Chapter 13 Socio- Economics, Tourism and Recreation

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List of Abbreviations

Abbreviation	Description
AGER	Advisory Group on Economic Recovery
EIA	Environmental Impact Assessment
GBDVS	Great Britain Day Visitor Survey
GVA	Gross Value Added
HIE	Highlands and Islands Enterprise
Job years	The number of years of full-time employment generated by a project
NPF	National Performance Framework
ONS	Office for National Statistics
ROCs	Renewables Obligations Certificates

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13. Socio-Economics, Tourism and Recreation

13.1 Executive Summary

13.1.1 This chapter assesses the potential socio-economic, recreation and tourism effects of the Proposed Development.

13.1.2 The local area (which is comprised of the electoral wards of Nairn and Cawdor, and Badenoch and Strathspey) has a higher proportion of people aged 65 and over compared to Scotland as a whole, as do Highland and Moray. The populations of both local authorities are expected to decline in the coming decades. This suggests that the local area around the Proposed Development and the wider region lack the economic drivers required to retain and attract working age people and consequently could benefit from economic opportunities associated with the Proposed Development.

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

- £12.5 million Gross Value Added (GVA, a measure of economic activity) and 174 job years (a job year being equivalent to one person employed for a year) in the region (the local authority areas of Highland and Moray); and
- £26.9 million GVA and 375 job years in Scotland (including Highland and Moray).

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

- £0.7 million GVA and 11 jobs in Highland and Moray; and
- £1.0 million GVA and 17 jobs in Scotland (including Highland and Moray).

13.1.5 The Proposed Development would also provide community benefit funding for the local area of up to £510,000 annually. This fund would be used to address fuel poverty, which affects around a third of households, with a fifth in extreme fuel poverty. Local households would be given grants directly to make improvements to their home, increasing energy efficiency and reducing their fuel bills, delivering a substantial benefit for the local area.

13.1.6 It was estimated that the Proposed Development would pay £0.7 million each year in non-domestic rates, so helping to support local government services.

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

13.1.8 Overall, there were no significant adverse effects identified. Whilst the direct beneficial socio-economic effects are not significant in EIA terms, they would be important to the local, regional and national economy contributing to economic recovery and sustainable economic growth. The indirect effect of reducing fuel poverty in the local area has been assessed as significant.

13.2 Introduction

13.2.1 This chapter provides an assessment of the potential effects of the Proposed Development on socio-economics, tourism and recreation.

13.2.2 The assessment was conducted on the basis of 17 turbines, each with a generating capacity of around 6 MW, a total capacity of around 102 MW. There will also be 10 MW of energy storage.

13.3 Legislation, Policy and Guidelines

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

13.3.2 In particular, the assessment draws on studies by BiGGAR Economics on the UK onshore wind energy sector, including a report published by RenewableUK and the then Department for Energy and Climate Change (DECC) in 2012 on the direct and wider economic benefits of the onshore wind sector to the UK economy (RenewableUK, DECC, 2012) and a subsequent update to this report published by RenewableUK (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 recreation. The assessment has been undertaken in line with established best practice in assessing the tourism and recreation effects of onshore wind farm proposals.

13.4 Consultation

Table 13-1: List of Consultee Responses

Consultee	Consultation Response	Applicant Action
Highland Council	The application should include relevant economic information, such as the potential number of jobs and economic activity associated with construction, operation and decommissioning. This should include the impact on the regional and local economy, not just the national economy	Economic impact is considered in **Section 13.7**: Economic Impact
	The potential impact on public access, such as core paths, public rights of way, long distance routes, other paths and wider access rights	Impact on access and recreation is considered in **Section 13.7**: Tourism and Recreation
East Nairnshire Community Council	Expressed concern that fuel poverty is an issue locally, and that no specific actions have been identified to address this	Community benefit payments and their potential application to reducing fuel poverty are considered in **Section 13.7**: Wider Economic Effects.
	Expressed concern that short-term construction jobs will not solve long-term employment opportunities	Construction and operation employment is considered in **Section 13.7**: Economic Impact In addition, community benefit payments, which can boost long-term prospects are considered in **Section 13.7**: Wider Economic Effects
	Express concern that there may be a reduction in visitors and tourists	Impacts on tourism are considered in **Section 13.7**: Tourism and Recreation
Dulnain Bridge Community Council	Would like a more open arrangement regarding community benefits	Community benefit payments are considered in **Section 13.7**: Wider Economic Effects

13.5 Assessment Methods and Significance Criteria

Study Area

13.5.1 The study areas considered for the economic analysis were:

- the local authority areas of Highland and Moray (the Proposed Development would be located in the Highland Council area, close to the border with the Moray Council area); and
- Scotland.

13.5.2 In addition, the wards of Nairn and Cawdor, and Badenoch and Strathspey are considered as part of the socio-economic baseline, where local data is available, so that more local direct and indirect effects could also be considered. The Proposed Development would be located in Nairn and Cawdor, whilst the nearest settlements are in Badenoch and Strathspey.

13.5.3 For the tourism and recreation assessment, the focus was the area within a 15 km radius of the Proposed Development, consistent with the study areas used in research studies that have considered the relationship between wind farm development and tourism.

Desk Research

13.5.4 To assess the effect of the Proposed Development on socio-economics, recreation and tourism, the following study approach was taken to identify the baseline conditions:

- a review of economic strategies in Highland, Moray and Scotland;
- an analysis of socio-economic statistics for Highland, Moray and Scotland;
- an analysis of tourism statistics for Highland, Moray and Scotland; and
- identification of local tourism and recreation assets, including accommodation providers and trails.

Assessment of Socio-Economic Effects

13.5.5 Given that no specific legislation or guidance is available on the methods which should be used when assessing the socio-economic effects of a proposed wind farm development for an EIA, to identify and assess the significance of predicted socio-economic effects, the assessment has been based on professional judgement for the degree of change resulting from proposals, using methods commonly used in EIAs for proposed renewable energy developments, as outlined below.

13.5.6 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.

13.5.7 The units of measurement which are used to quantify the economic impacts of the Proposed Development are:

- Gross Value Added (GVA): this is a measure of the economic value added by an organisation or industry;
- job years: this is a measure of employment which is equivalent one person being employed for an entire year and is typically used when considering the short term employment impacts, such as those associated with construction; and
- jobs: this is a measure of employment, which considers the headcount employment in an organisation or industry.

Stages in Socio-Economic Analysis

13.5.8 To begin estimating the economic activity supported by the Proposed Development, it was first necessary to calculate the expenditure during the construction and development, and operation and maintenance phases. The total expenditure figure was then divided into its main

components using calculated assumptions regarding the share that could be expected by main and sub-contractors. This provides an estimate for each main component that could be secured in Highland and Moray and in Scotland.

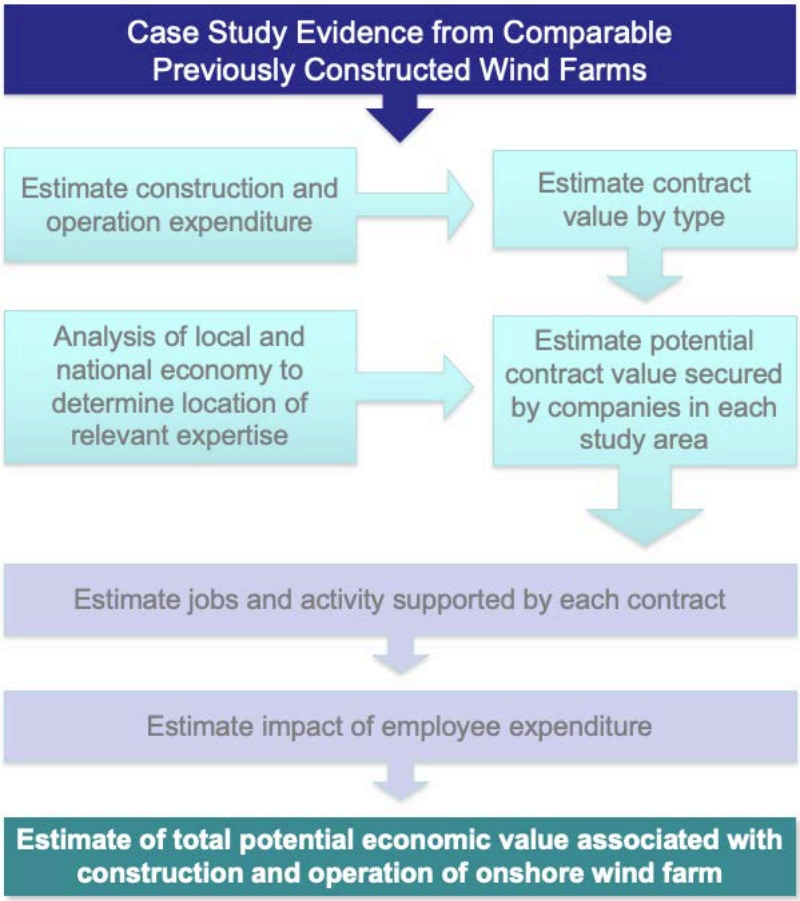
13.5.9 There are three sources of economic activity:

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

13.5.10 There are four key stages of this model, which are illustrated in **Graphic 13.1**:

- 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.

Graphic 13.1 Approach to Economic Impact Assessment



Tourism and Recreation Assessment

13.5.11 The potential effect of wind farm development on the tourism and recreation sector has been the subject of several research studies. A review of the latest available research evidence has been undertaken.

13.5.12 Tourist attractions and accommodation were identified within the vicinity of the Proposed Development, and the potential effect of the Proposed Development has been considered with reference to the research evidence. Important visitor attractions for the wider Highland and

Moray region were also identified and considered, even if they are not within the vicinity of the Proposed Development.

Effects Evaluation Methodology

13.5.13 The significance of the effect of the Proposed Development on the economy and on tourism and recreation assets, has been considered by determining the type and magnitude of change.

13.5.14 This has been assessed using the economic model and professional judgement, considering the socio-economic effects from the Proposed Development on Highland and Moray, and Scotland.

13.5.15 The magnitude of change on tourism and recreation assets has been assessed with reference to evidence from research and comparable wind farm developments.

13.5.16 The significance of effect on each economic, tourism and recreational asset has been determined on the basis of the criteria provided below, in **Table 13-2**.

Table 13-2: Significance Criteria

Significance	Description
Major	Major loss/improvement to key elements/features of the baselines 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

13.6 Baseline Conditions

Strategic Context

National Performance Framework

13.6.1 The *National Performance Framework* (NPF) (Scottish Government, 2018) sits at the top of the policy hierarchy in Scotland, with all other policies and strategies designed to meet the purpose and outcomes that it sets out. At the centre of the NPF is its purpose: “*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*.”

13.6.2 The NPF sets out 11 outcomes, underpinned by 81 indicators, that combine to give a better picture of how the country in progressing towards these goals. As well as GDP and employment measures, the NPF’s outcomes reflect the desired fabric of communities and culture, education, the environment, health and wellbeing and 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 the NPF's purpose of creating a successful country through sustainable and inclusive economic growth by further developing the renewable energy sector and generating jobs in Highland and Moray, and Scotland. The Proposed Development would also contribute to inclusive growth through the community benefit fund associated with the project, which will support the local community and address local fuel poverty.]

Onshore Wind Policy Statement

13.6.4 The Scottish Government's 2017 Onshore Wind Policy Statement (Scottish Government, 2017) affirmed its support for the role of onshore wind at the heart of the country's generation of clean, reliable and low carbon energy. The policy statement highlighted the economic opportunities associated with increased deployment of onshore wind in the supply chain and in ongoing maintenance, as well as the importance of securing a route to market for the sector. Community benefits and shared ownership were also encouraged.

13.6.5 As part of a policy refresh on onshore wind, the Scottish Government has issued a consultative draft (Scottish Government, 2021c), seeking views on its ambitions to secure an additional 8-12 GW of onshore wind capacity by 2030. It states that a consistently higher rate of onshore wind capacity will be required to meet Scotland's binding legal commitments to achieve net zero by 2045, with an interim target of reducing emissions by 75% by 2030. The Scottish Government is aware of the economic opportunities associated with increasing onshore wind deployment. It views engagement with the supply chain and industry, as well as skills development, as important to ensuring that the economic benefit of these developments is felt widely, and wishes to see increases in local content. The Scottish Government continues to encourage opportunities related to community benefit and shared ownership.

Scottish Government Economic Strategy

13.6.6 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.

13.6.7 In June 2020, the report of the *Advisory Group on Economic Recovery* (AGER) (Advisory Group on Economic Recovery, 2020) 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*".

13.6.8 The Scottish Government's response (Scottish Government, 2020a) 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.

13.6.9 The *2021/22 Programme for Government* (Scottish Government, 2021a) is built around six long term priorities. These are:

- A caring nation: setting out a new vision for health and social care;
- A land of opportunity: supporting young people and promoting a fairer and more equal society;
- A Net Zero nation: ending Scotland's contribution to climate change, restoring nature and enhancing our climate resilience in a just and fair way;
- An economy that works for all of Scotland's people and places: putting sustainability, wellbeing and fair work at the heart of our economic transformation;
- Living better: supporting thriving, resilient and diverse communities; and
- Scotland in the world: championing democratic principles, at home and abroad.

13.6.10 Investment in renewable energy is an important part of the *Programme for Government*, including the commitment to secure between 8 and 12 GW of additional installed onshore wind by 2030, highlighting the vital role that this technology will play in delivering the Scottish Government's net zero commitment.

13.6.11 In 2021, the Scottish Government published a draft consultation for the National Planning Framework 4 (Scottish Government, 2021d), which will set out Scotland's spatial strategy to 2045. It affirms the importance of Scotland's transition to a net zero economy through green investment and green jobs, and onshore wind is highlighted as playing the greatest role in the coming years. It also states that renewable energy developments must take account of net economic impact including local and community socio-economic benefits, as well as impacts on tourism and recreation.

Highlands and Islands Enterprise: 2019-2022 Strategy

13.6.12 Highlands and Islands Enterprise (HIE) aims to help build a prosperous, inclusive and sustainable economy across the Highlands and Islands, with the goal of attracting more people to the Highlands to live, invest, and visit. The HIE strategy for 2019-2022 (Highlands and Islands Enterprise, 2019) sets out the key aims for the Highlands and Islands region:

- grow the working age population;
- pursue opportunities;
- build an inclusive economy;
- accelerate progress;
- develop a regional comparative advantage;
- stimulate start-ups and grow businesses;
- develop a productive business base;
- nurture strong local and regional partnerships;
- invest in enabling infrastructure;
- foster a confident and ambitious social enterprise sector; and
- empower and enable communities.

13.6.13 HIE recognises the scope for economic and social gain in rural areas of the Highlands from the transition to low carbon energy transition. With the aim of encouraging economic growth in the region at the core of the strategy, HIE commits to:

- push for a supportive policy and regulatory regime which ensures the region is able to fully contribute towards Scottish and UK climate change ambitions;
- influence investment and support test and demonstration in low carbon technology;
- secure supply chain opportunities from energy developments including onshore and offshore wind energy projects; and
- continue to support communities to engage in local energy systems in rural areas where energy distribution is a challenge.

13.6.14 The Proposed Development would contribute to the growth of the renewable energy sector in Highland and Moray, and support the creation of jobs, attracting workers and supporting population growth. The Proposed Development would also contribute to the development of Highland's comparative advantage in onshore wind, supporting the growth of businesses in relevant sectors.

National and Local Recovery Plans

13.6.15 In December 2020, the Scottish Government published an update to its *2018-2032 Climate Change Plan* (Scottish Government, 2020b) to set out its pathway to the new and ambitious targets sets in the Climate Change Act 2019. It is a key strategic document on the country's

green recovery from the Covid-19 pandemic and demonstrates its commitment to bring about a recovery that moves the country towards the net zero emissions target.

13.6.16 *The Highland Council Economic Recovery Strategy* (Highland Council, 2020), published by Highland Council in October 2020, commits to actions immediately following the pandemic to achieve economic recovery, including the commitment to the continued development of work on sectoral priorities such as energy and renewables in Highland, recognising the opportunities for the area in the renewable energy sector.

Summary of Strategic Context

13.6.17 The renewable energy sector was seen as a key driver of economic growth for the Scottish Government prior to the Covid-19 pandemic and the sector in now recognised as having the potential to make a substantial contribution to economic recovery and transformation. Nationally, regionally and locally, the sector provides a substantial opportunity for economic growth, and the Proposed Development would support these aims in Highland and Moray.

Socio-Economics

Population

13.6.18 As shown in **Table 13-3**, in 2019, the local area, comprised of Nairn and Cawdor, and Badenoch and Strathspey, had a total population of 27,492, accounting for 8.3% of the combined population of Highland and Moray (National Records of Scotland, 2020a). Of the total population of the local area, 15.2% were under 16 years old. This proportion is below the share for the age group in Highland (16.6%) and Moray (16.8%), which are similar to Scotland (16.9%).

13.6.19 The proportion of the population aged 16-64 in the local area (60.1%), Highland (61.0%) and Moray (61.5%) are below the average for Scotland (64.0%), which suggests that they have a relatively smaller working age population. In addition, a higher proportion of the population is aged 65 and over in the local area (24.7%), compared to Highland (22.5%) and Moray (21.6%), which in turn is higher than for Scotland (19.1%).

Table 13-3: Population by Age, 2019

	Local Area	Highland	Moray	Scotland
Total	27,492	235,830	95,820	5,463,300
0-15	15.2%	16.6%	16.8%	16.9%
16-64	60.1%	61.0%	61.5%	64.0%
65+	24.7%	22.5%	21.6%	19.1%

Source: National Records of Scotland (2020a), Mid-year population estimates 2019

13.6.20 As shown in **Table 13-4**, for both Highland and Moray, a decrease in the total population is expected between 2018 and 2043 (National Records of Scotland, 2020b). In Highland, the population is expected to decrease by 1.0%, and the population of Moray is expected to decrease by 2.7%. In comparison, the population of Scotland as a whole is expected to increase by 2.5% over the same period.

Table 13-4: Population Projections 2018-2043

	2018	2043	Change
Highland	235,540	233,250	-1.0%
Moray	95,520	92,966	-2.7%
Scotland	5,438,100	5,574,819	+2.5%

Source: National Records of Scotland (2020b), Population Projections for Scottish Areas (2018-based)

13.6.21 As shown in **Table 13-5**, the share of Highland population who are under 16 is expected to decrease between 2018 and 2043 from 16.7% to 14.3%, and over the same period the share of Moray's population under 16 is expected to decrease from 16.9% to 13.5%. In comparison, for Scotland as a whole, the proportion of the population under 16 is expected to decrease from 16.9% to 14.8%.

13.6.22 The share of the population aged 16-64 is also expected to decrease from 61.2% to 56.0% in Highland and from 61.7% to 55.3% in Moray. As a result, the population aged 16-64 would be significantly lower than the national average, which is expected to decrease to 60.3% by 2043.

13.6.23 The proportion of the Highland population aged 65 and over is expected to increase over the same period, from 22.1% to 29.8%, while in Moray it is expected to increase from 21.4% to 31.2%, above the expected national average 24.9%.

13.6.24 While projections are not available at the level of the local area, it is likely, given that the area already has a higher share of people aged 65 and over, that the population will decrease more quickly than for Highland and Moray.

Table 13-5: Population Projections by Age, 2018-2043

	Highland		Moray		Scotland	
	2018	2043	2018	2043	2018	2043
Total	235,540	233,250	95,520	92,966	5,438,100	5,574,819
0-15	16.7%	14.3%	16.9%	13.5%	16.9%	14.8%
16-64	61.2%	56.0%	61.7%	55.3%	64.2%	60.3%
65+	22.1%	29.8%	21.4%	31.2%	18.9%	24.9%

Source: National Records of Scotland (2020b), Population Projections for Small Areas 2018-2043

Economic Activity

13.6.25 As shown in **Table 13-6**, the share of the working-age population who are economically active is 79.4% in Highland and 78.0% in Moray, which is above the national average of 76.8%. Similarly, the unemployment rate is 2.4% in Highland and 3.4% in Moray, which is below the national average of 4.4% (ONS, 2021a). The annual median gross wage of full-time workers in Highland is £32,000 (ONS, 2021b), similar to Scotland (£31,800) and higher than Moray (£29,700).

Table 13-6: Economic Activity Rates, 2020

	Highland	Moray	Scotland
Economically Active %	79.4%	78.0%	76.8%
Unemployment Rate	2.4%	3.4%	4.4%
Median Annual Gross Wage (resident)*	£32,000	£29,700	£31,800

Source: ONS (2021a), Annual Population Survey. *ONS (2021b), Annual Survey of Hours and Earnings – resident analysis 2020.

Industrial Structure

13.6.26 As shown in **Table 13-7** (ONS, 2020a), the highest proportion of employment in the local area in 2019 was in accommodation and food services (23.6%), associated with the tourism industry. This sector accounts for a higher proportion of employment in the local area compared to Highland (13.3%), Moray (9.0%) and Scotland (8.2%).

13.6.27 Retail accounts for 10.0% of employment in the local area, slightly above the national share of employment for this sector (9.0%). Local area residents are also more likely to be employed in arts, entertainment, recreation and other services (10.0%) than in Highland (4.7%), Moray (3.8%) and Scotland (4.4%).

13.6.28 The share of employment in the construction sector (7.3%) is higher than in Highland (6.2%) and Moray (6.4%), which is higher than for Scotland as a whole (5.5%). This is the sector of the economy most likely to benefit from the development of a wind farm.

Table 13-7: Employment by Industry, 2019

	Local Area	Highland	Moray	Scotland
Agriculture, Forestry & Fishing	1.8%	10.2%	6.4%	3.3%
Mining, Quarrying & Utilities	0.4%	2.7%	1.2%	2.5%
Manufacturing	3.4%	4.7%	15.4%	6.5%
Construction	7.3%	6.2%	6.4%	5.5%
Motor Trades	1.1%	2.0%	2.6%	1.9%
Wholesale	2.0%	2.0%	1.8%	2.4%
Retail	10.0%	9.4%	10.3%	9.0%
Transport & Storage	2.5%	4.7%	3.8%	4.1%
Accommodation & Food Services	23.6%%	13.3%	9.0%	8.2%
Information and Communication	3.0%	2.0%	1.3%	3.3%
Financial & Insurance	0.4%	0.8%	1.0%	3.2%
Property	1.6%	1.4%	1.0%	1.5%
Professional, Scientific & Technical	4.5%	4.7%	3.8%	7.1%

	Local Area	Highland	Moray	Scotland
Business Administration & Support Services	4.1%	4.7%	3.2%	7.8%
Public Administration & Defence	2.0%	4.7%	5.8%	6.0%
Education	6.8%	7.0%	7.7%	7.9%
Health	11.8%	16.4%	15.4%	15.4%
Arts, Entertainment, Recreation & Other	10.0%	4.7%	3.8%	4.4%

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

Economic Impact of Covid-19

13.6.29 The Covid-19 pandemic has had a major detrimental impact on the local, regional and national economy. To date, the impact has been the highest on sectors associated with tourism, such as accommodation and food services, which is particularly important in Highland.

13.6.30 The effects of the pandemic have not been evenly distributed, with big differences in the effects across different ages, genders and ethnicities, as well as geographic location. At the end of January 2021, 20,000 workers in Highland were furloughed, a take-up rate of 19%, as part of the Coronavirus Job Retention Scheme (CJRS) (UK Government, 2021) compared to 15% across Scotland. This suggests that employees in Highland were particularly impacted by the pandemic compared to workers across Scotland.

13.6.31 Policies promoting economic recovery would benefit from taking account of the areas that have experienced the greatest adverse impacts, including the growth opportunities which are available in these areas.

Fuel Poverty

13.6.32 Fuel poverty is typically defined as occurring when a household spends more than 10% of their income on heating. According the Scottish House Condition Survey, a third of households in Highland (33% or 36,000 households) are in fuel poverty (Scottish Government, 2021b). Just under a third of households in Moray (32% or 13,000 households) are in fuel poverty. As shown in **Table 13-8,** both local authorities have a higher proportion of households in fuel poverty than Scotland as a whole (24% of households). In both Highland and Moray, older residents are most affected by fuel poverty.

13.6.33 Extreme fuel poverty, which is typically defined as occurring when a household spends more than 20% of its income on heating, is also significantly more prevalent in Highland and Moray than across Scotland as a whole. In Highland, over a fifth of households (22% or 24,000 households) are in extreme fuel poverty and in Moray 8,000 households (19%) are in extreme fuel poverty. This compares to 12% for Scotland as a whole.

Table 13-8 Fuel Poverty, 2019

	Highland	Moray	Scotland
Fuel Poverty	33%	32%	24%
Extreme Fuel Poverty	22%	19%	12%

Source: Scottish Government (2021b), Scottish House Condition Survey: Local Authority Analysis 2017-2019

Summary and Conclusion of Socio-Economics Context

13.6.34 Nairn and Cawdor, Badenoch and Strathspey, Moray and Highland, have a higher-than-average proportion of residents aged 65+ when compared to Scotland as a whole and a lower than average share of working age. The population is expected to decrease (compare to growth in Scotland overall) and grow older than the Scottish average, which suggests, despite the relatively high economic activity rates, that there are limited opportunities for working age people in the area. In addition, Highland has also been relatively more affected by the Covid-19 pandemic than other areas of Scotland. Both Highland and Moray experience above average levels of fuel poverty and extreme fuel poverty compared to Scotland as a whole.

13.6.35 The economic structure of the local area is able to benefit from the construction of a wind farm, having a higher proportion of employment in construction than Scotland as a whole. This has the potential to address the ageing population of the local and regional areas, retaining the workforce and attracting younger workers through job creation. This job creation would also support the recovery of the regional economy which has been particularly affected by Covid-19.

13.6.36 Furthermore, the prevalence of fuel poverty in both Highland and Moray suggests that local areas within these authorities would particularly benefit from initiatives to address it.

Tourism and Recreation

Local Tourism Context

13.6.37 As shown in **Table 13-9**, in 2018, the tourism sector employed 16,000 people in Highland and 3,500 people in Moray (Scottish Government, 2020c), together accounting for 8.9% of national employment in the sector. The same year, GVA in the tourism sector was £320 million in Highland and £66 million in Moray.

Table 13-9: Tourism Employment and GVA, 2018

	Highland	Moray	Scotland
GVA (£m)	320	66	4,141
Employment	16,000	3,500	218,000

Source: Scottish Government (2020c), Growth Sector Database 2018

Visitors

13.6.38 *The Great Britain Day Visitor Survey* (GBDVS) reports on the total number of domestic day trips to areas of the UK. As shown in **Table 13-10**, there were 11.6 million domestic day visitors to Highland in 2019 according to the GBDVS (Kantar TNS, 2020a), accounting for 8.7% of all domestic day trips to Scotland that year. Day visitors spent a total of £571 million in Highland in 2019, equivalent to 9.9% of total spending by day visitors over the same period.

13.6.39 In 2019, there were 2.4 million day visitors to Moray (VisitScotland, 2020b), and day visitor spending in Moray was £48 million in 2019, accounting for 0.8% of the total in Scotland.

Table 13-10: Domestic Visitor Trips to Highland and Scotland

	Highland	Moray	Scotland
Visitors (million)	11.6	2.4*	134
Spend (£ million)	571	48	5,777

Source: Kantar TNS (2020a), The Great Britain Day Visitor Survey Annual Report 2019. *VisitScotland (2020b), Insight Department: Grampian Factsheet 2019 (Aberdeen City, Aberdeenshire & Moray).

13.6.40 As identified in the *VisitScotland Highland Factsheet* (VisitScotland, 2020a), the most popular activities for domestic day visitors to Highland were:

- going for a meal in a restaurant, café, hotel, pub, etc;
- sightseeing on foot;
- long walk, hike or ramble (minimum of 2 miles/1 hour);
- visiting friends for leisure; and
- going for a drink in a pub, club, hotel etc.

13.6.41 According to the *VisitScotland Grampian Factsheet*, the most popular activities undertaken as part of a day trip to Grampian (Aberdeenshire, City of Aberdeen and Moray) were:

- going for a meal in a restaurant, café, hotel, pub, etc;
- visiting family for leisure;
- sightseeing on foot;
- visiting a beach; and
- going for a drink in a pub, club, hotel etc.

The Great Britain Tourism Survey

13.6.42 *The Great Britain Tourism Survey* (GBTS) 2019 (Kantar TNS, 2020b) reported the total number of domestic overnight trips to the UK. As shown in **Table 13-11,** there were 2 million overnight trips to Highland in 2019, equivalent to 16.1% of overnight trips across the Scotland that year. Tourists staying overnight spent £492 million in Highland in 2019, accounting for 16.4% of overnight tourist spending across Scotland over the same period.

13.6.43 In Moray in 2019, there were 100,000 overnight trips, accounting for 0.8% of overnight trips to Scotland that year. Tourists staying overnight that year spent £25 million in Moray, equivalent to 0.8% of total overnight tourist spending across Scotland.

Table 13-11: Overnight Tourism Trips, 2019

	Highland	Moray	Scotland
Visitors (million)	2.0	0.1	12.4
Nights (million)	7.9	0.6	41.9
Spend (£million)	492	25	2989

Source: Kantar TNS (2020b), The Great Britain Tourism Survey Annual Report 2019

13.6.44 The highest number of international visitors to Highland in 2019 were from the USA (27%), Germany (12%), France (9%), the Netherlands (7%) and Canada (6%) (VisitScotland, 2020a). For the Grampian area, the highest proportion of overseas visitors in 2019 were from the USA (15%), Norway (12%), Germany (10%), the Netherlands (9%) and France (6%) (VisitScotland, 2020b).

Visitor Attractions

13.6.45 The most visited attractions in Highland (VisitScotland, 2020a), shown in **Table 13-12**, are all over 15 km from the Proposed Development. The closest, Glenmore Forest Park, is located over 22 km away.

13.6.46 Of the most visited attractions in the Grampian area, which includes Moray, Aberdeen City and Aberdeenshire, two were located in Moray (VisitScotland, 2020b). The Scottish Dolphin Centre is located 48 km from the Proposed Development, and Brodie Castle is located 19 km away.

Table 13-12: Regional Visitor Attractions

Location	Visitors	Distance from Site
Urquhart Castle	547,518	38
Glenfinnan Monument	462,235	113
Glencoe Visitor Centre	436,924	108
Glenmore Forest Park	427,791	22
Loch Ness by Jacobite	321,980	30
Scottish Dolphin Centre*	94,993	48
Brodie Castle*	79,634	19

Source: VisitScotland (2020a), Insight Department: Highland Factsheet 2019. *VisitScotland (2020b), Insight Department: Grampian Factsheet 2019 (Aberdeen City, Aberdeenshire & Moray).

13.6.47 In addition, from the Proposed Development is located approximately 10 km from the boundary of Cairngorms National Park and over 25 km from Cairngorm Mountain. It is the largest National Park in the UK, spanning 4,538 km^2 and including a mountain range, hill ranges, and rivers with walks and activities, as well as several towns, villages and visitor attractions.

13.6.48 Using a web search on VisitScotland (VisitScotland, 2021a), a number of local visitor attractions within 15 km of the site were identified. These local attractions and their distance from the site are included in **Table 13-13**.

Table 13-13: Local Visitor Attractions

Location	Description	Distance to Site (km)
Lochindorb	Loch, which is used by anglers, and has at its centre a 13th century castle on a partly man-made island	3
Carrbridge Artists Studio	Located in Carrbridge, this studio and gallery displays original paintings, prints, and ceramic sculptures	9
Landmark Forest Adventure Park	Adventure park with three water coasters, a high-ropes course and a butterfly hot-house	10
Grantown Museum	The museum tells the story of Grantown on Spey's founding, and regularly displays art, crafts and photography	11
Grantown East Ltd	A renovated railway station which includes heritage displays, a shop, and miniature railway rides	12
Tomatin Distillery Visitor Centre	A whisky distillery that offers guided tours	12
Boat of Garten Golf and Tennis Club	Golf course founded in the early 20th Century	13
Abernethy Golf Club	Golf club founded in 1893 which borders Abernethy Forest	13
Nethy Bridge Visitor Centre	Visitor Centre providing visitor information, as well as exhibits and displays on the natural history of Abernethy and the Cairngorms National Park	14
RSPB Scotland Loch Garten Nature Centre	Centre offering guided forest walks through Abernethy Forest	15

Source: VisitScotland (2021a), Things to do near Grantown-on-Spey

13.6.49 There are also a number of businesses, such as Ecosse Mountains, Carrbridge Carriage Driving and Craggan Outdoors, that offer outdoor services such as guided walks and other activities which generally take place in the Cairngorms.

Accommodation Providers

13.6.50 Accommodation providers were identified using VisitScotland's accommodation database (VisitScotland, 2021b), Grantown Online (Grantown Online, 2021) and an online search engine. As shown in **Table 13-14**, it was found that there are over 150 accommodation providers within 15 km of the Proposed Development, with the majority situated in Grantown on Spey, Dulnain Bridge, Nethy Bridge, Boat of Garten and Carrbridge.

13.6.51 In particular the following accommodation clusters were identified:

- 2 accommodation providers on the Lethen Estate, approximately 2-3 km to the north of the Proposed Development;
- 19 accommodation providers in Nairnshire, which are 7-15 km to the north of the Proposed Development, and are predominantly self-catering and Bed and Breakfast (B&B) providers;
- 2 accommodation providers along the River Findhorn, which are 4-5 km from the Proposed Development and include Dunearn Lodge, Dulsie Cottage and Glenferness Estate to the north, and Drynachan Shooting Lodge to the north-west;
- 5 providers along the Old Military Road, which are 6-10 km to the east of the Proposed Development and all of which are self-catered providers;
- 36 accommodation providers in Grantown on Spey, which are 10-15 km to the south-east of the Proposed Development and includes 5 hotels (Ben Mhor Hotel, Garth Hotel, Grant Arms Hotel, the Craiglynne Hotel, the Speyside Hotel) and a campsite (Grantown on Spey Caravan site);
- 20 accommodation providers in Dulnain Bridge, which are 9-12 km to the south-east of the Proposed Development and include Muckrach Country House Hotel and Tigh na Sgiath Country House Hotel;
- 29 accommodation providers in Nethy Bridge which are 13-15 km to the south-east of the Proposed Development and include Nethybridge Hotel and Mountview Hotel;
- 12 accommodation providers in Boat of Garten, which are 13-15 km to the south of the Proposed Development and include the Boat of Garten Caravan Park;
- 20 accommodation providers in Carrbridge, which are 7-11km to the south of the Proposed Development and include 5 hotels (Cairn Hotel, Carrbridge Hotel, Dalrachney Lodge Hotel, Fairwinds Hotel and Macdonald Lachanhully Resort); and
- 6 accommodation providers in Tomatin, which are 7-12 km to the east of the Proposed Development.

Table 13-14: Local Accommodation Providers (within 15 km of Proposed Development)

Area	Distance from Site	Number of Providers (of which hotels/campsites)
Lethen Estate	2-3 km	2
Nairnshire	7-15 km	19
River Findhorn	4-5 km	2
Old Military Road	6-10 km	5
Grantown on Spey	10-15 km	36 (6)
Dulnain Bridge	9-12 km	20 (2)
Nethy Bridge	13-15 km	29 (2)
Boat of Garten	13-15 km	12 (1)
Carrbridge	7-11 km	20 (5)
Tomatin	7-12 km	6

Source: VisitScotland (2021b), Accommodation and Grantown Online (2021), All Stay in Grantown on Spey

Recreation Trails

13.6.52 A number of recreational trails were also identified based on walkhighlands.com (walkhighlands, 2021). These include:

- Speyside Way, a 137 km long distance route between Newtonmore and Buckie, which is one of Scotland's Great Trails. It passes through Grantown on Spey approximately 11 km to the south-east of the site;
- Dava Way a 38 km long distance trail between Grantown-on-Spey and Forres, which is one of Scotland's Great Trails. It passes through Dava located 6 km east of the Proposed Development;
- various core paths between 9 km-15 km away from the Proposed Development, including clusters of core paths around Grantown on Spey, Carrbridge, Nethy Bridge, Dulnain Bridge, and Tomatin;
- a small number of rights of way, including the Old Road to Forres along the River Findhorn. There are no rights of way that cross the site; and
- an 11 km equestrian trail around Loch Romach to the north-east of the site.

Summary of Local Tourism and Recreation Context

13.6.53 The tourism sector is an important employer in Highland and Moray. However, none of the most visited tourism attractions in the region are located within 15 km of the site.

13.6.54 There are a number of clusters of accommodation providers and attractions in the Cairngorm National Park to the south of the Proposed Development, including at Grantown on Spey, Dulnain Bridge, Nethy Bridge, Carrbridge and Boat of Garten, which are generally over 10 km from the Proposed Development. There are also a small number of accommodation providers to the north and east of the Proposed Development. The Dava Way, one of Scotland's Great Trails, also passes to the east of the Proposed Development, about 6 km away at the closest point.

13.7 Potential Effects

Economic Impact

Construction

13.7.1 The application is for 17 turbines and a total generating capacity of 102 MW, as well as 10 MW of energy storage. Using research undertaken by BiGGAR Economics on behalf of RenewableUK in 2015 (RenewableUK, 2015) and evidence from recently constructed wind farms, the average expenditure on the development and construction of wind farms can be estimated based on the average spend per MW, the average spending per turbine, or a combination of the two, as appropriate. On the basis of this methodology, the total development and construction cost of the Proposed Development was estimated to be up to £122.9 million.

13.7.2 This expenditure was split into four categories of contracts:

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

13.7.3 The proportion of spending associated with each contract was based on BiGGAR Economics' research on wind farms currently in operation in the UK. As shown in **Table 13-15**, it was assumed that 70.5% of capital expenditure (Capex) would be on turbine contracts, 20.3% on balance of plant contracts, 5.1% would be on grid connection 4.2% would be on development.

Table 13-15: Development and Construction Expenditure by Contract Type

	%Capex	Value of the Proposed Development (£ million)
Development	4.2%	5.1
Turbines	70.5%	86.6
Balance of Plant	20.3%	24.9
Grid Connection	5.1%	6.3
Total	**100%**	**122.9**

13.7.4 The economic impact from expenditure during the construction and development phase was estimated for both the region (Highland and Moray) and Scotland as a whole. To estimate the economic impact occurring in each area, it was necessary to establish the amount of spending on each contract type by area.

13.7.5 Assumptions on the potential expenditure taking place as a result of the Proposed Development in each area were based on evaluations carried out by BiGGAR Economics of wind farm developments in the region, which has found that there is a well-developed onshore wind supply chain in Highland and Moray. While each project is different, these estimates set out a benchmark against which the Proposed Development's local content can be compared.

13.7.6 To estimate the expenditure for each contract in each of the areas these percentages were applied to the estimated size of each component contract.

13.7.7 On this basis, as shown in **Table 13-16**, it was estimated that Highland and Moray could secure contracts worth up to £19.7 million, accounting for 16% of total capital expenditure on the project. Balance of plant contracts offer the largest opportunity for Highland and Moray, as companies in the region could secure 55% of contracts, worth £13.8 million.

13.7.8 Scotland could secure 68% of balance of plant contracts, worth up to £16.8 million. There is also an opportunity in turbine contracts, 9% of which could be secured in Scotland, worth £7.6 million.

Table 13-16: Development and Construction Expenditure by Study Area and Contract Type

	Highland and Moray		Scotland	
	%	£m	%	£m
Development	10%	0.5	63%	3.2
Turbines	4%	3.3	9%	7.6
Balance of Plant	55%	13.8	68%	16.8
Grid Connection	35%	2.2	100%	6.3
Total	**16%**	**19.8**	**28%**	**33.9**

13.7.9 The contract values potentially awarded in each area would represent an increase in turnover of businesses in these areas. Using industry-specific data from the Annual Business Survey (ONS, 2020b) which gives the turnover to GVA ratio for each of the industries involved, the GVA impact from any increase in turnover can be estimated.

13.7.10 On this basis, it was estimated that the development and construction contracts would generate up to £9.4 million direct GVA in Highland and Moray and £16.0 million direct GVA in Scotland. This is shown in **Table 13-17**.

Table 13-17 Direct GVA during Construction and Development (£ million)

	Highland and Moray	Scotland
Development and Planning	0.3	2.1
Turbines	1.5	3.6
Balance of Plant	6.7	7.8
Grid Connection	0.8	2.5
Total	**9.4**	**16.0**

13.7.11 Similarly, the contract value 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* (ONS, 2020b) which allows the employment from any increase in turnover to be estimated.

13.7.12 The employment impacts during the development and construction phase area reported in job years as the contracts would be short-term. Job years 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 job years.

13.7.13 In this way, the development and construction impacts were estimated to support up to 136 job years in Highland and Moray, of which 95 job years are related to balance of plant contracts. It was estimated that in Scotland, up to 233 job years would be supported, of which 111 job years are related to balance of plant contract, and 57 job years are related to turbine contracts. This is shown in **Table 13-18**.

Table 13-18: Development and Construction – Employment in Job Years

	Highland and Moray	Scotland
Development and Planning	5	29
Turbines	24	57
Balance of Plant	95	111
Grid Connection	12	36
Total	**136**	**233**

13.7.14 There would also be knock on effects in the supply chain and from spending by employees in the local economy. These effects are estimated by applying Type I (indirect) and Type I/ (indirect and induced) GVA and employment multipliers, which are sourced from the Scottish Government's Input-Output Tables (Scottish Government, 2020d), to the direct GVA and employment impacts.

13.7.15 In order to adjust these multipliers, which consider the national economy, for the economy of the region, it was assumed that indirect multiplier effects would be 33% of the national impact, and induced multiplier effect, which consider the effect of local spending, would be 70% of the national impact. The assumption on the share of the indirect multipliers at the level of the region was based on BiGGAR Economics' experience and understanding of the local supply chain, whereas the share of induced impacts taking place locally, was based on an analysis of data from the ONS' 'Family Expenditure Survey in the UK – April 2017 to March 2018' (ONS, 2019).

13.7.16 In this way, it was estimated that the indirect economic impacts would be up to £1.2 million GVA and 18 job years in Highland and Moray and £6.3 million GVA and 92 job years in Scotland. This is shown in **Table 13-19.**

Table 13-19: Indirect Economic Impact during Construction and Development

	Highland and Moray	Scotland
GVA (£ m)	1.2	6.3
Employment (job-years)	18	92

13.7.17 As shown in **Table 13-20**, it was also estimated that induced economic impacts would be up to £1.9 million GVA and 20 job years in Highland and Moray, and £4.6 million GVA and 50 job years in Scotland.

Table 13-20: Induced Economic Impact during Construction and Development

	Highland and Moray	Scotland
GVA (£ m)	1.9	4.6
Employment (job-years)	20	50

13.7.18 Adding direct, indirect and induced impacts, it was estimated that expenditure during the construction and development of the Proposed Development could generate up to £12.5 million GVA and support 174 jobs in Highland and Moray and £26.9 million GVA and 375 jobs in Scotland as a whole. This is shown in **Table 13-21**.

Table 13-21: Total Economic Impact during Construction and Development

	Highland and Moray	Scotland
GVA (£ m)	12.5	26.9
Employment (job-years)	174	375

13.7.19 Considering the relative size of the economy in the two study areas, the socio-economic effects from the construction and development of the Proposed Development were assessed in EIA terms as **minor** in Highland and Moray, and **negligible** in Scotland as a whole and would therefore not be considered significant. However, the Proposed Development is likely to be important for local businesses and employees that secure contracts, and will contribute to economic growth.

Operation

13.7.20 The operation and maintenance impact of the Proposed Development was estimated as the impact that would persist throughout the lifespan of the Proposed Development.

13.7.21 Annual expenditure on operations and maintenance was estimated based on analysis undertaken in 2015 for RenewableUK (RenewableUK, 2015) and more recent evidence from operational wind farms. It was estimated that the annual operations and maintenance expenditure associated with the Proposed Development could be up to £2.6 million (which excludes community benefit payments and non-domestic rates).

13.7.22 In order to estimate the economic impact of the operation and maintenance expenditure in Highland and Moray and Scotland, it was first necessary to estimate 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 (RenewableUK, 2015), the analysis of the industries present in each of the study areas, as well as previous experience BiGGAR Economics had on onshore renewable wind farms in the region.

13.7.23 On this basis, it was estimated that Highland and Moray could secure 41% of operation and maintenance contracts, worth £1.1 million, and that Scotland could secure 48% of contracts worth £1.3 million. This is shown in **Table 13-22**.

Table 13-22: Annual Operation and Maintenance Expenditure by Study Area

	Highland and Moray		Scotland	
	%	£m	%	£m
Operation and Maintenance	41	1.1	48	1.3

13.7.24 As with the construction phase, the contract values awarded in each of the study areas represents an increase in turnover in those areas. The economic impact of the increase in turnover on GVA and employment was estimated in the same way as the construction expenditure, using data from the Annual Business Survey (ONS, 2020b).

13.7.25 In this way, it was estimated that turnover generated by the operation and maintenance of the Proposed Development could support up to £0.6 million GVA and 8 jobs in Highland and Moray, and £0.7 million GVA and 10 jobs in Scotland. This is shown in **Table 13-23**.

Table 13-23 Annual Operations and Maintenance Direct Impact

	Highland and Moray	Scotland
GVA (£ m)	0.6	0.7
Employment (job-years)	8	10

13.7.26 There would also be indirect and induced impacts during the operation and maintenance of the Proposed Development, which were estimated using the same method as for the development and construction phase.

13.7.27 Adding together the direct, indirect and induced impacts, it was estimated that the total annual economic impact would be up to £0.7 million GVA and 11 jobs in Highland and Moray, and £1.0 million GVA and 17 jobs in Scotland. This is shown in **Table 13-24**.

Table 13-24 Total Economic Impact During Operations and Maintenance

	Highland and Moray	Scotland
GVA (£ m)	0.7	1.0
Employment (job-years)	11	17

13.7.28 Considering the relative size of the economy in the two study areas, the socio-economic effects from the construction and development of the Proposed Development were assessed as **negligible** in Highland and Moray, and **negligible** in Scotland as a whole.

Wider Economic Benefits

Community Benefits

13.7.29 In its publication outlining good practice principles for community benefits arising from onshore wind developments (Scottish Government, 2019), the Scottish Government discusses the approach that developers should take when developing community benefits proposals with the local community. The ultimate aim of a community benefits package should be to achieve a lasting legacy for communities.

13.7.30 In line with Scottish Government recommendations, the Applicant has committed to offering 5,000 per MW per year in community benefits for the local area. This is equal to around £0.5 million annually, or £17.9 million during the 35-year operational lifetime of the Proposed Development.

13.7.31 The Applicant has been in discussions with the local community about how this funding could address local priorities. This is expected include addressing fuel poverty a particular concern in the local area and could deliver other economic and social benefits, depending on decisions made locally on how best to invest community benefit monies.

Fuel Poverty

13.7.32 The Applicant has proposed the development of the **Lethen Wind Farm Energy Efficiency Fund** (included as **Appendix 13.1**) to address fuel poverty in the area around the Proposed Development. It commissioned Locogen, an environmental consultancy, with support from Rural Environmental Action Project (REAP), a local environmental charity, to consider how the fund could be delivered locally (Locogen, 2021). This has been included as **Appendix 13.1**.

13.7.33 Recognising the importance of addressing this issue, the Scottish Government's *Scottish Fuel Poverty Act 2019* sets a target of reducing fuel poverty to no more than 5% of households by 2040 (currently it is around 24% in Scotland as a whole).

13.7.34 This is also an important issue in the local area. There are around 800 residential properties within 10 km of the Proposed Development, and based on the average for Highland, it is estimated that around 264 of these houses are in fuel poverty (33%), with 176 in extreme fuel poverty (22%).

13.7.35 The fund would have significant resources, and would focus on supporting households directly, rather than through local community organisations, to improve their energy efficiency or generate their own electricity. The fund would have the following aims:

- support energy efficiency locally;
- contribute towards the national net-zero carbon journey;
- lift households in the area out of fuel poverty; and
- improve domestic energy infrastructure.

13.7.36 It is proposed that a full-time, locally based Community Energy Officer would support the delivery of the fund, identifying beneficiaries and leveraging other sources of funding.

13.7.37 The benefits of the fund would be greater energy efficiency in the local area, lower household fuel bills and lower emissions. In addition, it would support employment in companies providing the services, as well as providing a model that could be emulated by other wind farms.

13.7.38 Given the relatively small population considered, the high prevalence of fuel poverty and the substantial aid that would be provided, it is anticipated that this would have a long-term **moderate** beneficial effect on the area immediately surrounding the Proposed Development, which would therefore be considered significant.

Non-Domestic Rates

13.7.39 The Proposed Development would be liable for non-domestic rates, the payment of which would contribute directly to public sector finances. Analysis of rateable values of previous wind farms found an average rateable value per MW of approximately £24,000. However, these values were calculated based on projects which had benefitted from Renewables Obligations Certificates (ROCs). The Proposed Development would not benefit from this programme and as a result the rateable value would not be in line with previous data. Current expectations in the sector are that wind farms valuations in the future might typically be around £14,000 per MW. This would result in annual payments of approximately £7,000 per MW.

13.7.40 Using this estimate, the Proposed Development would contribute £0.7 million annually through the payment of non-domestic rates. Over the project's 35-year lifespan, it would contribute £25.0 million.

13.7.41 This effect has been assessed as **negligible** on the Highland and Moray economies, in the context of total public spending in the region.

Tourism and Recreation

Evidence on the Impacts of Wind Farms on Tourism

13.7.42 In 2008, the Moffat Centre at Glasgow Caledonian University studied the potential effects of wind farms on tourism (Glasgow Caledonian University/Moffat Centre, 2008). The study analysed the possible effects of wind farm development and concluded that, while tourism may be affected in small numbers, the overall impact on tourism expenditure and employment would be limited. This study is now dated and since 2008, wind farms have become increasingly common across Scotland, particularly in Highland. It would be expected that, with the growth

in onshore wind since the completion of the Moffat Centre study, any negative effects wind farms have on tourism would now be apparent in tourism employment statistics.

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

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

13.7.45 The study also analysed the impact onshore wind has on tourism employment proximate to developments. Areas within 15 km areas of the wind farms constructed between 2015 and 2019 were analysed, comparing employment in tourism in 2015 and 2019, before the construction of the wind farms and after, allowing for the exclusion of construction impacts on tourism (such as wind farm related workers staying at local accommodation).

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

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

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

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

Visitor Attractions

13.7.50 This assessment is based on whether the Proposed Development would impact behaviour in a way that would reduce visitor numbers to attractions or have an effect on the local tourism economy.

13.7.51 Seven popular visitor attractions located within Highland and Moray were identified. The closest of these regional attractions, Brodie Castle, would be 19 km from the Proposed Development. The distance between the Proposed Development and the regional attractions outlined in the baseline suggests that the Proposed Development would be unlikely to impact any motivations to visit these attractions. Therefore, the effect on tourism has been assessed as **negligible**.

13.7.52 Cairngorms National Park is located approximately 10 km from the Proposed Development at the closest point. It features the Cairngorms mountain range, as well as various hill ranges and forest walks. While the views available in the national park are a main motivation for visiting, the national park spans 4,538 km^2 south-east of the Proposed Development, with the vast majority of the park located over 15 km from the Proposed Development, and it highly unlikely that it would affect the motivations for visiting the park. Therefore, the effect of the Proposed Development on tourism has been assessed as **negligible**.

13.7.53 In addition, ten local attractions within 15 km of the Proposed Development were identified.

13.7.54 The local attraction closest to the Proposed Development is Lochindorb, located 3 km from the Proposed Development. Motives for visits to the loch include watersports, such as paddle boarding, the quality of the fishing, the castle (an example of medieval architecture) and history. It is expected that these features, and the visitors attracted by them, would be unaffected by the Proposed Development. Based on available reviews on Google (Google, 2021), one of the reasons that some visitors go to the loch is related to the views and landscape and so it is possible that changes to the view from Lochindorb may mean that some are less inclined to visit. Therefore, the effect on tourism has been assessed as **minor**.

13.7.55 Located 9 km from the Proposed Development, Carrbridge Artists Studio displays and sells handmade art work including paintings, prints and ceramics. The motives for visiting the gallery, to view and purchase local art, are unlikely to be affected by the Proposed Development. Therefore, the effect on tourism has been assessed as **negligible**.

13.7.56 Landmark Forest Adventure Park is located approximately 10 km South of the Proposed Development. Its main attractions are water coasters, a high-rope course, and a butterfly hot-house. The motives of tourists to visit the Park would not be affected by the Proposed Development, and the effect on tourism has therefore been assessed as **negligible**.

13.7.57 Located 11 km from the Proposed Development is Grantown Museum. The museum hosts a permanent exhibition on the history of Grantown following its founding in 1775, and also attracts visitors with temporary displays of art, crafts and photography. The motives for visiting the museum include an interest in local history and local art, which would not be impacted by the Proposed Development. Therefore, the effect of the Proposed Development on tourism has been assessed as **negligible**.

13.7.58 Grantown East Ltd, located 12 km from the Proposed Development, is a renovated railway station, for which the main attractions are heritage displays, a miniature railway ride and a shop. Motives to visit the museum, such as an interest in the history of the railways in Scotland, are unlikely to change as a result of the Proposed Development, and therefore the effect on tourism has been assessed as **negligible**.

13.7.59 Tomatin Distillery Visitor Centre is located 12 km from the Proposed Development. The Distillery, which was established in 1897, offers guided tours and the opportunity to bottle your own whisky as a memento. The motivations for visiting the Distillery, such as an interest in the production of whisky and whisky tasting, would not be affected by the Proposed Development. Therefore, the effect on tourism has been assessed as **negligible**.

13.7.60 Established in 1898, the Boat of Garten Golf and Tennis Club is located 13 km from the Proposed Development, alongside the River Spey. The main attractions of the Club are an 18-hole golf course and two all-weather tennis courts, which would not be affected by the Proposed Development. One of the motivations for visiting the club is the picturesque setting. However, the distance from the Proposed Development suggests that this is unlikely to be affected. Therefore, the effect on tourism has been assessed as **negligible**.

13.7.61 Abernethy Golf Club, located in Nethy Bridge, 13 km from the Proposed Development, is one of nine 9-hole golf clubs across the Highlands, with golfers having access to the course, a practice area and a clubhouse, as well as the opportunity to experience local wildlife such as red squirrels, pine martens and oystercatchers. These motivations for visitors to visit the Golf Club are unlikely to be affected by the Proposed Development, and therefore the effect on tourism has been assessed as **negligible**.

13.7.62 Nethy Bridge Visitor Centre, located 14 km from the Proposed Development, provides an introduction to the area for tourists. The main motivation to visit the Centre is to find information about the local area, such as the location of local walks, attractions and events. These motivations to visit the centre are unlikely to be affected by the Proposed Development, and therefore the effect on tourism has been assessed as **negligible**.

13.7.63 The RSPB Scotland Loch Garten Nature Centre, located 15 km from the Proposed Development, offers guided walks through Abernethy Forest, and hosts an exhibition as well as daily talks and family activities. The main motivations to visit the Centre, such as an interest in local flora and fauna, are unlikely to be affected by the Proposed Development. Therefore, the effect on tourism has been assessed as **negligible**.

Accommodation Providers

13.7.64 A number of accommodation clusters within 15 km of the Proposed Development were identified. The assessment considered how any potential effects on these providers would contribute to a change in the tourism economy.

13.7.65 There are two properties within 2-3 km from the Proposed Development on the Lethen Estate, which owns the land that the Proposed Development would be built on. The properties are Dunearn Lodge which is on the moor and Dulsie Cottage. The motivation for staying at the estate accommodation includes the fishing on the River Findhorn and other opportunities present at the estate, as well as the proximity to Dulsie Bridge and the views over the moorland. Key features, such as the fishing and Dulsie Bridge are expected to be unaffected by the Proposed Development. Views from Dunearn Lodge towards the moor may be affected by the Proposed Development, which may result in reduced numbers of visitors. Therefore, the effect has been assessed as **minor**.

13.7.66 There are around 19 accommodation providers across Nairnshire to the north of the Proposed Development, which are generally self-catered cottages. These are likely to advertise based on their rural settings and proximity to the Cairngorms National Park. It is unlikely that these factors would be affected, particularly given the relative distance from the Proposed Development, and therefore the effect has been assessed as **negligible**.

13.7.67 There are two accommodation providers based along the River Findhorn, which includes the Glenferness Estate. The main attractions are likely to be proximity to the river, seclusion in a wooded location, availability of sporting activities, and views. It is unlikely that these factors would be affected by the Proposed Development and therefore the effect has been assessed as **negligible**.

13.7.68 The accommodation providers on the Old Military Road to the east of the Proposed Development, including the Dava School House, advertise a number of features including their proximity to the Dava Way, location near/in the Cairngorms and views, including towards the Cairngorms. It is unlikely that these features would be affected, particularly given the relative distance from the Proposed Development and therefore the effect has been assessed as **negligible**.

13.7.69 There are also a number of small villages and towns with substantial accommodation clusters to the south and south-east of the Proposed Development, including Grantown on Spey, Dulnain Bridge, Nethy Bridge, Boat of Garten and Carrbridge. These settlements are all in the Cairngorms National Park, and have in common a focus on outdoor activities, such as cycling, walking and fishing, and are typically located on the River Spey or River Dulnain. They would also be a substantial distance from the Proposed Development. It is not expected that any would experience any impacts, and the effect has therefore been assessed as **negligible**.

13.7.70 There is also a cluster of providers in and around Tomatin. These are characterised by their proximity to the Tomatin Distillery, seclusion, and the relative accessibility of places such as Aviemore and Inverness. These are unlikely to be affected, and given the relative distance from the Proposed Development, it is unlikely that there would be any impacts. Therefore, the effect has been assessed as **negligible**.

Recreational Trails

13.7.71 A small number of recreational trails were identified within 15 km of the Proposed Development, and they have been assessed on the basis of whether there would be a reduction in visitors or recreational users in the area.

13.7.72 The main attraction of the 137 km Speyside Way is the River Spey itself and the villages and small towns it passes through, such as Grantown on Spey. It is unlikely that it would be affected, especially given the distance from the Proposed Development. Therefore, the effect has been assessed as **negligible**.

13.7.73 The Dava Way, connecting Grantown-on-Spey and Forres, passes several kilometres to the east of the Proposed Development. The route passes through varied countryside, and the section nearest the Proposed Development is noted for its relative remoteness and isolation, compared to other sections with forest, rivers and small towns. Though there are views of the Proposed Development from parts of the route it is unlikely that the sense of isolation would be affected, and the Proposed Development would not be visible from the majority of the Dava Way. Therefore the effect has been assessed as **negligible**.

13.7.74 The equestrian route near Loch Romach is a substantial distance from the Proposed Development, and is likely to mainly be used by local people who want to explore the loch and the surrounding area. These would be unaffected and therefore the effect has been assessed as **negligible**.

13.7.75 The core paths are likely be of predominantly local use and, given the distance from the Proposed Development, it is considered unlikely that there would be any effects on them. Therefore, the effect has been assessed as **negligible**.

13.8 Mitigation/Enhancement

13.8.1 No significant adverse effects have been identified and therefore no mitigation is required.

13.8.2 However, the Applicant has in place a strategy to increase the beneficial impact associated with construction and operation. For example, it will engage proactively with local suppliers and representative bodies (such as Chambers of Commerce) to make sure that they are aware of the opportunities associated with contracts, and are prepared to tender. It will also ensure that it has a robust awareness of the skills present in the local area.

13.8.3 The Applicant will ensure that the main contractors will spend at least 30% of the contract value of balance of plants contracts locally (though it may be possible to increase this share, given the well developed local onshore wind supply chain) and will incentivise all contractors to use local content where possible. The Applicant has experience of building wind farms nearby, having constructed Rothes I Wind Farm (operational since 2005) and Rothes II Wind Farm (operational since 2013) to the south of Elgin in Moray, which supported jobs in the local construction sector, as well as through its operation. An assessment (Stantec, 2020) is included as **Appendix 13.2**. The Applicant therefore has established a local supply chain.

13.8.4 In addition, an Outline Outdoor Access Plan will be implemented to ensure that any disruption is limited.

13.9 Residual Effects

Construction

13.9.1 Development and construction of the Proposed Development is expected to result in:

- a **temporary minor beneficial** effect on Highland and Moray economies; and
- a **temporary negligible beneficial** effect on the Scottish economy.

Operation

13.9.2 Operation and maintenance of the Proposed Development is expected to result in:

- a **negligible beneficial** effect on the Highland and Moray economies;
- a **negligible beneficial** effect on the Scottish economy;
- a **moderate beneficial** effect on the local area due to actions to reduce fuel poverty;
- a **negligible beneficial** effect on Highland as a result of the payment of non-domestic rates; and
- a **negligible** effect on the local tourism and recreation.

13.10 Cumulative Effects

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

13.10.2 There are not expected to be any significant effects on tourism and recreation assets, and therefore it is not expected that there would be any significant cumulative effects on tourism and recreation.

13.11 Summary

13.11.1 This chapter assesses the potential socio-economic, recreation and tourism effects of the Proposed Development.

13.11.2 The electoral wards of Nairn and Cawdor, and Badenoch and Strathspey (in which the Proposed Development would be located) have a higher proportion of people aged 65 and over compared to Scotland as a whole, as do Highland and Moray. The populations of both local authorities are expected to decline over the coming decades. This suggests that the local area around the Proposed Development and the wider region lack the economic drivers required to retain and attract working age people and consequently could benefit from the economic opportunities associated with the Proposed Development.

13.11.3 During the development and construction phase, it was estimated that the Proposed Development could generate up to:

- £12.5 million GVA and 174 job years in Highland and Moray; and
- £26.9 million GVA and 375 job years in Scotland (including Highland and Moray).

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

- £0.7 million GVA and 11 jobs in Highland and Moray; and
- £1.0 million GVA and 17 jobs in Scotland (including Highland and Moray).

13.11.5 The Proposed Development would also provide community benefit funding for the local area of up to £510,000 annually. In part, this fund would be used to address fuel poverty, which affects around a third of households, with a fifth in extreme fuel poverty. Local households would be given grants directly to make improvements to their home, increasing energy efficiency and reducing their fuel bills, delivering a substantial benefit the local area.

13.11.6 It was estimated that the Proposed Development would pay £0.7 million each year in non-domestic rates, so helping to support local government services.

13.11.7 The most recent evidence on the relationship between wind farms and tourism (BiGGAR Economics. (2021). Wind Farms & Tourism Trends in Scotland: Evidence from 44 Wind Farms) suggests that there are no adverse effects on the tourism economy resulting from the

development of onshore wind. An assessment of the likely effects of the Proposed Development on specific local tourism assets, accommodation providers and routes found no expected adverse effects.

13.11.8 Overall, there were no significant adverse effects identified. Whilst the beneficial socio-economic effects are not significant in EIA terms, they would be important to the local, regional and national economy, contributing to economic recovery and sustainable economic growth. The indirect effect of reducing fuel poverty in the local area has been assessed as **significant**.

Table 13-25 – Summary of Effects

Description of Effect	Significance of Potential Effect		Mitigation and Enhancement Measures	Significance of Residual Effect	
	Significance	Beneficial/Adverse		Significance	Beneficial/Adverse
Construction					
£12.5 million and 174 job years in Highland and Moray	Minor and not significant	Beneficial	n/a	Minor and not significant	Beneficial
£26.9 million and 375 job years in Scotland	Negligible and not significant	Beneficial	n/a	Negligible and not significant	Beneficial
Operation					
£0.7 million and 11 jobs in Highland and Moray	Negligible and not significant	Beneficial	n/a	Negligible and not significant	Beneficial
£1.0 million and 17 jobs in Scotland	Negligible and not significant	Beneficial	n/a	Negligible and not significant	Beneficial
Fuel Poverty reduction in local area	Moderate and significant	Beneficial	Community benefit to address fuel poverty	**Moderate and significant**	**Beneficial**
Payment of non-domestic rates of £0.7 million	Negligible and not significant	Beneficial	n/a	Negligible and not significant	Beneficial
Effect on local tourism economy	Negligible and not significant	n/a	Outdoor Access Plan	Negligible and not significant	n/a

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