atmos CONSULTING

Environmental Impact Assessment Report

Swarclett Wind Farm

Chapter 12: Socio Economics, Tourism and Recreation

Swarclett Wind Energy Limited

wind2

June 2024

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Glossary of Terms

Term	Definition
The Applicant	Swarclett Wind Energy Limited
Environmental Advisors and Planning Consultants	Atmos Consulting Limited
Environmental Impact Assessment	Environmental Impact Assessment (EIA) is a means of carrying out, in a systematic way, an assessment of the likely significant environmental effects from a development.
Environmental Impact Assessment Regulations	The Town and Country Planning (Environmental Impact Assessment) Regulations 2017 (EIA Regulations)
Environmental Impact Assessment Report	A document reporting the findings of the EIA and produced in accordance with the EIA Regulations
The Proposed Development	Swarclett Wind Farm
The Proposed Development Footprint	The area within which the Proposed Development will be located
The Proposed Development Site	The full application boundary, i.e. the red line boundary (Figure 1 Site Location)
The Planning Act	The Town and Country Planning (Scotland) Act 1997 (as amended)

List of Abbreviations

Abbreviation	Description
AGER	Advisory Group on Economic Recovery
agl	Above ground level
ALGAO	Association of Local Government Archaeologists Scotland
ANC	Association of Noise Consultants
BEIS	Department for Business, Energy and Industrial Strategy
BRES	Business Register and Employment Survey
CAR	Controlled Activities (Scotland) Regulations
CCC	Climate Change Committee
CCRA	Climate Change Risk Assessment
CEMP	Construction Environmental Management Plan
CIfA	Chartered Institute for Archaeologist
CMLI	Chartered Member of Landscape Institute
COP	Conference of the Parties
CO2	Carbon dioxide
DBA	Desk-based Assessments
DECC	Department for Energy and Climate Change
EnvCoW/ECoW	Ecological/Environmental Clerk of Works
ECU	Energy Consents Unit
EDAS	Economic Development Association Scotland
EIA	Environmental Impact Assessment
EIAR	Environmental Impact Assessment Report
ESJTP	Energy Strategy and Just Transition Plan
ESRI	Environmental Systems Research Institute

Abbreviation	Description
GHG	Greenhouse Gas
GIS	Geographic Information Systems
GPS	Global Positioning System
GVA	Gross Value Added
HEPS	Historic Environment Policy for Scotland
HER	Historic Environment Record
HES	Historic Environment Scotland
HET	Historic Environment Team
HGV	Heavy Goods Vehicle
HLAMap	Historic Land-use Assessment Map
HVAC	Heating, Ventilation, and Air Conditioning
HWLDP	Highland Wide Local Development Plan
ICOMOS	International Council on Monuments and Sites
IEMA	Institute of Environmental Management and Assessment
IOA	IOA
LDP	LDP
LiDAR	LiDAR
LVIA	LVIA
kV	kV
MW	Mega Watt
NCAP	National Collection of Aerial Photography
NDC	Nationally Determined Contribution
NGR	National Grid Reference
NLS	National Library of Scotland
NNR	National Nature Reserve
NPF	National Performance Framework
NPF4	National Planning Framework 4
NRHE	National Record of the Historic Environment
NRS	National Records for Scotland
NTS	Non-Technical Summary
OS	Ordnance Survey
ONS	Office for National Statistics
OnWPS	Onshore Wind Policy Statement
SAC	SAC
SCADA	SCADA
SES	SES
SIMD	SIMD
SNH	SNH
SPA	SPA
SSSI	SSSI
SuDS	SuDS
THC	The Highland Council
WLA	Wild Land Area
ZTV	Zone of Theoretical Visibility

12 Socio-economics, Tourism and Recreation

12.1 Introduction

This Chapter of the EIA Report assesses the potential socio-economic recreation and tourism effects, both positive and negative, of the Proposed Development on the surrounding area.

The relevant policy context and methods used to assess the potential effects are described together with the baseline conditions that exist in the area in the absence of the Proposed Development. Potential effects of the Proposed Development are discussed, together with possible cumulative effects in combination with other similar developments.

12.2 Legislation, Planning Policy and Guidance

There is no relevant legislation or guidance available on the methods that should be used to assess the socio-economic effects of a proposed onshore wind farm within an EIA.

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/leisure interests. The assessment is based on best practice and draws on experience in assessing the socio-economic, tourism and recreation impacts of onshore wind developments across Scotland.

The following paragraphs summarise relevant policy in relation to socio-economic and tourism effects. Further detail on planning, energy and climate change policy can also be found referenced in EIAR Volume 2 Chapter 4 Planning and Energy Policy.

12.2.1 National Policy

Fourth National Planning Framework (NPF4)

NPF4 was adopted by the Scottish Government (2023) on 13th February 2023. NPF4 is the long-term plan that guides spatial development; specifies national planning policies; designates national developments; and highlights regional spatial priorities.

In addition to setting out an increased emphasis on the 'net zero agenda', NPF4 states that:

> *"Planning will also play a critical role in delivering the National Strategy for Economic Transformation and in community wealth building."*

In relation to the renewable energy sector, NPF4 Policy 11 Energy states that:

> *"…there are also substantial economic opportunities presented by developments in sectors such as renewable energy generation."*

Project design and mitigation for developments in these sectors should address:

> *"public access, including impact on long distance walking and cycling routes and scenic routes".*

The Proposed Development lies within the north area as defined by NPF4 and is described as an area with stunning landscapes, rich biodiversity and cultural heritage. These features help sustain key economic sectors including tourism, food and drink, distilling and clean energy.

It states:

> *"This part of Scotland can continue to make a strong contribution towards meeting our ambition for a net zero and nature positive country by demonstrating how natural assets can be managed and used to secure a more sustainable future.."*

The priorities outlined for this area include:

> *"Protect environmental assets and stimulate investment in natural and engineered solutions to climate change and nature restoration, whilst decarbonising transport and building resilient connections."*
>
> *and*
>
> *"Support local economic development by making sustainable use of the areas' worldclass environmental assets to innovate and lead greener growth.."*

Onshore Wind Policy Statement 2022

The Onshore Wind Policy Statement (OnWPS) 2022 (Scottish Government, 2022) was published on 21st December 2022 and outlines the Scottish Government's ambitions for the Onshore Wind Sector, highlighting how these can be delivered.

The commitment of the Scottish Government to meeting Net Zero targets whilst realising the benefits to local and regional communities is emphasised through the statement that;

> *'The Scottish Government is committed to achieving our climate change targets in a way that maximises the economic and social benefits of a just transition to a net-zero economy."*

The OnWPS details the criteria through which proposals will be evaluated, with a stronger emphasis on the role which wind energy developments can play both in the response to the climate emergency as well as the resulting socio-economic and community benefits, stating that;

> *"The socio-economic benefits of the onshore wind sector in Scotland are widespread, from investment and innovation to skills development and jobs. The latest statistics from the UK Government show that onshore wind in the UK generated £2.4 billion in turnover in 2020 alone."*

The Statement goes on to state that:

> *"...Scotland's available land has a variety of demands that we need to balance if we are to meet our net zero targets. We consider the effect that onshore wind farms can have on local and national tourism as a significant opportunity to cultivate a 'people and place' approach and provide economic opportunities in areas that may otherwise be overlooked. The Scottish Government is keen to see more developments in Scotland with similar recreational or community-based provisions.*

> *There are already many examples of renewable energy schemes boosting tourism across Scotland, be it Whitelee Wind Farm on the outskirts of Glasgow, providing additional outdoor recreational activities on over 130km of tracks; or the Soirbheas Community Group who reinvest revenue from renewable energy schemes into a range of projects to benefit their communities."*

Draft Energy Strategy and Just Transition Plan

The Draft Energy Strategy and Just Transition Plan (ESJTP) was published on 10th January 2023 (Scottish Government, 2023a). The Scottish Government's key ambitions for Scotland's energy future are detailed, as well as "*proposing a vision for a just energy transition*" which provides socioeconomic benefits whilst protecting the environment and providing energy security.

Expanding on the communities and places which can benefit from the net zero energy transition is identified as a key action, with the Scottish Government stating that they are:

> *"…taking forward research into how to accrue maximum economic benefits to Scotland's households, communities and our economy at regional/local and national levels from Scotland's anticipated surplus low carbon energy."*

The draft ESJPT emphasises the Scottish Government's focus on "*collaboration between people from all parts of Scotland and all walks of life",* ensuring that workers, businesses, communities and consumers have all played a key part in forming the draft through early codesign.

Draft Advice on Net Economic Benefit and Planning

The Draft Advice on Net Economic Benefit and Planning (Scottish Government, 2016) 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.

The meaning of 'net economic benefit' is described as the difference between the estimated economic position where the development proceeds and the position if the proposal does not go ahead.

Advice is provided on the methodology to be used when modelling economic benefits and acknowledges that;

> *"…assessing the additional benefit from a proposal will usually involve making some assumptions and is therefore not an exact science. It is important that the level of detail of any assessment is kept proportionate to the likely scale of the net economic benefit, and that assumptions made are completely transparent, evidence-based and as accurate as possible".*

National Performance Framework

Scotland's National Performance Framework, first published in 2018, sets out the ambitions of the Scottish Government to provide a vision for national wellbeing across a range of economic, social and environmental factors (Scottish Government, 2018).

The framework includes 'increased well-being' as part of its purpose and combines measurement of how well Scotland is doing in economic terms with a broader range of well-being measures.

The National Performance Framework is designed to give a more rounded view of economic performance and progress towards achieving sustainable and inclusive economic growth and well-being across Scotland. The stated aims for Scotland are to:

- Create a more successful country;
- Give opportunities to all people living in Scotland;
- Increase the well-being of people living in Scotland;
- Create sustainable and inclusive growth; and
- Reduce inequalities and give equal importance to economic, environmental and social progress.

The National Performance Framework sets out and reports against outcomes and indicators which illustrate the progress Scotland is making in achieving these aims. The Proposed Development has potential to support the achievement of the national outcomes, making a contribution to advancing the development of a competitive, inclusive and sustainable economy in Scotland.

Scotland's National Strategy for Economic Transformation 2022

This is the Scottish Government (2022b) statement of ambition for economic recovery following the COVID-19 pandemic.

It identifies the next ten years as a time of; "*...extraordinary opportunity...*" and promotes Scotland as a nation with competitive advantages in the new industries generated by technological change, scientific advance and our response to the climate and nature crises.

The strategy focuses on five policy programmes with the greatest potential benefit, including to; "*...strengthen Scotland's position in new markets and industries, generating new, well-paid jobs from a just transition to net zero.*"

The transition to net zero is seen not just an environmental imperative but an economic opportunity, one where Scotland will become world leading. The identified opportunities for this competitive advantage include the construction and development of on- and off-shore energy generating technologies.

Fuel Poverty and Cost of Living Crisis

The 2019 Scottish House Condition Survey (Scottish Government, 2019b) identified that in 2019, 24.6% of all households in Scotland were in fuel poverty which is defined as at least 10% of income is spent on heating. In the same year, 12.4% were in extreme fuel poverty. Between 2018 and 2019, fuel poverty increased in remote rural areas from 33% up to 43%.

Since 2019, there have been considerable surges in the costs associated with heating and power, which is expected to increase the proportion of the population in fuel poverty.

A recent Scottish Parliament statement provided an estimate of the increased number of households in fuel poverty:

> *"This modelling estimates that from October 2022 there are around 860,000 households (35%) in fuel poverty in Scotland. This is an increase of 247,000 households or around 10 percentage points from the latest available 2019 SHCS statistics, which showed 613,000 households in fuel poverty (25%). With the increase in the Energy Price Guarantee to £3,000 in April 2023 we estimate that*

> *around 980,000 households (39%) in Scotland will be in fuel poverty. While these modelled estimates are not available at Local Authority level, the large increases in the fuel poverty rate will be reflected across each Local Authority in Scotland."(Scottish Parliament, 2023)*

There is a drive to reduce UK dependence on fossil fuels and boost the sources of green energy for better energy security in the long-term which is set out within the British Energy Security Strategy (Department for Energy Security and Net Zero, 2022).

Renewable Energy and Economic Recovery

Prior to the Covid-19 pandemic, the growth of the renewable energy sector was a priority for the Scottish Government in both the transition to a net zero economy and the growth of the Scottish economy. As the Government works to recover from the pandemic, the importance of the renewable energy sector as a driver of growth remains.

In 2020, the Advisory Group on Economic Recovery (AGER) to the Scottish Government, published a report outlining recommendations on how Scotland could best recover following the Covid-19 pandemic (AGER, 2020).

The report highlighted four significant areas of focus: Business; education and skills; equalities; and the environment.

Recommendations included the prioritisation and delivery of green investment, enabling the creation of a more circular economy which would reduce negative impacts on the environment while leveraging Scotland's natural advantages, such as the availability of renewable energy from wind, wave and tidal power.

In the response published by the Scottish Government, it outlines how it intends to apply the AGER's recommendations, supporting a recovery from the pandemic which supports Scotland's economy and develops the transition to an economy which meets environment objectives (Scottish Government, 2020a).

The actions the Scottish Government are taking is divided across six main themes to secure a jobs-focused and socially-just economic recovery, these being:

- Protecting jobs by supporting business recovery and sustainable, green growth;
- Creating jobs through business engagement and a partnership approach;
- Supporting access to good quality jobs through employment, skills and training;
- Boosting local job creation through resilient people, communities and places;
- Creating jobs and a just transition through investment-led sustainable growth; and
- Monitoring our progress and outcomes.

It is noted in the plan that 'better planning and regulation' is required to support the economic recovery. The plan recognises that planning and regulatory systems will be crucial in supporting investment and growth as part of the economic recovery, while maintaining high standards.

The Scottish Government is currently taking forward the changes introduced by the Planning (Scotland) Act 2019 (Scottish Government 2019c). This focus on implementation of the changes already introduced alongside improved practice, is seen as the most immediate way of improving the planning service and ensuring that it supports recovery effectively.

In the case of the Proposed Development Site, planning policy is already supportive of the principle of development.

A recent study by Vivid Economics, on behalf of RenewableUK (2019) estimates that by deploying 35GW of onshore wind by 2035 electricity costs could be decreased by 7% and would support 31,000 direct and indirect jobs.

Furthermore, the study recognises that the local authorities in which onshore wind employment is likely to be located are those in most need of high-paying jobs, with Scotland emphasised as a region which is likely to see sizeable employment benefits by 2035.

Climate Change Plan Update - Economic Impact of COVID-19 Recovery

The COVID-19 Pandemic had a major impact on the local, regional and national economy and has resulted some significant longer-term structural economic changes.

The need for policies to promote economic recovery will therefore need to take account of specific needs of areas where the economy has been affected, as well as local opportunities for recovery.

In December 2020, the Scottish Government(2020a) published an update to its 2018-2032 Climate Change Plan to set out its pathway to the new targets set in the Climate Change Act 2019.

The strategic document, which outlines plans for Scotland's green recovery from the Covid-19 pandemic, demonstrates the commitment to a recovery which develops the transition to a carbon neutral economy.

Regional Policy

Action Plan for Economic Development in Highlands

The Highland Economic Forum has created an Action Plan for Economic Development in Highland (Highland Economic Forum, 2012).

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.

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;
- 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, which 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. Highlands and Islands Enterprise (HIE) which covers The Highland Council Area, works to advance the development of sustainable and inclusive economic growth in the Highlands and Islands region.

Inverness and Highland City Deal

The Highland Council (THC) has developed a new City-Region Deal vision for Highlands, with the aim of 'Transforming the Highland Economy' (The Highland Council, 2016). 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.

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%and bring £100 million per annum to the regional economy;
- 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.

Highland and Islands 2023 – 2028 Strategy

Highlands and Islands Enterprise's (HIE) 2023-2028 Strategy (Highlands and Islands Enterprise, 2023) sets out a vision for the region to be *"a leading net zero region with a dynamic wellbeing economy, which benefits its growing population and makes a valued contribution to Scotland"*.

Four crosscutting themes are stated, People, Place, Planet and Prosperity with Renewable Energy Development identified as a regional transformational opportunity under the theme of Planet.

The strategic objectives of the Planet theme offer strong support to the development of renewable energy, stating that:

> *"The region is increasingly recognised and valued as an international exemplar for renewable energy and low carbon innovation"*.

Opportunities for socio-economic benefits which such development can offer the region are also referred to, recognising that:

> *"The value and opportunity offered by the region's natural resources are understood and are a catalyst for social and financial investment"*.

The aspiration to be at the forefront of the transition to net zero is clear within the HIE 2023-2023 Strategy with it recognised that:

> *"The region and its communities have embraced and accelerated the just transition to net zero and are increasingly resilient"*.

Tourism Policy Context

In terms of relevant tourism policy, the Scottish Tourism Alliance developed The National Tourism Strategy 2030 'Scotland Outlook 2030' (Scottish Tourism Alliance, 2020) which confirms the importance of tourism to Scotland's economy and emphasises the resilience of the tourism industry since the start of the Covid-19 pandemic in 2020.

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.

The vision is 'Together we will grow the value and positively enhance the benefits of tourism across Scotland by delivering the very best for our visitors, our businesses, our people, our communities and our environment'.

As stated in VisitScotland's Position Statement on Wind Farms (VisitScotland, 2014), they are not a statutory consultee. 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.

VisitScotland's Position Statement of Wind Farms states that there is a mutually supportive relationship between renewable energy developments and sustainable tourism.

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' (*VisitScotland, 2014, pg. 2).

Scotland Outlook 2030 (Scottish Tourism Alliance, 2020) has been developed by Scottish Tourism Alliance, the Scottish Government, VisitScotland, Scottish Enterprise, Highlands and Islands Enterprise, and Skills Development Scotland. Over 2500 tourism leaders and stakeholders from the Scottish tourism industry have contributed to its development.

The four key priorities of Scotland Outlook 2030 are:

> *"Our Passionate People - We will attract, develop and retain a skilled, committed, diverse and valued workforce;*
>
> *Our Thriving Places - We will create and develop a sustainable destination together;*
>
> *Our Memorable Experiences – We will provide the very best, authentic and memorable experiences; and*
>
> *Our Diverse Businesses – We will build business resilience, sustainability and profitability."*

12.2.2 Assessment Methodology

The methods applied within this assessment are based on established best practice, including methods from UK Government and industry reports.

The assessment has employed appraisal techniques consistent with environmental impact guidance published by the Institute of Environmental Management and Assessment (IEMA, 2009) and draws on analysis and assumptions in research published by Renewable UK in 2015, Onshore Wind: Economic Impacts in 2014 (RenewableUK, 2015).

Consideration has been given to the 2019 RenewableUK Report 'Quantifying the benefits of onshore wind to the UK (RenewableUK, 2019) in consideration of the wider economic benefit.

NatureScot has provided guidance on assessment of effects from wind farms on recreational amenity (NatureScot, 2018). This guidance has also been used to inform the approach.

The methodology adopted in this assessment has involved the following key stages:

- Consideration of the relevant baseline;
- Review of the Proposed Development for potential impacts;
- Evaluation of significance;
- Identification of mitigation measures, where required; and
- Assessment of residual impacts.

The scale of significance described below has been used to assess the potential and residual impacts of the Proposed Development against baseline conditions. The assessment process aims to be objective and quantifies impact as far as possible; however, some impacts can only be evaluated on a qualitative basis:

- **Negligible or No effect**: Either no change or no detectable change to a location, environment or sensitive receptor;
- **Minor**: A detectable but non-material change to a location, environment or sensitive receptor;
- **Moderate**: A material, but non-fundamental change to a location, environment or sensitive receptor; and
- **Major**: A fundamental change to a location, environment or sensitive receptor or in breach of recognised legislation, policy or standards.

In assessing significance, consideration is given to the National, regional and local baseline situation. The magnitude of the effect is determined in proportion to the area of effect relevant to each receptor. For the purpose of the assessment, a moderate or major effect is deemed to be 'significant' in terms of the EIA Regulations.

In terms of socio-economic factors, potential effects would be significant if the Proposed Development resulted in fundamental or material changes in population, structure of the local community or local economic activity.

The effect of the Proposed Development on tourism and recreation is closely related to public attitudes to wind farms, however, a negative opinion does not necessarily result in a material change in recreational patterns. The relevant conclusions from the most recent studies are discussed later in this Chapter.

The research analysis used in the methodology (Renewable UK, 2015) considers economic effects of onshore wind development only, therefore the assessment has been undertaken based on the indicative generating capacity of the wind turbines on the Proposed Development.

Spatial Scope

The spatial scope of the assessment of socio-economic effects is represented by the study areas of THC and Scotland. Effects on tourism and recreation extend to the area in the vicinity of the Proposed Development Site.

Temporal Scope

The temporal scope of the socio-economic assessment is during the following phases:

- Development; Project Development, Legal and Financial, planning and Environmental Impact Assessment costs;
- Construction; and

- Operational and maintenance.

Unless stated otherwise, tourism and recreation effects are considered based on the operational phase of the Proposed Development. Development and construction effects are scoped out of the assessment.

Effects associated with the construction phase of the Proposed Development are considered to be temporary and short-term. Effects associated with the operational phase of the Proposed Development are considered as long-term.

The Proposed Development could also have an effect on socioeconomics, tourism and recreation during the decommissioning phase. Due to the relatively young age of the industry, there is a lack of data around the potential economic impact of the decommissioning phase.

Very few onshore wind projects to date have been fully decommissioned in the UK and, as a result, there is minimal data regarding the economic costs and impacts associated with this phase.

It is also difficult to predict what local economic conditions would be at the time of decommissioning (up to 40 years in the future) therefore arriving at evidence-based and accurate assumptions as recommended in guidance (Scottish Government, 2016) is not realistic.

There is also evidence to suggest that in the long run wind farms are more likely to be re-powered rather than decommissioned. Should full decommissioning take place the effects are likely to be short term and similar in nature but substantially lesser than construction effects.

For these reasons, the potential effects associated with the decommissioning phase are not assessed further in this Chapter.

12.3 Baseline Conditions

12.3.1 Desk Based Research and Data Sources

A desk-based review of publicly available information has been undertaken to identify the key characteristics of the local economy, existing land use and tourism and recreational facilities in the Highland Council. Sources include:

- Office for National Statistics (ONS), 2021;
- National Records of Scotland (NRS), (2022);
- Scottish Index of Multiple Deprivation (SIMD) (2021); and
- Department for Business, Energy and Industrial Strategy (BEIS) Public Attitudes Tracker: Energy Infrastructure and Energy Sources, Spring 2022;

The baseline socio-economic profile of the study area covers the aspects of:

- Population;
- Economic activity and employment;
- Deprivation; and
- Tourism and recreation.

12.3.2 Population

In 2021, the Highland area had a population of 238,060, accounting for 5.9% of Scotland's total 2021 population (NRS, 2022). Table 12-1, Population Structure, illustrates that the population of the Highland council is similar to that of the national population.

The region has a similar average share of the population younger than 16 (16% compared to 16.6%) and slightly lower percentage of people of working age (62.2 % compared to 65%).

Table 12-1: Population Structure

	Highland	Scotland
Total Population	238,060	5,479,900
% under 16	16%	16.6 %
% of working age (16 to 64)	62.2%	65%
% of pensionable age (65 and over)	21.8%	18.4%

Source: National Records of Scotland (2022). Population percentages were rounded to one decimal point.

Future Baseline

During the construction and operation period of the Proposed Development the population of the study areas is expected to change.

Population projections shown in Table 12-2 produced by National Records of Scotland (2020) anticipate that the population of the Highland Council will total 235,783 by 2033, which is decrease of 1% from 2018 (National Records of Scotland, 2020a). In contrast, the population of Scotland is anticipated to grow by approximately 1.5% to 5,562,901 during this time.

The proportion of the projected population in 2033 expected to be of working and of pensionable ages in the Highland Council area are 60.1% and 25.6% compared to Scotland at 63.7% and 21.2% respectively.

Table 12-2: Population Projections – 2033

	Highland	Scotland
Total Population	235,783	5,562,901
% under 16	14.3%	15%
% of working age(16 to 64)	60.1%	63.7%
% of pensionable age(65 and over)	25.6%	21.2%

Source: National Records of Scotland (2021).

12.3.3 Economic Activity and Employment

As shown in Table 12-3, the economic activity rate for Highland is in line with that of the national average at 75.5% compared to the Scottish average of 77.4% (ONS, 2023). Highland has a lower-than-average unemployment rate, at 2.7% compared to 3.2% (ONS, 2022a).

Wages in the region are slightly higher, with full-time working residents of Highland typically making a median weekly gross wage of £635.00, compared to the Scottish average of £640.30 (ONS, 2022b).

Table 12-3: Employment and Unemployment (October 2023)

	Highland	Scotland
Economically Activity (% of 16-64 year old population)*	75.5%	77.4%
Economic Inactivity Rate**	24.5%	22.6%
Employment rate**	73%	74.8%
Unemployed**	2.7%	3.2%
Median Weekly Gross Income (£)***	635.00	640.30

Source: *ONS (2023), **ONS (2022a), ONS (2022b)

The Highland region has a higher rate of economic inactivity than Scotland. The ONS (2022b) Labour market indicators for local authorities, unitary authorities, counties and regions in Great Britain indicates that 24.5% of people aged 16 to 64, (of working age) are economically inactive compared to 22.6% of those in Scotland.

Employment by Occupation

In terms of the nature of employment in the Highland Council, Table 12-4 shows that in 2022 the region had an above average proportion of the workforce employed in the Human Health and Social Work Activities, accounting for approximately 17.1% of the population compared to the 15.7% it accounts for across Scotland as a whole (ONS, 2023).

The region also has an above average share of employees working in the construction sector, accounting for approximately 7.2% of the workforce. This is equivalent to approximately 8000 jobs. The construction sector is an area of employment that would be positively impacted by the Proposed Development should local workers and suppliers be utilised in the construction phase.

Employment in the Financial and Insurance Activities sector accounts for a lesser share of the workforce than for Scotland as a whole, with 0.8% of the population employed in Highland in contrast to the 3.3% of the population of Scotland.

Table 12-4: Jobs by Industry

	Highland	Scotland
Human Health and Social Work Activities	17.1%	15.7%
Wholesale and Retail Trade; repair of Motor Vehicles and Motorcycles	14.4%	12.9%
Accommodation And Food Services	13.5%	8.4%
Education	8.1%	8.8%
Construction	7.2%	5.7%
Manufacturing	5.4%	6.9%
Administrative and Support Service Activities	5.4%	8.1%
Public Administration And Defence; Compulsory Social Security	5.4%	6.5%
Professional, Scientific and Technical Activities	5.4%	7.4%
Transportation and Storage	4.1%	4.1%
Arts, entertainment, recreation	3.6%	3%

	Highland	Scotland
Information and Communication	2.3%	3.2%
Water Supply, Sewerage, Waste Management, and Remediation Activities	2.0%	0.7%
Other Service Activities	1.4%	1.6%
Real Estate Activities	1.4%	1.3%
Electricity, Gas, Steam and Air Conditioning Supply	0.9%	0.8%
Financial and Insurance Activities	0.8%	3.3%
Mining and Quarrying	0.4%	1%

Source: ONS (2022c).

12.3.4 Deprivation

The Scottish Index of Multiple Deprivation (SIMD) is a relative measure of deprivation which ranks each small area of Scotland in terms of deprivation across the domains of income, employment, education, health, access to services, crime and housing.

These areas can be ranked by quintiles (one fifth shares), with a small area in the first quintile being in the 20% most deprived areas in Scotland.

There are 312 small areas in the Highland Council Area, of which 9.6 % are ranked in the most deprived quintile and 7.4% of are ranked in the country's least deprived (Scottish Government, 2020b). As shown in Table 12-5, the majority of households in THC are ranked in the 3rd quintile, accounting for 35.6% of small areas in the region.

This suggests that the region, as a whole, is neither overly deprived nor overly affluent in regard to the domains considered in the analysis.

Table 12-5: Scottish Index of Multiple Deprivation by Quintile, 2020

	Highland
1 (Most Deprived Quintile)	9.6%
2	17.3%
3	35.6%
4	30.1%
5 (Least Deprived Quintile)	7.4%

Source: Scottish Government (2020b).

Fuel poverty represents household deprivation in terms of the proportion of income a household spends on fuel; when this is more than 10%, a household is said to be in fuel poverty.

The Scottish House Condition Survey 2017-2019 (Scottish Government 2021a) indicates that the Highland region has been identified as having a significantly higher fuel poverty rate than the national average. 33% of households in the Highland region are classified as being in fuel poverty compared to 24% of household in Scotland.

Extreme fuel poverty is defined as a household that would have to spend more than 20% of its adjusted net income on total fuel costs to maintain a satisfactory heating regime. Extreme fuel poverty in the Highlands is 22% compared to the Scottish rate of 12% (Scottish Government 2021a). These figures were produced before 2021 and therefore do not account for the more recent increases in domestic energy prices.

12.3.5 Tourism and Recreation Indicators

Tourism and recreation are substantial contributors to the economy of rural Scotland. Benefits include cash flows into a range of businesses, extending beyond accommodation, restaurants and visitor attractions.

Taxis and public transport, village shops, craft workers and country estates are among the list of those receiving direct business. Local trades are also boosted through purchases by businesses and improvements to premises stimulated by tourism.

In 2021, the sustainable tourism sector in the Highlands accounted for 15,000 jobs and accounted for £278 million GVA as shown in Table 12-6 (Scottish Government (2021b). This represented 7.5% of Scotland's total employment in the sector and 8.3% of the country's total GVA generated by the sector.

Table 12-6: GVA and Employment in the Sustainable Tourism Sector

	Highland	Scotland
GVA (£ million)	278	3,365.8
Employment (jobs)	15,000	201,100

Source: Scottish Government (2021b)

Local Attractions

The far North in the Highlands has a rich and diverse range of attractions, famous for picturesque walking and driving routes, and links to the islands.

In 2019 the Highlands accounted for 13% of all international trips and 8% of the total overseas spend in Scotland (Table 12-7) (Visit Scotland, 2020a; 2020b).

Table 12-7: International Tourism Performance in 2019

	Highland	Scotland
Visits	459,000*	3,460,000**
Spend (£)	202*	2,538**
Nights	2,029,000*	27,385,000**

Source: VisitScotland 2020a*; 2020b**

The most visited tourist attractions in Highland are displayed in Table 12-8, alongside the approximate distance from the Proposed Development.

Table 12-8: Most visited tourist attractions

Attraction	Number of Visitors (2019)	Approx. driving distance from the Proposed Development
Urquhart Castle	547,518	121 miles
Glenfinnan Monument	462,235	182 miles
Glencoe Visitor Centre	436,924	186 miles
Glenmore Forest Park	427,791	145 miles
Loch Ness by Jacobite	321,980	118 miles

The towns and villages near the Proposed Development are not likely to receive significant footfall from tourists visiting these popular attractions.

Visitor Attractions within 20km of the Proposed Development include:

- The village of John o' Groats, 16.3km from the Proposed Development. Offering accommodation and attractions such as ferries for wildlife watching and trips to Orkney. The key attraction is the signpost at the most northerly village on the British mainland;
- The Castle and Gardens of Mey, 15km north of the Proposed Development, offers panoramic views of the Pentland Firth and the Orkney Islands;
- Dunnet beach and Dunnet head are 6.2km and 11.9km from the Proposed Development respectively. Dunnet head is the most Northern point of Scotland and is a Nature Reserve; and
- The Town of Thurso, approximately 6.5km from the Proposed Development has several B&B and self-catering accommodations.

Recreational Paths and Trails

There are no core paths in the vicinity of the Proposed Development, and none within the Proposed Development Site boundary.

The closest long distance walking route is the John o' Groats Trail which at its closest point is 8.2 miles to the east of the Proposed Development Site.

As such, recreational paths and trails are not considered further in this assessment.

Tourism Routes

The NC500 is located approximately 4.8km from the nearest proposed turbine. The NC500 is described as one of the world's best and most beautiful road trips comprising of a route which spans approximately 516 miles around the north coast of Scotland starting and finishing in Inverness (North Coast 500, 2023).

The route was established in 2014 and officially launched in June 2015 and has helped to increase visitor numbers to the north of Scotland. Table 12-9 illustrates the findings of the North Coast 500 Economic Baseline Study (HIE, 2017) and indicates that since the launch of the NC500, the Thurso Visit Scotland Information centre (i-centre) experienced the greatest increase in visitor numbers, +5% in 2014-15 and +34% in 2015-2016.

Table 12-9: Visit Scotland i-Centre Visitor Data

				% Change	
	2014	2015	2016	2014-15	2015-16
Durness i-centre	26,892	26,366	33,765	-2	28
Lochinver i-centre	19,367	15,997	15,865	-17	-1
Thurso i-centre	18,421	19,317	25,807	5	34
Ullapool i-centre	34,161	31,759	41,832	-7	32
NC500 Total	98,841	93,439	117,269	-5	26
Highlands i-centres	732,915	743,915	789,828	2	6
Scotland i-centres	3,330,420	3,137,516	3,099,245	-6	-1

Visitor numbers suggest that the NC500 is increasingly important to the Highland economy. Within year 1 of opening, it is estimated that of the total visitor spend in the North Highlands in 2015 of £92 million, the NC500 has generated around £9 million additional visitor spend. Additionally, research by the Moffat Centre for Travel and

Tourism Business Development (2019) indicates that in 2018, the NC500 generated an additional £13.46 m in sales for businesses on or near the route. During this period both the quality and room occupancy in the accommodation sector increased from; 52% (2014) to 78% (2018), with similar growth evident in average room rates achieved; £46 (2014) to £82 (2018).

12.4 Assessment of Effects

12.4.1 Socio-economic Effects

Capital and Operational Expenditure (spend)

The assessment of the generation of employment opportunities, and Gross Value Added (GVA) has been undertaken based on the Renewable UK research, (RenewableUK, 2015). The capital and operational expenditure (spend) for the Proposed Development have been estimated using the methodology in this research (RenewableUK, 2015).

It is acknowledged that a number of factors both economic and technical may have changed since this research was completed, accordingly the figures produced through this assessment should be treated as indicative.

Table 12-10 provides a summary of average spend per MW installed for each of the development, construction and operational phases of UK wind farms, drawn from the research study.

Table 12-10: Weighted Average Spend per MW on Windfarms in the UK

Project phase	Weighted Spend per MW
Development	£150,216
Construction	£1,318,875
Operation	£59,867

Source: Renewable UK (2015)

Predicted Development Phase Effects

The average weighted spend in the UK during the development phase of a wind farm is £150,216 per MW (RenewableUK, 2015).

Applying these assumptions to the Proposed Development with an indicative maximum generating capacity of 9.6MW, results in an estimated total spend of £1,442,073 during the development phase (the stage, prior to construction, during which proposals are developed and environmental assessments undertaken).

On average 13% of this is generally spent in the local area, with 59% spent within Scotland and overall, the majority (98%) of spend is retained within the UK. Table 12-11 summarises the estimated spend during the development phase for the Proposed Development across each area.

Table 12-11: Weighted Average Development Spend by the Proposed Development

Area	Weighted Spend (£)	Percentage (%) of Spend
Highland	£189,878.40	13%
Scotland	£846,652.80	59%

Area	Weighted Spend (£)	Percentage (%) of Spend
UK Total	£1,419,504.00	98%
Outside UK	£22,569.60	2%
Total	**£1,442,073**	**100%**

Source: Renewable UK, 2015

The RenewableUK research indicates that there is one employee for every £103,036 and a GVA rate of 0.67. On this basis, it is estimated that up to 14 FTE jobs are to be generated during the development phase (with a total GVA of over £960,000).

Within the Highlands region, up to 2 jobs are estimated to be generated as a result of the Proposed Development and a GVA of over £126,000. Within Scotland, the Proposed Development is expected to generate up to 8 jobs during this phase and a GVA of over £560,000. Table 12-12 summarises the estimated jobs and GVA likely to be generated by the Proposed Development during the development phase.

Table 12-12: Turnover and GVA - Development Phase

Area	Estimated spend (£)	Estimated Jobs Generated (Rounded Down)	GVA (£)
Highland	£189,878.40	Up to 2	£126,459
Scotland	£846,652.80	Up to 8	£563,871
UK	£1,419,504.00	Up to 13	£945,390
Outside UK	£22,569.60	Less than 1	£15,031
Total	**£1,442,073**	**Up to 13**	**£960,421**

Source: Renewable UK, 2015

The predicted level of effect from the development phase, in spend, employment and GVA terms, is considered to be negligible to Minor Beneficial in the context of the local economy and negligible but positive nevertheless on the national economy.

Predicated Construction Phase Effects

The average weighted spend during the construction phase of a UK wind farm is £1,318,875 per MW (RenewableUK, 2015).

Applying this assumption to the Proposed Development with a potential maximum generating capacity of 9.6MW, results in a total spend of £12,661,200 during the construction phase. As shown in Table 12-13, over £5.5 million is estimated to be spent in Scotland and over £6 million in the Highlands region.

Table 12-13: Weighted Average Construction Spend by the Proposed Development

Area	Weighted Spend (£)	Percentage (%) of Spend
Highland	£1,521,610	12%
Scotland	£4,609,747	36%
UK	£5,887,795	47%
Outside UK	£6,773,405	53%
Total	**£12,661,200**	**100%**

Source: Renewable UK, 2015

Research undertaken by RenewableUK indicates that there is one employee for every £137,942 of spend and a GVA rate of 0.432 during the construction phase. On this basis,

it is estimated that up to 92 FTE jobs will be generated as a result of the construction phase with a total GVA of approximately £5.5million.

Within Highland, up to 11 jobs are estimated to be generated as a result of the Proposed Development and a GVA of over £650,000. Within Scotland, the Proposed Development is expected to generate up to 33 jobs and a GVA of almost £2 million. Table 12-14 summarises the estimated jobs and GVA likely to be generated by the Proposed Development during the construction phase.

Table 12-14: Turnover and GVA - Construction Phase

Area	Estimated Turnover (£)	Estimated Jobs Generated (Rounded Down)	GVA (£)
Highland	£1,521,610	Up to 11	£657,335
Scotland	£4,609,747	Up to 33	£1,991,411
UK	£5,887,795	Up to 43	£2,543,528
Outside UK	£6,773,405	Up to 49	£2,926,111
Total	**£12,661,200**	**Up to 92**	**£5,469,638**

Source: Renewable UK, 2015

Although construction impacts are temporary in nature, , they provide meaningful benefit to the local economy for the duration of the construction phase.

The expected scale of employment and GVA effect during construction are judged as being Minor Beneficial on both the regional and national economies. With local (Highland) economic activity appearing to be in line with the Scottish averages, the local effects of the Proposed Development could be as much as minor beneficial.

Predicted Operational Phase Effects

The average weighted cost in the UK during the operational phase of a wind farm is £59,867 per MW per annum (RenewableUK, 2015).

Applying this assumption to the Proposed Development with an output capacity of 9.6MW, results in an estimated total spend of £574,723 per annum. As shown on Table 12-15, over £240,000 is estimated to be spent in Highland and over £330,000 in Scotland.

Table 12-15: Annual Weighted Average Operational Spend by the Proposed Development

Area	Weighted Spend (£)	Percentage (%) of Spend
Highland	£242,342	42%
Scotland	£332,035	58%
UK	£499,123	87%
Outside UK	£75,600	13%
Total,	**£574,723**	**100%**

Source: Renewable UK, 2015

Research undertaken by Renewable UK indicates that there is one employee for every £121,935 of spend and a GVA rate of 0.43 per year during the operational phase. On this basis, it is estimated that at least 4 jobs will be generated as a result of the operational phase with a total GVA of almost £250,000.

Within Highland, up to two jobs are estimated to be generated as a result of the Proposed Development and a GVA of over £100,000. Within Scotland, the Proposed Development is expected to generate up to 2.5 jobs and a GVA of over £140,000.

Table 12-16 summarises the estimated jobs and GVA likely to be generated by the Proposed Development during the operational phase. Therefore, the Proposed Development is therefore expected to have a negligible to minor beneficial impact which is not regarded in EIA terms as significant.

Table 12-16: Annual Turnover and GVA - Operational Phase

Area	Estimated Turnover (£)	Estimated Jobs Generated (Rounded Down)	GVA (£)
Highland	£242,342	Up to 2	£104,207
Scotland	£332,035	Up to 2.5	£142,775
UK	£499,123	Up to 4	£214,623
Outside UK	£75,600	Less than 1	£32,508
Total	**£574,723**	**Up to 4**	**£247,131**

Source: Renewable UK, 2015

Community Benefit Fund Expenditure

Renewable energy in Scotland presents an unprecedented opportunity for communities to share in the benefits of their local energy resources.

In relation to the Proposed Development the relevant policy is contained in the Good Practice Principles for Community Benefits from Onshore Renewable Energy Developments (Scottish Government, 2019) and the Onshore Wind Policy Statement (OnWPS) (Scottish Government, 2022a).

One of the key principles of national guidance is the promotion of a national rate for voluntary community benefits for onshore wind equivalent to £5,000 per MW installed generating capacity per year, index linked for the operational lifetime of the development for community benefits packages.

The Applicant is adhering to the best practice recommendation and proposing a community benefit package of up to £48,000 per annum over the 30-year life of the Proposed Development, based on a figure of £5,000 per MW of the installed generating capacity of 9.6MW.

At this stage, figures are indicative and subject to a number of factors, including the dependence of installed generating capacity on available technology and turbine procurement. While this benefit package is a voluntary contribution by the Applicant, its benefits are not a material planning consideration.

Consumer Savings

The RenewableUK (2019) report on quantifying the benefits of onshore wind identifies that the deployment of onshore wind to replace gas led generation could reduce electricity costs by 7% by 2035. The Proposed Development would make a contribution to this saving.

12.4.2 Tourism and Recreation: Assessment of Effects

Evidence on the Effect of Wind Farms on Tourism and Recreation

There have 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 is included in this sub-section.

The Economic Impacts of Wind Farms on Scottish Tourism study by Glasgow Caledonian University (Glasgow Caledonian University, 2008) is one of the first studies on the impacts of wind farms on tourism in Scotland.

It included a literature review, an intercept survey of tourists currently in the studied areas, an internet survey, a Geographic Information Systems (GIS) study about the effect on accommodation and economic analysis of the results.

The study covered the areas of Caithness and Sutherland, Perth Kinross and Stirling, Dumfries and Galloway, and the Scottish Borders.

The literature review, which particularly considered international studies, found that:

- There is little evidence of negative outcomes in sensitive areas, as they generally do not have wind farms approved;
- Although a significant number of individuals reported a loss of value to the landscape, some thought that they enhanced the landscape;
- In Denmark, an established wind farm market, turbines are seen as a positive impact on the landscape;
- Hostility to wind farms decreases over time; and
- There is no evidence to suggest serious negative economic impacts of wind farms on tourists.

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%.

Overall, the study concluded that;

> "…*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.*'

The subsequent report from the Economy, Energy and Tourism Committee (Scottish Parliament, 2012) 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."*

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'.

A 2012 report commissioned by the Scottish Government (ClimateXChange, 2012) subsequently found that the findings of the Glasgow Caledonian University report were robust, and that there had been no adverse effect on tourism in the areas considered in the original report.

Since the study by Glasgow Caledonian University was produced in 2008 there has been a significant growth in both the installed capacity of onshore wind energy in Scotland and the tourism economy. In 2008, there was 1.7GW of installed wind energy capacity in Scotland, and by 2017, this had increased to 7.6GW (BEIS, 2018).

If there were to be negative impacts for the tourism sector associated with the development of onshore wind energy, they would have become apparent in this time period; however, this is not the case.

In 2012, an inquiry was held by the Scottish Parliament's Economy, Energy and Tourism Committee into the achievability of the Scottish Government renewable energy targets, which included a review of some of the evidence presented above. In the final report, entitled Report on the *Achievability* of the *'Scottish Government Renewable Energy Targets'* (Scottish Parliament, 2012) the committee concluded that:

> *"Several witnesses made assertions that there would be a negative impact on Scotland's tourism industry from renewable developments. However, these assertions were contradicted by research evidence from VisitScotland and others.*
>
> *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 more rural and remote rural areas, no witness has provided the Committee with robust, empirical evidence, as opposed to anecdotal comment and opinion, that tourism is being negatively affected by the development of renewable projects. However, given the importance of this issue, the Committee recommends that VisitScotland and the Scottish Government continue to gather, and take account of, evidence from visitors to Scotland."*

BiGGAR Economics published recent research (2021) into the relationship between the onshore wind and tourism sectors in Scotland. This study was undertaken to find empirical evidence of a relationship between the development of onshore wind farms and the tourism sector in Scotland.

Their analysis of 44 wind farm case studies in Scotland found no evidence of a link between wind farm development and trends in tourism employment. The analysis of trends at the local authority area level found no overall relationship between the growth in the number of wind turbines and the level of tourism-related employment.

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.

Evidence on the Attitudes of Tourists Regarding Wind Farms

In 2011, VisitScotland commissioned Wind Farm Consumer Research (VisitScotland, 2011) into attitudes of tourists towards wind farms, which surveyed 2,000 people in the UK and 1,000 people in Scotland, who had visited Scotland recently.

Although the majority (86-91%) were in agreement about the importance of the natural scenery and landscape, for most of the respondents (80-83%) their decision to stay in

the UK for a short holiday would not be affected by the presence of a wind farm. In general, the respondents did not feel that wind farms ruined the tourism experience.

In response to criticism in 2015 that this research was now out of date, VisitScotland indicated that it planned to update the work and in a newspaper article a spokesperson said that:

> *"VisitScotland supports the drive for renewable energy and recognises the potential of Scotland's vast resource. It is well documented that the vast majority of potential visitors would not be discouraged from visiting Scotland on account of windfarm developments. Windfarms and other renewable energy projects are a part of the landscape in nearly every destination in the world"* (Press and Journal, 2015).

A more recent, and regular, piece of research focused on public opinions is issued quarterly by the Department for Energy Security And Net Zero (DESNZ), in their '*Public Attitudes Tracker: Energy Infrastructure and Energy Sources,*' (UK Government, 2023). DESNZ reported that in Summer 2023, support for renewable energy remained steady at 85%, unchanged since Winter 2022.

A peak in support had been observed in Autumn with 88% of respondents expressing support for the use of renewable energy. Levels of support have remained between 74% and 85% since the question was first asked in March 2012.

Opposition to renewable energy remained low at 2%, having previously fluctuated between 2% and 5% between March 2012 and June 2020. The current levels are in line with the trend which has been observed to date whereby people are in support of renewables with those opposed remaining below 2%.

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.

Local Attractions

EIAR Chapter 5 Landscape and Visual Impact Assessment and associated technical appendices discuss the effects of the Proposed Development on from a number of viewpoints with a 40km study area.

The Proposed Development Site will be visible from parts of the North Coast 500 route, figure 5-1-4a shows the Zone of Theoretical Visibility (ZTV) up to 40km from the Proposed Development. This effect is assessed fully within Chapter 5 Landscape and Visual Impact Assessment.

The studies discussing the effects of wind farms on tourism suggest that an area will not see a decline in the number of tourists nor have significant financial loss as a result of wind farm development.

Therefore the attractions listed in Section 12.3.5 are not expected to be adversely affected by the Proposed Development.

For this reason, it is expected that the Proposed Development will have 'very little' or 'no' effect on the behaviour of visitors/tourists that use these attractions.

Therefore, the effect from the Proposed Development is expected to be Negligible and **Not Significant** as per the EIA regulations.

12.5 Assessment of Cumulative Effects

12.5.1 Construction Effects

The cumulative effects of the construction phase of the Proposed Development along with the cumulative sites identified in EIAR Volume 2 Chapter 5 Landscape and Visual, would generate additional construction related spend, employment and GVA.

This scale of wind farm activity in the area suggests there is increased economic opportunity in terms of cumulative investment and resultant employment impacts as local capacity to take up the opportunities grow.

The addition of the Proposed Development will positively contribute to this and could result in increased beneficial effects in terms of job creation and opportunities for local businesses.

Within 10km of the Proposed Development there is one operational wind farm, Lochend, and a single turbine at Weydale Farm. There is also the consented Cogle Moss Wind Farm and the in-planning Watten Wind Farm, Hollandmey Wind Farm and Cairnmore Hill Wind Farm.

It is anticipated that when considering the schemes cumulatively, there would therefore be a minor beneficial effect on the economy at the Local Regional and National Level on socio-economic during construction.

12.5.2 Operational Effects

The cumulative effects of the operational phase of the Proposed Development would generate additional operation related spend, employment and GVA.

This scale of wind farm activity in the area suggests there is increased economic opportunity in terms of cumulative investment and resultant employment impacts as local capacity to take up the opportunities grow.

The Proposed Development will positively contribute to job opportunities for local people and businesses. It is anticipated that when considering cumulative schemes, there would therefore be a minor beneficial effect on the economy at the Local Regional and National Level on socio-economic during operation.

12.5.3 Wider Effects

It is anticipated that the Proposed Development will have wider beneficial effects that are not possible to quantify at this stage. Nevertheless, these would be expected to have positive effects on the local and national economies including:

- **Local supply chain opportunities**: economic multiplier effects have not been included in the economic assessment due to the difficulty in accurately ascertaining their nature at the local and regional levels. However, it is worth noting Department for Energy and Climate Change (DECC) and Renewable UK (2012) research which estimated that the expenditure of workers who visit the local area benefit the accommodation and food service sector to the value of around £7,500 per MW constructed. The wider 'knock-on' impacts can in turn support the supply chain of other activities such as the spending habits of retail operations and accommodation providers;

- **Income effects**: the economic analysis has focused on the GVA effects of generated employment as this is the 'real' impact on the economy. However, it is worth noting that new employment will generate additional wages and salaries, much of which will be spent in the UK;
- **Exchequer effects**: the analysis has not attempted to estimate the additional exchequer effects as result of taxes borne (Corporation Tax, Employer National Insurance and Irrecoverable VAT) and taxes collected (Income Tax, Employee National Insurance and non-domestic business rates). These are additional financial benefits which will support the regional and national economies;
- **Effects on landowners**: there will be a financial transaction to the landowners which may support diversification and/or other spending in the local, regional and national economy; and
- **Community benefit funds**: The intended community benefit package for the Proposed Development includes a community benefit fund. Income streams from this community benefits package could provide long term revenue to support local community initiatives. Depending on the initiatives and projects brought forward by the local community these could provide positive benefits to the local economy, local facilities and the general quality of life for local residents.

12.6 Mitigation Measures

No mitigation measures have been considered for the Proposed Development as there are **no significant** adverse effects anticipated.

12.7 Residual Effects

There are **no significant** adverse effects anticipated for the Proposed Development.

There are potential minor or negligible beneficial effects in relation to the development, construction and operation phases of the Proposed Development, both in employment and GVA terms in the context of local and national economies.

There are potential beneficial effects in relation to the operation phase of the Proposed Development, both in employment and GVA terms in the context of local and national economies, in the context of the cumulative sites.

12.8 Summary and Statement of Significance

The socio-economic impact during construction of the Proposed Development was assessed as minor beneficial in the Highland area, and negligible beneficial in Scotland. The annual economic impacts related to operation were assessed as negligible beneficial for both study areas. All effects have been assessed as **not significant**.

Table 12-17 provides a Summary and Statement of Significance for Socio-economic.

Table 12-17: Summary and Statement of Significance

Potential effect	Magnitude Effect	Assessed Effect	Statement of Significance
Socio-economic – Development Phase			
Spend	£1,442,073	Negligible to minor beneficial	Not Significant
Employment	Up to 13 jobs	Negligible to	Not Significant

Potential effect	Magnitude Effect	Assessed Effect	Statement of Significance
		minor beneficial	
GVA	£960,421	Negligible to minor beneficial	Not Significant
Socio-economic – Construction Phase			
Spend	£12,661,200	Minor beneficial	Not Significant
Employment	Up to 92 jobs	Minor beneficial	Not Significant
GVA	£5,469,638	Minor beneficial	Not Significant
Socio-economic – Operation Phase			
Spend	£574,723 per annum	Negligible to minor beneficial	Not Significant
Employment	Up to 4 jobs per annum	Negligible to minor beneficial	Not Significant
GVA	£247,131 per annum	Negligible to minor beneficial	Not Significant
Tourism and Recreation			
Local Attractions	Attractions are not expected to have their characteristics affected by the Proposed Development. Therefore, minimal / very little effect	Negligible	Not Significant

12.9 References

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