

CHAPTER 14 SOCIO-ECONOMIC, RECREATION AND TOURISM

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14. Socio-Economic, Recreation and Tourism

14.1 Executive Summary

- 14.1.1 This Chapter considers the potential effects on socio-economic activity, recreation and tourism activity during construction and operation of the Proposed Development.
- 14.1.2 As a significant investment (approximately £80 million) in a key economic sector, the Proposed Development supports both pillars of the national economic strategy and each of the broad priority areas set out in the strategy. It will provide contract and employment opportunities for Scottish and Highland based businesses throughout the construction and operational phases.
- 14.1.3 If constructed, the Proposed Development could directly contribute towards the Scottish Government's renewable energy targets, to meet an equivalent of 50% demand for electricity from renewable energy by 2030, and by 2050 to have completed decarbonisation of Scotland's energy system.
- 14.1.4 Renewable energy brings competitive advantages and opportunities for economic development within the Highlands and an opportunity to create employment and attract investment. The construction sector is well represented in the Highlands, suggesting the local area is well positioned to benefit from this aspect of the Proposed Development. This can be further evidenced through other notable capital investments by SSE in the area, including the Gordonbush, Strathy and the original Achany Wind Farms.
- 14.1.5 Tourism as a Growth Sector and the associated economic value has continued to grow over recent times, despite an increasing number of wind farms across the Highlands and locally. The energy sector can support its continued growth, not only in terms of providing increased renewable energy to visitors, but providing financial support through the wind farm community fund to local tourism resources, activities and initiatives. Furthermore, various VisitScotland research outlined in this report indicates there is little evidence that wind farms detract visitors to an area. This is evidenced in their 'Position Statement on Wind Farms'¹, which states they understand and support the drive for renewable energy, and that there is a mutually supportive relationship between renewable energy and sustainable tourism.
- 14.1.6 The Site itself has low recreational and tourism value, other than some game shooting activity and fishing through the estates. Such activity could be disrupted by construction activity, however any restrictions would be short-term and temporary. Potential effects of construction and operation of the Proposed Development on recreational and tourism receptors in the study area are assessed as **negligible** and **not significant**.
- 14.1.7 The Applicant anticipates the project investment to be around £80 million. The total value of contracts that could be secured in the Highlands has been estimated as £9.6 million and in Scotland businesses could secure contracts worth £28.8 million.
- 14.1.8 The Proposed Development could support an additional 204.7 job years (equivalent to 20.5 FTEs²) in Scotland including 74.6 (7.4 FTEs) in the Highlands during the construction phase. In Gross Value Added (GVA) terms the construction phase has the potential to

¹ <https://www.visitscotland.org/binaries/content/assets/dot-org/pdf/policies/visitscotland-position-statement---wind-farms---oct-2014.pdf>

² It is standard practice in economic impact terms to assume that ten job years are equivalent to one full time equivalent (FTE) post

inject £4.1 million into the Highlands economy and £11.7 million to the Scottish economy. The effect of economic multipliers during the construction phase is expected to generate in total 163.8 job years (16.4 FTEs) and £10.51m in addition to the direct impacts. As part of this, the Highland region can expect to benefit from the multiplier effect too, with an additional 30 job years (3 FTE jobs) and £2.46 million in GVA. Looking separately at the wider impacts of employee spend, the construction phase is expected to generate 47.84 job years (47.8FTEs) in Scotland, including 9.17 (9.2FTEs) in the Highlands, and £2.76 million in GVA in Scotland, including £0.53 million in the Highlands.

- 14.1.9 The operations and maintenance of the Proposed Development could support an additional 28.5 FTE jobs in Scotland per annum, of which 18.7 could be in the Highlands. In GVA terms the operational phase has the potential to inject £1.14 million per annum into the Highlands economy and £1.43 million to the Scottish economy. This excludes multiplier effect and employee spend which would boost the economy further. The effect of economic multipliers per annum during the operations and maintenance phase is expected to generate annually 19.93 FTE jobs in Scotland, as well as £0.72 million in GVA. As part of this multiplier impact, the Highland region can expect an additional 6.54 FTE jobs and £0.29 million in GVA. Looking separately at the wider impacts of employee spend, the operations and maintenance phase is expected to generate, annually, 6.65 FTE jobs in Scotland, including 2.30 in the Highlands, and £0.38 million in GVA in Scotland, including £0.13 million in the Highlands.
- 14.1.10 Throughout the entire 50-year operational period of the Proposed Development, summing direct impact and multipliers, there is expected to be £90.82 million in GVA generated in Scotland, as well as 2,420 FTE jobs. As part of this multiplier impact the Highland region can expect to benefit from an additional 1,261 FTE jobs and £71.5 million in GVA. Using measures of employee spend instead, there is expected to be £162.44 million in GVA generated in Scotland, of which £120.6 million could accrue to the Highland region. Also, 3,180 FTE jobs accruing to Scotland, of which around 1,983 FTE jobs could be in the Highland region.
- 14.1.11 Local businesses will have the opportunity to benefit from the contracting requirements to be awarded by the Applicant. These range from civil engineering and ground work contractors, haulage businesses through to suppliers of water, as well as local service-based companies including hotels, restaurants and local shops.
- 14.1.12 There will be a Community Fund associated with the development which will provide funding to local communities and community projects.
- 14.1.13 The Applicant is committed to using local contractors and services where possible and a 'Meet the Buyer' event would take place prior to construction to promote local procurement opportunities and to encourage regional and national firms to apply for opportunities provided by the applicant and other companies in the supply chain.
- 14.1.14 The assessment demonstrates that there are notable beneficial, albeit not significant, socio-economic effects across the construction and operational phases of the Proposed Development. For example, the local economy would be supported by the Proposed Development through distribution of community funds and through direct and indirect employment and expenditure opportunities. There may also be beneficial cumulative effects associated with the Proposed Development, of an existing supply chain in Highland, which may increase the beneficial impacts associated with construction.

14.2 Introduction

- 14.2.1 This Chapter assesses the potential socio-economic, recreation and tourism impacts of Achany Extension Wind Farm (the Proposed Development). It has been compiled by MKA Economics.
- 14.2.2 MKA Economics specialise in appraising the economic viability, socio-economic value and advising on their delivery of economic development projects. Based at the Innovation Park at the University of Stirling the company works across sectors and geographies and has been retained by Highlands and Islands Enterprise (HIE) on their Economic Impact Assessment Framework since 2013, and this has been extended into 2022. MKA Economics has been retained by SSE on their Socio-Economic Services Framework to the period to 2025. MKA Economics also appraise the economic value of projects which are seeking funding and/or planning support from the public sector.
- 14.2.3 The assessment has been carried out in line with Scottish Government guidance on 'Net Economic Benefit and Planning'³. The guidance highlights how the net economic benefit generated by a proposed development can be assessed as a material consideration in the decision-making process.
- 14.2.4 MKA Economics has been commissioned to assess the likely effects of the Proposed Development on the economy in both quantitative and qualitative terms. In particular, it considers the effects of the Proposed Development on employment and economic output.
- 14.2.5 The assessment describes the methods used to assess impact, the socio-economic baseline conditions, and the potential impacts of the Proposed Development during the construction and operational phases. The wider, and less tangible and longer-term economic benefits of the Proposed Development are also assessed.

14.3 Scope of Assessment

- 14.3.1 In terms of economic effects, this assessment has employed appraisal techniques consistent with those outlined in the Scottish Government's guidance on 'Net Economic Benefit and Planning'⁴, and also Scottish Enterprise's Economic Appraisal Guidance Note⁵ for the appraisal of economic development initiatives.
- 14.3.2 This assessment calculates both construction and operational employment associated with the Proposed Development, and the economic effects this would have on the economy, at both a Scottish and Highlands local authority level.
- 14.3.3 This assessment outlines the role the Proposed Development can play in supporting national and regional economic development policies and strategies. It presents an overview of the local economic conditions, assessing them against the Highland, Scottish and Great Britain (GB) situation, to set the development context for the proposal. Finally, it outlines the potential benefits of the Proposed Development on employment, investment, local spending, community development and the local business base, during construction and operation.

³ Draft Guidance Net Economic Benefit and Guidance, Scottish Government, 2016, <http://www.gov.scot/Resource/0049/00498008.pdf>

⁴ Ibid

⁵ Economic Appraisal Guidance Note, Scottish Enterprise, 2008

Study Area

- 14.3.4 The Proposed Development forms an extension to the operational Achany Wind Farm, located on adjoining land to the north-west. The Proposed Development is located approximately 4.5km north of the village of Rosehall and 11km west-north-west of Lairg.
- 14.3.5 The ground cover of the Site is predominately rough grassland and heather moorland, which forms part of the Highland sporting estates of Glenrossal and Glencassley. The land is primarily used for fishing, with some deer stalking also taking place. A minor road runs through Glen Cassley close to the operational Achany and Rosehall Wind Farms. Other wind, hydro and electrical infrastructure is present within the wider area. There are a number of properties scattered intermittently through the Glen, with the nearest village being Rosehall and Lairg being the nearest town.
- 14.3.6 For the purposes of this Chapter, both the baseline and impact assessments define the regional area as The Highland Council (THC) area (as the planning authority), the country level area as Scotland (as the national planning authority) and the national area as Great Britain (GB). In terms of the tourism and recreation aspect of the assessment, more sub-regional (or local) assessment has been undertaken. This has been defined according to a 5km isochrone, as presented in the Local Baseline Profile sub-section and Figure 14.1.

Consultation Responses

- 14.3.7 In terms of stakeholder consultations, these were set out in the 2019 Scoping Opinion received by the Scottish Government's Energy Consents Unit (ECU) (Scottish Government, November 2019). Table 14.1 summarises the relevant socio-economic and tourism responses from the scoping process.

Table 14.1: Socio-Economic and Tourism Stakeholder Responses

Organisation	Scoping Response	Method of Assessment
The Highland Council	Socio-economic, recreation and tourism should have its own chapter in the EIA Report. The EIA Report should estimate who may be affected by the development and should include relevant economic information connected with the project and set out the impact on the regional and local economy, not just national.	Presentations of a socio-economic and tourism baseline position and stated impact in terms of economic (jobs, turnover and GVA) and social impacts, including those presented in the Highland Renewable Energy Strategy Planing Guidelanes (HRES), and the wider community impacts being proposed by the Applicant are provided in this chapter of the EIA Report.
	<p>A plan detailing the following should be submitted as part of the EIA Report:</p> <ul style="list-style-type: none"> Existing public non-motorised public access footpaths, bridleways, cycleways on the Site and proposed access from the road infrastructure Proposed public access provision both during construction and after completion of the development, including links to existing path networks and to the surrounding 	<p>There are no existing non-motorised public access footpaths, bridleways or cyclepaths within the Site.</p> <p>An Outdoor Access Management Plan will be prepared for the Proposed Development, a draft of which is provided in Technical Appendix 14.2. Chapter 7:</p>

Organisation	Scoping Response	Method of Assessment
	<p>areas, and access points to water; and</p> <ul style="list-style-type: none"> Impacts of the Proposed Development on the core paths and proposed mitigation, if any. 	Landscape and Visual also assesses potential visibility of the Proposed Development from recreational interests (see Section 7.11: Visual Assessment: Assessment of Effects).
VisitScotland	<p>It is suggested that full consideration be given to the Scottish Government's 2008 research on the impact of wind farms on tourism. The report highlights a request, as part of the planning process, to provide a tourism impact statement as part of the EIA.</p> <p>VisitScotland strongly recommend any potential detrimental impact of the Proposed Development on tourism – whether visually, environmentally and economically – be identified and considered in full.</p> <p>It is recommended that an independent tourism assessment should be carried out. This should be geographically sensitive and consider the potential impact on any tourism offerings in the vicinity of the Proposed Development. The impact of any perceived proliferation of developments may have on the local tourism industry, and the local economy, should also be considered.</p>	<p>Presentation of a tourism baseline including a review of local tourism and recreational assets and activities, including a review of recreational routes in the vicinity of the Proposed Development, is presented in the Baseline Assessment (Section 14.6) and illustrated in Figure 14.1.</p> <p>A review of a range of secondary research on the tourism opinions towards onshore wind proposals is also provided in paragraphs 14.7.46 – 14.7.55.</p> <p>Chapter 7: Landscape and Visual also assesses visual amenity impacts from known tourist attractions and recreational routes, including core paths, in the surrounding area (see Section 7.11: Visual Assessment: Assessment of Effects).</p>

- 14.3.8 An updated EIA Scoping Response was provided by THC on 05 February 2021, however, the points raised around the Socio-Economic, Recreation and Tourism Chapter remained the same as noted in Table 14.1. No further or additional stakeholder consultations were obtained by VisitScotland.

14.4 Legislation, Policy and Guidance

National Policy

- 14.4.1 The Scottish Government replaced the Government Economic Strategy (GES) in 2015 with Scotland's Economic Strategy⁶. The strategy sets out 'an overarching framework for a more competitive and a fairer Scotland and identifies four broad priority areas where our actions will be targeted to make a difference.' The strategy is built on two key pillars, namely 'tackling inequality' and 'increasing competitiveness'.
- 14.4.2 The strategy framework is structured around four broad priority areas, where Scottish Government actions will be targeted. These are:
- Investment;
 - Innovation;

⁶ Scottish Government (2015) Scotland's Economic Strategy <http://www.gov.scot/Publications/2015/03/5984>

- Inclusive growth; and
 - Internationalisation.
- 14.4.3 Within 'investment' there is a commitment to *'invest in Scotland's infrastructure to help Scottish businesses to grow, innovate, and create good quality employment opportunities'* and also *'to prioritise investment to ensure that Scotland protects and nurtures its natural resources and captures the opportunities offered by the transition to a more resource efficient, lower carbon economy'*.
- 14.4.4 The Scottish Government has developed a Scottish Energy Strategy⁷ in 2011, which was updated in 2015. It sets out a policy framework to deliver energy targets by 2020. An updated Scottish Energy Strategy⁸ reflects the challenge of the Scottish Government's new target to meet the equivalent of 50% of the energy for Scotland's heat, transport and electricity consumption to be supplied from renewable sources. An increase by 30% in the productivity of energy use across the Scottish economy. The equivalent of 50% of the energy for Scotland's heat, transport and electricity consumption to be supplied from renewable sources. An increase by 30% in the productivity of energy use across the Scottish economy.
- 14.4.5 The revised Scottish Planning Policy⁹ (SPP) is the latest statement of the Scottish Government's policy on land use planning matters as presented in more detail in Chapter 6: Planning Policy and Context of this EIA Report (see para. 6.4.37). SPP is founded on sustainable economic growth principles and is governed by the Scottish Economic Strategy which confirms that the planning system should proactively support development that contributes to sustainable economic growth and to high quality places.
- 14.4.6 One of the core values of the planning system, as set out in SPP is to *'play a key role in facilitating sustainable economic growth, particularly the creation of new jobs and the strengthening of economic capacity and resilience within communities'*.
- 14.4.7 One of the four overarching outcomes of the SPP is *'A successful, sustainable place'* and to support *'sustainable economic growth and regeneration, and the creation of well-designed, sustainable places'*. Another overarching outcome is *'A low carbon place - reducing our carbon emissions and adapting to climate change.'* Each of these outcomes are directly related to the Proposed Development.
- 14.4.8 The SPP (at paragraphs 1 and 24) confirms that the Scottish Government's central purpose is to focus on creating a more successful country, with opportunities for all of Scotland to flourish, through increasing sustainable economic growth.
- 14.4.9 Sustainable economic growth is defined as *'Building a dynamic and growing economy that will provide prosperity and opportunities for all, while ensuring that future generations can enjoy a better quality of life too'*.
- 14.4.10 Achieving sustainable economic growth requires a planning system that enables the development of growth-enhancing activities across Scotland and protects the quality of the natural and built environment as an asset for that growth.

⁷ Scottish Government (2011) 2020 Routemap for Renewable Energy in Scotland
<http://www.scotland.gov.uk/Publications/2011/08/04110353/0>

⁸ Scottish Government (2015) Scottish Energy Strategy <https://www.gov.scot/publications/scottish-energy-strategy-future-energy-scotland-9781788515276/pages/2/>

⁹ Scottish Government (2014) Scottish Planning Policy <http://www.gov.scot/Topics/Built-Environment/planning/Policy>

- 14.4.11 The SPP recognises that good planning plays an important role in *'creating opportunities for people to contribute to a growing, adaptable and productive economy'*. It also notes that allocating *'sites and creating places that are attractive to growing economic sectors, and enabling the delivery of necessary infrastructure, planning can help provide the confidence required to secure private sector investment, thus supporting innovation, creating employment and benefiting related businesses'*.
- 14.4.12 SPP also makes clear the Ministers desire to see net economic benefit realised. Paragraphs 28 and 29 of the SPP state *'The planning system should support economically, environmentally and socially sustainable places by enabling development that balances the costs and benefits of a proposal over the longer term. The aim is to achieve the right development in the right place; it is not to allow development at any cost. This means that policies and decisions should be guided by the following principles.... giving due weight to net economic benefit'*.
- 14.4.13 Similarly, Paragraph 169 states *'Proposals for energy infrastructure developments should always take account of spatial frameworks for wind farms and heat maps where these are relevant. Considerations will vary relative to the scale of the proposal and area characteristics but are likely to include... net economic impact, including local and community socio-economic benefits such as employment, associated business and supply chain opportunities.'*
- 14.4.14 Following publication of the SPP, Scottish Ministers committed to developing further advice to assist in assessing and giving due weight to the net economic benefit of proposed development. This publication builds on Paragraphs 29 and 93 of SPP. Paragraph 29 makes a presumption in favour of development that contributes to sustainable development.
- 14.4.15 It means that policies and decisions should be guided by, inter alia, *'giving due weight to economic benefits'*. Paragraph 93 references the need for Planning Authorities to *'giving due weight to Net Economic Benefit of the proposed development'* when assessing planning applications. The advice note states the importance of demonstrating the net economic benefit of a proposed scheme, highlighting the importance of taking economic benefits into account when determining a planning decision.
- 14.4.16 In terms of relevant tourism policy, the Scottish Tourism Alliance developed The National Tourism Strategy¹⁰ which confirms the importance of tourism to Scotland's economy and emphasises the resilience of the tourism industry since the start of the economic downturn in 2008. However, the strategy cautions that Scotland must remain competitive, by developing and changing its products and marketing in order to improve the quality of the customer experience and increase sales.
- 14.4.17 The strategy sets an ambition for the industry as a whole to achieve an overnight visitor spend of between £5.5bn and £6.5bn by 2020, thus generating an additional £1bn or more (at 2011 prices).
- 14.4.18 However, as stated in VisitScotland's Position Statement on Wind Farms¹¹, they are not a statutory consultee, unlike other public sector agencies such as NatureScot, whose role

¹⁰ Scottish Tourism Alliance (2012) National Tourism Strategy <http://scottishtourismalliance.co.uk/page/national-strategy/>

¹¹ VisitScotland (2014) Position Statement – Wind Farms <https://www.visitscotland.org/binaries/content/assets/dot-org/pdf/policies/visitscotland-position-statement---wind-farms---oct-2014.pdf>

it is to care for and improve Scotland's natural environment. VisitScotland understands and supports the drive for renewable energy and recognises the economic potential of Scotland's vast resource, including the opportunities for wind farm development.

- 14.4.19 VisitScotland is aware that some groups are concerned by the potential impact of wind farm developments on tourism; however, their own position statement states that independent research *'suggests that wind farms have a limited impact on visitors'* decisions to holiday in Scotland. The Scottish Parliament's Energy Committee also found *'no evidence that wind farms have a negative effect on the tourism industry'*. VisitScotland's Position Statement of Wind Farms states that there is a mutually supportive relationship between renewable energy developments and sustainable tourism.

Regional Policy

- 14.4.20 The Highland Economic Forum has created an Action Plan for Economic Development in Highland¹². The main thrust of the Action Plan is to generate new employment in the private sector and social economy to compensate for employment and earnings reductions through national public sector cuts, whose impacts are particularly severe in Highland, which has a relatively high dependence on public sector employment and spending. The principal themes of the Action Plan are:

- To stimulate and support indigenous business growth (including new business formation, diversification, internationalisation and collaborations);
- To help maximise the impacts of the University of the Highlands and Islands (UHI) and attract national and international research funding into the area;
- To ensure that the workforce, sector by sector, has the skills to enable the region and its businesses to capitalise on opportunities;
- To address the growing problem, shared with other parts of the UK, of youth unemployment, and to attract back those with family connections with the region to help fill new job opportunities in renewables, tourism, life sciences and Information Technology;
- To focus on job creation that will help raise the region's relatively low average earnings in the private sector; and
- Whilst creating jobs in the short-term to compensate for public sector cuts and maintain the region's growth momentum, to take a long-term strategic approach to growing the business base and creating career opportunities.

- 14.4.21 Specific initiatives being taken forward by the Forum's Working Groups include:

- Working with Highlands and Island Enterprise (HIE) and the private sector provider to maximise the provision of superfast broadband in the region and the economic benefits from broadband;
- Ensuring that the region's workforce benefits to the maximum from renewable energy and related developments;

¹² Highland Economic Forum (2012) Action Plan for Economic Development in Highland
www.highland.gov.uk/.../1023/action_plan_for_economic_development.pdf

- Fostering the development of research institutes to attract national and international funding into the area, provide well paid employment, and generate commercial spin-offs;
 - Improving the provision of tourism-related training, and promoting tourism and hospitality as a career;
 - Encouraging business development, e.g., through collaborations, that will increase the spend of tourist visitors;
 - Increasing the provision of outsourced services to regional and national organisations by Highland private sector businesses and social enterprises;
 - Facilitating an increase in homeworking opportunities throughout the region;
 - Exploring ways, within statutory guidelines, in which local benefit considerations can be introduced into public procurement contracts;
 - Identifying and supporting small businesses with high growth potential and encouraging new business starts that will create significant new employment (including encouraging public sector staff to consider self-employment that builds on their expertise and experience);
 - Best practice from other areas is being drawn upon in shaping new initiatives, and job creation targets are being developed for each new initiative. Employment measures are being promoted by Highland Works - a partnership between Highland Council, JobCentre Plus and Skills Development Scotland; and
 - Whilst the focus is on the generation of new jobs through the private sector, pressure will be maintained on the Government to improve external road, rail and air links nationally and internationally.
- 14.4.22 THC has developed a new City-Region Deal¹³, vision for Highlands, with the aim of 'Transforming the Highland Economy'. The 'City-Region Deal' is to position the Highlands as a region of digital opportunity. This vision was turned into reality in 2017 when the Inverness and Highland City Region Deal was approved.
- 14.4.23 This formalised the commitment of £315 million worth of funding - £135 million from the Scottish Government, supported by £127 million from THC and its partners, and another £53m from the UK Government. The City-Region Deal is designed to deliver the following outcomes:
- Over 1,000 direct jobs as a result of City-Region Deal projects with a further 2,200 additional jobs in the construction sector;
 - A skilled labour market moving towards a high skilled high wage economy;
 - A centre of excellence in rural and digital healthcare with sufficient mass to attract research and investment and fully exploit the commercial opportunities;
 - Business growth through effective digital connectivity and promotion of innovation;
 - Improved productivity and real wages, which are estimated to increase by almost 1.3 per cent and bring £100 million per annum to the regional economy;

¹³ The Highland Council (2016) Inverness and Highland City-Deal Region <https://www.highland.gov.uk/cityregiondeal>

- A rebalanced population with the aim of retaining and/or attracting 1,500 young people in the 18-29 age group over the initial 10-year deal period;
- 6,000 new houses over 20 years of which 1,800 will be affordable homes; and
- Private sector leverage from housing building and, through opening up land for commercial development, would see a return over a 20-year period of around £800 million being invested in the economy of the city and region.

14.4.24 The Proposed Development has also taken cognisance and been developed in line with THC's Highland Renewable Energy Strategy (HRES) and Planning Guidance¹⁴ which sets out as a vision *'to harness both the energy and economic potential, presented by renewable technologies in the Highland area to provide benefit for both the global environment and local communities'*. The strategy recognises the economic opportunity from moving towards a low carbon economy and the role the renewables sector will play in advancing from depleting oil and gas reserves. As well as highlighting the important environmental role of clean energy, it seeks to maximise the local economic opportunities, and balancing these with social and environmental interests.

14.4.25 In terms of regional tourism policy, The Highland Area Tourism Partnership (ATP) comprises representatives from the tourist industry and key public bodies involved in delivering tourism in the Highlands, including Visit Scotland, THC, HIE, NatureScot, Scottish Forestry, Cairngorms National Park Authority (CNPA) and Hi-Trans.

14.4.26 The Highland ATP developed a Highland Area Tourism Action Plan 2020¹⁵ to replace the previous Area Tourism Strategy. The Action Plan describes some of the key issues that need to be addressed in order to grow tourism in the Highlands, and to contribute to the national vision and aspiration. The overarching vision of growing the visitor economy across the Highlands is for *'The Highlands will be a destination of first choice for a high quality, value for money and memorable customer experience, delivered by skilled and passionate people.'*

14.4.27 The Highlands is recognised as one of Scotland's strongest tourism products and as such can reasonably be expected to equal or exceed the national growth rate if the actions in the strategy and this plan are delivered. Based on the National Strategy the growth ambitions this could mean that the value of tourism could grow from a level of £738m in 2012 to between £900m and £1.07bn by 2020. To unlock this level of growth will require a range of strategic actions to be delivered, and these are structured around the key target markets of:

- Nature, Heritage & Activities;
- Destinations, Towns & Cities;
- Events & Festivals; and
- Business Tourism.

¹⁴ The Highland Council (2006) Highland Renewable Energy Strategy and Planning Guidance
<https://www.scribd.com/document/362925427/Highland-Renewable-Energy-Strategy-and-Planning-Guidelines>

¹⁵ Highland Area Tourism Partnership (2012) Highland Area Tourism Action Plan 2020
<http://scottishtourismalliance.co.uk/uploads/Destinations/Highland%20Tourism%202020%20Summary.pdf>

- 14.4.28 To achieve this growth the Action Plan recognises both the effort and investment by individual businesses across the tourism sector and investment by public sector partners in areas such as infrastructure and services.

14.5 Methodology

- 14.5.1 There are no published standards or technical guidelines that set out a preferred methodology for assessing the likely socio-economic, or tourism impacts of an onshore wind farm proposal. However, there are a series of commonly used methodologies and recognised approaches to quantifying economic impacts both during the construction of a development and following its completion, notably Renewables UK's own economic impact guidance¹⁶ and the VisitScotland's own Position Statement on wind farms¹⁷.
- 14.5.2 In terms of economic impacts, this assessment has employed appraisal techniques consistent with those outlined in the Scottish Enterprise Economic Impact Guidance¹⁸ for the appraisal of economic development and regeneration initiatives. The assessment is also consistent with the latest Scottish Government's Draft Advice Note on Economic Benefit and Planning¹⁹. This socio-economic statement has been commissioned in line with the advice note, it presents the baseline position in socio-economic terms and the predicted outcomes in both employment and GVA terms.
- 14.5.3 The relevant policy context and methods used to assess the impacts are described together with the baseline conditions that would exist in the area in the absence of the Proposed Development.
- 14.5.4 The assessment has contextualised the project both in terms of Scottish and local renewable policy and identified where the Proposed Development fits within policy as well as its contribution to renewable targets.
- 14.5.5 Baseline conditions have been established through desktop studies. Additional information was also obtained via the 2019 Scoping Opinion, as well as the 2020 Scoping Refresh exercise, and by reviewing information regarding local tourism assets, including those assessed in other technical assessments, notably Chapter 7: Landscape and Visual. This includes reference to core paths and wider access network routes, including the known routes and trails and the potential impact of the development on tourism. Information concerning public perception of wind farms has been gathered from relevant studies conducted within GB.
- 14.5.6 The assessment considers potential impacts across the various phases of the wind farm lifecycle, which involves four main phases:
- Development;
 - Construction;
 - Operation and maintenance; and
 - Decommissioning

¹⁶ RenewableUK (2015) Onshore Wind: Direct and Wider Economic Benefits
www.renewableuk.com/resource/resmgr/publications/reports/onshore_economic_benefits_re.pdf

¹⁷ VisitScotland (2014) Position Statement – Wind Farms <https://www.visitscotland.org/binaries/content/assets/dot-org/pdf/policies/visitscotland-position-statement---wind-farms---oct-2014.pdf>

¹⁸ Ibid

¹⁹ Ibid

- 14.5.7 Each phase has the potential to generate impacts at various spatial levels, including local, regional and national economies. Each phase is introduced in more detail in Table 14.2.

Table 14.2: The Proposed Development Components

Phase	Potential Economic Impacts
Development	Including project design, environmental studies, legal agreements, project funding and planning permissions.
Construction	Turbine manufacture; including the tower, blades and internal components; Balance of plant; including activity and supplies required to install completed turbines; and Grid connection; including connection of installed turbines to the electricity grid.
Operation and Maintenance	Turbine maintenance; such as turbines that are operated and maintained by the turbine manufacturer for a warranty period or those maintained by contract or by technicians working for the owner of the wind farm; and Site maintenance; including routine tasks such as maintaining site access tracks and bridges, maintaining drainage ditches and repairing gates and fences.
Decommissioning	There will also be further economic impacts at the decommissioning stage, where sites could either be returned to their original condition or repowered, subject to further application and approval.

- 14.5.8 Economic impacts can be expected during the development, construction, operational and decommissioning phases of the Proposed Development. These impacts will differ in their scale, duration and geographic coverage. However, as the development phase is underway these impacts are not analysed or presented in this chapter. Similarly, the long-term impacts associated with the decommissioning phase are not assessed, due to the age of the industry there is a lack of data and guidance requirements around the decommissioning phase. SPP (para 174) states that proposals to repower existing wind farms located on suitable sites can help maintain or enhance installed capacity, underpinning renewable energy generation targets. Potential impacts are therefore presented for the construction, operation and maintenance phases and these impacts can be split into expenditure, employment and ultimately economic (in terms of GVA) impact.
- 14.5.9 The assessment further describes the commitments made by the Applicant to both minimise the impacts to local residents who may potentially be directly impacted by the Proposed Development as well as identifying the steps taken by the Applicant to bring benefit to the local community.
- 14.5.10 The socio-economic, tourism and recreational potential effects of the Proposed Development on the recreational and tourism asset base are assessed, using the significance criteria outlined in Table 14.3. As there are no published standards or technical guidelines that set out a preferred methodology for assessing the likely socio-economic, recreation or tourism impacts of an onshore wind farm proposal, professional judgement, with reference to commonly used methodologies and recognised approaches to quantifying economic impacts (as noted in Paragraphs 14.5.1 – 14.5.4), is used to determine the significance criteria. Major or moderate effects are defined as significant in In EIA terms.

Table 14.3: 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.

14.6 Baseline

Regional Baseline Profile

- 14.6.1 A headline overview of the regional economy has been completed. This presents an overview of the regional (Highland Council Area) economy and compares it against the Country (Scotland) and National (GB) economic situation. The assessment covers population, economic activity and inactivity, employment and unemployment, worklessness and inactivity, employment sectors, education attainment, earnings and has a particular focus on the tourism sector. The full socio-economic audit is presented in Technical Appendix 14.1.
- 14.6.2 The key regional socio-economic findings found that although economic activity levels are high in the Highlands, and the area has low unemployment rates, the region continues to face a number of economic challenges. The economic successes of low unemployment and high economic activity rates, mask that the area has a low level of working age residents, as a result of an ageing population and population migration amongst young people.
- 14.6.3 The economy is characterised by lower value economic sectors, such as tourism, which although it generates a high volume of employment and has grown in recent years, is generally lower value and seasonal in nature. Wages and salaries are depressed and the recent Highland City-Region Deal has been developed to create higher value jobs and increase real wages. The energy sector is characterised as a high value sector and one which has a heritage and track record in the Highlands, notably around renewable energy, such as hydroelectricity.

- 14.6.4 In the Highlands and Islands in 2016 there were around 25 million trips, generating around £10 billion in expenditure, the sector therefore accounts for around 20% of trips into Scotland and almost 10% of expenditure. The sector accounts for a high volume of tourism but the value is lower.
- 14.6.5 According to Scottish Annual Business Statistics²⁰ the sustainable tourism sector is valued at £3.7 billion in Gross Value Added (GVA) terms, which is 42% greater than the £2.6 billion reported in 2008. The sector employs 184,000 people, which represented 11% of the Scottish workforce, and which is 4% greater than the 176,000 reported in 2008.
- 14.6.6 GVA per employee in the sustainable tourism sector is £19,274, compared to the national GVA per employee across all sectors of £50,163. Although the GVA per employee for the sector is lower than other sectors, tourism represents a key sector in terms of employment.
- 14.6.7 At the Highland Council level, the sustainable tourism sector is valued at £197 million in GVA terms. Over the period from 2008 the sector's GVA therefore increased by 11%. The sector employs 13,100 people in the Highland Council area, which represented an 11% increase on 2008 levels. As witnessed at the national level, the sector has continued to grow over the period from 2008.
- 14.6.8 GVA per employee in the Highlands tourism sector is £20,406, compared to the national GVA per tourism employee of £19,274. The average GVA per employee across all sectors in the Scottish Highlands is £36,325. This indicates that although the tourism sector is important in employment terms, the level of economic output (in GVA per head terms) is not as significant as other key sectors.
- 14.6.9 Tourism is the second largest of the 'Growth Sectors' in employment terms in the Highlands; however, when compared to the other growth sectors the tourism sector generates the lowest level of GVA per employee of the growth sectors. The sector has continued to grow over the eight years, suggesting the sector has not been adversely affected by the growth in renewable energy infrastructure as is sometimes suggested.

Local Baseline Profile

- 14.6.10 A headline overview of the local economy, which is defined as the Caithness and Sutherland area.
- 14.6.11 A review of Highlands and Islands Enterprise's Economic Profile for Caithness and Sutherland has been completed and the following summary of the local area is presented below:
- Total population was 39,732 in 2011, an increase of 3.3% from 2001;
 - A lower employment base per 10,000 adults compared with the Highlands and Islands and Scotland, but evidence of a strong enterprise culture;
 - Compared with the Highlands and Islands and Scotland, a higher share of employment by industry in agriculture, forestry and fishing; mining, quarrying and utilities; and construction;

²⁰ Scottish Government (2015) Scottish Annual Business Statistics <http://www.gov.scot/Topics/Statistics/Browse/Business/SABS/Sectors>

- A higher share of employment by occupation in skilled trades compared to the Highlands and Islands and Scotland;
- Although regional unemployment is below the national unemployment rate, the following figure indicates that regional unemployment has increased from 2.5% to 5.1% over the Covid-19 period from March 2020 to January 2021, this represents an increase of 101% in the number of people out of work and claiming benefits;
- School attainment and school leaver positive destinations rates (i.e. not into unemployment) for the wider Highland Council area are above the Scotland average but below the Highlands and Islands; and
- A larger proportion of the adult population with no formal qualifications compared to the Highlands and Islands and Scotland; and a smaller proportion with degree-level qualifications or above.

- 14.6.12 This Economic Profile summary highlights that the area continues to grow in population terms and is well positioned in terms of jobs in these sectors, however, like the Highlands as a whole, the sector is reliant on a narrow base of primary sectors. HIE recognises the challenge of developing new investments and in helping to grow existing businesses in Caithness and Sutherland. The onset of the COVID-19 pandemic has had a devastating effect on unemployment levels, with these increasing by 101% over the period from March 2020 to January 2021.
- 14.6.13 The Sutherland area has a heritage of renewable energy generation, including a number of SSE projects such as Shin Hydro Scheme, Achany, Strathy North, Strathy South, Gordonbush and Gordonbush Extension Wind Farms. Locally, the energy sector is recognised by HIE as a 'Growth Sector' and one which offers job and contract opportunities for local people, as well as encouraging new people and businesses into the area and supporting wider community development benefits.
- 14.6.14 HIE state *'they will continue to work with our partners in CNSRP (Caithness and North Sutherland Regeneration Partnership) and other key stakeholders, to develop a sustainable economic future post-Dounreay by capitalising on the current and potential energy industry opportunities such as Oil and Gas and Renewables opportunities.'*
- 14.6.15 In terms of the Lairg area itself, which lies at the eastern end of Loch Shin, one of the major attractions in the Lairg area. The Falls of Shin Visitor Centre reopened in 2017 following a £1 million investment. Lairg is recognised as the hub of Sutherland's road network, with roads from north, south, east and west converging on the town. This in itself makes it an ideal base for a touring holiday of Sutherland. There is also a railway station 2.5km to the south of the town.
- 14.6.16 The area also boasts many archaeological sites and the Ferrycroft Countryside Centre on the banks of the loch features a display about the prehistoric settlements and remains as well as offering the more usual tourist information.
- 14.6.17 There are a number of guest houses and bed and breakfasts in the town and there is also self-catering accommodation available, including a caravan and campsite. There is also a post office, bank and a number of shops within the town.
- 14.6.18 Lairg is a popular centre for the outdoor enthusiast with forest walks, mountain bike trails and plenty of opportunities for angling. A review of recreational routes and paths, which help encourage tourism and recreational behaviour in the area has been undertaken as part of the baseline review. This analysis has shown there are no official recreational routes or paths in the vicinity of the Proposed Development. Recreational routes and core

paths in the surrounding area are shown on Figure 14.1. This figure illustrates that although there are no official routes near the Proposed Development, there are a number of core paths, as well as a small section of National Cycle Route 1 (which passes through Lairg), within 5km of the Site. Figure 14.1 also highlights other hill tracks and mountain routes in the wider area, the majority of which are over 10km from the Proposed Development.

- 14.6.19 Overall, the Site is located in a remote area, which is not well-known for walking or rambling, with no official paths, cycle paths or recreation routes. The Site does have recreational value however in its seasonal use for game shooting and fishing. It is known that some of the estate cottages are let out at times for such activities.

14.7 Potential Effects

- 14.7.1 This section sets out the potential socio-economic, recreation and tourism impacts arising from the construction, operation and maintenance of the Proposed Development. The impacts are measured across the construction and operations and maintenance phases of the Proposed Development. The areas of focus are within the Highland local authority area, as well as Scotland as a whole:

- Total levels of investment across the construction (CAPEX) and operations & maintenance (OPEX);
- Direct impacts arising from the investment, in terms of employment and Gross Value Added (GVA) impact;
- Wider economic impacts arising from the direct impacts, using economic multipliers and calculations of employee spend, in terms of employment and GVA; and
- Net economic impact through the sum of the direct and wider impacts.

Construction

Socio-economic Effects

- 14.7.2 Table 14.4 below shows the geographical and contract type distributions of investment into capital expenditure (CAPEX) during the construction phase. In total, it is estimated that approximately £80 million could be invested into the Proposed Development in CAPEX by the Applicant. The construction period is expected to last 18 months, and as such impacts are measured across this time period.

Table 14.4: Construction Phase - Estimated Capital Expenditure (CAPEX)

Geographical Distributions		
	%	£million
Highland	12%	9.60
Scotland	36%	28.80
Total	100%	80
Contract Type Distributions		
	%	£million
Turbine Purchase	64.4%	51.52

Geographical Distributions		
Balance of Plant	28.6%	22.88
Grid Connection	7%	5.60
Total	100.00%	80

14.7.3 It is estimated that around a third of investment into capital expenditure will occur within Scotland (£28.8 million) as a whole, with a third of that figure accruing to the Highland area (9.6 million). The main expenditure during the construction phase is expected to be turbine purchase, with balance of plant (construction works) and grid connection making up a smaller proportion. Each of these are considered in the economic assessment, although it is noted that the grid connection will be a separate consent.

14.7.4 Combining these two different measures of distribution of CAPEX, it can be expected that a smaller level of investment overall will accrue to the Highland region and Scotland. This exact amount however cannot be calculated. The rest of the CAPEX will accrue to the UK and international levels.

14.7.5 The CAPEX will produce direct socio-economic benefits to the Highland local authority area and Scotland in terms of employment and GVA. Table 14.5 shows the predicted direct impacts for both regions. It must be noted that these two amounts cannot be summed, as the direct impacts within the Highland region will form a part of the direct impacts within the whole of Scotland. Employment impacts are shown in job years during the construction phase so as to better illustrate the impact during the relatively short phase of construction relative to operations and maintenance. One job year equals one year of continuous employment.

14.7.6 These impacts do not measure the effects created throughout the entirety of the supply chain associated with the Proposed Development, just the impacts arising from work directly associated with the Proposed Development itself.

Table 14.5: Construction Phase Direct Impacts

	Highland	Scotland
Job Years	74.59	204.73
GVA (£ million)	4.08	11.67

14.7.7 As set out in Table 14.45, around 200 job years, or 20 FTEs²¹, are expected to be created in Scotland during the construction phase, with approximately 75 job years (or 7.0 FTEs) created in the Highland region itself. The Proposed Development could also generate £11.67 million in GVA to Scotland, and £4.08 million to the Highland region.

14.7.8 A large proportion of the direct benefits associated with the Proposed Development are likely to be focused around the construction phase, as this will provide the largest increase in economic activity. The operations and maintenance phase in contrast, while

²¹ It is standard practice in economic impact terms to assume that ten job years are equivalent to one full time equivalent (FTE) post

over a longer period of time, will involve a different type of work and therefore does not offer as many direct economic benefits to Scotland and the Highland region.

- 14.7.9 These direct benefits during the construction phase could offer a significant economic opportunity for local workers, businesses, and supply chains. The extent to which these benefits are captured locally will depend on the suitability of local infrastructure and supply chains to take advantage of the construction work necessary for the Proposed Development.
- 14.7.10 The direct socio-economic impacts will give way to wider economic impacts. This is due to 'ripple' effects created throughout the wider supply chain of the Proposed Development and the local and national economies. There are two separate and distinct measures of wider economic impact used, which are economic multipliers and estimates of employee spend. Both these approaches are separate, and their results should not be combined to give an impression of total impact, as there will be overlap between each measure of impact. Nevertheless, each provides a unique perspective on the wider economic benefits on offer from the Proposed Development.
- 14.7.11 Taking first economic multipliers, they are, in a broad sense, an economic factor which when changed, causes changes in many other related economic variables. This allows for the measurement of the change in final income from any new injection of spending. For example, if a multiplier value is set at 1.5, then £100 of spending will generate £150 in the economy as a whole.
- 14.7.12 There are two different types of multipliers used. Type I multipliers are a sum of the direct and indirect effects arising from a change in output in a particular industry. The indirect effect measures the effects felt throughout the supply chain resulting from the direct effects of a change in output. Type II multipliers are, in turn, the sum of the direct, indirect, and induced effects. The induced effect is the effect of the proportion of income re-spent on final products arising from the change in household expenditure from the direct and indirect effects. Together, these two multipliers provide a comprehensive picture of the total wider economic impact from the Proposed Development.
- 14.7.13 There are separate multipliers available for employment and GVA impacts. The Scottish Government Input-Output Tables are used for the construction stage with reference to SIC codes 41-43 (construction) to represent the types of activities likely to be carried out during this phase. Table 14.6 below shows the predicted wider economic impact from the construction phase using these multipliers. Multipliers are only produced at the Scottish national level, and there are no sub-national figures given for regions such as local authorities. Therefore, all discussion of wider economic impact using this method will be restricted to the Scottish national level.

Table 14.6: Construction Phase Scotland Multiplier Impact

	Type I	Type II	Total
Job Years	102.36	61.42	163.78
GVA (£ million)	7	3.50	10.51

- 14.7.14 The construction phase is predicted to generate roughly 164 job years, or 16.4FTEs, and £10.5 million in GVA resulting from the multipliers' effects. In relation to the direct impact, the employment multipliers represent an 80% increase on the original figure, and the GVA multipliers represent a 90% increase. In essence, the wider economic benefit felt

in Scotland nearly doubles the direct impact. This underscores the valuable economic opportunity from the Proposed Development, both for Scotland and the Highland region.

- 14.7.15 This will provide valuable support to household incomes, businesses, and local supply chains. It is important to note, that the largest individual channel of impact provided will be through the Type I multiplier effect, effects felt down the supply chain. This reinforces the importance of ensuring that local business and supply chains are well poised to capture the wider economic benefits on offer from the Proposed Development.
- 14.7.16 Although the multipliers published by the Scottish Government are only representative of Scotland as a whole, it can be estimated through that half of the multiplier impact within Scotland during the construction phase will be felt within the Highland region. This assumption is in line with economic development impact best practice, and in line with HIE's own impact guidance, in the absence of local economic multipliers in Scotland. As such, this proportion is represented in Table 14.7.

Table 14.7: Construction Phase Highland Multiplier Impact

	Type I	Type II	Total
Job Years	18.64	11.19	29.83
GVA (£ million)	1.84	0.62	2.46

- 14.7.17 As set out in Table 14.7, the residual 50% of the multiplier impact during the construction phase is expected to generate in total 29.83 job years (2.9 FTEs) for the Highland region, and £2.46 million in additional GVA.
- 14.7.18 As mentioned previously, employee spend is an altogether different methodology to that of the multipliers, and it therefore must be kept separate in analysis and discussion. It does however offer a different perspective on the different types of wider economic impact arising from the Proposed Development. Results using this method can be represented at the national and sub-national (local authority) level and can therefore be used to supplement the results gained from multipliers for overall discussion.
- 14.7.19 Employee spend is similar to that of the multipliers in that it represents the additional impact across employment and GVA creation. These impacts are calculated, first, through forming assumptions over the average salary of an onshore wind worker and multiplying that by the numbers of jobs expected to be supported, which is then multiplied again by an assumption of the proportion of employee wages to be spent in Scotland and the Highland region.
- 14.7.20 The proportions of employee spend to be made in Scotland and the highland region are based on professional judgment, and are set at 95% in Scotland, and 50% in the Highland region. These proportions are then used to estimate the wider economic benefits in terms of employment and GVA creation. Table 14.8 shows the predicted wider economic benefits felt during the construction phase as a result of employee spend.

Table 14.8: Construction Phase Employee Spend Impacts

	Highland	Scotland
Total Wages (£ million)	1.29	6.73
Job Years	9.17	47.84

	Highland	Scotland
GVA (£ million)	0.53	2.76

- 14.7.21 Employee spend in the construction phase is expected to give a total wider economic impact in Scotland of £6.73m in wages, almost 50 job years (5.0FTEs), and roughly £2.8m in GVA creation. The Highland region could expect a share of these benefits, equating to £1.29m in wages, almost 10 job years (1FTE) and £0.53 million in GVA creation.
- 14.7.22 Employee spend may include goods and services such as local food and drink, accommodation, work supplies, fuel, and other amenities. This shows, again, the anticipated large scale of wider economic benefit which may be possible as a result of the Proposed Development.
- 14.7.23 Construction is likely to result in a temporary **minor beneficial** and **not significant** effect on the economy in Highland, and a **negligible beneficial** and **not significant** effect on the economy in Scotland.

Recreation and Tourism Effects

- 14.7.24 The Site itself has low recreational and tourism value, as evidenced in Figure 14.1, other than some game shooting activity and fishing through the estates. Such activity could be disrupted by construction activity, however any restrictions would be short-term and temporary. Access will be taken through the existing operational site, which will ensure reuse of existing infrastructure.
- 14.7.25 The landscape and visual assessment detailed in Chapter 7, has predicted that there would be a potential moderate and significant effect on visual amenity for visual receptors on three nearby routes during the construction stage of the Proposed Development, including a minor road, a core path and a localised section of a Scottish Hill track. However, as these construction effects would be short-term and temporary, the overall potential effect of the Proposed Development on recreation and tourism in the study areas during construction is assessed as likely to be **negligible** and therefore **not significant**.

Operation and Maintenance

Socio-economic Effects

- 14.7.26 Table 14.9 shows the anticipated investment in operational expenditure (OPEX) during the operation and maintenance phase of the Proposed Development. All impacts at this phase are represented annually. Given the Applicant is seeking a 50 year consent for the Proposed Development, total net economic impact over the operation and maintenance phase is measured over a 50 year period.

Table 14.9: Annual Operation and Maintenance Phase Expenditure (OPEX)

	Highland	Scotland	Total
%	42	58	100
£ million	2.01	2.78	4.79

- 14.7.27 Unlike the construction phase, the Operations and Maintenance investment breakdown is not as detailed. This is partly due to less intensive economic activity which will take place annually compared to the construction phase and that this information is not

available for the economic modelling. It is anticipated that all annual OPEX will occur within Scotland, with £2.78 million accruing to Scotland and £2.01 million to the Highland region, totalling £4.79 million.

- 14.7.28 The levels of OPEX have been estimated using data from the RenewableUK 2014 study, which details the average costs of onshore wind farm development in the UK. It is estimated that for every MW, £59,867 is spent annually during this phase. Therefore, based on the 80MW capacity of the Proposed Development²², the overall figure of £4.79 million can be estimated. The geographical distribution is also provided through this study.
- 14.7.29 The annual OPEX will produce direct economic benefit to Scotland and the Highland region, in terms of employment and GVA creation. Table 14.10 demonstrates these benefits annually.

Table 14.10: Annual Operation and Maintenance Phase Direct Impacts

	Highland	Scotland
FTE Jobs	18.68	28.47
GVA (£ million)	1.14	1.43

- 14.7.30 As set out in table 14.10, around 30 Full-time equivalent (FTE) jobs are expected to be created annually in Scotland during the operation and maintenance phase, with around 20 being created in the Highland region. The Proposed Development will also generate £1.43 million in GVA annually for Scotland, and £1.14 million for the Highland region. The measure of FTE jobs is used here in contrast to job years during the construction phase, as the operation and maintenance phase will occur over a much longer period of time, therefore the type of employment provided is more akin to full-time, permanent jobs.
- 14.7.31 As mentioned previously, these figures are lower than those expected during the construction phase. This is mostly due to operation and maintenance work being much less economically intensive than the construction phase. Modern onshore wind farms operate with a significant degree of automation, managed through remote control centres. Therefore, this impact will mainly come from any maintenance works required, which may be sporadic, unlike construction where there is a predefined volume of economic activity which is assured to happen.
- 14.7.32 As such, there may also be less opportunities for local workers, businesses, and supply chains. As the work during this phase will largely be done through specialised staff employed by the operator. There may however be local opportunities in regards to site maintenance; including routine tasks such as maintaining site access tracks and bridges, maintaining drainage ditches and repairing gates and fences, which could be carried out by local contractors and businesses.
- 14.7.33 SSE Operations team does carry out some servicing works with locally based SSE staff and also through the original equipment manufacturers (OEMs). The level of local economic opportunities would depend on the works required and the selected turbine supplier. Some of the turbine suppliers have locally based staff to do servicing works, for example,

²² Based on an Enercon E126 EP3 4MW candidate turbine.

Vestas and Siemens. It is worth clarifying that not all servicing and maintenance is brought into the Highlands but there are locally based skilled staff to do such works.

- 14.7.34 As with the construction phase, there will also be wider economic impact arising from the Proposed Development, again measured by using the two separate multiplier and employee spend methods. Different to the construction phase however, the SIC code 33 (repair and maintenance) is used so as to better reflect the nature of the wider economic impact arising from these types of activities. Table 14.11 demonstrates the annual wider economic impact through multipliers for the operation and maintenance phase.

Table 14.11: Annual Operation and Maintenance Phase Multiplier Impact

	Type I	Type II	Total
FTE Jobs	11.39	8.54	19.93
GVA (£ million)	0.43	0.29	0.72

- 14.7.35 The operation and maintenance phase is predicted to annually generate approximately 20 job years and £0.72 million in GVA resulting from the multipliers' effects. In relation to the direct impact, the employment multipliers represent a 71% increase on the original figure, and the GVA multipliers represent a 50% increase. This underscores the valuable economic opportunity anticipated from the Proposed Development, both for Scotland and the Highland region.

- 14.7.36 This will provide valuable support to household incomes, businesses, and local supply chains. The largest individual channel of impact provided will be through the Type I multiplier effect, effects felt down the supply chain. Although the economic activity, annually, at the operation and maintenance phase is less than that of the construction phase, there are tangible local opportunities. For example, if contracted operation and maintenance staff are required to stay within the local area for work, local goods and services such as food and drink and accommodation will be utilised. Additionally, if there is site maintenance work being carried out, local businesses and supply chains could have opportunities in relation to that type of work.

- 14.7.37 Although the multipliers published by the Scottish Government are only representative of Scotland as a whole, it can be estimated that half of the multiplier impact within Scotland during the operation and maintenance phase will be felt within the Highland region. As such, this proportion is represented in Table 14.12.

Table 14.12: Operation and maintenance phase annual Highland multiplier impact

	Type I	Type II	Total
FTE Jobs	3.74	2.8	6.54
GVA (£ million)	0.17	0.12	0.29

- 14.7.38 As shown in Table 14.12, the residual 50% multiplier impact during the operation and maintenance phase is expected to generate, in total, an additional 6.54 FTE jobs for the Highland region, and £0.29 million in additional GVA.

- 14.7.39 Employee spend is a measure also used during the operation and maintenance phase to further represent the wider economic impact arising from the Proposed Development. Table 14.13 demonstrates the annual wider economic impact from this factor.

Table 14.13: Annual Operation and Maintenance Employee Spend Impacts

	Highland	Scotland
Total Wages (£ million)	0.32	0.94
FTE Jobs	2.30	6.65
GVA (£ million)	0.13	0.38

- 14.7.40 Employee spend in the operation and maintenance phase is expected to give a total annual wider economic impact in Scotland of £0.94 million in wages, around 7 FTE jobs, and roughly £0.38 million in GVA creation. The Highland region could realise benefits equating to £0.32million in wages, around 2 FTE jobs and £0.13 million in GVA creation annually.
- 14.7.41 Employee spend may include goods and services such as local food and drink, accommodation, work supplies, fuel, and other amenities. This shows, again, the large scale of wider economic benefit as a result of the Proposed Development.
- 14.7.42 As a 50-year consent period is sought for the Proposed Development, the operation and maintenance impacts are measured over this period as well as annually so as to fully reflect the total net economic impact. The summation of the direct and wider economic impact of the Proposed Development is shown in Table 14.14.

Table 14.14: 50-year operation and maintenance impact

Direct Impacts + Multipliers		
Indicator	Highland	Scotland
Total GVA (£ million)	71.5	90.82
FTE Jobs	1,261	2,420.36
Direct Impacts + Employee Spend		
Indicator	Highland	Scotland
Total GVA (£ million)	120.60	162.44
FTE Jobs	1,982.60	3,180.15

- 14.7.43 Over the 50-year consent period of the Proposed Development, the total net economic impact for direct impacts and multipliers is expected to generate £90.82 million in GVA and 2,420 FTE jobs in Scotland. Taking the residual 50% of the multiplier impact and applying this to the Highland region, in total, an additional £71.5 million in GVA and 1261 FTE jobs would be anticipated. This extensive benefit over the lifespan of the Proposed Development underscores the vast economic opportunity which lies in onshore wind projects at both a national and local level. It should be reiterated that the impacts presented in this section cover the 50 year operational period.

- 14.7.44 Similarly, when considering the direct impacts and employee spend, there is expected to be £162.44 million in GVA accruing to Scotland, of which £120.6 million will be within the Highland region. Also, there is expected to be 3180 FTE jobs supported in Scotland, of which around 1,983 will be within the Highland region.
- 14.7.45 The effect of the Proposed Development's operation on the Highland and Scottish economies was assessed as likely to be **negligible beneficial** and therefore **not significant**. Although this is the manner in which effects are assessed in EIA terms, it should be noted that the actual socio-economic effects will be beneficial for the local and regional areas.

Recreation and Tourism Effects

- 14.7.46 There has been a number of research exercises completed regarding the opinions of tourists towards wind farms. A summary of the most relevant and highly regarded research includes:
- Wind Farm Consumer Research²³;
 - Public Attitudes Tracking Survey²⁴
 - Tourism Impacts of Wind Farms²⁵; and
 - The Economic Impacts of Wind Farms on Scottish Tourism²⁶.
- 14.7.47 Perhaps the most relevant research in Scotland was the 'Tourism Impact of Wind Farms' which was used to inform part of the Scottish Parliament's Economy, Energy and Tourism Committee Inquiry into renewable energy targets²⁷. Inquiry evidence was based presented a review of surveys which appraised the tourist impact of wind farms.
- 14.7.48 The research presented findings from a number of surveys, the review of secondary research suggests that on average around 91.3% of tourists surveyed were not discouraged from visiting an area containing a wind farm, when reviewing more recent and Scottish based results the figure is nearer 95%.
- 14.7.49 Overall, the study concluded, *'the findings from both primary and secondary research relating to the actual and potential tourism impact of wind farms indicate that there will be neither an overall decline in the number of tourists visiting an area nor any overall financial loss in tourism-related earnings as a result of a wind farm development.'*
- 14.7.50 The subsequent report from the Economy, Energy and Tourism Committee presented a number of findings, including the following points in regard to the relationship between renewable energy targets and tourism objectives: *'While some strongly held localised and anecdotal opinion exists, the Committee has seen no empirical evidence which demonstrates that the tourism industry in Scotland will be adversely affected by the wider deployment of renewable energy projects, particularly onshore and offshore wind.'*

²³ VisitScotland (2012) Wind Farm Consumer Research

²⁴ Department of Energy and Climate Change (2012 - 2020) Public Attitudes Tracking Survey
<https://www.gov.uk/government/collections/public-attitudes-tracking-survey>

²⁵ University of Edinburgh (2012) Tourism Impacts of Wind Farms

²⁶ Moffat Centre (2008) The Economic Impacts of Wind Farms on Scottish Tourism

²⁷ Scottish Parliament (2012) Report on the achievability of the Scottish Government's renewable energy targets http://www.scottish.parliament.uk/S4_EconomyEnergyandTourismCommittee/eeR12-07.pdf

- 14.7.51 The report also found: *'Whilst care always needs to be taken in terms of the planning process and decisions on the siting of individual projects in areas popular with tourists and in our rural and wild land areas, no one has provided the Committee with evidence, as opposed to opinion'.*
- 14.7.52 A more recent, and regular, piece of research is issued quarterly by the Department of Energy and Climate Control (DECC), in their 'Public Attitudes Tracker'. In December 2019, this reported that support for renewable energy remained steady at 83%. Levels of support have remained between 74% and 85% since the question was first asked in March 2012. Opposition to renewable energy remained at its lowest point across the tracker at 2%, having previously fluctuated between 3% and 5% between March 2012 and June 2019.
- 14.7.53 Overall, the research completed to date confirms that the tourism sector is not adversely affected by onshore wind farms. In fact, the tourism sector has continued to grow across Scotland as more wind farms have been developed.
- 14.7.54 As presented in the baseline assessment and Figure 14.1, the Site is not a known tourism location or destination, although Lairg, which falls outside the 5km buffer, is a known tourism location with a small number of guest houses, a caravan park (Dunroamin Caravan Park) and a hotel (Lairg Highland Hotel). There are no core paths or national cycle routes in close proximity to the Proposed Development, and the key recreation activities are game shooting and fishing activities. Although it is known there are other recreational interests such as rambling and birdwatching, for example. These activities are seasonal, and it is known that a number of estate cottages are let out for these uses. However, these are not expected to be affected by the Proposed Development once operational, as they were unaffected by the original Achany Wind Farm. Any potential impact would only be short-term and temporary during maintenance activities.
- 14.7.55 The landscape and visual assessment detailed in Chapter 7, has predicted that there would be a potential moderate and significant effect on visual amenity for visual receptors on four nearby routes as a result of the operation of the Proposed Development, including on the A838, a minor road, a core path and a localised section of a Scottish Hill track. However, as research completed to date confirms that the tourism sector is not adversely affected by onshore wind farms, the potential effect of the Proposed Development on recreation and tourism receptors in the study areas during the operation and maintenance phase is therefore assessed as likely to be **negligible** and therefore **not significant**.

14.8 Mitigation

- 14.8.1 This assessment demonstrates that there are notable beneficial, albeit not significant, socio-economic effects across the construction and operational phases of the Proposed Development. For example, the local economy would be supported by the Proposed Development through distribution of community funds and through direct and indirect employment and expenditure opportunities.
- 14.8.2 The Applicant has committed to maximise the economic opportunities for the local area and business and communities in the Highland Council area, where possible. The Applicant, as in other developments and as set out in their corporate communications²⁸,

²⁸ <https://www.sse.com/sustainability/reporting/>

is committed to using local supply chain where feasible and their principal contractors are also encouraged to do the same.

- 14.8.3 The Applicant has a raft of corporate communications which can be reviewed as to the contribution the company makes to the Scottish economy, the value of its onshore wind farms over the period to 2018, its sustainability ethos and track record of developing and delivering on community investment.
- 14.8.4 The Scottish Government has emphasised the importance of communities benefitting from renewable energy generation, including through community funds and shared ownership. As a responsible developer, the applicant aims to maximise the benefits for local communities where possible and has committed to have a Community Fund associated with the development which will provide funding to local communities and community projects. The Applicant is also committed to supporting the Scottish Government's ambitions for shared ownership.
- 14.8.5 It is worth highlighting that SSE recently published a report into the socio-economic of SSE renewables in Sutherland²⁹. This report presents how the Applicant's expenditure on Strathy North, Achany, Gordonbush and Gordonbush Extension onshore wind farms in the Sutherland area of Scotland is expected to be £644 million. These investments by SSE are split between development and construction expenditure (£362m) and expenditure over 25 years of operational life (£282 million). SSE's report found that of the total £644 million investment:
- Highland secured £74 million during the development and construction phases and is expected to secure £127 million (£5 million annually) in operational expenditure contracts - a total of £201 million, which is 31% of total expenditure;
 - Scotland, including Highland, secured £165 million during the development and construction phases and is expected to secure £247 million (£10 million annually) in operational expenditure contracts - a total of £412 million, which is 64% of total expenditure; and
 - The UK, including Scotland, secured £182 million during the development and construction phases and is expected to secure £247 million (£10 million annually) in operational expenditure contracts - a total of £429 million, which is 67% of total expenditure.
- 14.8.6 Over the 25 year lifetime of these four projects, from development to the end of their operational life, £485 million is anticipated to be generated for the UK economy, of which £327 million will be in Scotland. Within Scotland, £131 million is estimated to be added to the Highland economy. The majority of economic contribution is expected to come during the operational phase, driven by the high proportion of this expenditure which is expected to be with Highland, Scotland and UK businesses. 45% of operational expenditure is expected to be with Highland companies and 88% is anticipated to be Scottish companies.
- 14.8.7 As part of the Applicant's commitment to be a responsible developer, many community benefit funds successfully operate on other operational wind farms. Across the UK and Ireland, the Applicant operates 51 funds and has contributed £47.1 million directly to

²⁹ Delivering Investment, Supporting Jobs - Understanding the socio-economic value from SSE Renewables' projects in Sutherland, SSE, April 2021

communities since 2008. In Sutherland, the Applicant operates five funds and follow the Scottish Government Good Practice Principles for Community Benefits from Onshore Renewables. To date, these funds have provided the following:

- £6.9 million donated to support 591 Sutherland projects since 2010; and
- £23.1 million to be invested in Sutherland communities over the wind farms' lifetime.

14.8.8 In terms of recreation and tourism impacts, the impacts of the Proposed Development are assessed to be negligible and not significant in nature, during both construction and operation. Therefore, there is no requirement for mitigation measures in terms of recreation and tourism impacts.

14.8.9 Although potential effects of the Proposed Development on tourism and recreation are assessed to be negligible, it should be noted that the actual socio-economic effects will be beneficial for the local and regional areas.

14.8.10 Investment decisions on existing SSE community funds are made through local groups to ensure that community investment funds are spent on projects which are considered important to local communities, such as tourism and recreation or local education and skills development.

14.9 Construction

Socio-economics Residual Effects

14.9.1 As no specific mitigation measures are proposed in relation to potential socio-economics effects during the construction phase, the residual construction effects of the Proposed Development on the economy are as assessed in Paragraph 14.7.21.

Recreation and Tourism Residual Effects

14.9.2 As no specific mitigation measures are proposed in relation to potential effects on recreation and tourism during construction, the residual construction effects of the Proposed Development on recreation and tourism receptors in the study areas are as assessed in Paragraph 14.7.24.

Operation

Socio-economics Residual Effects

14.9.3 As no specific mitigation measures are proposed in relation to potential socio-economics effects during the operational phase of the Proposed Development, the residual operational effects of the Proposed Development on the economy are as assessed in Paragraph 14.7.38.

Recreation and Tourism Residual Effects

14.9.4 As no specific mitigation measures are proposed in relation to potential effects on recreation and tourism during the operation and maintenance phase of the Proposed Development, the residual operational effects of the Proposed Development on recreation and tourism receptors in the study areas are as assessed in Paragraph 14.7.50.

14.10 Cumulative Effects

- 14.10.1 The series of wind farm and renewable energy investments in the Sutherland area suggests there is a significant economic opportunity in terms of cumulative investment and resultant employment impacts. The addition of the Proposed Development will positively contribute to this and could result in moderate beneficial impacts in terms of job creation and opportunities for local businesses.
- 14.10.2 As the region seeks to recover and grow from the Covid-19 economic downturn, the cumulative impact on the labour market from the current wind farm activity in the area can help support this growth in terms of generating new employment and business opportunities. SSE's existing apprenticeship scheme is a good example of this. Furthermore, adopting a flexible grant funding approach provided further community support to deliver a frontline emergency response throughout the COVID19 pandemic.
- 14.10.3 There may also be beneficial cumulative effects associated with the development of an existing supply chain in Highland, which may increase the impact associated with construction.
- 14.10.4 There are not likely to be any adverse cumulative effects.

14.11 Conclusion

- 14.11.1 This Chapter considers the potential effects on socio-economic activity, recreation and tourism activity during construction and operation of the Proposed Development.
- 14.11.2 As a significant investment (approximately £80 million) in a key economic sector, the Proposed Development supports both pillars of the national economic strategy and each of the broad priority areas set out in the strategy. It will provide contract and employment opportunities for Scottish and Highland based businesses throughout the construction and operational phases.
- 14.11.3 If constructed, the Proposed Development could directly contribute towards the Scottish Government's renewable energy target, to meet an equivalent of 50% demand for electricity from renewable energy by 2030, and by 2050 to have completed decarbonisation of Scotland's energy system.
- 14.11.4 Renewable energy brings competitive advantages and opportunities for economic development within the Highlands and as an opportunity to create employment and attract investment. The construction sector is well represented in the Highlands, suggesting the local area is well positioned to benefit from this aspect of the Proposed Development. This can be further evidenced through other notable capital investments by SSE in the area, including the Gordonbush, Strathy and the original Achany Wind Farms.
- 14.11.5 Tourism as a Growth Sector and the associated economic value has continued to grow over recent times, despite an increasing number of wind farms across the Highlands and locally. The energy sector can support its continued growth, not only in terms of providing increased renewable energy to visitors, but providing financial support through the wind farm community fund to local tourism resources, activities and initiatives. Furthermore, various VisitScotland research outlined in this report indicates there is little evidence that wind farms detract visitors to an area. This is evidenced in their 'Position Statement on

Wind Farms'³⁰, which states they understand and support the drive for renewable energy, and that there is a mutually supportive relationship between renewable energy and sustainable tourism.

- 14.11.6 The Site itself has low recreational and tourism value, other than game shooting activity and fishing on the estates. Potential effects of construction and operation of the Proposed Development on recreational and tourism receptors in the study areas are assessed as **negligible and not significant**.
- 14.11.7 The Applicant anticipates the project investment to be around £80 million. The total value of contracts that could be secured in the Highlands has been estimated as £9.6 million and in Scotland businesses could secure contracts worth £28.8 million.
- 14.11.8 The Proposed Development could support an additional 204.7 job years (equivalent to 20.5 FTEs³¹) Scotland including 74.6 (7.4 FTEs) in the Highlands during the construction phase. In Gross Value Added (GVA) terms the construction phase has the potential to inject £4.1 million into the Highlands economy and £11.7 million to the Scottish economy. The effect of economic multipliers during the construction phase is expected to generate in total 163.8 job years (16.4 FTEs) and £10.51m in GVA in addition to the direct impacts. In the Highland region, the multiplier impact is expected to generate 30 job years (3 FTE jobs) and £2.46 million in GVA. Looking separately at the wider impacts of employee spend, the construction phase is expected to generate 47.84 job years (47.8 FTEs) in Scotland, including 9.17 (9.2 FTEs) in the Highlands, and £2.76 million in GVA in Scotland, including £0.53 million in the Highlands.
- 14.11.9 The operations and maintenance of the Proposed Development could support an additional 28.5 FTE jobs in Scotland annually, of which 18.7 FTE jobs could be in the Highlands. In GVA terms the operational phase has the potential to inject £1.14 million per annum into the Highlands economy annually and £1.43 million to the Scottish economy annually. This excludes the multiplier effect and employee spend which would boost the economy further. The effect of economic multipliers per annum during the operations and maintenance phase is expected to generate 19.93 FTE jobs in Scotland annually, as well as £0.72 million in GVA.
- 14.11.10 The Highland region can also be expected to benefit from the multiplier impact too, with an additional £1.43 million in GVA and 25 FTE jobs annually. Looking separately at the wider impacts of employee spend, the operations and maintenance phase is expected to generate 6.65 FTE jobs in Scotland annually, including 2.30 in the Highlands, and £0.38 million in GVA in Scotland, including £0.13 million in the Highlands.
- 14.11.11 Considering the 50-year consent period of the Proposed Development, there is a greatly increased potential economic benefit. When considering the direct impacts and multipliers, the Proposed Development is expected to generate £90.82 million in GVA for Scotland, and 2,420 FTE jobs, and within the Highland region £71.5 million in GVA and 1,261 FTE jobs. When considering, separately, the direct impacts and multipliers, the Proposed Development is expected to generate £162.44 million in GVA for Scotland, of

³⁰ <https://www.visitscotland.org/binaries/content/assets/dot-org/pdf/policies/visitscotland-position-statement---wind-farms---oct-2014.pdf>

³¹ It is standard practice in economic impact terms to assume that ten job years are equivalent to one full time equivalent (FTE) post

which £120.6 million will be in the Highland region. Also, 3,180 FTE jobs in Scotland, of which around 1,982 FTE jobs will be in the Highland region.

- 14.11.12 Local businesses will have the opportunity to benefit from the contracting requirements to be awarded by the Applicant. These range from civil engineering and ground work contractors, haulage businesses through to suppliers of water, as well as local service-based companies including hotels, restaurants and local shops.
- 14.11.13 There will be a Community Fund associated with the development which will provide funding to local and regional communities and community projects.
- 14.11.14 The Applicant is committed to using local contractors and services where possible and a 'Meet the Buyer' event would take place prior to construction to promote local procurement opportunities and to encourage regional and national firms to apply for opportunities provided by the applicant and other companies in the supply chain.
- 14.11.15 The assessment demonstrates that there are notable beneficial, albeit not significant, socio-economic effects across the construction and operational phases of the Proposed Development. For example, the local economy would be supported by the Proposed Development through distribution of community funds and through direct and indirect employment and expenditure opportunities, including business rates. There may also be beneficial cumulative effects associated with the development, of an existing supply chain in Highland, which may increase the beneficial impacts associated with construction.