15 SOCIO-ECONOMICS, TOURISM, RECREATION & LAND USE

15.1 Introduction

This Chapter of the Environmental Impact Assessment Report ('EIA Report') evaluates the effects of the Ladyfield Renewable Energy Park ('the Development') on Socio-Economics, Tourism, Recreation and Land Use. This assessment was undertaken by ERM.

This Chapter of the EIA Report is supported by the following Figures provided in Volumes 2a and 2c:

- Volume 2a Figure 6.10 Principle Visual Receptors with ZTV
- Volume 2c Figure 6.28 Viewpoint 5 Inverary Castle
- Volume 2c Figure 6.33 Viewpoint 10 St Conan's Kirk
- Volume 2c Figure 6.41 Viewpoint 18 Dun na Cuaiche
- Volume 2c Figure 9.8 Viewpoint 3 Dun na Cuaiche
- Volume 2a Figure 15.1 Assessed Tourism and Recreational Receptors; and
- Volume 2a Figure 15.2 Recreational Routes, Core Paths and Public Rights of Way (PRoW).

This chapter includes the following elements:

- Legislation, Policy and Guidance;
- Assessment Methodology and Significance Criteria;
- Baseline Conditions;
- Assessment of Potential Effects;
- Cumulative Effect Assessment;
- Mitigation and Residual Effects;
- Summary of Effects; and
- Statement of Significance.

15.2 Legislation, Policy And Guidance

The following legislation, policy and guidance listed in Table 15.1 have been considered in carrying out this assessment:

Table 15.1: Legislation, Policy and Guidance

Туре	Name		
Legislation	The Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017 ⁴¹⁶ ;		
	• The Countryside Act (Scotland) 1967 ⁴¹⁷ ; and		
	• Land Reform (Scotland) Act 2016 ⁴¹⁸ .		
National Policy	National Planning Framework 4 (NPF4) ⁴¹⁹ ;		
National Policy	Scotland's National Strategy for Economic Transformation (2022) ⁴²⁰ ;		

⁴¹⁶ Scottish Government (2017) The Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017 [Online] Available at: The Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017 (legislation.gov.uk) (Accessed 02.10.23)

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⁴¹⁷ Scottish Government (1967) The Countryside (Scotland) Act 1967 [Online] Available at: <u>Countryside (Scotland)</u> Act 1967 (legislation.gov.uk) (Accessed 02.10.23)

⁴¹⁸ Scottish Government (2003) Land Reform (Scotland) Act 2016 [Online] Available at: <u>Land Reform (Scotland)</u> Act 2016 (legislation.gov.uk) (Accessed: 02.10.23)

⁴¹⁹ Scottish Government (2023) National Planning Framework 4 (NPF4) [Online] Available at: <u>National Planning</u> Framework 4 - gov.scot (www.gov.scot) (Accessed: 02.10.23)

⁴²⁰ Scottish Government 92022) Scotland's National Strategy for Economic Transformation [Online] Available at: Scotland's National Strategy for Economic Transformation - Delivery Plans October 2022 - gov.scot (www.gov.scot) (Accessed 02.10.23)

Туре	Name
	 Onshore Wind: Policy Statement 2022⁴²¹; Draft Energy Strategy and Just Transition Plan⁴²² National Performance Framework⁴²³; and Industry Strategy: Building a Britain Fit for the Future (2017)⁴²⁴
Local Policy	Argyll and Bute Local Development Plan ⁴²⁵
Guidance	 Energy Trends UK, October to December 2022 and 2022⁴²⁶; The Onshore Wind Prospectus 2021⁴²⁷; Onshore Wind: Economic Impact in 2014⁴²⁸; Economic Benefits from Onshore Wind Farm 2017⁴²⁹; Quantifying Benefits of Onshore Wind to the UK⁴³⁰; Onshore Wind – Policy Statement⁴³¹; Scotland Outlook 2030⁴³²; Wind Farms and Tourism Trends in Scotland⁴³³; Wind Turbines and Horses – Guidance for Planners and Developers⁴³⁴; and Wind Farms and Tourism in Scotland: A Review with Focus on Mountaineering and Landscape⁴³⁵.

15.2.1 Legislation

15.2.1.1 The Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017 as amended

The Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017 establish in broad terms what is to be considered when determining the effects of development proposals on socio-economics, tourism, recreation and land use. There is no specific legislation or guidance available on the methods that should be used to assess the impacts of a proposed onshore wind farm development on socio-economics, tourism, recreation and land use; therefore, the

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⁴²¹ Scottish Government (2022) Onshore Wind: Policy Statement 2022 [Online] available at: <u>Onshore wind: policy statement 2022 - gov.scot (www.gov.scot)</u> (Accessed 02.10.23)

⁴²² Scottish Government (2023) Draft Energy Strategy and Just Transition Plan [Online] available at: https://www.gov.scot/publications/draft-energy-strategy-transition-plan/ (Accessed 02.10.23)

⁴²³ Scottish Government (2019) National Performance Framework [Online] Available at:

https://nationalperformance.gov.scot/national-outcomes (Accessed 02.10.23)

⁴²⁴ UK Government (2017) Industrial Strategy: Building a Britain fit for the future [Online] Available at: <u>Industrial Strategy: building a Britain fit for the future (publishing.service.gov.uk)</u> (Accessed 02.10.23)

⁴²⁵ Argyll and Bute (2015) Argyll and Bute Local Development Plan [Online] Available at: https://www.argyll-bute.gov.uk/planning-and-environment/local-development-plan (Accessed 02.10.23)

⁴²⁶ Department for Energy Security and Net Zero (2023) Energy Trends UK, October to December 2022 and 2022 [Online] Available at: Energy Trends March 2023 (publishing.service.gov.uk) (Accessed 02.10.23)

⁴²⁷ RenewableUK (2021) The Onshore Wind Industry Prospectus [Online] Available at: onshore wind prospectus fina.pdf (ymaws.com) (Accessed 02.10.23)

⁴²⁸ RenewableUK (2015) Onshore Wind: Economic Impacts in 2014 [Online] Available at: onshore economic benefits re.pdf (ymaws.com) (Accessed 02.10.23)

⁴²⁹ BVG Associates (2017) Economic Benefits from onshore wind farms [Online] Available at: <u>BVGA-18510-Economic-impact-onshore-wind-report-r3.pdf</u> (<u>bvgassociates.com</u>)(Accessed 02.10.23)

⁴³⁰ Vivid Economics (2019) Quantifying the Benefits of onshore wind to the UK [Online] Available at: <u>Quantifying</u> benefits of onshore wind to the UQuank (vivideconomics.com) (Accessed 02.10.23)

⁴³¹ Scottish Tourism Alliance (2020) Scotland Outlook 2030 [Online] Available at: <u>Scotland-Outlook-2030.pdf</u> (<u>scottishtourismalliance.co.uk</u>) (Accessed 02.10.23)

⁴³² BiGGAR Economics (2021) Wind Farm and Tourism Trends in Scotland: Evidence from 44 Wind Farms [Online] Available at: https://biggareconomics.co.uk/wp-content/uploads/2021/11/BiGGAR-Economics-Wind-Farms-and-Tourism-2021.pdf (Accessed 02.10.23)

⁴³³ VisitScotland (2014) Position Statement – Wind Farms [Online] Available at: https://www.visitscotland.org/about-us/what-we-do/consultations (Accessed 02.10.23)

⁴³⁴ British Horse Society (2015) Wind Turbines and Horses – Guidance for Planners and Developers [Online] Available at: <u>Layout 1 (bhs.org.uk)</u> (Accessed 02.10.23)

⁴³⁵ British Horse Society (2021) Equestrian Access through Wind Farms in Scotland [Online] Available at: equestrian-access-through-windfarms-in-scotland-factsheet-2021.pdf (bhs.org.uk) (Accessed 02.10.23)

assessment has been based on industry best practice and professional judgement in order to determine the baseline, methodology and scope of assessment, as well as the assessment of significant effects that the Development has on socio-economics, tourism, recreation and land use.

15.2.1.2 The Countryside Act (Scotland) 1981

The Countryside Act (Scotland) 1981 gives local authorities the power to protect and manage public rights of way to ensure that they remain open and free from obstruction.

15.2.1.3 Land Reform Act (Scotland) 2003

Every local authority within Scotland is required to draw up a system of core paths within their local area that gives the public reasonable access to their outdoor area, and these are protected under the Land Reform Act (Scotland) 2003. This act protects the use of core paths for pedestrians, cyclists and equestrians.

15.2.2 National Policy

15.2.2.1 National Planning Framework 4 (NPF4)

NPF4 was published and adopted on the 13th February 2023⁴³⁶. The purpose of NPF4 is to manage land-use and development in the long-term public interest and includes all aspects of national planning policy as per the provisions of the Planning (Scotland) Act 2019, which was passed by the Scottish Parliament in June 2019.

NPF4 confirms the Scottish Government's view that the Global Climate Emergency should be a material consideration in applications for appropriately located renewable energy developments. This is evidenced in the National Planning Policies detailed within NPF4. Policy 1 states that:

"When considering all development proposals significant weight will be given to the global climate and nature crises."

NPF4's spatial strategy aims to develop sustainable places to reduce the impacts of climate change. This includes decarbonizing industry, reducing community inequalities and creating a more circular economy, all of which will allow Scotland to play their part in achieving the United Nation's Sustainable Development Goals. Within this, six national developments support the delivery of sustainable places, one of which is strategic renewable electricity generation and transmission structure which will aim to:

"Support electricity generation and associated grid infrastructure throughout Scotland, providing employment and opportunities for community benefit, helping to reduce emissions and improve security of supply."

Policy 11 of the NPF4 relates to energy and has the specific intent to encourage, promote and facilitate all forms of renewable energy development. Policy 11c is specifically relevant to socioeconomic impacts, in that it states:

"Development proposals will only be supported where they maximise net economic impact, including local and community socio-economic benefits such as employment, associated business and supply chain opportunities".

Further information on NPF4 is detailed in the Planning Statement which accompanies this application.

⁴³⁶ Scottish Government (2012) Scotland's National Strategy for Economic Transformation [Online] Available at: https://www.gov.scot/publications/scotlands-national-strategy-economic-transformation/ (Accessed 02.10.23)

15.2.2.2 Scotland's National Strategy for Economic Transformation

Scotland's National Strategy for Economic Transformation sets out how the Scottish Government will deliver the best economic performance possible for Scotland⁴³⁷. The Strategy outlines the steps towards driving a green economic recovery to meet the nations climate and nature targets while ensuring we the benefits are maximised as part of a just transition.

The document identifies five key themes which are critical to economic growth:

- Stimulating entrepreneurship;
- Opening new markets;
- Increasing productivity;
- Developing the skills we need for the decade ahead; and
- Ensuring fairer and more equal economic opportunities.

15.2.2.3 Onshore Wind: Policy Statement

In Onshore Wind: Policy Statement, the Scottish Government state that they have long-term ambitions for land-use across Scotland to 'build a stronger, more resilient wellbeing economy*438. It was identified that the renewable energy sector, in particular onshore wind, will be prioritised for land use to meet 'Net Zero' objectives and that the Scottish Government will support this prioritisation where possible:

"Our statutory and environmental consultees will continue to play a crucial role in assessing this balance for all onshore wind planning applications. The onshore wind sector must continue to build on their positive relationship with the statutory bodies, engaging as early in their considerations as possible, and building upon the existing collaborative approach through the design and development of sites."

15.2.2.4 Draft Energy Strategy and Just Transition Plan

The Draft Energy strategy and Just Transition Plan is a consultative draft route map of action the Scottish Government aim to take to provide clean, affordable and resilient renewable energy for Scottish communities. The Scottish Government aims to focus Scotland's ever increasing renewable energy potential on decarbonising markets such as heat, industry and transport which will ensure energy security and affordability for Scottish communities.

Under Chapter 5: creating the Conditions for a Net Zero Energy System, this policy draft identifies two areas with relevance to this assessment. The first:

Maximising benefits to our economy, businesses and workers

This section identifies the net positive impact the renewable energy sector can have on Scotland's economy in terms of GVA, supply chain opportunities, investment and business. By 2030, it is anticipated that the renewable energy sector will provide huge opportunities for renewable energy exports which will contribute to economic growth, employment and investment.

Maximising benefits to our communities and regions

This section identifies the opportunity for communities to benefit from local renewable energy schemes through joint ownership and community benefit funds. This will ensure that the costs and benefits or renewable energy schemes are shared fairly and equitably, as well as giving local communities the opportunity to have their own, thriving renewable energy economies. The local economies will provide local employment opportunities, upskilling and training opportunities – with a focus on vulnerable and deprived areas – as well as giving local communities empowering local communities to have a voice in the just transition.

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⁴³⁷ Scottish Government 92022) Scotland's National Strategy for Economic Transformation [Online] Available at: Scotland's National Strategy for Economic Transformation - Delivery Plans October 2022 - gov.scot (www.gov.scot) (Accessed 02.10.23)

⁴³⁸ Scottish Government (2022) Onshore Wind: Policy Statement 2022 [Online] available at: Onshore wind: policy statement 2022 - gov.scot (www.gov.scot) (Accessed 02.10.23)

15.2.2.5 National Performance Framework

The National Performance Framework⁴³⁹ tracks progress towards national outcomes. It shows how well Scotland is performing overall on the 81 national indicators including topics on economy and environment. In terms of economy, the Scottish Government recognises that a strong, competitive economy is essential to supporting jobs, incomes, and our quality of life. The Scottish economy must be environmentally sustainable, inclusive and benefit all our people and communities.

15.2.2.6 Industry Strategy: Building a Britain Fit for the Future

The UK is striving towards clean economic growth by supporting the development and deployment of a range of renewable technologies such as onshore wind. In Industry Strategy: Building a Britain fit for the future, the UK Government identifies that the growth and support of these sectors will mean that the "costs of clean technologies, systems and services are reduced across all sectors" which has the potential to "grow at four times the rate of GDP⁴⁴⁰."

15.2.3 Local Planning Policy

The Argyll and Bute Local Development Plan⁴⁴¹ (the LDP) was adopted by the Argyll and Bute Council (the Council) in March 2015. The LDP provides a comprehensive spatial framework and settlement strategy for the future use and development of land within Argyll and Bute with setting out development opportunities and ways to enhance the rural and urban environment. The central challenge of the LDP is:

"... delivery of sustainable long-term economic growth to support the retention and growth of our population; to support the transition to a low carbon economy; to help retain and improve essential services; to protect and enhance our outstanding natural and built environment and to maintain and improve our quality of life."

Consideration must be given to relevant policies contained with the LDP and the design of the Development. The relevant policies with regards to socio-economics, tourism, recreation and land use within the LDP are:

Policy LDP 5 – Supporting the Sustainable Growth of our Economy. The policy states that the Council will support the development of new industry and business which helps deliver sustainable economic growth throughout the Argyll and Bute Area by:

- Taking full account of the economic benefits of any proposed development;
- Ensuring that the different spatial needs and locational requirements of the various sectors and scales of business are able to be met within the context of the settlement and spatial strategy;
- Focussing regeneration activity and promoting environmental enhancement; and by
- Safeguarding existing industrial and business areas for employment uses.

Policy LDP 6 – Supporting the Sustainable Growth of Renewables. The policy states that the Council will support development proposals for any renewable energy provided they are consistent with the principles of sustainable development and do not individually or cumulatively have unacceptable significant adverse effects on a range of receptors. The following are of relevance to this Chapter:

- The natural and historic environments; and
- The landscape character and visual amenity.

⁴³⁹ Scottish Government (2019) National Performance Framework [Online] Available at: National Outcomes | National Performance Framework (Accessed 02.10.23)

⁴⁴⁰ UK Government (2017) Industrial Strategy: Building a Britain fit for the future [Online] Available at: <u>Industrial Strategy: building a Britain fit for the future (publishing.service.gov.uk)</u> (Accessed 02.10.23)

⁴⁴¹ Argyll and Bute Council (2015) Argyll and Bute Local Development Plan: Written Statement [Online] Available at: https://www.argyll-bute.gov.uk/planning-and-building/planning-policy/local-development-plan (Accessed 02.10.23)

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All applications for wind turbine developments will be assessed against various criteria including:

- Net economic impact, including local and community socio-economic benefits such as employment, associated business and supply chain opportunities;
- The scale of contribution to renewable energy generation targets;
- Impacts on carbon rich soils, using the carbon calculator;
- Impacts on tourism and recreation;
- Public access, including impact on long distance walking and cycling routes and those scenic routes identified in the NPF; and
- Opportunities for energy storage.

Policy LDP 11 – Improving our Connectivity and Infrastructure. The policy states that the Council will support all development proposals that seeks to maintain and improve our internal and external connectivity and make best use of our existing infrastructure. Of relevance to this Chapter are the following:

- Rights of way and public access are safeguarded;
- Public access within the development is delivered, as appropriate;
- Consideration is given to the promotion of access to adjoining areas, in particular to the foreshore, Core Path network and green network.

15.2.4 Guidance

15.2.4.1 Energy Trends UK, October to December 2022 and 2022

The Department for Energy Security and Net Zero provided the report Energy Trends UK, October to December 2022 and 2022⁴⁴² to provide an overview of socio-economic trends in the UK's energy supply. In 2022, a similar record high to that seen in 2020 was observed. During 2022, renewables' share of energy generation was 41.4%, an increase of 1.8% from 2021, largely due to wind (onshore and offshore) reaching new, record high levels of generation (24.6%). Whilst previous record high levels in 2020 were largely due to favourable weather conditions, the increased renewable energy generation in 2022 was driven by new capacity, highlighting the importance of increasing our renewable energy capacity in the UK.

15.2.4.2 The Onshore Wind Energy Prospectus 2021

RenewableUK published The Onshore Wind Industry Prospectus in October 2021 443 . This report provides a useful insight into the steps each country within the UK needs to take to reach Net Zero Targets, with a specific focus on the benefits of onshore wind farms. It is estimated that around 80% of the onshore wind energy needed to meet the 30GW by 2030 target can be provided by Scotland, which will create an additional 17,000 jobs and £27.8 billion in GVA for the economy. Of these new jobs, an estimated 50.3% of these will be within Ayrshire (including East Ayrshire), Lanarkshire and Greater Glasgow. It was also stated that 43% of the supply chain for the UK could be provided by Scotland due to the high proportion of developers, civil contractors, and wind farm support services.

15.2.4.3 Onshore Wind: Economic Impacts in 2014

RenewableUK were commissioned by BiGGAR Economics to write Onshore Wind: Economic Impacts in 2014⁴⁴⁴. It is stated that a typical UK wind farm will invest £2.97 million per MW over its development, constructions and operation and maintenance stages where 47% is spent, and 27% is retained, in the local economy. In these three stages, construction and operations and maintenance of the site will generate the most money for the local economy. This information

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⁴⁴² Department for Energy Security and Net Zero (2023) Energy Trends UK, October to December 2022 and 2022 [Online] Available at: Energy Trends March 2023 (publishing.service.gov.uk) (Accessed 02.10.23)

A43 RenewableUK (2021) The Onshore Wind Industry Prospectus [Online] Available at: onshore wind prospectus fina.pdf (ymaws.com) (Accessed 02.10.23)

⁴⁴⁴ RenewableUK (2015) Onshore Wind: Economic Impacts in 2014 [Online] Available at: onshore economic benefits re.pdf (ymaws.com) (Accessed 02.10.23)

informs the socio-economic assessment and is presented further in Section 15.6.1 as it provides an empirical way of calculating the economic contribution of an individual wind farm to the regional and national economy.

15.2.4.4 Economic Benefits from Onshore Wind Farms

BVG Associates' study, Economic Benefits from Onshore Wind Farms (2017)⁴⁴⁵, focusses on eight onshore wind farms located in the South-West of Scotland and calculated that the majority of project expenditure tends to go towards three key areas within the local economy:

- Local suppliers working on the wind farms;
- Accommodation for the employees working on the wind farms; and
- Expenditure from community payments, rent and rates.

The study estimated that a total of £1,276 million gross value added (GVA), and £297 million local value added (LVA), will be generated over the lifetime of the eight projects within the UK. The full-time equivalent years employment (FTE) is estimated to be 31,118 over the lifetime of the projects, with 7,768 estimated to be within the local area. Community benefit funds (CBFs) are estimated to be £2.5 million a year, which would generate £59 million over 25 years.

15.2.4.5 Quantifying Benefits of Onshore Wind to the UK

Vivid Economics issued Quantifying Benefits of Onshore Wind to the UK in 2019⁴⁴⁶ to outline the socio-economic benefits that can be achieved by deploying 35GW of onshore wind by the 2035. These include:

- 7% reduction in electricity costs, saving households £50 per year;
- £360 million in export annually by 2035;
- 14,000 direct jobs and 17,000 indirect jobs; and
- Productivity uplift throughout the UK.

15.2.4.6 Onshore Wind - Policy Statement

In Onshore Wind – Policy Statement (2022), the Scottish Government stated that they want to develop sustainable tourism and believe that wind farms can create significant opportunity to develop this and 'promote Scotland as an environmentally friendly and climate conscious country to visit'. It has also been noted that since the declaration of a climate crisis, the demands of the tourist have changed – in favour of sustainable tourism.

15.2.4.7 Scotland Outlook 2030

Scotland Outlook 2030⁴⁴⁷ provides a collaborative approach from Scottish Tourism Alliance, The Scottish Government, the Highlands and Islands Enterprise, Scottish Enterprise, Skills Development Scotland and VisitScotland on tourism strategies from 2020 to 2030. Following the declaration of a climate emergency, the Scottish Government that moves away from increasing the numbers of tourists to increasing the value of tourism through a more sustainable approach. This involves more development from government and stakeholders towards sustainable tourism that will play its part in contributing to Scotland's net-zero ambitions.

15.2.4.8 Wind Farms and Tourism Trends in Scotland

In Wind Farms and Tourism Trends in Scotland $(2021)^{448}$, BiGGAR Economics examined the trends on local tourism within a 15km radius around 28 wind farms constructed in Scotland between 2009

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⁴⁴⁵ BVG Associates (2017) Economic Benefits from onshore wind farms [Online] Available at: <u>BVGA-18510-Economic-impact-onshore-wind-report-r3.pdf</u> (bvgassociates.com)(Accessed 02.10.23)

⁴⁴⁶ Vivid Economics (2019) Quantifying the Benefits of onshore wind to the UK [Online] Available at: <u>Quantifying</u> benefits of onshore wind to the UQuanK (vivideconomics.com) (Accessed 02.10.23)

⁴⁴⁷ Scottish Tourism Alliance (2020) Scotland Outlook 2030 [Online] Available at: <u>Scotland-Outlook-2030.pdf</u> (<u>scottishtourismalliance.co.uk</u>) (Accessed 02.10.23)

⁴⁴⁸ BiGGAR Economics (2021) Wind Farm and Tourism Trends in Scotland: Evidence from 44 Wind Farms [Online] Available at: https://biggareconomics.co.uk/wp-content/uploads/2021/11/BiGGAR-Economics-Wind-Farms-and-Tourism-2021.pdf (Accessed 02.10.23)

and 2015. They found that for most cases, sustainable tourism appeared to perform better in areas surrounding wind farms compared to tourism at the level of the local authority area. This analysis found no overall pattern between onshore wind development and tourism, which suggests that there was no detrimental impact on the tourism sector. This proposes that tourists are not deterred by the development of onshore wind farms, even at a local level.

15.2.4.9 Wind Turbines and Horses – Guidance for Planners and Developers

British Horse Society's (2015) Wind Turbines and Horses – Guidance for Planners and Developers⁴⁴⁹ discusses the BHS supports the Scottish Government's Renewable Energy Strategies. It also discusses that the note serves as a guidance for planners and to ensure that the safety implications for horse riders and carriage drivers are considered of throughout the planning process. They state that many horses are unfamiliar with turbines; however, the BHS believe that a gradual familiarisation with turbines will create a positive opportunity for horse riders. For example, according to the BHS's 2021 report 'Equestrian Access through Wind Farms in Scotland'⁴⁵⁰ the BHS operate training days at Whitelee Wind Farm, where horse riding takes place on a daily basis. This site has assigned rangers to assist with horse riding on site, as well as providing a website with up-to-date weather conditions so that equestrians can plan their activities.

The BHS state that '200m or three times the blade tip height (whichever is greater)' the overall height of any Development's turbines should serve as a reasonable separation distance between equestrians and wind turbines; however, each assessment would be considered on a case-by-case basis as many independent factors are likely to be involved.

15.2.4.10 Wind Farms and Tourism in Scotland: A Review with Focus on Mountaineering and Landscape

Mountaineering Scotland stated in Wind Farms and Tourism in Scotland: A Review with Focus on Mountaineering and Landscape (2017) that most tourism is unaffected by the presence of wind farms. They state that most tourism is driven by attractions, business trips, friends and/or family and events. In some cases, wind turbines may be viewed as a novelty if tourists come from a part of the world where they are uncommon. Despite this, it is acknowledged that some individuals may be discouraged to visit certain areas due to wind farms. The factors that tend to influence this are:

- Visitor type;
- Landscape type and/or character; and
- The nature of the local tourism offer and market.

15.3 Assessment Methodology and Significance Criteria

15.3.1 Scoping Responses and Consultations

Consultation for this EIA Report topic was undertaken with the organisations shown in Table 15.2.

Table 15.2: Consultation Responses

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Consultee	Type and Date	Summary of Consultation Response	Response to Consultee
Argyll and Bute Council	Scoping Response, 15/02/22	Tourism and recreation are important industries for the economy of Argyll and Bute and the local area. This chapter of the EIAR should address the consequences of the development for users of the countryside, and tourism and recreation interests, including any deterrent influence	Section 15.6.2 of this Chapter includes an assessment of effects upon, recreation and tourism interests including those within the Site but also on the surrounding recreational

⁴⁴⁹ British Horse Society (2015) Wind Turbines and Horses – Guidance for Planners and Developers [Online] Available at: <u>Layout 1 (bhs.org.uk)</u> (Accessed 02.10.23)

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⁴⁵⁰ British Horse Society (2021) Equestrian Access through Wind Farms in Scotland [Online] Available at: equestrian-access-through-windfarms-in-scotland-factsheet-2021.pdf (bhs.org.uk) (Accessed 02.10.23)

Consultee	Type and Date	Summary of Consultation Response	Response to Consultee
		the proposal may have, along with any attractive influence the presence of the proposal may generate. The proposal should not result in the unacceptable loss of amenity to individuals who enjoy recreation pursuits on land or water.	assets on land and water. In addition, Chapter 6 - LVIA provides an assessment of visual amenity impacts on tourism and recreation receptors.

15.3.2 Scope of Assessment

This Chapter considers:

- The effect of the Development on the socio-economic resource, including employment, within the local, regional and national contexts;
- The effects on tourist attractions and recreation facilities within and near to the Development;
- The effects on land use in the immediate vicinity of the Development.

The key issues for the assessment of potential effects relating to the Development are:

- Short-term direct and indirect effects arising from the construction phase;
- Long-term direct and indirect effects that occur during the operational phase but are mitigated at decommissioning; and
- Permanent direct and indirect effects that continue after decommissioning.

15.3.3 Study Area

The study areas in this assessment are receptor specific and detailed in the following sections.

15.3.3.1 Socio-Economics

Socio-economic Study Areas are defined as at local, regional, and national scale as follows:

- Local Study Area (LSA) 'Local' comprises the Mid-Argyll, Kintyre and the Islands Administrative Area and the electoral ward of Mid Argyll. Where statistics are not available for Mid Argyll, the assessment has presented figures from the Regional statistics;
- Regional Study Area (RSA) 'Regional' refers to the entirety of the Argyll and Bute Council
 area; the geographical size of the Argyll and Bute Council area means that the Development
 will not affect the entire area. As national statistics apply to Argyll and Bute as a single area,
 it has been referred to as a whole for a number of assessments; and
- National Study Area (NSA) 'National' is defined as Scotland.

15.3.3.2 Tourism and Recreation

The study area for tourism and recreation has considered all tourist and recreational facilities, as well as accommodation providers, within 10km of the Development, which comprises land within 10km of the centre point of the Site boundary (NGR 210197, 715498), in order to capture the receptors most likely to be affected by the Development. Distances from the Development has been measured from the nearest turbine.

The study area for recreational routes, such as core paths, national cycle paths and heritage paths considers all recreational routes within 10km of the Development, which comprises land within 10km of the centre point of the Site boundary (NGR 210197, 715498), in order to capture the receptors most likely to be affected by the Development. Distances from the Development has been measured from the nearest turbine.

Tourist and recreational receptors within the Site boundary have the potential to experience direct impacts; however, this has been reviewed on a case-by-case basis. Where a receptor within the Site boundary experiences a physical change that alters its utilisation the impact is considered to be direct. Where a receptor within the Site boundary experiences an impact, but it does not experience a physical change that alters its utilisation, the impact is considered to be indirect.

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Tourist and recreational receptors outside of the Site boundary have been considered to have indirect impacts.

15.3.3.3 Land Use

The study area for land use consists of all land within the Site boundary that will be occupied by the Development. This can be a temporary land-use change which can occur during the construction, operational or decommissioning phase, or a longer, and more permanent change which can occur if the land use change is continued after the decommissioning phase.

15.3.4 Assessing the Significance of Effect

15.3.4.1 Sensitivity of Receptors

The sensitivity of receptors considers their ability to adapt to changes brought about by the Development. This will be assessed in line with best practice guidance, legislation and statutory designations. Table 15.3 details the framework for determining the sensitivity of receptors.

Table 15.3: Framework for Determining Sensitivity of Receptors

Sensitivity of Receptor	Definition
Very High	The asset is of very high socio-economic, land-use, recreational or tourism value. It is of importance at an International/UK level and has little or no capacity to absorb change without fundamentally altering its present character. For example, it is a destination in its own right which will attract a substantial proportion of
	visitors and/or possesses priority in international policy.
High	The asset is of high socio-economic, land-use, recreational or tourism value. It is of importance at a UK/national level and has little capacity to absorb change without fundamentally altering its present character.
	For example, it is a destination in its own right which will attract a high number of visitors and/or possesses priority in UK policy.
Medium	The asset is of moderate socio-economic, land-use, recreational or tourism value. It is of importance at a national/regional level and has some capacity to absorb change without fundamentally altering its present character.
	For example, it is a destination in its own right will attract a moderate number of visitors and/or possesses priority in Scottish policy.
Low	The asset is of low socio-economic, land-use, recreational or tourism value. It is of importance at a regional/local level and has capacity to absorb change without fundamentally altering its present character.
	For example, it is an incidental destination for current visitors which attracts a small number of visitors and/or possesses priority in LPA policy.
Negligible	The receptor is resistant to change and is of little environmental value.

15.3.4.2 Magnitude of Impact

The magnitude of impact will be identified through consideration of the degree of change to baseline conditions predicted as a result of the Development and the duration and reversibility of the impact. The criteria for assessing the magnitude of an effect are presented in Table 15.4.

Table 15.4: Framework for Determining Magnitude of Effects

Magnitude of Effects	Definition
High	Total loss or major alteration (positive or negative) of the socio-economic, land use, recreation, or tourism assets/receptors.
Medium	Loss of, or alteration to (positive or negative), one of more key elements of the socio- economic, land use, recreation, or tourism asset's baseline value.

Magnitude of Effects	Definition
Low	Slight alteration (positive or negative) of the socio-economic, land use, recreation, or tourism asset/receptors.
Negligible	Barely perceptible alteration (positive or negative) of the socio-economic, land use, recreation, or tourism asset/receptors.

15.3.4.3 Significance of Effect

The sensitivity of the asset and the magnitude of the predicted effects will be used as a guide, in addition to professional judgement, to predict the significance of the likely effects. Table 15.5 summarises guideline criteria for assessing the significance of effects.

Table 15.5: Framework for Assessment of the Significance of Effects

Magnitude of Effect	Sensitivity of Resource or Receptor				
	Very High	High	Medium	Low	Negligible
High	Major	Major	Moderate	Moderate	Minor
Medium	Major	Moderate	Moderate	Minor	Negligible
Low	Moderate	Moderate	Minor	Negligible	Negligible
Negligible	Minor	Minor	Negligible	Negligible	Negligible

Effects predicted to be of major or moderate significance are considered to be 'significant' in the context of the EIA Regulations, and are shaded in light grey in the above table. Effects can be positive, negative or neutral and these are specified where applicable in the assessment within this Chapter.

A breakdown of each individual assessment's methodology (socio-economics, tourism and recreation and land use) can be found in Sections 15.3.4.4 – 15.3.4.6 below, as well as how they utilise Table 15.3, Table 15.4 and Table 15.5 above to reach conclusions on the significance of effect in line with the EIA Regulations.

15.3.4.4 Socio-Economics

The principal socio-economic assessment criteria relates to the economic and employment effects that the Development may have within the study area, as defined in Section 15.3.3.1. These effects are defined in terms of Full-Time Equivalent (FTE) jobs and the Gross Value Added (GVA) generated by any jobs created by the Development. The assessment aims to predict the likely effects (positive, negative or neutral) arising from the Development. Social and economic effects are divided into:

- Direct effects: for example, employment opportunities in the construction, operation and
 maintenance and decommissioning of the Development. The nature and scale of the
 economic effects would depend on the total cost and the sources of the materials and
 labour. Other direct effects include a community benefit fund and the payment of business
 rates payable to the local authority throughout the operational phase of the Development;
- Indirect effects: such as employment opportunities created down the supply chain by those companies providing services to the Development during construction, operation and decommissioning;
- Induced effects: for instance, employment created by the additional spend of wages into the local economy and the purchasing of basic materials, equipment and office space for staff; and

Ladyfield Renewable Energy Park

The sensitivity of the local economy is determined in Section 15.5.1.3 using the sensitivity matrix in Table 15.3. Table 15.4 and Table 15.5 will then be used to determine the magnitude of impact and significance of effect in line with the EIA Regulations in Section 15.6.1. This is calculated for the construction, operational and decommissioning phases of the Development.

15.3.4.5 Tourism and Recreation

Tourism and recreation can be affected when the Development leads to a potential change in tourist or recreational habits or activities. Factors which might lead to change in recreational behaviour include loss, closure, or diversion of routes; obstructing access routes or enhancing access; reduction or enhancement of amenity value; and changes in setting and context of the recreational resource. For the purposes of this assessment, amenity is considered to be a combination of visual amenity and noise levels experienced by the users of tourist attractions, recreational facilities and accommodation. Effects can be adverse or beneficial.

A qualitative, desk-based assessment will be undertaken by utilising Table 15.3, Table 15.4 and Table 15.5 to determine the sensitivity, magnitude of impact and significance of effect in line with the EIA regulations. The sensitivity of tourist receptors has been determined in Section 15.5.2.1 and 15.5.2.2. The sensitivity of recreational receptors has been determined in Section 15.5.2.3.

Construction Phase Assessment of Effects

Table 15.8 gives a full, detailed assessment of the sensitivity, magnitude of impact and significance of effect for each recreational/tourist receptor during the construction phase of the Development. Figure 15.1 and Figure 15.2 provide useful context for Table 15.8.

Operational Phase Assessment of Effects

Table 15.9 gives a full, detailed assessment of the sensitivity, magnitude of impact and significance of effect for each recreational/tourist receptor during the operational phase of the Development. Figure 15.1 and Figure 15.2 provide useful context for Table 15.9.

Decommissioning Phase Assessment of Effects

Any potential adverse and beneficial decommissioning phase effects are anticipated to be similar to those identified during the construction phase; however, effects are likely to be experienced over a shorter timeframe, and to a lesser extent, as underground elements, such as cabling, are left in situ; therefore, construction phase effects can be seen as a 'worst-case scenario'.

15.3.4.6 Land Use

Land use is the anthropogenic management and occupation of the environment, and what the land is used for, both at present and in the future. Developments can affect the ability of the land to be effectively used for its current purpose and also affect the potential use in the future. This can result from direct loss of land to new infrastructure, which is therefore no longer available for the current land-use; and disruption to existing land use operations occurring as a result of the construction and operational activities of a new development (e.g. access restrictions).

A qualitative, desk-based assessment will be undertaken by utilising Table 15.3, Table 15.4 and Table 15.5 to determine the sensitivity, magnitude of impact and significance of effect in line with the EIA regulations.

15.3.5 Cumulative Effects

Cumulative effects related to socio-economics, tourism, recreation and land use are assessed in the context of other developments within 15km from the nearest turbine. Cumulative effects in this context are generally related to:

- The visibility of multiple schemes;
- Noise from multiple schemes:
- Multiple developments being constructed within proximity to one another;
- The capacity of the same land use type being diminished by Developments; and

Multiple community benefit funds operating within the same local area.

15km is considered to be the conceivable maximum distance that these effects may occur for socio-economics, tourism, recreation and land-use receptors. There may also be wider effects outwith this 15km, such as the intended use of Corpach Harbour and the roads between there and the Site being used to deliver the Development turbines, as well as potentially being used by other schemes and developments. This would give rise to cumulative impacts from a traffic and transport perspective which are assessed in Chapter 13 - Traffic and Transport.

15.3.6 Assessment Limitations

Data has been collated from published sources and no surveys specific to the Development have been carried out; however, as noted earlier, Site visits and technical assessments related to other environmental topics have, where appropriate, informed the assessments within this chapter.

Whilst efforts have been made to ensure that the key tourism and recreation facilities in the area have been identified, it is possible that there are a number of small attractions that will not have been identified through the data collection process.

In order to maximise the economic effects associated with the Development, it will be necessary for local contractors to engage with the opportunities that arise and increase awareness of these opportunities. Based on prior experience of construction of such developments, it is assumed that this will be the case for the purposes of this assessment.

Despite these limitations, a robust assessment has been undertaken to provide an accurate assessment of anticipated significant effects on socio-economics, tourism, recreation and land use.

15.4 Embedded Mitigation

Measures to avoid or reduce potential effects on socio economics, recreation, tourism and land use receptors have been incorporated into the design of the Development ('embedded mitigation'). This includes 'mitigation by design' whereby aspects of the Development have been re-designed to avoid or reduce effects. Embedded mitigation is taken into consideration when undertaking the assessment of significant effects. If significant effects are predicted, further mitigation is detailed. Further detail is provided in Section 3.4.3: Mitigation by Design in Chapter 3: Site Selection and Design.

15.4.1 Mitigation by Design

A critical design consideration has been the reduction in number and height of turbines and their locations. Despite the evidence presented in Section 15.2.4.8 which suggests there is no negative relationship between onshore wind farm developments and tourism, tourism receptors were considered a part of the iterative design process, particularly in respect of visual amenity effects of tourist features such as:

- Removing turbines from the southern portion of the Site to reduce the visibility from the sensitive locations of Inveraray Castle, Dun na Cuaiche, Loch Fyne and the settlement of Inveraray which are of particular importance in cultural heritage terms;
- Minimising the visibility of turbines from key views from the above listed locations, as well as from Loch Awe to the north; and
- Locating turbines c.300m from the Glen Etive & Glen Fyne SPA.

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Further detail on this is presented in Section 3.4.3 Site Specific Environmental Constraints and Mitigation by Design in Chapter 3: Site Selection and Design.

15.5 Baseline Conditions

15.5.1 Socio-Economics

The land within the Site which contains the proposed turbines and associated infrastructure covers an area of approximately 790 hectares (ha), centred on National Grid Reference (NGR) 210197, 715498. The Site is located approximately 4.7 kilometres (km) north of Inveraray. The Site lies wholly within the administrative boundary of the Council.

15.5.1.1 Population

Local Study Area

Argyll and Bute is a mainly rural region in the west of Scotland covering an area of around 690,946 ha⁴⁵¹. The area is divided into four traditional localities recognised by the Council as Administrative Areas:

- Mid-Argyll, Kintyre and the Islands;
- Oban, Lorn and the Isles;
- Bute and Cowal; and
- Helensburgh and Lomond.

The Site is located in the Mid-Argyll, Kintyre and the Islands Administrative Area and located in the Mid-Argyll Electoral Ward (i.e., the Local Study Area (LSA)). According to the last Census (2019 Estimate), the LSA has a total population of 19,911⁴⁵², totalling 23% of the total population of Argyll and Bute. The Site is also directly adjacent to the Oban North and Lorn Electoral Ward, with the boundaries of both wards, and the northern section of the Site Boundary itself, following the course of Allt Sheileachan. The Oban North and Lorn Electoral Ward is part of the Oban, Lorn and the Isles administrative area which has a total population of 19,894, or 23% of the total population of Argyll and Bute.

Regional Study Area

As detailed in the preceding section, Argyll and Bute (i.e., the Regional Study Area (RSA)) had an estimated population of 85,430 in 2020^{453} , 52.7% of the total population live in settlements of 3,000 or more people with these settlements including Campbeltown (4,670 residents), with all other settlements having populations less than 3,000 residents.

In 2020, there were marginally fewer females (49.9%) than males (50.1%) living in Argyll and Bute. The largest age group within the population is between the ages of 45 and 64; the average life expectancy was higher for females (81.6 years) than for makes (78 years), both of which are above the Scottish average⁴⁵⁴.

In 2020, 26.2% of the Argyll and Bute population was over 65 years, which is higher than the Scottish average of 19.3%⁴⁵⁵. National Records of Scotland projections⁴⁵⁶ signal that in Scotland

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⁴⁵¹ Argyll and Bute Council (2020) Introduction to Argyll and Bute [Online] Available at: https://www.argyll-bute.gov.uk/info/introduction-argyll-and-bute (Accessed 02.10.23)

⁴⁵² Argyll and Bute Council (2020) Population: Where We Live [Online] Available at: https://www.argyll-bute.gov.uk/info/population-where-we-live (Accessed 02.10.23)

⁴⁵³ National Records of Scotland (2020) Argyll and Bute Council Area Profile [Online] Available at: https://www.nrscotland.gov.uk/files/statistics/council-area-data-sheets/argyll-and-bute-council-profile.html#population_estimates (Accessed 02.10.23)

⁴⁵⁴ National Records of Scotland (2020) Argyll and Bute Council Area Profile [Online] Available at: https://www.nrscotland.gov.uk/files/statistics/council-area-data-sheets/argyll-and-bute-council-profile.html#life expectancy (Accessed 02.10.23)

⁴⁵⁵ National Records of Scotland (2020) Argyll and Bute Council Area Profile [Online] Available at: https://www.nrscotland.gov.uk/files//statistics/council-area-data-sheets/argyll-and-bute-council-profile.html (Accessed 02.10.23)

⁴⁵⁶ National Records of Scotland (2019) Population Projections of Scotland (2018-based) [Online] Available at: https://www.nrscotland.gov.uk/files//statistics/population-projections/2018-based/pop-proj-2018-scot-nat-pub.pdf (Accessed 02.10.23)

the gap between older and younger populations is expected to expand further over time. Between 2018 and 2028, the 0 to 15 age group is projected to see the largest percentage decrease (-17.6%) and the 75 and over age group is projected to see the largest percentage increase (+23.3%). In terms of size, however, 45 to 64 is projected to remain the largest age group. Overall, between 2019 and 2028, the population of Argyll and Bute is projected to decrease from 85,430 to 81,197. This is a decrease of 5.9%, which compares to a projected increase of 1.8% for Scotland as a whole. The pensionable age (over 65) population is set to continue to increase over the next 30 years, however with the pensionable age set to rise to 67 in 2028, the number of people over the pensionable age may decrease; the change in pensionable age is not accounted for within this assessment.

In 2021, the employment rate for the working age population aged 16-64 in Argyll and Bute was 77.6%, which was above the rate for Scotland as a whole (75.9%)⁴⁵⁷.

Outward migration of under-24s in Argyll and Bute is common for the area; between 2018 and 2028, the 16-24 population is expected to decrease by 7.1%⁴⁵⁸. The 16-24 age group is an important demographic for future economic stability and growth. Continued outward migration of young people from the Argyll and Bute region presents a risk to future economic development for the region.

National Study Area

According to the last Census (2020 estimation), Scotland's population is approximately 5,466,000⁴⁵⁹. This is its highest ever population, and an increase of 2,700 people (0.05%) since 2019. Scotland's population has been increasing for the last 20 years. However, population growth over the latest year was slower than any of the previous 17 years.

15.5.1.2 Employment

Local and Regional Study Area

There is limited employment data for the LSA and therefore, the employment statistics for the LSA defer to the RSA of Argyll and Bute statistics.

Argyll and Bute has a higher employment percentage compared to Scottish averages. The employment rate (16-64 year olds) in 2020 was 77.6%, this is higher than the Scottish national average of 75.9% 460. However, the employment rate for Argyll and Bute is falling at a faster rate than the Scottish national average. This could potentially be down to effects arising from the Coronavirus pandemic with Argyll and Bute council ranked the most vulnerable local authority in Scotland to impacts resulting from the pandemic 461. In 2021 the principal employment industries within Argyll and Bute were (rounded by Nomis to the nearest 0.1):

- Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles (12.9%);
- Human Health and Social Work Activities (12.9%);
- Public Administration and Defence; Compulsory Social Security (11.4%);
- Accommodation And Food Service Activities (11.4%);

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⁴⁵⁷NOMIS (2021) Labour Market Profile – Argyll and Bute [Online] Available at:

https://www.nomisweb.co.uk/reports/lmp/la/1946157408/report.aspx#tabempunemp (Accessed 02.10.23)

⁴⁵⁸ National Records of Scotland (2020) Argyll and Bute Council Area Profile [Online] Available at: https://www.nrscotland.gov.uk/files//statistics/council-area-data-sheets/argyll-and-bute-council-profile.html (Accessed 02.10.23)

⁴⁵⁹ National Records of Scotland (2019) Mid-Year Population Estimates Scotland, Mid-2019 [Online] Available at: https://www.nrscotland.gov.uk/files//statistics/population-estimates/mid-19/mid-year-pop-est-19-report.pdf (Accessed 02.10.23)

⁴⁶⁰ NOMIS (2021) Labour Market Profile – Argyll and Bute [Online] Available at:

https://www.nomisweb.co.uk/reports/lmp/la/1946157408/report.aspx#tabempunemp (Accessed 02.10.23)

⁴⁶¹ Argyll and Bute Council (2021) Child Poverty Action Plan Review 2020 – 2021 [Online] Available at: https://www.argyll-

bute.gov.uk/moderngov/documents/s176152/Child%20Poverty%20Action%20Plan%20Review%202020-2021.003.pdf (Accessed 02.10.23)

- Administrative and Support Service Activities (10%);
- Education (8.6%);
- Construction (6.4%);
- Transportation and Storage (5.0%);
- Manufacturing (5.0%);
- Professional, Scientific and Technical Activities (4.3%);
- Arts, entertainment and Recreation (2.9%);
- Real Estate Activities (1.7%);
- Information And Communication (1.4%);
- Other Service Activities (1.3%);
- Electricity, Gas, Steam and Air Conditioning Supply (1.0%);
- Financial and Insurance Activities (0.5%);
- Mining And Quarrying (0.5%); and
- Water Supply; Sewerage, Waste Management and Remediation Activities (0.4%).

The Business administration and support services sector is expected to see the biggest increase in employment, with approximately 300 more jobs expected in the sector by 2031 compared to 2021. Other sectors expecting increases are the Accommodation and food service activities sector (200 jobs), and professional, scientific and technical activities (200 jobs)⁴⁶².

15.5.1.3 Sensitivity

The sensitivity of the LSA, which is key to this assessment, is considered to be **low**. This is because the employment and economic contributions made by the LSA to the Scottish and UK economy will be of low socio-economic importance. The LSA's economic situation possesses priority in Argyll and Bute Council's policy and there is capacity for the LSA to absorb change without fundamentally altering its present character.

The sensitivity of the RSA is considered to be **medium**. This is because the employment and economic contributions made by the RSA to the Scottish and UK economy is of moderate socio-economic importance. The RSA's economic situation possesses priority in Argyll and Bute Council's policy and there is capacity for the RSA to absorb change without fundamentally altering its present character.

The sensitivity of the NSA is considered to be **medium**. This is because the employment and economic contributions made by the NSA to the Scottish and UK economy will be of moderate socio-economic importance. The NSA's economic situation possesses priority in National policy and there is some capacity for the NSA to absorb change without fundamentally altering its present character.

15.5.2 Tourism and Recreation

15.5.2.1 Tourism and Recreation Receptors

Tourism is a key element in the socio-economic, environmental and cultural welfare of Scotland. Consultation of the data published by VisitScotland⁴⁶³ indicated that in 2019, the number of visitors from the UK, to Scotland, increased by 17% from 2018, with a total spend of £3.20 billion. However, overseas visitors declined by 7% from 2018, with an overall spend of £27.39 billion. In

www.erm.com Ve

⁴⁶² Skills Development Scotland (2021) Regional Skills Assessments - Argyll and Bute [Online] Available at: https://www.skillsdevelopmentscotland.co.uk/what-we-do/skills-planning-alignment/regional-skills-assessments/ (Accessed 02.10.23)

⁴⁶³ VisitScotland (2019) Key Facts on Tourism in Scotland [Online] Available at: https://www.visitscotland.org/binaries/content/assets/dot-org/pdf/research-insights/key-facts-on-tourism-in-scotland-2019.pdf (Accessed 02.10.23)

2019, before the COVID-19 pandemic, the sector employed over 200,000 people nationwide, being one of the major employers and contributed to 2.9% to Scotland's GVA⁴⁶⁴.

VisitScotland figures illustrate that in 2017-2019, Argyll and Bute witnessed a notable growth in tourism when compared to 2016-2018 figures with figures rising by 14%. In 2017-2019, there were 6,531,000 visits to Argyll and Bute; 3,959,000 of which were overnight visits. A total net tourism spend of £443 million was spent in Argyll and Bute during this time.

The growth in visitors to Argyll and Bute was largely driven by domestic visitors. Residents of Scotland accounted for 49% of all overnight trips and additionally spent 34% of the total overnight spend. European visitors form the majority of international travellers in Argyll and Bute and despite declining by 7% in 2017-2019 when compared to 2016-2018, they accounted for more than half of all overseas bed nights and spend in the region.

Domestic day trips in Argyll and Bute fell by 2% to 5.5 million per year in 2017-2019; by 90% to £182 million.

Similarly, to Argyll and Bute as a whole, the area around the Site attracts recreation opportunities based around the natural environment such as hills, wildlife, lochs and rivers due to the area's relatively remote setting. Given that the area is host to many natural landforms etc. that lend themselves to recreational activity, the Site itself can be used for informal recreation such as hillwalking etc. The formally recognised tourist attractions and activities within the tourism and recreation study area are included within Table 15.6, below.

Table 15.6: Tourist Activities and Attractions within the Tourism and Recreation Study Area

Tourist Receptor	Distance from Nearest Turbine	Contextual Location	Theoretical Visibility from Receptor (Y/N)
Rob Roy House	4.2 km east	Drimlee	N
Dun Na Cuaiche Watchtower	4.6 km south	Inveraray	Υ
Inveraray Castle	5.6 km south	Inveraray	Υ
Inveraray Maritime Museum	6.3 km south	Inveraray	Υ
Inveraray Jail	6.4 km south	Inveraray	Υ
Dunderave Castle	6.5 km south east	Inveraray	N
Ardkinglas Woodland Garden	8.7 km south east	Ardkinglas	N
Fyne Den Adventure Zone	8.4 km east	Clachan	N
Fyne Ales Brewery	9.6 km east	Clachan	N
St Conan's Kirk	9.6 km north	Loch Awe	Υ
Cruachan Visitor Centre	10.0 km north	Ben Cruachan	Υ

Those attractions scoped out of further assessment are highlighted in orange; those highlighted in blue are scoped in for further assessment.

The following tourism activities and attractions do not have theoretical visibility (based on Chapter 6 – LVIA), and are scoped-out and not assessed further within this assessment:

- Rob Roy House;
- Dunderave Castle;
- Ardkinglas Woodland Garden;
- Fvne Den Adventure Zone; and

⁴⁶⁴ VisitScotland (2020) Key Facts on Tourism in Scotland 2019 [Online] Available at: https://www.visitscotland.org/binaries/content/assets/dot-org/pdf/research-insights/key-facts-on-tourism-inscotland-2019.pdf (Accessed 02.10.23)

Fyne Ales Brewery.

Those highlighted in blue within Table 15.6, and shown on Figure 15.1, are popular and wellestablished tourist attractions and have the potential to experience effects as a result of the Development. The following section below provides baseline information for each attraction and their determined sensitivity based on the sensitivity matrix in Table 15.3.

Dun Na Cuaiche Tower and Viewpoint

Dun na Cuaiche Tower is an 18th century landmark which stands 248m high on Dun na Cuaiche hill⁴⁶⁵. The tower is associated with Inveraray Castle and located close to the summit of the hill. It was built as a folly to be seen in views from the castle and in conjunction with the castle from the surrounding landscape and forms a distinctive landmark. At the top of the 248m high summit of Dun na Cuaiche, sits a popular viewpoint, which alike the tower, offers long-distance views over the surrounding lower-lying ground to the south. The main draw of the view from the summit is to the south-west along Loch Fyne and the town of Inveraray.

The Cultural Heritage assessment has given Dun na Cuaiche Tower a high sensitivity rating, as the asset derives its cultural significance principally from its historic association with the Invergrav Estate which forms a key element of that cultural significance (Section 9.5, Chapter 9: Archaeology and Cultural Heritage). The LVIA assessment has determined the sensitivity of Dun na Cuaiche viewpoint to also be high, as it presents a natural vantage point across the surrounding landscape (Section 6.9.17, Chapter 6: LVIA). Further, Technical Appendix A9.2 also states that 'there is heavy primacy on the view from the asset down, across the Inveraray Estate and Caste, towards Inveraray and Loch Fyne/Loch Shira', which has informed the high sensitivity of this receptor from a cultural heritage perspective. From a Cultural Heritage perspective, the primacy of views towards features of cultural importance will inform the receptor's significance; however, when considering the viewpoint from a tourist and recreational perspective, views from all angles (360 degrees) need to be considered.

When assessing Dun na Cuaiche Tower and Viewpoint as a recreational receptor, the significance criteria in Table 15.5 has been utilised to determine its significance, as well as inputs from the landscape and cultural heritage chapter, as the receptor relies on these factors for much of its recreational and tourism value. Therefore, the sensitivity of Dun Na Cuaiche Tower is determined to be high as the asset is of high recreational and tourism value, specifically given its cultural heritage and landscape value. It is of importance at a national level and has little capacity to absorb change without fundamentally altering its present character.

Inveraray Castle

Inveraray Castle has been on the shores of Loch Fyne since the 1400s, although the castle that stands today was built some time during the 1700s and is presently home to the Duke and Duchess of Argyll. The castle is a valuable cultural heritage asset to the local area as it shares the rich history and heritage of the Campbell clan. As a tourist and recreational asset, the castle offers the opportunity to explore the grounds of the castle, including the castle gardens, and feature a tearoom and gift shop.

The Cultural Heritage assessment has given Inveraray Castle a high sensitivity rating, as the asset comprises a substantial designed landscape which evolved over 300 years under the direction of the Earls and Dukes of Argyll (Section 9.5, Chapter 9: Archaeology and Cultural Heritage). Further, A9.2 emphasises that 'as a designed landscape, external setting is generally of less importance than movement through the landscape taking in the elements as they were intended to be experienced'. This will help to inform the tourist and recreation assessment of this receptor, as this features of this asset will be experienced transiently when moving through the landscape. The LVIA assessment has also determined the sensitivity of Inveraray Castle to be high, as the gardens

⁴⁶⁵ Atlas Obscura (2023) Dun na Cuaiche Watchtower [Online] Available at: Dun na Cuaiche Watchtower – <u>Inveraray, Scotland - Atlas Obscura</u> (Accessed 02.10.23)

within the caste grounds offers views across the surrounding landscape (Section 6.9.5, Chapter 6: LVIA).

When assessing Inveraray Castle as a recreational receptor, the significance criteria in Table 15.5 has been utilised to determine its significance, as well as inputs from the landscape and cultural heritage chapter, as the receptor relies on these factors for much of its recreational and tourism value. Therefore, it is determined that the sensitivity of Inveraray Castle is high as the asset is of high recreational and tourism value due to its historical and cultural heritage value. It is of importance at a national level and has little capacity to absorb change without fundamentally altering its present character.

Inveraray Maritime Museum

The Inveraray Maritime Museum is one of the world's last iron sailing ships which displays much of the maritime history of the Clyde and the Highland Clearances. The museum has been temporarily closed since 2017 as the pier has been undergoing refurbishments⁴⁶⁶.

The sensitivity of Inveraray Maritime is determined to be low. The asset is of low tourism value and has importance at a local level. It has capacity to absorb changes without fundamentally altering its present character.

Inveraray Jail

Inveraray Jail is a 19th century prison which is now utilised as a museum to explore the jail's history and buildings. Tours and ghost tours are also operated around the jail.

The sensitivity of the Inveraray Jail is determined to be low. The asset is of low tourism value and has importance at a local level. It has capacity to absorb changes without fundamentally altering its present character.

St Conan's Kirk

St Conan's Kirk is located a unique kirk built and designed by Walter Douglas-Campbell, popular for its architecture inside and outside the kirk⁴⁶⁷. It is located at the southern edge of the settlement Lochawe, sitting on the north-western banks of Loch Awe. The surrounding landscape of Loch Awe is a draw for visitors, as views south and east provide the most open outlook from the kirk, where man-made development is limited.

The cultural heritage assessment has given St Conan's Kirk a high sensitivity rating, as the asset derives its cultural significance primarily from the unique architectural designs both internally and externally which are unlike any other in Scotland and is best appreciated in close proximity (externally) and within the church interior (Section 6, Volume 3 Technical Appendix 9.2:Historic Environment Settings Assessment). The landscape assessment has also determined St Conan's Kirk to have a high sensitivity, as although people will visit primarily to appreciate the cultural and architectural qualities of the kirk itself, the landscape setting to this location is of importance to the overall experience (Section 6.9.10, Chapter 6, LVIA).

When assessing St Conan's Kirk as a recreational receptor, the significance criteria in Table 15.5 will be utilised to determine its significance, as well as inputs from the landscape and cultural heritage chapter, as the receptor relies on these factors for much of its recreational and tourism value. It is therefore determined that the sensitivity of St Conan's Kirk is high as the asset is of high recreational and tourism value given its cultural heritage and landscape value, even though the kirk is only of importance at a regional level. The receptor has little capacity to absorb change without fundamentally altering its present character.

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⁴⁶⁶ Britain Express () Inveraray Maritime Museum [Online] Available at: <u>Inveraray Maritime Museum | Historic Argyll Guide (britainexpress.com)</u> (Accessed 02.10.23)

⁴⁶⁷ Saint Conan's Kirk [Online] Available at: <u>St Conan's Kirk is a historic visitor attraction and one of the t Top 10 things to do in Argyll - Visit St Conan's Kirk, a stunning building in Argyll. On the North shore of Loch Awe in Argyll overlooking Kilchurn CastleSt Conan's Kirk is a historic visitor attraction and one of the t Top 10 things to do in Argyll (stconanskirk.org.uk) (Accessed 02.10.23)</u>

Cruachan Visitor Centre

The Cruachan Visitor Centre is a visitor centre for the Crucahan Power Station, a pumped hydro power station. It allows visitors to explore the cavernous machine hall and power-generating turbines that are deep within the Ben Cruachan Mountain. From the visitor centre, there are views southwards cross Loch Awe for visitors to enjoy.

The sensitivity of the Cruachan Visitor Centre is determined to be low. The asset is of low tourism value and has importance at a local level. It has capacity to absorb changes without fundamentally altering its present character.

15.5.2.2 Tourist Accommodation

There are a number of settlements near to the Development which offer a range of accommodation; the nearest settlement offering accommodation is Inveraray, located 4.7 km south of the Site. Inveraray has several accommodation options including The George Hotel, located 4.7 km south of the Site and 6.4 km south of the nearest turbine (T13).

Overall, approximately 68 accommodation receptors have been identified within the tourism and recreation study area^{468, 469}. Accommodation providers will be assessed together, and specific providers will be drawn to as necessary to discuss specific sensitivity/impact. A full list of the 69 accommodation providers within 10km of the Development can be found in Table 15.7 below.

Table 15.7: Accommodation Providers Within 10km of the Development

Name	Location	Туре
Blarghour Farm Cottages	Ardchonnell	Self-Catering
The Kilchrenan Inn	Kilchrenan	Hotel
Taychreggan Hotel	Kilchrenan	Hotel
Ardanaiseig Hotel	Kilchrenan	Hotel
The Posting House	Kilchrenan	Self-Catering
Oakbank Cottage	Taynuilt	Self-Catering
Potsonachan Hotel & Lodges	Dalmally	Hotel & Self-Catering
Burnside House	Dalmally	Self-Catering
Ardbrecknish House	Dalmally	Self-Catering
Osprey Lodge	Dalmally	Self-Catering
Upper Sonachan Farmhouse	Dalmally	Self-Catering
The Stables	Dalmally	Self-Catering
The Upper Tower	Dalmally	Self-Catering
The Study	Dalmally	Self-Catering
The Blue cottage	Dalmally	Self-Catering
Summer Wing	Dalmally	Self-Catering
The Nursery	Dalmally	Self-Catering
Hayfield Lodge	Hayfield	Self-Catering
Cladich House Bed & Breakfast	Cladich	Bed & Breakfast
Riverside Cottage B&B	Cladich	Bed & Breakfast

⁴⁶⁸ Booking.com (2023) Inveraray [Online] Available at: <u>Booking.com: Hotels in Inveraray. Book your hotel now!</u> (Accessed 02.10.23)

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⁴⁶⁹ VisitScotland (2023) Inveraray [Online] Available at: <u>Inveraray Visitor Guide - Accommodation, Things To Do & More | VisitScotland</u> (Accessed 02.10.23)

Name	Location	Туре
Pirn Mill Self Catering Cottage	Cladich	Self-Catering
The Keep	Cladich	Self-Catering
Traditional Woodburning Cottage	Achlian	Self-Catering
The Bird Hide Cabin	Achlian	Self-Catering
The Nest Glamping Pod	Ardteatle	Self-Catering
Achnasmeorach House	Annat	Self-Catering
Achnacarron Boathouse	Taynuilt	Self-Catering
Awe View Railway Cottage	Falls of Cruachan	Self-Catering
Cairndow Stagecoach Inn	Cairndow	Hotel
Ardno Cottage by Loch Fyne	Cairndow	Self-Catering
Butler's Quarter Apartment	Cairndow	Self-Catering
Seal Cove Cabin	Cairndow	Self-Catering
Arnish Cottage	Cairndow	Self-Catering
Hazelbank Cottage	Cairndow	Self-Catering
Loudon Cottage	Cairndow	Self-Catering
McHugh Cottage	Cairndow	Self-Catering
Kabn Company	Cairndow	Self-Catering
Cairndow Cottage	Cairndow	Self-Catering
Trefoil Holiday Home	Strachur	Self-Catering
Thistle House Guest House	Saint Catherines	Bed & Breakfast
Seal Point Cabin	Saint Catherines	Self-Catering
The Lodge-Loch fine	Saint Catherines	Self-Catering
Halftown Cottages	Saint Catherines	Self-Catering
Hazelbank	Saint Catherines	Self-Catering
Darroch Beag	Saint Catherines	Self-Catering
Fyne View Apartment	Inveraray	Self-Catering
Old Jail Apartment	Inveraray	Self-Catering
The Curling Pond	Inveraray	Self-Catering
The Inveraray Inn	Inveraray	Hotel
Cosy Cottage Flat	Inveraray	Self-Catering
The George Hotel	Inveraray	Hotel
Brambles of Inveraray	Inveraray	Hotel
Newton Cottage South	Inveraray	Self-Catering
Black's Land Cottage	Inveraray	Self-Catering
Inveraray Hostel	Inveraray	Hostel
Newton Cottage North	Inveraray	Self-Catering
No9 Inveraray	Inveraray	Self-Catering
St Malieu Hall	Inveraray	Self-Catering

Name	Location	Туре
Loch Fyne Hotel & Spa	Inveraray	Hotel
Newton Hall Guest House	Inveraray	Bed & Breakfast
Rudha-n-Craige House	Inveraray	Bed & Breakfast
Garron Lodge	Inveraray	Self-Catering
Stronshire House	Inveraray	Self-Catering
Barvrack House	Inveraray	Self-Catering
Creag Dhubh Country House	Inveraray	Bed & Breakfast
The First House	Inveraray	Self-Catering
1 Main Street West	Inveraray	Self-Catering
Para Handy Cottage	Inveraray	Self-Catering

The sensitivity of tourist accommodation is considered to be **medium**. This is because the employment opportunities and economic contributions made by the tourist industry is of moderate importance to the local and regional economy. There is some capacity for the LSA to absorb change without fundamentally altering its present character due to the number and variety of accommodation providers within the study area; however, certain accommodation providers may experience greater impacts than others due to their location from the Development.

15.5.2.3 Recreational Routes, PRoW and Core Paths

There are several recreational routes, paths and trails within the recreational routes study area; however, none of these are within located the Site boundary. These routes include:

- National Cycle Network Route 78 Caledonian Way;
- Core Paths; and
- Heritage Paths.

The Site is accessible via the Land Reform Act (Scotland) 2003⁴⁷⁰.

National Cycle Network Route 78 – The Caledonian Way

The Caledonian Way is a 391 km route, that runs from Campbeltown, through the Kintyre Peninsula and the Great Glen Way, along to Inverness⁴⁷¹.

The Caledonian Way is located approximately 8.3km northwest of the nearest turbine (T3), following the western shoreline of Loch Awe between Ford in the south and Taynuilt in the north, via Kilchrenan. As part of Scotland's National Cycle Network, the route is of national importance; however, due to the route's length, shows that there is very little visibility and where visibility does occur it would be relatively low in level. As a route which extends well beyond the Development, the receptor as a whole is adjudged to be tolerant to change. However, due to its national importance the sensitivity of the receptor is concluded as medium as a result of professional judgement taking into account the above rationale.

The sensitivity of The Caledonian Way is determined to be **medium**. The asset is of moderate recreational and tourism value and is of importance at a national level and has some capacity to absorb change without fundamentally altering its present character.

Core Paths

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⁴⁷⁰ Office of Public Sector Information (OPSI) (2016) Land Reform Act Scotland 2003 [Online] Available at: https://www.legislation.gov.uk/asp/2003/2/pdfs/asp 20030002 en.pdf (Accessed 02.10.23)

⁴⁷¹ VisitScotland (2021) The Caledonian Way [Online] Available at: https://www.sustrans.org.uk/find-other-routes/the-caledonia-way (Accessed 02.10.23)

There are eleven Core Paths within the recreational routes study area. These paths are designated by the Council and afforded protection to ensure the public can exercise access rights established under the Land Reform Act (Scotland) 2003.

- C171 (b) Kilmore Loch Nant Kilchrenan Midmuir Drove Road;
- C173 (e) Ford to Annat via Loch Avich and Inverinan;
- C199 (d-e) Furnace to Inverarary via Kenmore;
- C200 (a-b) Coille Braghad Queens Drive Inveraray;
- C201 Dun Na Cuiache, Inverarary;
- C202 Clachan, Caindow (Tree House Path);
- C203 (a-f) Bealach an Fhuarain, Inveraray (circular);
- C204 (a) Glen Fyne, Caindow;
- C300 (b-c) Kilchrenan to Taynuilt;
- C450 Duncan Ban McIntyre monument, Dalmally; and
- C523 Loch Nant, Loch Aweside.

The path C201 – Dun Na Cuaiche is the nearest Core Path to the Site and is located approximately 4.1km to the south of the nearest turbine (T13).

The sensitivity of core paths is determined to be **medium.** The asset is of moderate recreational and tourism value, and are of importance at a regional level and have some capacity to absorb change without fundamentally altering its present character.

Heritage Paths and PRoW

Heritage Paths are old routes that have been previously used for a specific purpose (e.g., a Roman road, Drove Road or Pilgrimage route). There are two identified Heritage Paths within the recreational routes study areas, with the closest heritage path being the Loch Fyne to Inverarnan Drove Road, located 8.9km to the east of the nearest turbine (T13). This paths follows core paths C202 and C204(a) within the recreational routes study area. There are no identified formally recognised PRoW in the recreational routes study areas.

15.5.3 Land Use

The predominant land use within the Site consists of private forestry plantation used for commercial purposes with areas of upland moorland also present in the south and east of the Site.

The land within the Site which contains the turbines and associated infrastructure covers an area of approximately 790 ha. The elevation of the Site ranges from 470 metres (m) Above Ordnance Datum (AOD) in the east of the Site and falls to around 100 m AOD in the west of the Site. There are a number of notable hilltops and ridges within and surrounding the Site including:

- Ceann Chreagan, in the south of the Site;
- Stuc Scardan, directly east of the Site; and
- Tom an Fheidh, directly north to the Site.

There are a number of watercourses within the Site, as well a number of small lochans within and surrounding the Site. These include:

- River Aray, flowing north to south in the west of the Site;
- Allt Sheileachan, in the north of the Site;
- Allt a' Mhadaidh. in the centre of the Site;
- Lochan Mhadaidh, in the east of the Site; and
- Lochan Sheileachan, directly east of the northeast area of the Site.

As well as Allt Sheileachan and Allt a' Mhadaidh, there are also numerous unnamed tributaries draining into the River Aray, flowing from the east to the west of the Site to the east.

The sensitivity of land use is low, as the land-use type is of low value and has capacity to absorb change without fundamentally altering its present character.

15.6 Assessment of Potential Effects

15.6.1 Socio-Economics

The investment in the Development has potential to generate a range of economic and social effects and opportunities for local businesses; most notably employment opportunities and local spending. As detailed, potential social and economic effects can be divided direct, indirect, induced or cumulative. The assessment aims to predict the likely effects (positive, negative or neutral) arising from the Development.

The direct, indirect and induced effects are assessed below for each phase of the Development. This follows a more general assessment of wider benefits. The cumulative effects are assessed in Section 15.7.

15.6.1.1 Wider Economic Benefits

In terms of potential supply chain benefits, the Development provides opportunities for the involvement of local, regional and Scottish suppliers in a range of activities, including research and development, design, project management, civil engineering, component fabrication / manufacture, installation and maintenance. There is expertise in all of these areas in the wider region, although a full wind energy supply chain covering all aspects of wind turbine component manufacture has not yet been developed within the region or indeed within Scotland as a whole. Scotland currently houses wind turbine manufacturing plants in the Highlands. Proposals are also emerging for the location and development of wind turbine manufacturing facilities, including those in and around the east coast, although these are currently primarily for offshore machines.

The key consideration in this context is that with an increasing number of wind farm schemes either operational, under development or having gained consent in Scotland, the commercial viability, and job prospects amongst Scottish firms, has improved. Cluster benefits in the industry increase where firms are supported by the spending of other firms within the renewables sector. The net effect is to increase business and employment opportunities within Scotland's renewable energy sector, boosting the performance of local and national economies.

In addition, during the construction process there will be opportunities where those employed will develop skills that will be of benefit to the local economy and to local businesses in the longer term. Further, employment generated through the Development will contribute to diversifying the local economy and help support the retention in the area of the working age population.

15.6.1.2 Construction Effects

During the construction process there will be opportunities where those employed will develop skills that will be of benefit to the local economy and to local businesses in the longer term. Further, employment generated through the Development will contribute to diversifying the local economy and help support the retention in the area of the working age population.

Employment

To construct the Development, the Applicant will require contractors to give local companies due consideration for the provision of goods and services. If the Development is granted consent, the range of services that may be required to construct the Development include:

- Construction companies;
- Electrical contractors;
- Plant hire excavators, wagons;
- Concrete producers;
- Reinforced steel manufacturers;
- Aggregates;
- Site Managers and Ecological Clerk of Works;
- Fencing;
- Drainage;

- Accommodation;
- General supplies;
- Catering; and
- Cleaning and waste solutions.

As per Policy $11c^{472}$ of NPF4, the applicant aims to maximise local and community socio-economic benefits where possible. Local sourcing of equipment is preferred whenever possible, although this procurement will be subject to tendering and may be constrained by the specialist nature of some of the equipment. Local contractors will be encouraged to tender for construction, operation and maintenance work, wherever possible, to ensure maximum benefit to local communities.

It is anticipated that a temporary workforce of an average of 30 people will be employed during the 24-month construction period. Calculated by 'job years', one individual working for 12 months would result in 1 job year; therefore, 30 individuals working during the 24-month construction period represents 60 job years.

There would also be knock on effects from the direct employment during the construction and development of the Development as employees spend a proportion of their salaries in the wider economy, creating indirect benefits. Annual research undertaken by the engineering and technology magazine, The Engineer, found in 2019^{473} that the average salary for employees in the renewables, energy and nuclear sector was at that time, £51,953, equating to approximately £1.6 million per annum for a workforce of 30 people.

Overall, the construction of the Development will have positive, short-term, direct and indirect effects in the LSA, through the increase in employment. This creates a medium (beneficial) magnitude impact on socio-economics, as there is a moderate alteration to the socio-economic baseline through direct and indirect employment opportunities. Combined with the low sensitivity of the LSA, a **minor**, **beneficial** significance of effect is predicted for direct and indirect employment during the construction phase, which is not significant in the context of the EIA regulations.

Induced Effects

It is likely that there will be some local employment generated as an indirect result of the construction of the Development. This could include supply chain spin-offs for local businesses and sub-contracted work relating to the transportation of labour and materials. Local shops, cafes, accommodation providers and hotels often experience an increase in turnover during the construction phase as they have opportunities to provide additional services to the developer and their contractors. There are several accommodation options in the local and wider area, and it is expected that local services will be used by temporary construction contractors.

There may also be the opportunity for local people, who are employed by the appointed contractors, to work on the Development. They would be developing skills gained during construction which will be of benefit to both individuals and the local economy in the longer term. Skills gained or improved may include, for example, project management and construction skills which would be transferrable to other construction roles, including other wind farm projects.

Overall, the construction of the Development will have positive, short-term, induced effects in the LSA, through the increase in employment. This creates a low (beneficial) magnitude impact on socio-economics, as there is a slight alteration to the socio-economic baseline through induced employment opportunities. Combined with the low sensitivity of the LSA, a **negligible, beneficial** significance of effect is predicted for induced employment during the construction phase, which is not significant in the context of the EIA Regulations.

https://www.openaccessgovernment.org/salaries-in-renewable-energy/71653/ (Accessed 02.10.23)

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 ⁴⁷² Scottish Government (2022) National Planning Framework 4 [Online] Available at:
 https://www.gov.scot/publications/national-planning-framework-4/pages/3/ (Accessed 02.10.23)
 473 Open Access Government (2019) UK salaries in renewable energy sector on the rise [Online] Available at:

Capital Expenditure

Based on the BiGGAR Economics report commissioned by RenewableUK⁴⁷⁴, onshore wind Capital Expenditure (CAPEX) is £1.32 m per MW on average. This includes the following elements:

- Turbine: Tower; Blades; and Nacelle.
- Balance of Plant: Civil and Project Management; Roads; Substation; Buildings; Turbine foundation and hardstanding; Landscaping/forestry/fencing; Mechanical and electrical installation.
- Grid Connection: Engineering services; Construction; Electrical Components; and industrial equipment and machinery.

On the basis that the windfarm element of the Development has a capacity of up to 58.5 MW, based on 13 Vestas V136 4.5 MW Turbines, the total CAPEX of the Development would be expected to be approximately £85.8 million.

The BiGGAR Report estimates that, of these construction costs, regional expenditure would be 12% (in this case Argyll and Bute); national expenditure would be 36% (Scotland); and UK expenditure would be 47%. The remaining 53% of construction costs will be spent outwith the UK.

On this basis, it is estimated that, during the construction phase, the Development will be worth approximately £40.3 million to the UK economy. Of that approximately £30.1 million is expected to be spent within Scotland (national) and £10.3 million is expected to be spent within Argyll and Bute (regional).

Overall, the construction of the Development will have positive, short-term effects in the RSA and NSA through the increase in expenditure. This creates a medium (beneficial) magnitude impact on socio-economics, as there is a moderate alteration to the socio-economic baseline through increased expenditure. Combined with the medium sensitivity of both the RSA and NSA, a **moderate, beneficial** significance of effect is anticipated within Argyll and Bute, and Scotland, which is significant in the context of the EIA Regulations.

15.6.1.3 Operational Effects

Employment

The Development will have both direct and indirect effects on employment during operation. The Applicant will employ a specialist Operations Team to manage all aspects of operations including the grid contracts, electricity sales, maintenance, health and safety and habitat management. As well as the Project and Site Managers, there will be a requirement for the following services:

- High Voltage (HV) Contractor;
- Wind Turbine Maintenance Contractor;
- Building Services Contractor;
- Statutory Inspections;
- Civils Maintenance (e.g., roads, crane pads, buildings and snow clearance); and
- Health, Safety, Environmental Risk Assessments.

To ensure a quick response to any on-site issues, it is preferable that many of these roles will be fulfilled by local companies.

⁴⁷⁴ RenewableUK (2015) Onshore Wind: Economic Impacts in 2014 [Online] Available at: https://cdn.ymaws.com/www.renewableuk.com/resource/resmgr/publications/reports/onshore economic benefits-re.pdf (Accessed 02.10.23)

Overall, it is estimated that the operational phase of the Development will generate employment opportunities equivalent to approximately 2-3 FTE workers. Induced effects will include local spending by the Applicant and maintenance contractors.

Overall, the operation of the Development will bring long-term, beneficial, direct, indirect and induced effects to the area, through the increase in employment and business opportunities. This will not result in any fundamental or long-term change to population, local services, employment or overall structure of the community. The magnitude of impact arising from the operational phase is of negligible, positive significance. Combined with the low sensitivity of the LSA, this is considered to create a **negligible** significance of effect which is not significant in terms of the EIA Regulations; however, the Development will contribute to employment in Scotland.

Operational Expenditure

In the BiGGAR report⁴⁷⁵ on the economic benefits of the UK onshore wind industry, the average operational cost of an onshore wind farm was £59,867 per MW installed per annum. This includes:

- Turbine Maintenance;
- Site Maintenance:
- Operational Management;
- Land Agreements;
- Habitat Management costs;
- Non-domestic rates (business rates);
- Community Benefit; and
- Other.

For the Development, annual Operational Expenditure (OPEX) is expected to be in the region of £3.5 million per annum. Of this total spend, the BiGGAR report estimates 42% will be spent in the local area, which would include business rates and land agreements with the local landowners, as well as a proportion of the maintenance costs. 87% of the total operation and maintenance expenditure will likely be within the UK.

Overall, the operation of the Development will bring long-term, beneficial, positive, short-term effects in the RSA and NSA through the increase in expenditure. The magnitude of impact arising from the operational phase is low, as there is a slight alteration to the socio-economic baseline. Combined with the low sensitivity of the RSA, a **negligible**, **beneficial** significance of effect is predicted for socio-economics the construction phase, which is not significant in the context of the EIA Regulations. The low magnitude of impact combined with the moderate sensitivity of the NSA creates a **minor**, **beneficial** significance of effect which is not significant in the context of the EIA Regulations.

Community Benefit

The Scottish Government has emphasised the importance of communities benefitting from renewable energy generation, including through community benefit funds and shared ownership as outlined the Scottish Energy Strategy⁴⁷⁶.

The Development will contribute £5,000 per installed megawatt of wind energy per annum, index linked for the operational lifetime of the project, to a Community Benefit Fund. Based on an assumed installed wind energy capacity of up to 58.5 MW, this will result in an annual value of approximately £292,500 per year. With a 40-year operational period, this will provide approximately £11.7 million in community benefit.

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⁴⁷⁵ RenewableUK (2015) Onshore Wind: Economic Impacts in 2014 [Online] Available at: https://cdn.ymaws.com/www.renewableuk.com/resource/resmgr/publications/reports/onshore economic benefit s re.pdf (Accessed 02.10.23)

⁴⁷⁶ Scottish Government (2017) Scottish Energy Strategy: The future of energy in Scotland [Online] Available at: https://www.gov.scot/publications/scottish-energy-strategy-future-energy-scotland-9781788515276/ (Accessed 02.10.23)

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Although not a material consideration for the planning process, the Community Benefit Fund represents a change of medium magnitude for the local community. This is considered a minor, positive long-term, and direct effect and **not significant** in terms of the EIA Regulations.

The Applicant has also promoted and been involved in a number of community initiatives throughout the development process, working closely with community organisations such as Inspire Inveraray and Inveraray Senior Citizens.

Through working closely with Inspire Inveraray and Inveraray Community Council, the Applicant successfully facilitated an Option to Purchase agreement and fundraising of over £240,000 for Inspire Inveraray to buy-out and restore Inveraray Pier. Once restored, the pier will again provide access to and from Loch Fyne, reconnect communities across the loch and bring in more visitors to the town, to the benefit of local businesses and tourist attractions within the town. Fundraising came from two main sources, the local community, and through grants which the Applicant successfully assisted Inspire Inveraray in applying for (Section 8.6, Pre-Application Consultation (PAC) Report).

The Applicant also supported Inveraray Senior Citizens, initiating and providing financial support to the 'Warm Spaces' project in partnership with Inveraray Community Council and The George Hotel. The Applicant has also supported the Breakfast Club at Inveraray Primary School in partnership with Inveraray Community Council. Further information on community consultation can be found in the Pre-Application Consultation (PAC) Report.

All of these community projects and initiatives have been carried out through the development process so that the needs and desire of the community could feed into the design of the project.

15.6.2 Tourism and Recreation

Table 15.8 and Table 15.9 below detail the sensitivity, magnitude of impact and significance of effect for each tourist and recreation receptor during the construction (Table 15.8) and operational (Table 15.9) phases.

ENVIRONMENTAL IMPACT ASSESSMENT

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Table 15.8: Assessment of Construction Effects on Tourism and Recreational Receptors

Receptor	Theoretical	Assessment of Effects					
	Visibility from Receptor	Sensitivity	Magnitude of Impact	Significance of Effect	Rationale		
National Cycle Route 78 – The Caledonian Way	Yes (limited)	Medium	Negligible	Negligible (not significant)	The National Cycle Route 78 – The Caledonian Way (NCR78) will not experience any direct impacts – closures or disruptions – as a result of the construction of the Development, thus construction phase effects are limited to visual effects. The vast majority of the route will not experience significant visual effects. Therefore, as the visual effects are limited to a short section of the receptor given its total length, it is not likely there will be any notable change to the use of the receptor for recreation. When considering the whole route as one receptor, and the evidence cited in Section 15.2.4.8 that onshore wind developments do not have negative implications for tourism, the magnitude of change as a result of the operational phase of the Development is negligible. Although the receptor is of medium sensitivity, the magnitude of impact is anticipated to be negligible, and therefore the resultant effect for NCR78 is negligible and not significant in line with the EIA regulations.		
Core Paths	Yes (limited)	Medium	Negligible	Negligible (not significant)	Core Paths will not experience any direct impacts – closures or disruptions – as a result of the construction of the Development, thus construction phase effects are limited to visual effects. LVIA viewpoints 4 and 18 can be used to visualise the extent of views from the highest points of the most visually impacted core paths. Viewpoint 18 is representative of the view from the highest point on Core Path C201, from which views towards the Site are most open. Viewpoint 4 is located on Core Path C203. Other long-distance walking routes will be subject to very limited extents and/or low levels of visibility such that there would be no potential for significant effects to arise, largely owing to the contained nature of the ZTV combined with the generally low-lying locations of the routes (Section 6.4.5.4, Chapter 6: LVIA). It is also worth noting that the zone of theoretical visibility does not take account of vegetation, forestry or the built environment which can significantly reduce the area and extent of actual visibility. As such, any views experienced by users of these routes will be of a limited and transitory nature when approaching the Development, where screening by settlements/buildings and natural features, such as foliage, will also have the capacity to reduce visibility, especially whilst some users may move along these routes at speed. Although the receptor is of medium sensitivity, the magnitude of impact is negligible and the resultant significance of effect on core paths is negligible and not significant in line with the EIA regulations.		

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Receptor	Theoretical	Assessment	Assessment of Effects					
	Visibility from Receptor	Sensitivity	Magnitude of Impact	Significance of Effect	Rationale			
Dun Na Cuaiche Tower and Viewpoint	Yes	High	Negligible	Minor (not significant)	Dun na Cuaiche will not experience any direct impacts – closures or disruptions – as a result of the construction of the Development, thus construction phase effects are limited to visual effects.			
					The position of the Development relative to this Dun Na Cuaiche Tower, and its associated viewpoint, means that the ground level construction works will be screened from view. Tall cranes and emerging turbines will be the only visible parts of the Development during the construction phase. The separation distance of 4.7km will mean that the emerging turbines will be perceived as relatively close-range and large-scale structures, the extent of the emerging turbines will be screened by the intervening landform such that only three turbines will be seen to their blades, a further two only as blades and the remaining four as tips. The presence of Clachan Flats Wind Farm in views to the north-east also moderates the effect of the construction works by establishing wind farm development as a baseline feature in the wider view. (Section 6.9.17, Chapter 6: LVIA). Although the receptor is of high sensitivity, the magnitude of impact is negligible as the			
					change to the receptor is barely perceptible. The resultant significance of effect on Dun Na Cuaiche Tower and Viewpoint is minor and not significant in line with the EIA regulations.			
Inveraray Castle	Yes	High	Negligible	Minor (not significant)	Inveraray Castle will not experience any direct impacts – closures or disruptions – as a result of the construction of the Development, thus construction phase effects are limited to visual effects.			
					Whilst inside the castle, tearoom and gift shops any views of the Development's construction will not be visible. When travelling through the gardens – as well as entering and exiting the castle, tearoom and gift shop – views will be limited/negligible. The position of the Development means that the ground level construction works will be fully screened from view by intervening landform. Tall cranes and emerging turbines will generally be more readily visible; however, only the blade tip of one emerging turbine and crane activity associated with it, will potentially be visible although likely to be screened by the forestry covering the western flank of Dun na Cuaich.			
					Although the receptor is of high sensitivity, the magnitude of impact is negligible as the changes anticipated are barely perceptible. The resultant significance of effect on Inveraray Castle is minor and not significant in line with the EIA regulations.			

Receptor	Theoretical	Assessment	of Effects		
	Visibility from Receptor	Sensitivity	Magnitude of Impact	Significance of Effect	Rationale
Inveraray Maritime Museum	Yes (limited)	Low	Negligible	Negligible (not significant)	Inveraray Maritime Museum will not experience any direct impacts – closures or disruptions – as a result of the construction of the Development, thus construction phase effects are limited to visual effects.
					Visitors to this attraction will not experience any views of the Development when inside the museum; however, they may experience limited views of the Development when entering and existing the facility when facing north. Views are expected to be partially screened by the surrounding forestry and town of Inveraray. Further, the separation distance of the Inveraray Maritime Museum from the Development, 6.3km south, means that the Development will not dominate any views north when entering or exiting the facility.
					The receptor is of low sensitivity and the magnitude of impact is negligible, resulting in a negligible significance of effect which is not significant in line with the EIA regulations.
Inveraray Jail	Yes (limited)	(limited) Low		Negligible (not significant)	Inveraray Jail will not experience any direct impacts – closures or disruptions – as a result of the construction of the Development, thus construction phase effects are limited to visual effects.
					Visitors to this attraction will not experience any views of the Development when inside the jail; however, they may experience limited views of the Development when entering and existing the facility when facing north. Views are expected to be partially screened by the surrounding forestry and town of Inveraray. Further, the separation distance of the Inveraray Jail from the Development, 6.4km south, means that the Development will not dominate any views north when entering or exiting the facility.
					The receptor is of low sensitivity and the magnitude of impact is negligible, resulting in a negligible effect which is not significant in line with the EIA regulations.
St Conan's Kirk	Yes	High	Negligible	Minor (not significant)	St Conan's Kirk will not experience any direct impacts – closures or disruptions – as a result of the construction of the Development, thus construction phase effects are limited to visual effects.
					Visitors to this attraction will not experience any views of the Development when inside the facility; however, they will experience views of the Development when entering and exiting the facility and from the kirk when facing south across Loch Awe. Given the open outlook and limited man-made/cumulative wind farm developments in the area, views of construction will be obvious, introducing a new type of feature to the area. Despite this, the separation distance of 9.6km will help the Development to be seen as a compact group occupying a horizontal extent of 5 to 10 degrees. Further, the

Receptor	Theoretical	Assessment of Effects					
	Visibility from Receptor	Sensitivity	Magnitude of Impact	Significance of Effect	Rationale		
					ridgeline will screen any views of ground level construction works so that it will only be the higher level construction works, comprising of the emerging turbines and associated cranes, which will be visible. The tourist receptor's main draw is to visit the kirk and admire its architecture of which internal, and external views facing the kirk, will remain uninterrupted; therefore, it is determined that the views of the Development southwards will have a limited influence on visitors to this facility (Section 6.9.10, Chapter 6: LVIA).		
					Although the receptor is of high sensitivity, the magnitude of impact is negligible as the changes anticipated are barely perceptible. The resultant significance of effect on St Conan's Kirk is minor and not significant in line with the EIA regulations.		
Cruachan Visitor Centre	Yes	Low	Low	Negligible (not significant)	Cruachan Visitor Centre will not experience any direct impacts – closures or disruptions – as a result of the construction of the Development, thus construction phase effects are limited to visual effects.		
					Visitors to this attraction will not experience any views of the Development when inside the facility; however, they will experience views of the Development when entering and exiting the facility and from the visitor centre when facing south across Loch Awe. Given the open outlook and limited man-made/cumulative wind farm developments in the area, views will be obvious, introducing a new type of feature to the area; however, the separation distance of 10.0km will help the Development to be seen as a compact group. The tourist receptor's main draw is to visit the indoor pumped hydro power station; therefore, it is determined that the views of the Development southwards will have a limited influence on visitors to this facility.		
					The receptor is of low sensitivity and the magnitude of impact is low, resulting in a negligible effect which is not significant in line with the EIA regulations.		
Tourist Accommodation	Yes/No (will vary depending on specific provider)	Medium	Low	Minor (not significant)	Tourist accommodation will not experience any direct impacts – closures or disruptions – as a result of the construction of the Development. The closest accommodation provider is Pirn Mill Holiday Cottage, located 4.0km north of Turbine 1 in Cladich. Given the distance between the nearest property and the Development, impacts on tourist accommodation can be reduced to visual. No impacts such as construction noise is anticipated.		
					Tourist accommodation providers may experience views of construction activity when facing the Development and either looking out windows from inside the property, entering/exiting their accommodation provider or spending time in any outdoor garden areas. For example, the closest accommodation provider (Pirn Mill Holiday Cottage)		

ENVIRONMENTAL IMPACT ASSESSMENT

Ladyfield Renewable Energy Park

Receptor	Theoretical	Assessment of Effects					
	Visibility from Receptor	Sensitivity	Magnitude of Impact	Significance of Effect	Rationale		
			of Impace	OI EIICCE	would only have potential to experience views of the Development when looking out of any south facing windows, spending time in any outdoor garden areas facing southwards or entering/exiting the accommodation provider and facing south; however, Pirn Mill Holiday Cottage sits out with the zone of theoretical visibility and the Development will not be visible from this location. The areas most sensitive to views of the Development are those location on the northern banks of Loch Awe, specifically the Awe View Railway Cottage. Given the open outlook and limited man-made/cumulative wind farm developments in the area, views will be obvious and it will introduce a new type of feature to the area; however, the separation distances of 8.0km (Ardanaiseig Hotel) and 9.2km (Awe View Railway Cottage) will help the Development to be seen as a compact group and provide a reasonable set back distance. The variety of accommodation providers in the surrounding area will allow tourists who wish to be set back further from the Development, or have no visual impact, to select accommodation that suits their preferences. With sustainable tourism on the rise, it also allows tourists who would like to have views of renewable energy developments, such as onshore wind, the opportunity to utilise providers with views of the Development. Further, attempts will be made to utilise local accommodation providers where possible for on-site workers, which is anticipated to have a beneficial impact on the local economy.		
					The receptor is of medium sensitivity and the magnitude of impact is low, resulting in a minor effect which is not significant in line with the EIA regulations.		

Table 15.9: Assessment of Operational Effects on Tourism and Recreational Receptors

Receptor	Theoretical Visibility from Receptor	Assessment of Effects						
		Sensitivity	Magnitude of Impact	Significance of Effect	Rationale			
National Cycle Route 78 – The Caledonian Way	Yes (limited)	Medium	Negligible	Negligible (not significant)	The National Cycle Route 78 – The Caledonian Way (NCR78) will experience limited views of the Development, as seen in Figure 6.10 (Section 6.4.5.4, Chapter 6: LVIA). No direct effects are predicted as a result of operation of the Development, thus operational phase effects are limited to visual effects.			
					The vast majority of the route will not experience significant visual effects. Therefore, as the visual effects are limited to a short section of the receptor given its total length, it is not likely there will be any notable change to the use of the receptor for recreation. When considering the whole route as one receptor, and the evidence cited in Section			

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Receptor	Theoretical	Assessment of Effects						
	Visibility from Receptor	Sensitivity	Magnitude of Impact	Significance of Effect	Rationale			
					15.2.4.8 that onshore wind developments do not have negative implications for tourism, the magnitude of change as a result of the operational phase of the Development is negligible. Although the receptor is of medium sensitivity, the magnitude of impact is anticipated to be negligible, and therefore the resultant significance of effect for NCR78 is negligible and not significant in line with the EIA regulations.			
Core Paths	Yes (limited)	Medium	Negligible	Negligible (not significant)	Core Paths will experience limited views of the Development and the identified Core Paths will not be closed or disrupted as a result of operation of the Development, thus operational phase effects are limited to visual effects.			
					LVIA viewpoints 4 and 18 can be used to visualise the extent of views from the highest points of the most visually impacted core paths. Viewpoint 18 is representative of the view from the highest point on Core Path C201, from which views towards the Site are most open. Viewpoint 4 is located on Core Path C203.			
					Other long-distance walking routes will be subject to very limited extents and/or low levels of visibility such that there would be no potential for significant effects to arise, largely owing to the contained nature of the ZTV combined with the generally low-lying locations of the routes (Section 6.4.5.4, Chapter 6: LVIA). It is also worth noting that the zone of theoretical visibility does not take account of vegetation, forestry or the built environment which can significantly reduce the area and extent of actual visibility. As such, any views experienced by users of these routes will be of a limited and transitory nature when approaching the Development, where screening by settlements/buildings and natural features, such as foliage, will also have the capacity to reduce visibility, especially whilst some users may move along these routes at speed.			
					Although the receptor is of medium sensitivity, the magnitude of impact is negligible and the resultant significance of effect on core paths is negligible and not significant in line with the EIA regulations.			
Dun Na Cuaiche Tower and Viewpoint	Yes	High	Negligible	Minor (not significant)	Dun na Cuaiche will not experience any direct impacts – closures or disruptions – as a result of the operation of the Development, thus operational phase effects are limited to visual effects.			
and viewpoint					The wireline of Figure 6.41 shows that the Development will be visible at a minimum distance of 4.7 km from the viewpoint. Screening by landform to the north, around Dun Corr-Bhile, means that the hubs of three turbines and the blades of a further two will be visible, while the remaining four tips may not be readily apparent. The turbines will be seen between the operational Clachan Flats Wind Farm to the east and An Suidhe to			

Receptor	Theoretical	Assessment	of Effects		
	Visibility from Receptor	Sensitivity	Magnitude of Impact	Significance of Effect	Rationale
					the west, such that the Development will not increase the extent of wind farm development seen across the wider landscape. The turbines will occupy a horizontal extent of 10 to 20 degrees, meaning that they will appear well contained within the wider view where the principal, designed outlook towards Loch Fyne will remain unaffected (Section 6.9.17, Chapter 6: LVIA).
					Further, Figure 9.8 shows that whilst a number of the turbines will be visible from the asset, namely the hubs of turbines 11 and 13 and the blades of turbines 5, 6, 7, 8, 9, 10 and 12, it will not alter the key elements of the asset's cultural significance. The visibility of modern infrastructure, while noticeable, will not distract from the principal views from the folly down to Inveraray and across Loch Fyne nor will they compete with the prominence of the folly when viewed from the designed landscape, from Inveraray Castle or from Inveraray town. These are the fundamental components of the asset's setting which contribute to its significance. Thus, when operational, the Development will not impact the cultural significance of the receptor and the magnitude of change will be negligible (Section 9.5, Chapter 9: Archaeology and Cultural Heritage).
					It should also be noted that as a tourist and recreational receptor, views will be experienced from all angles (360 degrees), not just in the direction of the Development (northwards) or within the context of cultural heritage assets. For example, views south, across Loch Fyne will remain uninterrupted, which further reduces the impact that views of the Development will have from Dun na Cuaiche Tower and Viewpoint.
					Although the receptor is of high sensitivity, the magnitude of impact is negligible as the changes anticipated are barely perceptible. The resultant significance of effect on Dun na Cuaiche is minor and not significant in line with the EIA regulations.
Inveraray Castle	Yes	High	Negligible	Minor (not significant)	Inveraray Castle will not experience any direct impacts – closures or disruptions – as a result of the operation of the Development, thus operational phase effects are limited to visual effects.
					As a tourist and recreational receptor, features within Inveraray Castle will be experienced whilst moving through the landscape, as they were intended to be experienced. Whilst inside the castle, tearoom and gift shops any views of the Development will not be visible. When travelling through the gardens – as well as entering and exiting the castle, tearoom and gift shop – views will be limited/negligible. The blade tip of one of the 13 turbines will be theoretically visible, with lower parts of the turbine and the remainder of the Development screened from view by the landform to the north-west of Dun na Cuaiche, as can be seen in Figure 6.28. Actual visibility is

Receptor	Theoretical	Assessment	of Effects		
	Visibility from Receptor	Sensitivity	Magnitude of Impact	Significance of Effect	Rationale
					likely to be further reduced by vegetation both in closer proximity to the viewpoint and along the horizon. There will be limited/negligible visibility of ground level infrastructure associated with the Development in the gardens. Further, when moving through the gardens views of the Development will be transient. Views will also be taken in from all directions (360 degrees), which will further reduce the extent to which views of the Development will be experienced.
					When in the gardens, the presence of turbines in the wider landscape is incidental and understood as part of an evolving area which includes some existing modern infrastructure, including electricity pylons which are of greater intrusion when viewing the asset from the south-east. The Development will not change the cultural understanding of the asset, nor does not alter the ability to appreciate or experience the cultural significance of the asset, which will create a minor magnitude of change (Section 9.5, Chapter 9: Archaeology and Cultural Heritage).
					Although the receptor is of high sensitivity, the magnitude of impact is negligible as the changes anticipated are barely perceptible. The resultant significance of effect on Inveraray Castle is minor and not significant in line with the EIA regulations.
Inveraray Maritime Museum	Yes (limited)	Low	Negligible	Negligible (not significant)	Inveraray Maritime Museum will not experience any direct impacts – closures or disruptions – as a result of the operation of the Development, thus operational phase effects are limited to visual effects.
					Visitors to this attraction will not experience any views of the Development when inside the museum; however, they may experience limited views of the Development when entering and existing the facility when facing north; however, views are expected to be partially screened by the surrounding forestry and town of Inveraray. Further, the separation distance of the Inveraray Maritime Museum from the Development, 6.4km south, means that the Development will not dominate any views north when entering or exiting the facility.
					The receptor is of low sensitivity and the magnitude of impact is negligible, resulting in a negligible which is not significant in line with the EIA regulations.
Inveraray Jail	Yes (limited)	Low	Negligible	Negligible (not significant)	Inveraray Jail will not experience any direct impacts – closures or disruptions – as a result of the operation of the Development, thus operational phase effects are limited to visual effects.
					Visitors to this attraction will not experience any views of the Development when inside the museum; however, they may experience limited views of the Development when entering and existing the facility when facing north; however, views are expected to be

Receptor	Theoretical	Assessment of Effects					
	Visibility from Receptor	Sensitivity	Magnitude of Impact	Significance of Effect	Rationale		
					partially screened by the surrounding forestry and town of Inveraray. Further, the separation distance of the Inveraray Maritime Museum from the Development, 6.3km south, means that the Development will not dominate any views north when entering or exiting the facility.		
					The receptor is of low sensitivity and the magnitude of impact is negligible, resulting in a negligible effect which is not significant in line with the EIA regulations.		
St Conan's Kirk	Yes	High	Negligible	Minor (not significant)	St Conan's Kirk will not experience any direct impacts – closures or disruptions – as a result of the operation of the Development, thus operational phase effects are limited to visual effects.		
					Visitors to this attraction will not experience any views of the Development when inside the facility; however, they will experience views of the Development when entering and existing the facility and from the kirk when facing south across Loch Awe, as seen in Figure 6.33. Given the open outlook and limited man-made/cumulative wind farm developments in the area, views will be obvious, introducing a new type of feature to the area. All turbines will be visible, ten seen with hubs and three as tips, behind the ridgeline formed by the hills to the south-east of Loch Awe. Despite this, the separation distance of 9.6km will help the Development to be seen as a compact group occupying a horizontal extent of 5 to 10 degrees. Further, screening from the ridgeline will remove views from the lower parts of the turbines and any associated infrastructure. The tourist receptor's main draw is to visit the kirk and admire its architecture of which internal, and external views facing the kirk, will remain uninterrupted; therefore, it is determined that the views of the Development southwards will have a limited influence on visitors to this facility (Section 6.9.10, Chapter 6: LVIA).		
					Further, the impact on St Conan's Kirk as a cultural heritage asste will be negligible, as the southern views from the asset do not form part of the asset's setting from which any contribution is made to its significance. Rather, it forms part of the wider setting which does not have any real association with the asset beyond a general background landscape (Section 9.5, Chapter 9: Archaeology and Cultural Heritage).		
					Although the receptor is of high sensitivity, the magnitude of impact is negligible as the changes anticipated are barely perceptible. The resultant significance of effect on St Conan's Kirk is minor and not significant in line with the EIA regulations.		
Cruachan Visitor Centre	Yes	Low	Low	Negligible (not significant)	Cruachan Visitor Centre will not experience any direct impacts – closures or disruptions – as a result of the operation of the Development, thus operational phase effects are limited to visual effects.		

Theoretical	Assessment of Effects						
Visibility from Receptor	Sensitivity	Magnitude of Impact	Significance of Effect	Rationale			
				Visitors to this attraction will not experience any views of the Development when inside the facility; however, they will experience views of the Development when entering and existing the facility and from the visitor centre when facing south across Loch Awe. Given the open outlook and limited man-made/cumulative wind farm developments in the area, views will be obvious, introducing a new type of feature to the area; however, the separation distance of 10.0km will help the Development to be seen as a compact group. The tourist receptor's main draw is to visit the indoor pumped hydro power station; therefore, it is determined that the views of the Development southwards will have a limited influence on visitors to this facility. The receptor is of low sensitivity and the magnitude of impact is minor, resulting in a negligible effect which is not significant in line with the EIA regulations.			
Yes/No (will vary depending on specific provider)	Medium	Low	Minor (not significant)	Tourist accommodation will not experience any direct impacts – closures or disruptions – as a result of the operation of the Development. The closest accommodation provider is Pirn Mill Holiday Cottage, located 4.0km north of Turbine 1 in Cladich. Given the distance between the nearest property and the Development, impacts on tourist accommodation can be reduced to visual. No impacts such as noise or shadow flicker are anticipated.			
				Tourist accommodation providers may experience views of the Development when facing it and either looking out windows from inside the property, entering/exiting their accommodation provider or spending time in any outdoor garden areas. For example, the closest accommodation provider (Pirn Mill Holiday Cottage) would only have potential to experience views of the Development when looking out of any south facing windows, spending time in any outdoor garden areas facing southwards or entering/exiting the accommodation provider and facing south. Despite this, Pirn Mill Holiday Cottage sits out with the zone of theoretical visibility and the Development will not be visible from this location. The areas most sensitive to views of the Development are those location on the northern banks of Loch Awe, specifically the Ardanaiseig Hotel and Awe View Railway Cottage. Given the open outlook and limited manmade/cumulative wind farm developments in the area, views will be obvious and it will introduce a new type of feature to the area; however, the separation distances of 8.0km (Ardanaiseig Hotel) and 9.2km (Awe View Railway Cottage) will help the Development to be seen as a compact group and provide a reasonable set back distance. The variety of accommodation providers in the surrounding area will allow tourists who wish to be set back further from the Development, or have no visual impact, to select			
YVC	Visibility from Receptor Yes/No (will vary depending on specific	Sensitivity Sensitivity Yes/No (will vary depending on specific	Sensitivity Magnitude of Impact Yes/No (will vary depending on specific Medium Low	Sensitivity Magnitude of Impact Significance of Effect Yes/No (will vary depending on specific			

SOCIO-ECONOMICS, TOURISM, RECREATION & LAND USE

Receptor	Theoretical	Assessment of Effects					
	Visibility from Receptor	Sensitivity	Magnitude of Impact	Significance of Effect	Rationale		
					accommodation that suits their preferences. With sustainable tourism on the rise, it also allows tourists who would like to have views of renewable energy developments, such as onshore wind, the opportunity to utilise providers with views of the Development.		
					Further, attempts will be made to utilise local accommodation providers where possible for on-site workers, which is anticipated to have a beneficial impact on the local economy.		
					The receptor is of medium sensitivity and the magnitude of impact is low, resulting in a minor effect which is not significant in line with the EIA regulations.		

15.6.2.1 Decommissioning Effects

Effects during the decommissioning phase are anticipated to be of a similar nature and scale as construction effects, albeit for a shorter period when compared to construction, and are therefore, **not significant** in terms of the EIA Regulations.

All other receptors will experience decommissioning effects that are **not significant** in terms of the EIA Regulations, as per construction effects assessment.

15.6.3 Effects on Land Use

The land within the Site which contains the turbines and associated infrastructure covers an area of approximately 790 ha; however, the total infrastructure footprint will be substantially less.

Part of the access tracks required for the Development will utilise existing access tracks which serve the existing forestry operations, where upgrades will be required.

As per Table 2.1 of Chapter 2: Development Description and Section 14.6 on Chapter 14 – Forestry, the Site is currently undertaking a Long Term Felling Plan (LTFP), therefore felling will occur irrespective of the Development. As felling is scheduled for early 2025 or earlier, and the Development is unlikely to begin construction any earlier than 2025, baselines within this assessment will assume that felling has been undertaken and completed. As precise timing for feeling is not within the control of the Applicant, this approach is considered a worst-case scenario.

It is estimated that a total of 79.3 ha is required to be felled due to the construction and operation of the Development. The permanent new footprint of the Development, including infrastructure and following restoration will be approximately 49.5 ha. During the construction period, it is estimated that a further 29.8 ha will be temporarily required, which includes the borrow pit, crane assembly areas, turbine blade storage areas and two Temporary Construction Compound's (TCC) which will be reinstated following the construction works. It is assumed that, where possible, some temporary infrastructure would be re-instated and available for restocking post-construction.

This total land take of the Development equates to approximately 10% of the total land in the Site. Potential effects that could be associated with the land take of the Development include disruption to the existing land use operations (e.g., due to felling or construction traffic or permanent change to the existing land use).

15.6.3.1 Construction Effects

The Site is currently predominantly commercial forestry with areas of rough upland moorland located across the Site and felling will occur irrespective of the Development. Of the 79.3 ha of felling required for the construction of the Development, 71.6 ha would be advanced form later phases of the LTFP, as seen in Table 14.8 of Chapter 14 - Forestry.

The land use is considered to be a low sensitivity receptor as although it is not used by the public, commercial forestry operations exist on-site. However, given the high level of commercial plantation in Argyll and Bute, the impacts on this type of land use for a temporary period is anticipated to be low, resulting in a low magnitude of impact.

Therefore, the significance of effect on land use during the construction phase is considered to be negligible and **not significant** in terms of the EIA Regulations.

15.6.3.2 Operational Effects

The operational effects of the Development will result in a net loss of land which might otherwise be used as forestry plantation and upland moorland as part of the existing estate. The Development is partially located within commercial forestry plantation and the construction period will involve the felling of 79.3 ha of forestry within the Site described in Chapter 14 - Forestry.

In order to comply with the criteria of the Scottish Government's Control of Woodland Removal Policy, off-site compensation planting would be required. The Applicant is committed to providing

appropriate compensatory planting; however, there will be a net loss of woodland area due to the construction of the Development.

Of the 29.8 ha of forestry removed as part of the construction, all will be replanted on-site as part of the forest design plan (the majority of which is associated with the habitat management plan). Compensatory planting of 48.7 ha will offset the loss of woodland caused by the Development infrastructure.

For the total area within the Site of approximately 790 ha, as noted above, it is anticipated that the overall land take, as a result of the Development will be approximately 49.5 ha (including 29.8 ha of temporary infrastructure due to complexities in re-creating habitat types as a worst-case), equating to around 10% of the land within the Development.

This impact is of low magnitude. The land take on a low sensitivity receptor will have a long-term, negligible effect on land use, which is considered to be **not significant** in terms of the EIA Regulations.

As stated throughout this section, the effects of the operational phase of the Development will not have a significant effect on land use receptors in accordance with the EIA Regulations.

15.6.3.3 Decommissioning Effects

The operational lifespan of the Development and associated infrastructure will be up to 40 years. Following this, an application may be submitted to retain or replace the turbines, or they could be decommissioned. It is anticipated that there will be no additional land use effects associated with the decommissioning of the Development.

Disruption to land use during the decommissioning phase will involve temporary cessation of forestry activities in the vicinity of the Site while activities to remove the turbines are undertaken. The decommissioning phase will be similar to that during construction; however, activities are likely to occur over a shorter timeframe and to a slightly lesser extent as underground elements, such as cabling, are left in situ. Therefore, construction phase effects can be seen as a 'worst-case scenario'.

It is expected that decommissioning would take up to 12-months to complete. The magnitude of effect would therefore be negligible. Decommissioning will have an effect of short-term, negligible significance on land use, which is a low sensitivity receptor, which is considered not to be significant in terms of the EIA Regulations.

It is expected that decommissioning will involve the reinstatement of the turbine foundations and associated hardstanding and demolition and removal of control building and compound. The land will be restored with topsoil. This will reduce the permanent land take for the Development. Prior to agreement of a comprehensive restoration plan setting out the specific methods of reinstatement. There will be negligible permanent land take following decommissioning, largely consisting of the tracks should the landowner wish to retain these, and presents a negligible effect on land use, which is considered to be not significant in terms of the EIA Regulations.

The land use is a low sensitivity receptor and the magnitude of effect is expected to be low.

As stated throughout this section, the effects of the decommissioning phase of the Development will be negligible and **not significant** on land use receptors in accordance with the EIA Regulations.

15.7 Cumulative Effect Assessment

The appropriate scale for considering cumulative development depends on the nature of the potential effect. These are considered in turn, for each category of potential effect.

There are a number of wind farms within 10 km of the Site, either consented or in the planning process, as set out in Table 15.10.

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Table 15.10: Cumulative Wind Farm Sites within 10 km of the Site

Wind Farm	Status of Wind Farm	Turbine Count	Approximate Distance from the Site (km)
Clachan Flats	Operational	9	6.35
Blarghour Farm	Operational	1	9.77
Blarghour	Consented	17	5.71
Blarghour Variation*	Application	14	4.62
An Car Dubh	Application	26	4.96
Eredine	Scoping	26	9.04

15.7.1 Socio-Economics

Regional socio-economic effects have been defined as at the scale of the Argyll and Bute Council area. The beneficial socio-economic effects associated with the Development would be increased and prolonged as a result of the construction and operation of cumulative wind farm developments, benefiting both the construction and energy generation sectors. However, even with the addition of the Development, the combined effect with other wind farms would be considered unlikely to lead to a fundamental change in economic activity within Argyll and Bute. This is considered to be **not significant** in the terms of this EIA, and in terms of the EIA Regulations.

Potential exists in the future, should a large enough number of wind farms be consented in the area, for job creation to occur to support the industry. However, at a regional level, the sustaining of jobs, in construction in particular, is considered not significant.

The greater the capacity of consented and constructed developments in the area, the more likely it is that the local area can benefit from supply chain opportunities. Additionally, it is likely that operations and maintenance operations of the Development will be based locally as there would be enough opportunity locally to employ full time employees and companies however, these effects are **not significant** in terms of the EIA Regulations.

15.7.2 Tourism and Recreational Effects

Cumulative visual effects on outdoor recreational and tourism facilities resulting from the Development in conjunction with other wind farms in the Study Areas are assessed in Chapter 6 - LVIA.

Cumulative effects on the amenity of tourism and recreation receptors during operation are strongly linked to visual effect. As set out in Section 15.2.4.8, there is no statistically viable evidence that tourism is negatively impacted by wind farms. It is therefore presumed that windfarms have no notable effect on tourism, and no significant cumulative effects from the Development are anticipated, which is therefore **not significant** in terms of the EIA Regulations.

Overall, it is assessed that wind farm development does not have a noticeable effect on tourism, and no cumulative effects from the Development are anticipated.

15.7.3 Land Use

Given the amount of grassland (approximately 19.5% of total land cover) and forested areas available (20.9% of total land cover) in Argyll and Bute, wind farms generally have a very small footprint. The cumulative effects of wind farms during construction and operation are considered to be of insignificant magnitude, for a receptor of low sensitivity as impacts are mostly located in poor quality upland areas. This is a resultant negligible effect, and therefore, **not significant** in terms of the EIA Regulations.

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15.8 Mitigation and Residual Effects

Socio-economics, tourism, recreation and land use effects were assessed, and it was concluded that any effects were **not significant** in line with the EIA Regulations; therefore, mitigation is not required as a result of the Development.

15.9 Summary of Effects

Table 15.11 provides a summary of the effects detailed within this chapter.

Table 15.11: Summary of Effects

Table 15.11: Summary of Effects							
Receptor	Potential Effect	Significance of Effect	Mitigation Proposed	Residual Effect			
Construction Phase							
Local employment	Direct and indirect effects through increase in employment.	Minor, beneficial	None proposed	Minor, positive			
Skill development and indirect employment	Indirect and induced employment opportunities and skill development.	Minor, beneficial	None proposed	Minor, positive			
Local economy	Capital expenditure within the local area.	Minor, beneficial	None proposed	Minor, positive			
Land use	Land take and change of land use.	Minor, negative	None proposed	Negligible,			
Recreational Routes	Reduced visual amenity for temporary periods throughout the walks.	Negligible	None proposed	Negligible			
Tourism and Recreation	Potential decrease in amenity due to presence of construction works, noise and visual amenity. Potential for some disruption from construction traffic.	Negligible	None proposed	Minor, negative			
Operational Phase							
Local employment	Increased employment and business opportunities.	Negligible	None proposed	Negligible			
Local and regional economy	Operational expenditure to the regional.	Negligible	None proposed	Negligible			
Land use	Land take and change of land use.	Minor, negative	None proposed	Negligible			
Recreational Routes	Reduced visitor numbers due to presence of wind farm.	Negligible	None proposed	Negligible			
Tourism and Recreation	Reduced visitor numbers due to the presence of wind farm.	Negligible	None proposed	Negligible			

15.10 Statement of Significance

The renewables industry is an important economic asset to the UK and Scotland, and supports a substantial and growing number of employment opportunities. Although not significant in terms of

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the EIA Regulations, the Development will further contribute to the beneficial economic effect of renewable energy, and associated skills base within Scotland.

The establishment of a local community fund will make a valuable contribution to community initiatives surrounding the Site however, this is not significant in terms of the EIA Regulations.

No significant effects in terms of the EIA Regulations are predicted on socio-economics, tourism, recreation and land-use receptors during the construction, operation or decommissioning phases of the Development. There will also be no significant direct or indirect effects on socio-economics, tourism, recreation or land use as a result of the Development both in isolation or cumulatively. As such, it can be concluded that effects on socio-economics, tourism, recreation and land use are **not significant** in terms of the EIA Regulations.