit locally and globally.

13.6.31 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.

Highland Tourism Action Plan 2020

13.6.32 The Highland Tourism Action Plan 2020 (Highland Area Tourism Partnership, 2014) was created as part of Scotland’s national tourism strategy in relation to how the strategy would be delivered in the Highlands.

13.6.33 The Plan seeks to strengthen the impact of tourism on local businesses and communities and create quality experiences for visitors to the Highlands by turning assets into experiences. It identified six key Scottish assets which have significant growth potential in attracting tourism to the Highlands:

- activities and adventure;
- business tourism;
- cruise;
- golf;
- mountain biking; and
- sailing.

13.6.34 The Highlands are noted as one of Scotland’s strongest tourism offerings and expected to equal or exceed the national growth rate in the sector to a value of £1.07 billion in 2020.

Tourism Economy

13.6.35 Sustainable tourism is one the six economic sectors identified by the Scottish Government as growth sectors in its 2015 economic strategy. In 2019, sustainable tourism employed 19,000 people across the Highland and in 2018 the sector generated £320 million GVA (Scottish Government, 2020).

13.6.36 The GVA generated by sustainable tourism in the Highland was around 7.7% of the value added by the sector in Scotland (£4.1 billion) and employment was 8.3% of total employment in the sector (229,000). This alongside the analysis of the industrial structure in the region suggests that the tourism sector is relatively more important in Highland than on average in Scotland.

Table 13.7 – Employment and GVA in Sustainable Tourism

Metric	Highland	Scotland
Employment (Jobs)	19,000	229,000
GVA (£m)	£320	£4,141

Source: Scottish Government (2020a), Growth Sector Statistics 2018/19

13.6.37 Tourism activity within the Great Glen is seasonal, and much of it occurs within the months between April and September. For example, the occupancy levels for hotels in Highland and Islands are above 90% for the months between June and August, and below 55% between November and January (VisitScotland, 2018). The seasons are more pronounced in rural areas and this is reflected in closure of hotels during the winter period. Fort Augustus, the settlement closest to the Proposed Development, has four hotels and Invermoriston has one. The opening months for these hotels are shown in Table 13.8 which shows that half of the hotels are closed in the winter months.

Table 13.8 – Opening Months Hotels in Fort Augustus

Hotel	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Caledonian Hotel												

Hotel	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Inch Hotel												
Glenmoriston Arms Hotel												
The Lovat												
Richmond House Hotel												

Source: Websites of respective hotels, see 13.12

Visitors

- 13.6.38 The Great Britain Day Visitor Survey (GBDVS) provides national and regional data on domestic daily trips across the UK. Due to the smaller data samples at local level, the figures at local authority level are averages over the period 2017-2019. In 2019, there were 11.6 million domestic day trips in Highland, which was equivalent to around 8.2% of day trips taking place in Scotland. Day visitors spent £571 million in Highland, which was equivalent to around 9.9% of spend in Scotland resulting from day visits.

Table 13.9 – Day Visitor Trips to Highland and Scotland, 2019

Metric	Highland*	Scotland
Trips	11,600,000	140,800,000
Spend (£ million)	571	5,749

Source: Visit Scotland (2020), Insight Department – Highland Factsheet *This represents the three-year average for 2019.

- 13.6.39 The most popular activities for day visitors (Visit Scotland - Insight Department, 2020) were:

- going for a meal in a restaurant, café, hotel, pub (2.5 million day trips);
- sightseeing on foot (1.5 million day trips); and
- long walking, hiking or rambling (1.4 million day trips).

- 13.6.40 The Great Britain Tourism Survey (GBTS) provides a series of data on tourism across the UK, including overnight domestic trips. As with the GBDVS, data for 2019 are the average over the period 2017-2019. In 2019, there were over 1.9 million domestic overnight trips in Highland, accounting for 15.7% of domestic overnight visits taking place in Scotland (Table 13.10). Overnight visitors to Highland spent £492 million, around 16.5% of the total spend in Scotland.

Table 13.10 – Domestic Overnight Tourism, 2019

Metric	Highland*	Scotland
Trips	1,950,000	12,426,000
Spend (£ million)	492	2,989

Source: Kantar TNS (2020), The GB Tourist, 2019 Annual Report. *This represents the three-year average for 2019.

- 13.6.41 Table 13.11 features overnight tourism data for international visitors (non-UK tourists) in 2019. In 2019, there were 459,000 trips from international visitors, 14.7% of total international visits to

Scotland that year. International visitors spent £202 million in Highland, out of the total £2.5 billion spent in Scotland.

Table 13.11 – Overnight International Tourism, 2019

Metric	Highland	Scotland
Trips	459,000	3,460,000
Spend (£)	202,000,000	2,538,000,000

Source: Visit Scotland (2020), Insight Department – Highland Factsheet

Visitor Attractions

- 13.6.42 The most visited attractions in Highland by visitor numbers are displayed in Table 13.12 below, as well as their respective distances from the Proposed Development. Each of the attractions is at least 15km away, with three being over 50km away. Urquhart Castle and Loch Ness by Jacobite, which are respectively located 15km and 20km away, are both on Loch Ness.

Table 13.12 – Top 5 Most Visited Attractions in Highland, 2019

Attraction	Number of Visitors	Approximate Distance from Proposed Development (km)
(1) Urquhart Castle	547,518	15
(2) Glenfinnan Monument	462,235	60
(3) Glencoe Visitor Centre	436,924	70
(4) Glenmore Forest Park	427,791	60
(5) Loch Ness by Jacobite	321,980	20

Source: VisitScotland (2020), Highland Factsheet 2019

- 13.6.43 Whereas Loch Ness by Jacobite is located out-with the 15km boundary used in this assessment, Loch Ness itself is a significant tourist attraction in the area and at its closest point, is 7km from the Proposed Development.
- 13.6.44 The other most visited attractions in the region, identified by the Visit Scotland Survey (Visit Scotland, 2020), within 15km of the Proposed Development include:
- the Caledonian Canal;
 - Loch Ness Centre & Exhibition;
 - Glen Affric;
 - Nessieland;
 - Cruise Loch Ness; and
 - the Clansman Centre.
- 13.6.45 Facilities in the area closest to the Proposed Development are found in Invermoriston and Drumadrochit and include a selection of local shops and cafés, adventure activities such as kayaking and canoeing, Loch Ness Holiday Park and several B&Bs and self-catering accommodation providers.

Local Accommodation

- 13.6.46 The main tourism facilities within the area are located within the population centres around Loch Ness and are primarily self-catered cottages and lodges. These include:
- Invermoriston – the village of Invermoriston is located 5km to the south of the Proposed Development. VisitScotland lists 13 accommodation providers in the village, primarily self-catering facilities and a B&B;
 - Cannich – the village of Cannich is 10km from the Proposed Development, at the junction of Glen Cannich, Glen Affric and Glen Urquhart. VisitScotland lists eight accommodation providers in the village;
 - Foyers – on the opposite side of Loch Ness, approximately 10km from the Proposed Development is the village of Foyers which VisitScotland lists as hosting six accommodation providers;
 - Fort Augustus – the village of Fort Augustus is located approximately 12km to the south of the Proposed Development and serves as a base for visitors exploring the Great Glen. VisitScotland lists 70 accommodation providers in Fort Augustus including four hotels, two campsite / hostel facilities and several B&Bs and self-catering facilities; and
 - Drumnadrochit – the village of Drumnadrochit is located 16km to the north-east of the Proposed Development and is one of the main facility providers on the banks of Loch Ness. VisitScotland lists 29 accommodation providers in the village, ranging from large hotels to small self-catering facilities.
- 13.6.47 In addition to the accommodation providers within these settlements, there are some accommodation providers in rural locations within the study area.

Table 13.13 – Local Accommodation Providers

Area	Number of Accommodation Providers	Distance to Proposed Development (km)
Invermoriston	13	5km
Cannich	8	10km
Foyers	6	10km
Fort Augustus	70	12km
Drumnadrochit	29	15km

Source: VisitScotland (2020)

Local Tourism and Recreation Routes

- 13.6.48 As described earlier in this section, walking/hiking is a popular day activity in Highland.
- 13.6.49 Table 13.14 identifies the recreational routes within 15km of the Proposed Development.
- 13.6.50 Several long-distance routes pass within 15km of the Proposed Development, including the Great Glen Way, which stretches almost 120km from Fort William to Inverness. The closest the Great Glen Way comes to the Proposed Development is near Invermoriston, when the route is approximately 5km to the south of the Proposed Development.
- 13.6.51 The Loch Ness 360 is a walking and cycling route that opened in 2018 and features a 130km circular path around Loch Ness. The route can be split into sections, and the section which is nearest to the Proposed Development is Section 3 – Invermoriston to Fort Augustus, passing 5km south of the Proposed Development. Section 2 – Drumnadrochit to Invermoriston and Section 4 – Fort Augustus to Foyers, also pass within 15km of the Proposed Development.

- 13.6.52 The Scottish National Trail is an 864km long distance walking route throughout Scotland. The section from Fort Augustus to Mandally passes within 15km of the Proposed Development.
- 13.6.53 The Affric Kintail Way opened in 2015 and stretched from Drumnadrochit to Kintail. The route consists of four stages with the first stage, from Drumnadrochit to Cannich, passing approximately 7km from the Proposed Development at its closest point to the site boundary.
- 13.6.54 There are no core paths that pass through the Site of the Proposed Development.
- 13.6.55 There are existing access tracks for the Operational Development.
- 13.6.56 There are also forestry tracks that form part of the Wider Access Network in Highland within the vicinity of the site. In addition, there is a path between the A887 and A831, H171 which passes within 3km of the nearest turbine.

Table 13.14 – Recreational Routes (Within 15km of the Proposed Development)

Recreational Routes	Nearest Distance to the Site (km)	Description
Loch á Chràthaich to RoW1 (WAN 1)	0km	A 4x4 estate/hydro track of approximately 4km in length. Used by pedestrians and cyclists. Potentially used by equestrians.
WAN1 to Alltsigh (WAN 2)	2km	A 4x4 estate/hydro track of approximately 15km. in length Used by pedestrians and cyclists. Potentially used by equestrians.
Path HI71	3km	Track leading from Bhlaraidh to Loch ma Stac to River Enrick. The section of the track from Loch ma Stac to Bhlaraidh is used to service the hydro scheme and by Glenmoriston Estate. 'Other Routes' noted by ScotWays are routes that may meet the criteria to be rights of way. Used by pedestrians, cyclists and equestrians.
Levishie to Great Glen Way (WAN 3)	3km	A wide gravel track of approximately 1km in length. Used by pedestrians, cyclists and equestrians.
Rubha Bàn to Invermoriston (WAN 4)	4km	A wide track through woodland of approximately 3 km in length. Follows part of the Great Glen Way and is used by pedestrians, cyclists and equestrians.
Dalcataig to Coire an Daim (WAN 5)	3km	A wide track through woodland of approximately 11 km in length. Follows part of the Great Glen Way and is used by pedestrians, cyclists and equestrians.
Dalcataig to Inverwick Forest (WAN 6)	3km	A wide track through woodland of approximately 8 km in length. Follows part of the Great Glen Way and is used by pedestrians, cyclists and equestrians.
Sron na Muic, Invermoriston	4km	A forestry route with views overlooking Loch Ness.
Great Glen Way: Fort Augustus to Drumnadrochit	5km	Stages 4 and 5 of the Great Glen Way are located within 15km of the Proposed

Recreational Routes	Nearest Distance to the Site (km)	Description
		Development, with stage 5 linking up with the Loch Ness 360 trail from Invermoriston to Drumnadrochit.
Loch Ness 360: Drumnadrochit to Foyers	5km	Three stages of the 80-mile circular tour around Loch Ness.
Meall Fuar-mhonaidh	7km	A prominent summit at Loch Ness with good views.
Affric Kintail Way: Drumnadrochit to Cannich	7km	The first stage of the Affric Kintail Way, a stretch of 21.5km through forestry and farm tracks into the village of Cannich.
Allt na Criche	10km	A short trail through the woodlands with views over Loch Ness.
Jenkins Park, Fort Augustus	10km	A circular climb with views over Fort Augustus and the Great Glen.
River Oich, Fort Augustus	11km	A four-mile trail along the River Oich and through forestry where there is the opportunity to see red squirrels in Scots pines.
Scottish National Trail: Fort Augustus to Mandally	11km	A section of the Scottish National Trail that largely follows that of the Great Glen Way and passes along the Caledonian Canal.
Craigmonie and the Falls of Divach	12km	A 10km walk through the woodlands to the Milton viewpoint and then on to the Falls of Divach and back to Drumnadrochit.
Fort Augustus Explorer	12km	A five-mile walk surrounding the Caledonian Canal.
Carn a'Chuilinn, via Glen Doe	12km	An 11-mile Corbett which tops the underground hydro-electric scheme built there.

Source: WalkHighlands.com

- 13.6.57 Some of this walking and cycling activity is captured by fitness tracking applications such as Strava. This describes the relative popularity of recreational routes which are logged using the Strava fitness app. The Strava data shows that the most popular walks are those around Foyers, Drumnadrochit and the ascent of Meall Fuar-mhonaidh. The Strava data also shows that most popular cycling routes are along the west bank of Loch Ness and around Foyers and the Operational Development are also used by cyclists.

Summary of Tourism Baseline

- 13.6.58 The tourism sector in the Great Glen and wider Highland area is an important employer and visitors come from all over the world to see Loch Ness and other attractions. There are 2.4 million overnight visitors to Highland. The key attractions in the area are mainly outdoor activities and tourism activity is predominantly seasonal in character. The tourism sector near the Proposed Development is similarly seasonal with many of the hotels closed over the winter months.

13.7 Receptors Brought Forward for Assessment

13.7.1 The receptors that have been brought forward for assessment are:

- the economy of Highland;
- the economy of Scotland; and
- the tourism economy within 15km of the Proposed Development.

13.8 Likely Effects

13.8.1 This section considers the potential effects of the Proposed Development on socio-economics, tourism and recreation. Effects are assessed with reference to the assets' sensitivity, as identified in the baseline.

13.8.2 In 2020, BIGGAR Economics conducted an economic impact assessment of four SSE renewable projects in the Great Glen area, which included the existing operational Bhlairaidh Wind Farm. The study estimated the economic impacts associated with the development and capital expenditure and the operational expenditure and assessed the direct, indirect and induced impacts of the projects. This study has formed the basis of the assumptions informing the estimates of the impacts associated with the Proposed Development. This study also quantified the impact of these projects within the Great Glen.

Construction

13.8.3 The application is for up to 18 turbines. For the purpose of this analysis, it was assumed that each turbine will have a capacity of up to 5.6MW, generating a total combined capacity anticipated to be in excess of 100MW. Using research undertaken by BiGGAR Economics on behalf of RenewableUK in 2015, the average expenditure on development and construction can be estimated based on the average spend per MW, the average spend per turbine, or a combination of the two, as appropriate. On the basis of this methodology, the total development and construction cost was estimated to be £99.1 million.

13.8.4 The expenditure was split into four main categories of contract:

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

13.8.5 The proportion of construction and development spending that is spent on each of the main categories was also informed by BIGGAR Economics' research into wind farms that are currently in operation in the UK. As can be seen in Table 13.15, this found that the largest proportion of capital expenditure (Capex), will be on turbine related contracts (60.7%), followed by balance of plant (30.0%), grid connection (6.0%) and development and planning (3.3%).

Table 13.15 – Development and Construction Expenditure by Contract Type

Contract Type	% Capex	Value (£m)
Development and Planning	3.3	3.3
Turbines	60.7	60.1
Balance of Plant	30.0	29.7
Grid Connection	6.0	5.9
Total	100	99.1

Source: BiGGAR Economics Analysis

- 13.8.6 The economic impact of the development and construction spending was estimated for Highland and Scotland. Therefore, it was necessary to estimate the proportion of contracts that could be secured in each of the study areas. The assumptions were based on the RenewableUK research, analysis of the industries and professions in the study area, and BiGGAR Economics' previous experience of evaluating the economic impact of other wind farm projects in the Great Glen area, including the existing Bhlaraidh wind farm.
- 13.8.7 On this basis, it was estimated that Highland could secure contracts worth up to £21.1 million, equivalent to 21% of Capex. The largest opportunity would be balance of plant contracts, as the companies in the area could secure 55% of these contracts, worth £16.5 million. This will include elements such as track construction, ground preparation and other civil works.
- 13.8.8 Scotland could secure 43% of contracts, worth £42.2 million. Balance of plant contracts would represent the largest opportunity, worth £28.0 million, followed by development and planning, worth £3.0 million (Table 13.16).

Table 13.16 – Development and Construction Expenditure by Study Area

Contract Type	Highland		Scotland	
	%	£m	%	£m
Development and Planning	10	0.3	91	3.0
Turbines	4	2.3	9	5.3
Balance of Plant	55	16.5	94	28.0
Grid Connection	35	2.1	100	5.9
Total	21	21.1	43	42.2

Source: BiGGAR Economics Analysis

- 13.8.9 The contract values potentially awarded in each area would represent an increase in turnover in businesses in these areas. The Gross Value Added (GVA) impact, a measure of economic activity, was estimated using industry-specific data from the Annual Business Survey (Office for National Statistics, 2019), which gives the turnover to GVA ratio for each of the industries involved.
- 13.8.10 On this basis, it was estimated that the development and construction of the Proposed Development could generate £10.1 million direct GVA in Highland, and £20.4 million direct GVA in Scotland (Table 13.17).

Table 13.17 – Development and Construction Direct GVA by Study Area (£m)

Contract Type	Highland	Scotland
Development and Planning	0.2	1.9
Turbines	1.1	2.5
Balance of Plant	8.0	13.6
Grid Connection	0.8	2.3
Total	10.1	20.4

Source: BiGGAR Economics Analysis

- 13.8.11 Similarly, the contract values potentially awarded in each area would support employment. Turnover per employee for each of the industries involved is also given by the Annual Business Survey (Office for National Statistics, 2019), which can be used to estimate the employment impact from any increase in turnover.
- 13.8.12 The employment impacts during the construction and development phase are reported in years of employment as the contracts would be short-term. Years of employment measures the number of years of full-time employment generated by a project. For example, an individual working on this project for 18 months would be reported as 1.5 years of employment.
- 13.8.13 In this way, it was estimated that the development and construction impacts would support 145 years of employment in Highland, and 292 years of employment in Scotland (Table 13.18).

Table 13.18 – Development and Construction Direct Employment by Study Area and Contract Type (Years of Employment)

Contract Type	Highland	Scotland
Development and Planning	3	27
Turbines	17	40
Balance of Plant	113	191
Grid Connection	12	34
Total	145	292

Source: BiGGAR Economics Analysis

- 13.8.14 There would also be additional impacts associated with spending in the supply chain (indirect impacts) and spending of employees in the wider economy (induced impacts). Supply chain impacts are estimated by applying Type I (indirect) GVA and employment multipliers (Scottish Government, 2018) to direct GVA and employment impacts.
- 13.8.15 These multipliers are for the Scottish economy as a whole and therefore it was necessary to adjust them for the Highland economy, which was assumed to capture 40% of the indirect impact supported by Highland-based businesses.
- 13.8.16 In this way, it was estimated that the indirect impact was £1.9 million GVA and 26 years of employment in Highland and £9.4 million GVA and 131 years of employment in Scotland (Table 13.19).

Table 13.19 – Development and Construction Indirect Impact

Metric	Highland	Scotland
Indirect Impact (£m)	1.9	9.4
Indirect Impact (years of employment)	26	131

Source: BiGGAR Economics Analysis

13.8.17 Similarly, induced impacts are captured by subtracting Type II multipliers (indirect and induced) from Type I multipliers (indirect). They were then adjusted for Highland, where it was assumed that the induced impact would be 70% of the national level, based on analysis of ONS household spending data (Office for National Statistics, 2019).

13.8.18 On this basis, it was estimated that the induced impact in Highland would be £2.4 million GVA and 24 years of employment, and in Scotland it would be £6.8 million GVA and 71 years of employment (Table 13.20).

Table 13.20 – Development and Construction Induced Impact

Metric	Highland	Scotland
Induced Impact (£m)	2.4	6.8
Induced Impact (years of employment)	24	71

Source: BiGGAR Economics Analysis

13.8.19 The total impact, which is the sum of the direct, indirect and induced impacts was estimated to be £14.4 million GVA and 196 years of employment in Highland and £36.6 million GVA and 494 years of employment in Scotland (Table 13.21).

Table 13.21 – Economic Impact During Development and Construction

Metric	Highland	Scotland
Economic Impact (£m)	14.4	36.6
Economic Impact (years of employment)	196	494

Source: BiGGAR Economics Analysis

13.8.20 The effect on the Highland economy of the spending associated with the construction and development of the Proposed Development was assessed as **minor** (beneficial). In Scotland, the effect is expected to be **negligible** (beneficial).

Operation

13.8.21 The expenditure associated with the operation and maintenance of the Proposed Development is expected to support economic activity throughout its lifespan.

13.8.22 Annual expenditure on operations and maintenance on the Proposed Development was estimated based on analysis undertaken in the 2015 RenewableUK report. In this way, it was estimated that expenditure would be £2.7 million annually.

13.8.23 In order to estimate the economic impact of the operations and maintenance expenditure secured in Highland and Scotland, it was first necessary to make assumptions about the proportion of contracts that could be secured in each of these areas. These assumptions were based on the contract proportions reported in the RenewableUK report, analysis of the industries present in each area, as well as BiGGAR Economics' understanding of existing onshore wind farms in Highland, notably through the study of SSE renewable projects in the Great Glen which includes the existing Bhlaraidh wind farm.

- 13.8.24 On this basis, Highland could secure 41% of operation and maintenance contracts, worth £1.1 million, and Scotland could secure 79% of contracts, worth £2.2 million (Table 13.22).

Table 13.22 – Annual Operation and Maintenance Expenditure by Study Area

Contract Type	Highland		Scotland	
	%	£m	%	£m
Operation and Maintenance	41	1.1	79	2.2

Source: BiGGAR Economics Analysis

- 13.8.25 As with the development and construction impacts, the contract values awarded in each of the study areas would represent an increase in turnover in those areas. The economic impact of this increase in turnover was estimated by applying turnover to GVA and turnover per employee ratios for the relevant industries (Office for National Statistics, 2019).

- 13.8.26 It was estimated that operation and maintenance contracts associated with the Proposed Development would directly support £0.6 million GVA and nine jobs in Highland, and £1.0 million GVA and 16 jobs annually in Scotland (Table 13.23).

Table 13.23 – Annual Operation and Maintenance Direct Impact

	Highland	Scotland
Economic Impact (£m)	0.6	1.0
Economic Impact (Jobs)	9	16

Source: BiGGAR Economics Analysis

- 13.8.27 As with the development and construction impacts, there would be indirect and induced impacts. Adding together direct, indirect and induced impacts, it was estimated that the total operation and maintenance impacts would be £0.8 million GVA and 11 jobs in Highland and £1.6 million GVA and 26 jobs in Scotland (Table 13.24).

Table 13.24 – Annual Economic Impact During Operation and Maintenance

Metric	Highland	Scotland
Economic Impact (£m)	0.8	1.6
Economic Impact (Jobs)	11	26

Source: BiGGAR Economics Analysis

- 13.8.28 The effect of operations and maintenance expenditure on the Highland and Scottish economies was assessed as **negligible** (beneficial).

Decommissioning

- 13.8.29 The Proposed Development would also have an economic impact during the decommissioning phase. Very few onshore wind projects to date have been fully decommissioned in the UK and, as a result, there is minimal data regarding the economic costs and impacts associated with this phase. Given that decommissioning activity would take place in future decades, it is difficult to predict what local economic conditions at that time would be. For these reasons, the decommissioning costs and impacts have not been quantified in this assessment.

- 13.8.30 The scale of the economic activity during the decommissioning phase would likely be less than that during the construction phase. Therefore, the impact on the economies studied would be less than that assessed for the construction phase.

- 13.8.31 The effect on the Highland economy and Scottish economy was assessed as **negligible (beneficial)** and so not significant in EIA terms.

Wider Benefits

Community Benefit Funding

- 13.8.32 In line with Scottish Government's Good Practice Principles for Community Benefits from Onshore Renewable Developments (Scottish Government, 2019), the Applicant would provide annual community benefits for the lifetime of the proposed development.
- 13.8.33 The Applicant is committed to a community fund which would build on the existing Bhlaraidh Wind Farm Community Fund, which makes around £270,000 available annually to communities and charitable projects via local community companies in the community council areas of Fort Augustus and Glenmoriston and Glen Urquhart. In addition, £270,000 of funding is made available annually to the wider Highland community as part of the Highland Sustainable Development Fund.
- 13.8.34 The effect associated with a community benefit fund will be dependent on the conclusions of the discussion concerning community benefit and the projects that this funding supports. Therefore, the effect of the community benefit fund has been assessed as **negligible (beneficial)**.

Shared Ownership

- 13.8.35 The Scottish Government is committed to shared ownership as a way to strengthen relations between developers and communities, build the capacity of communities and empower their members, and support Scotland's ambitious targets for locally owned renewables.
- 13.8.36 The Applicant is committed to supporting the Scottish Government's ambitions for shared ownership and to offering opportunities for communities to share in the value of its wind farm developments where possible. It is currently considering potential options and will engage with relevant local communities at the appropriate time.

Non-Domestic Rates

- 13.8.37 The Proposed Development would be liable for non-domestic rates, the payment of which would contribute directly to public sector finances. Analysis of the rateable values of several wind farms in the Highland region suggests that the average rateable value per MW is £23,671. On this basis, the total rateable value of the Proposed Development would be £2.4 million.
- 13.8.38 Applying a poundage rate of £0.524 per £1 of rateable value, it was estimated that the Proposed Development could contribute £1.3 million annually to public finances. However, the actual contribution would depend on variables such as the actual load factor.
- 13.8.39 These non-domestic rates, by providing an additional revenue stream, would support the delivery of local government services. Over an illustrative 50 years, non-domestic rates contributions are expected to be £62.5 million.
- 13.8.40 The effect on the Highland economy of contributions to non-domestic rates was assessed as **negligible (beneficial)**.

Recreation and Tourism Effects

- 13.8.41 This section assesses whether there would be an effect on the tourism economy, as a result of the Proposed Development leading to a change in behaviour, for example, a change in visitor numbers or tourism income. Therefore, the assessment is based on whether the Proposed Development could lead to a change in behaviour that would lead to effects on the tourism economy.

Wind Farms and Tourism Evidence

- 13.8.42 The most comprehensive study of the potential effects of wind farms on tourism was undertaken by the Moffat Centre at Glasgow Caledonian University in 2008 (Moffat Centre, 2008). The study was based on effects that 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.

- 13.8.43 This study is now over a decade old and in the intervening time wind farms have become a more common feature in Scotland. As such, it would be expected that any adverse effects on the tourism economy would now be apparent.
- 13.8.44 In 2017, BiGGAR Economics undertook a study into the effects of wind farms constructed between 2009 and 2015 on tourism at the national, regional and local level (BiGGAR Economics, 2017). This study updated work on the same subject carried out in 2016.
- 13.8.45 In the study, tourism employment was considered over the period 2009 to 2015. During this time period, the number of wind farms increased in Scotland and in almost all local authority areas, while employment in sustainable tourism also grew substantially. The analysis found no correlation between tourism employment and the number of turbines at the national or local authority level.
- 13.8.46 The study also considered the impact on employment at a much smaller, more granular level, in data zones up to 15km from developments. The sites considered were constructed between 2009 and 2015. As these sites did not exist in 2009, comparing employment in 2009 and 2015 was considered an effective measure of the effect of wind farms on local employment, while excluding construction impacts, such as wind farm related employees staying in local accommodation.
- 13.8.47 At the local authority level in these smaller areas, no link was found between the development of a wind farm and tourism related employment. In 21 out of the 28 areas considered, employment in this sector grew. In 22 of the areas, employment either grew faster or decreased less than the rate for the relevant local authority area as a whole.
- 13.8.48 Overall, the conclusion of this study was that published national statistics on employment in sustainable tourism demonstrate that there is no relationship between the development of onshore wind farms and tourism employment at the level of the Scottish economy, at the local authority level, nor in the areas immediately surrounding wind farm developments.
- 13.8.49 The findings of this research are in accordance with those of the Scottish Parliament's Economy, Energy and Tourism Committee in 2012 (Scottish Parliament Economy, Energy and Tourism Committee, 2012), when they concluded that there is no robust, empirical evidence of a negative link between wind farm development and tourism.
- 13.8.50 Overall, there is no research evidence that shows fears of adverse effects on Scotland's tourism economy as a result of wind farm developments.
- 13.8.51 Within that overall context, the following assessment nevertheless considers whether there might be any specific effects on local tourism assets. This assessment considers whether the Proposed Development could result in changes in the behaviour of tourists that might lead to effects on the tourism economy.

Tourism/Recreation Assets

- 13.8.52 This section considered whether the Proposed Development would have any effect on tourism and recreation assets, including the local visitor attractions, the accommodation providers and the recreational trails identified in section 13.6.

Visitor Attractions

- 13.8.53 The baseline identified seven visitor attractions that are located within 15km of the Proposed Development.
- 13.8.54 The closest attraction to the Proposed Development is the Caledonian Canal, approximately 10km from the Site. The 60-mile Canal passes through the Great Glen and offers boat trips on the route as well as walking and cycle routes alongside it. Its main attractions are the connection to Scottish lochs and boating activities including canoeing, paddling and fishing. Motivations for pursuing these activities are unlikely to be deterred by the Proposed Development and therefore its effect on this asset has been assessed as **negligible**.

- 13.8.55 Glen Affric is a visitor attraction located 10km north-west from the site of the Proposed Development. The nature reserve, inclusive of lochs, moorland and native woodlands, offers the chance to encounter red deer stags and an array of birds with marked paths for walking. Given the motivations for visiting the reserve and its relative distance from the site, it is unlikely that the Proposed Development will affect visitors' decision to visit the attraction and its effect has therefore been assessed as **negligible**.
- 13.8.56 Three of the six visitor attractions identified within the 15km boundary are attractions related to Loch Ness and include: Loch Ness Centre & Exhibition, Nessieland and Cruise Loch Ness. The Loch Ness Centre and Exhibition has seven themed areas relating to the history and mystery of Loch Ness and attracts visitors from all over the world, it also has an onsite shop and café. Nessieland is an attraction focused primarily on the myth of the Loch Ness Monster. The attraction features informative displays as well as interactive activities such as mini golf and playparks for younger visitors. Cruise Loch Ness, based in Fort Augustus, offer cruises along the Loch Ness which look for Nessie and go up to Urquhart Castle. The sites' historic and cultural value are the main visitor motivations and are unlikely to be altered by the Proposed Development. The Landscape and Visual Assessment in Chapter 8 has found that the Proposed Development will not be visible from the Loch Ness Centre & Exhibition, Ness Land or for the majority of any cruise on Loch Ness. Therefore, its effect on these assets has been assessed as **negligible**.
- 13.8.57 The Clansman Centre, located 11km south of the Proposed Development in Fort Augustus, is a visitor centre focussed on the Celtic history of the 17th century. The centre has an interactive experience that tells of the history of Clansman and Highland life and also has an on-site shop specialising in Celtic and locally crafted goods. It is unlikely that the Proposed Development will have any impact on motivations for visiting the attraction due to the historical and educational focus of the centre. The Landscape and Visual Assessment in Chapter 8 has found that the Proposed Development will not be visible from the Clansman Centre or any part of Fort Augustus. Therefore, is its unlikely visitors will be aware of the Proposed Development and its effect has therefore been assessed as **negligible**.
- 13.8.58 Urquhart Castle is located approximately 15km from the Proposed Development. The ancient ruin sits next to Loch Ness and allows visitors to experience the history of the castle. The cultural importance and visitor profile of Urquhart Castle, including the large number of coach tours, would suggest that the asset would have a low sensitivity to the Proposed Development. The Landscape and Visual Assessment in Chapter 8 has found that the Proposed Development will not be visible from Urquhart Castle or its surrounds. Therefore, it is highly likely that visitors will be unaware of the Proposed Development and there will be no change to the current baseline experience for the visitors. Therefore, the effect of the Proposed Development has been assessed as **negligible**.

Accommodation Providers

- 13.8.59 The research on wind farms and tourism finds no evidence of adverse impacts on the tourism sector. Nevertheless, this section considers whether there are locations where tourism behaviour in relation to accommodation providers might change. Therefore, the proposition that tourism accommodation businesses offer, including the focus of their marketing, is relevant to assessing whether any behavioural changes might be expected.
- 13.8.60 In each of the settlement areas identified in the baseline, accommodation providers primarily market themselves as a base for those visiting Loch Ness and the surrounding area and using the local walking and cycling routes. This often includes the mention of scenic views.
- 13.8.61 Given that the areas of Fort Augustus, Invermoriston and Drumnadrochit are located south of the Proposed Development and the views over Loch Ness will be in the opposite direction to that of the Proposed Development, the marketing and tourism offering that accommodation providers offer is unlikely to be affected by the Proposed Development and unlikely to result in any impact on tourists' behaviour. Therefore, its effect has been assessed as **negligible**.
- 13.8.62 The village of Foyers is located on the opposite side of Loch Ness from the Proposed Development and therefore facing the site. However, the Zone of Theoretical Visibility, as described in Chapter 8 (Landscape and Visual), shows that the Proposed Development will not be visible from the village

or the accommodation providers in the vicinity. Therefore, there shall be no change from the baseline condition and so it is unlikely to affect visitor motivations for using accommodation in the area. For these reasons its effect has been assessed as **negligible**.

Recreational Trails

- 13.8.63 The assessment in this section considers the recreational routes within 15km of the Proposed Development and whether its presence would impact on visitors' decision to use them.
- 13.8.64 For recreational use by local residents, the routes will be likely used because they are nearby and so the most important factor is whether the routes will continue to be accessible.
- 13.8.65 The baseline identified recreational trails that are located within 15km of the Proposed Development.
- 13.8.66 The elements of the Wider Access Network which utilise the tracks for the Operational Development and traverse the Site are currently used by cyclists and pedestrians. There may be some access restrictions during the construction period for safety reasons. The temporary disruptions of access during construction are considered to be short-term adverse effects of minor significance. During the operational period there will be very little change from baseline conditions and therefore the effect of the Proposed Development has been assessed as **negligible**.
- 13.8.67 The recreational route named HI71 passes within 3km of the Proposed Development. This path is a 20km route and the Proposed Development will only be visible for short sections of this path nearest the A887. Therefore, the effect of the Proposed Development has been assessed as **negligible**.
- 13.8.68 The other elements of the Wider Access Network are predominately within forestry and as a result, there will be limited visibility of the Proposed Development. Therefore, the effect of the Proposed Development has been assessed as **negligible**.
- 13.8.69 The recreational route to Sron na Muic is located 4km south in Invermoriston. The trail is largely forest-based and has the highlight of views over Loch Ness. Given the location of the route and its south-ward facing views over Loch Ness, the Proposed Development's effect has been assessed as **negligible**.
- 13.8.70 The Great Glen Way is a recognised long-distance walking route in Scotland. Stages 4 (Fort Augustus to Invermoriston) and 5 (Invermoriston to Drumnadrochit) are located within 15km of the Proposed Development. The forest tracks provide views over Loch Ness and, at its closes point, passes within 5km of the Proposed Development. Motivations for using this trail are likely to be the significance of the recognised route and its proximity to Loch Ness. Therefore, the effect of the Proposed Development has been assessed as **negligible**.
- 13.8.71 Loch Ness 360 is also a recognised long-distance walking route which passes within approximately 5km of the Proposed Development at its closest point. The 80-mile circular trail surrounds Loch Ness and three stages, running from Drumnadrochit to Foyers, are located within 15km of the site. At the opposite side of Loch Ness from the Proposed Development, there may be some visibility of the Proposed Development. However, it is unlikely that it will affect decisions on whether to use the route. Therefore, its effect on tourism has been assessed as **minor**.
- 13.8.72 A section of the Affric Kintail Way passes approximately 7km from the Proposed Development. The first stage of the long-distance trail, between Drumnadrochit and Cannich goes through both forest and farm tracks towards the village of Cannich and has also the opportunity to detour towards the Corrimony chambered cairn. The anticipated purpose for completing the trail and its cultural offerings on the route are unlikely to be deterred by the Proposed Development and therefore its effect on tourism has been assessed as **negligible**.
- 13.8.73 Around the village of Fort Augustus there are a further five recreational route that lie within 15km of the Proposed Development. These include the local trails of Allt na Criche, Jenkins Parks, River Oich, the Fort Augustus Explorer and the Fort Augustus to Mandally section of the Scottish National Trail. The trails exhibit views over the local area including: Loch Ness, the Great Glen and the Caledonian Canal as well as the chance to see red squirrels on the River Oich trail. Motivations for using these trails are likely to be recreational use and the highlighted views the routes provide over

the areas main attractions and, therefore, as a result of this and the distance from the Proposed Development, its effect on them has been assessed as **negligible**.

- 13.8.74 Approximately 7km from the Proposed Development is the Meall Fuar-mhonaidh trail. Located near to Drumnadrochit, the trail exhibits a summit adjacent to Loch Ness. Visitor motivations for using this trail to reach the summit are unlikely to be affected by the Proposed Development. The Proposed Development will be visible from the summit of Meall Fuar-mhonaidh when walkers look to the west. The supplementary guidance from Highland Council (Highland Council, 2016) for onshore wind notes that the principal views from the summit are to the north-east and south-west, up and down the Great Glen. Therefore, its effect has been assessed as **negligible**.
- 13.8.75 Located in Drumnadrochit, 12km from the site, is the Craigmorie and the Falls of Divach trail. The woodlands trail reaches the Milton viewpoint and then continues to the Falls of Divach waterfall. Given the trail's distance from the Site and the visual attractions of the trail, it is unlikely that the Proposed Development will deter visitors from using the trail and, therefore, its effect has been assessed as **negligible**.
- 13.8.76 Opposite Loch Ness, 12km from the Proposed Development, is the Carn a'Chuilinn, via Glen Doe, recreational trail. The trail is an 11-mile Corbett atop the underground hydro-electric scheme built underneath. The distance of the trail from the Site and the related visitor attraction is unlikely to deter motivations for using the trail and, therefore, its effect has been assessed as **negligible**.

13.9 Residual Effects

Construction

- 13.9.1 Construction is likely to result in a temporary **minor** (beneficial) effect on the Highland economy and a **negligible** (beneficial) effect on the economy of Scotland.

Operation

- 13.9.2 The effect of the Proposed Development's operation on the Highland and Scottish economies was assessed as **negligible** (beneficial). Similarly, the effect of the Proposed Development's operation on recreation and tourism assets in the study areas was assessed as **negligible**.

Decommissioning

- 13.9.3 The decommissioning of the Proposed Development is likely to result in a temporary **negligible** (beneficial) effect on the economies of Highland and Scotland.

13.10 Cumulative Assessment

- 13.10.1 The following sites have been considered as part of a cumulative assessment. These are:

- Operational Wind Farms;
 - Beinneun Wind Farm (and Extension);
 - Bhlaraidh Wind Farm;
 - Corriegarth Wind Farm;
 - Corriemollie Wind Farm;
 - Corrimony Wind Farm;
 - Dunmaglass Wind Farm
 - Fairburn Wind Farm;
 - Farr Wind Farm;
 - Glen Kyllachy Wind Farm;

- Lochluichart Wind Farm (and Extension)
- Millennium Wind Farm;
- Moy Wind Farm; and
- Stronelaig Wind Farm;
- Approved;
 - Aberarder Wind Farm;
 - Dell Wind Farm;
 - Lochluichart Extension II Wind Farm; and
 - Millennium South Wind Farm;
- In Planning;
 - Cloiche Wind Farm;
 - Corriegrath 2 Wind Farm
 - Glenshero Wind Farm; and
 - Kirkan Wind Farm

Supply Chain

- 13.10.2 The presence of multiple sites at different stages of their development represents a positive economic opportunity for the local supply chain. Given the existing operational developments and developments that have already received approval in the proximity of the Proposed Development, the Proposed Development has the potential to generate beneficial cumulative impacts. This will be the case if it were to further encourage the development of a local renewable energy supply chain. The presence of an existing supply chain in the local area and a pipeline of projects may also lead to new businesses engaging with the sector.
- 13.10.3 The development of a strong local supply chain would help to increase the economic benefits of the Proposed Development and similar projects in the local area, which could help to increase the magnitude of the long-term beneficial economic effects considered in this chapter.

Tourism

- 13.10.4 The cumulative effects of these developments on tourism could be adverse if the Proposed Development was expected to have a significant cumulative impact on important tourism receptors and this resulted in a change of visitor spending behaviour. In particular, visitors could react to visual or traffic impacts. The cumulative visual impact of the Proposed Development is assessed in Chapter 8 (Landscape and Visual) and the cumulative traffic and transport impact of the Proposed Development is assessed in Chapter 12 (Traffic and Transport). It is important to note that even if these chapters do identify significant effects they would not necessarily result in impacts on the tourism and recreation economy.

Community Benefit

- 13.10.5 There is a potential positive cumulative effect from the other listed developments and the proposed community benefit fund. The Community Councils that are likely to be the beneficiaries of the Community Benefit Fund will have previous experience in administering such funds and the scale up in finance that is available to these communities will allow them to pursue larger strategic projects in such a way that will maximise the economic and social benefits to each local community.

13.11 Summary

- 13.11.1 The Local Area has a relatively older population than Highland and Scotland, with slower population growth expected. Economic activity is higher in Highland than across Scotland as a whole, whereas wages are broadly comparable. The sustainable tourism sector in the Great Glen and wider Highland area is an important employer and visitors come from all over the world to see Loch Ness. The sector in the Local Area tends to have a seasonal character, with less to no activity in the winter months.
- 13.11.2 The analysis of economic impacts found that contracts associated with the construction and development of the Proposed Development could be worth up to £99 million. This spending could generate:
- £14.4 million GVA and support 196 years of employment in Highland; and
 - £36.6 million GVA and support 494 years of employment across Scotland (including Highland).
- 13.11.3 The effect of construction and development spend was assessed as **minor** (beneficial) with respects to the economy of Highland and **negligible** (beneficial) for the Scottish economy.
- 13.11.4 It was also estimated that throughout the lifetime of the Proposed Development operations and maintenance contracts could generate each year:
- £0.8 million GVA and support 11 jobs in Highland; and
 - £1.6 million GVA and support 26 jobs across Scotland.
- 13.11.5 The effect of this spending was assessed as **negligible** (beneficial) at both the level of the Highland and Scottish economies.
- 13.11.6 The Proposed Development will also contribute to public finances through the payment each year of around £1.3 million in non-domestic rates. Their effect on the economy of Highland was assessed as **negligible** (beneficial).
- 13.11.7 Based on the Scottish Government’s guidance on community benefits, communities in the proximity of the Proposed Development could also benefit from community benefit funding. The effect of a similar community benefit package was assessed as **negligible** (beneficial). Similarly, additional benefits could be reaped through the participation in a shared ownership scheme.
- 13.11.8 The chapter also included a review of published research on the relationship between onshore wind development and the tourism economy. Available evidence suggests that there is no relationship between tourism and onshore wind developments. However, the analysis considered the scope for any change in visitor behaviour with respect to tourism and recreational assets located in the proximity of the Proposed Development. Effects on local visitor attractions, recreational routes and accommodation providers were all assessed as **negligible**.

Table 13.25 – Summary of Effects

Description of Effect	Significance of Likely Effect		Mitigation Measure	Significance of Residual Effect	
	Significance	Beneficial/ Adverse		Significance	Beneficial/ Adverse
Construction					
£14.4 million GVA and 196 years of employment in Highland during the construction and development phase	Minor	Beneficial	N/A	Minor	Beneficial
£36.6 million GVA and 494 years of employment in Scotland during the construction and development phase	Negligible	Beneficial	N/A	Negligible	Beneficial
Operation					
£0.8 million GVA and 11 jobs in Highland during operations and maintenance phase	Negligible	Beneficial	N/A	Negligible	Beneficial
£1.6 million GVA and 26 jobs in Scotland during operations and maintenance phase	Negligible	Beneficial	N/A	Negligible	Beneficial
Annual payment of community benefit funding	Negligible	Beneficial	N/A	Negligible	Beneficial

Description of Effect	Significance of Likely Effect		Mitigation Measure	Significance of Residual Effect	
	Significance	Beneficial/ Adverse		Significance	Beneficial/ Adverse
Annual payment of an estimated £1.3 million in non-domestic rates	Negligible	Beneficial	N/A	Negligible	Beneficial
Effect on tourism assets	Negligible	N/A	N/A	Negligible	N/A
Effect on accommodation providers	Negligible	N/A	N/A	Negligible	N/A
Effect on core path and recreational trails	Negligible	N/A	N/A	Negligible	N/A
Decommissioning					
GVA generated and employment supported in Highland	Negligible	Beneficial	N/A	Negligible	Beneficial
GVA generated and employment supported in Scotland	Negligible	Beneficial	N/A	Negligible	Beneficial

Table 13.26 – Summary of Cumulative Effects

Receptor	Effect	Cumulative Developments	Significance of Cumulative Effect	
			Significance	Beneficial/ Adverse
N/A	N/A	N/A	N/A	N/A

13.12 References

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13.12.1 Hotel Websites

The Caledonian Hotel - <http://www.caledonianhotel.co.uk/>

The Inch Hotel – <http://www.inchhotel.com>

The Glenmoriston Arms - <http://glenmoristonarms.co.uk>

The Lovat - <http://www.thelovat.com>

Richmond House Hotel - <https://www.richmondhousehotel.com/>