

Chapter 13: Socio-Economics

Chapter 13

Socio-Economics

Introduction

13.1 This chapter considers the potential social and economic effects of the proposed An Càrr Dubh Wind Farm (the Proposed Development). It details the likely direct and indirect employment generation and any additional likely direct and indirect economic benefits as a result of the Proposed Development in Argyll and Bute, including a community benefit fund. It also considers potential direct and indirect effects in relation to public access, recreation, and tourism.

13.2 The socio-economic assessment has been undertaken by experienced EIA practitioners at LUC in collaboration with MKA Economics. Both companies have undertaken similar assessments for a number of wind farm developments in the UK.

Scope of the Assessment

Effects Assessed in Full

13.3 The following effects were identified at the Scoping stage for consideration in this assessment:

- Direct employment and economic benefits during construction and operation of the Proposed Development (including community benefit fund) and associated indirect/induced employment and economic benefits, such as effects on local commerce;
- Direct effects of the Proposed Development on public access (including Public Rights of Way (PRoW), Core Paths and other routes) within the Site and indirect effects on recreational activities (such as effects on the visual amenity of users of recreational routes) during construction and operation;
- Direct and indirect effects on tourism during construction and operation of the Proposed Development; and
- Cumulative effects of the Proposed Development on employment and economic benefits, public access, recreation and tourism during construction and operation in conjunction with other wind farms within the vicinity of the Site, with a particular focus on the combined economic effects with other consented and operational wind farms.

13.4 An assessment of the effects of the Proposed Development on recreational amenity during construction and operation relating to visibility is considered in **Chapter 6: Landscape and Visual Amenity**. Where relevant, this chapter makes reference to **Chapter 6** to describe the likely indirect effects of the Proposed Development on the visual amenity of users of recreational routes and also tourists. Consideration of the implications of the Proposed Development on existing land use is included in **Chapter 4: Project Description**, including a discussion on forestry.

Effects Scoped Out

13.5 On the basis of the desk-based work undertaken, the professional judgement of the EIA team, experience from other relevant projects, and feedback received from consultees, the following topic areas have been 'scoped out' of detailed assessment, as proposed in the Scoping Report:

- Effects beyond the study areas proposed for employment, recreation and tourism as these study areas are considered to be realistic and within which effects are most likely to be experienced.

Effects Not Assessed

13.6 The Applicant is open to offering shared ownership to the community as part of the Proposed Development. However, as this is not certain to be taken up at this stage, shared ownership has not been assessed as part of this chapter.

Assessment Methodology

Legislation and Guidance

13.7 There is no specific guidance or legislation available on the methods that should be used in the assessment of socio-economic, tourism and recreation effects of a proposed onshore wind farm development. The proposed method is therefore based on established good practice, including that used in UK government and Industry reports on the sector.

Consultation

13.8 In undertaking the assessment, consideration has been given to the Scoping responses and other consultation which has been undertaken as detailed in **Table 13.1**. No response was received from VisitScotland.

Table 13.1: Consultation responses

Consultee and Date	Scoping/Other Consultation	Issue Raised	Response/Action Taken
British Horse Society 07.06.2021	Scoping	Provided links relating to recent studies and guidance relating to off-road horse riding, safety advice for horse riders, the Outdoor Access Code, active travel and equestrian access.	Noted. Potential effects on access and recreation have been considered within this chapter.
Argyll and Bute Council (ABC) 20.02.2022	Scoping	Advised the socio-economics assessment should cross-reference to other technical assessments to consider potential effects on recreational assets and other leisure and tourism attractions in the surrounding area, for example due to visual impact, traffic, and noise.	This chapter has considered potential effects on recreational assets in the surrounding area with cross-reference to Chapter 6, Chapter 12: Traffic and Transport and Chapter 11: Noise and Vibration .
		Advised the socio-economics chapter of the EIAR should address the consequences of the Proposed Development for users of the countryside, and tourism and recreation interests. The proposal should not result in the unacceptable loss of amenity to individuals who enjoy recreation pursuits on land or water.	This chapter and Chapter 6 have considered potential effects on recreational receptors in the surrounding area.
Mountaineering Scotland 13.05.2021	Scoping	Suggested that a viewpoint at the Munro Beinn Bhuidhe would be preferable to Viewpoint (VP) 15 Ben Lui as Beinn Bhuidhe is a summit destination for hillwalkers and is much closer to the Proposed Development (c.17 kilometres (km) rather than 26km).	Whilst closer to the site and in the same viewing direction as Ben Lui, and also within the North Argyll Area of Panoramic Quality (APQ), it is not within the Loch Lomond and the Trossachs National park (LLTNP) and is not as popular a summit as Ben Lui. As NatureScot specified hills within the National Park should be considered in the assessment, it was not considered in the appropriate to substitute the Ben Lui VP for Beinn Bhuidhe. Further consultation with Mountaineering Scotland was

Consultee and Date	Scoping/Other Consultation	Issue Raised	Response/Action Taken
			undertaken in October 2021, setting out the reasoning for including Ben Lui instead of Beinn Bhuidhe. A response was received back on 25 th October 2021 setting out that they understand our reasoning. A wireline will be provided from Beinn Bhuidhe as part of the EIA Report.
	Other Consultation – Gate Check 1 Response	Mountaineering Scotland had no further comment to make on the content of the Gate Check Report regarding their area of interest.	No action required.
Scotways 20.12.2022	Other Consultation	There are no recorded Rights of Way, Heritage Paths or Scottish Hill Tracks that cross or are close to the Site.	No action required.

Study Area

13.9 With respect to the direct and indirect employment and economic effects of the Proposed Development, the assessment considers potential effects within the Argyll and Bute region, as information on socio-economic ‘indicators’ is collated for each administrative area.

13.10 The assessment focuses on the Site in terms of the potential for formal and informal recreation (including public access) and on the immediate surrounding area (approximately 5km from the Site) in relation to indirect effects on recreation and tourism. Where necessary, details of recreational routes within the wider area are given for context. Other features of interest for recreation and access where outwith Argyll and Bute have been included, for example, Munros within the Loch Lomond and Trossachs National Park.

13.11 The tourism assessment is based on an assessment of tourism assets within 15km of the Proposed Development, and the recreation assessment is based on recreational assets within 15km of the Proposed Development, where any impacts are likely to occur.

Desk Based Research and Data Sources

13.12 The following key data sources have informed the assessment:

- Scotland Outlook 2030¹;

¹ Scottish Tourism Alliance (2020) Scotland Outlook 2030 – Responsible Tourism for a Sustainable Future [online]. Available at: <https://scottishtourismalliance.co.uk/scotland-outlook-2030-overview/>

² Scottish Government (2022) Scotland’s National Strategy for Economic Transformation [online]. Available at: <https://www.gov.scot/publications/scotlands-national-strategy-economic-transformation/>

³ Tourism Scotland 2020 – A Strategy for Leadership and Growth: The Future of our Industry in our Hands [pdf]. Available at: <https://scottishtourismalliance.co.uk/wp-content/uploads/2019/03/Tourism-Scotland-2020-final.pdf>

⁴ Scottish Government (2020) Scottish Index of Multiple Deprivation 2020 [online]. Available at: <https://www.gov.scot/collections/scottish-index-of-multiple-deprivation-2020/>

⁵ nomis (Office for National Statistics) – official census and labour market statistics website. Available at: <https://www.nomisweb.co.uk/>

⁶ National Records of Scotland (2021) Highland Council Area Profile [online]. Available at: <https://www.nrscotland.gov.uk/files/statistics/council-area-data-sheets/highland-council-profile.html> [Accessed on 11.07.2022]

⁷ VisitScotland (2021) Insight Department: Argyll and the Isles Factsheet 2019 [online]. Available at: <https://www.visitscotland.org/research-insights/regions/argyll-isles>

⁸ VisitScotland (2017) Research and Insights – Regions [online]. Available at: <https://www.visitscotland.org/research-insights/regions>. [Accessed on 19.07.2022]

⁹ Argyll and Bute Council (2019) Argyll and Bute Economic Strategy 2019-2023 [pdf]. Available at: https://www.argyll-bute.gov.uk/sites/default/files/economic_strategy_2.pdf

¹⁰ Argyll and Bute Community Planning Partnership (2013) Argyll and Bute Outcome Improvement Plan 2013-2023 [pdf]. Available at: https://www.argyll-bute.gov.uk/sites/default/files/aboip_v1_2018.pdf

- Scotland’s National Strategy for Economic Transformation (2022)²;
- Tourism Scotland 2020³;
- The Scottish Index of Multiple Deprivation 2020⁴;
- The Nomis (Office for National Statistics) Labour Market Statistics⁵;
- National Records of Scotland data⁶;
- VisitScotland (2021) Insight Department: Argyll and the Isles Factsheet 2019⁷;
- VisitScotland (2017) Tourism in Scotland’s Regions statistics⁸;
- Argyll and Bute Economic Strategy 2019-2023⁹;
- Argyll and Bute Outcome Improvement Plan 2013-2023¹⁰;
- Argyll and Bute Renewable Energy Action Plan 2018 (reviewed and updated yearly)¹¹;
- Argyll and Bute Local Development Plan, adopted on the 26th March 2015^{12 13},
- Argyll and Bute Guidance for Community Benefits from Onshore Renewables¹⁴;
- The Scottish Government’s Good Practice Principles for Community Benefits from Onshore Renewable Energy Developments¹⁵;
- Highlands and Islands Enterprise 2019-2022 Strategy¹⁶;
- Department of Energy and Climate Change and Renewable UK (2012) Onshore Wind: Direct and Wider Economic Impacts (2012)¹⁷;
- NatureScot (2018) Environmental Impact Assessment Handbook (including Appendix 6 Outdoor Access Impact Assessment)¹⁸;
- NatureScot (2010) Guidance for the Preparation of Outdoor Access Plans¹⁹; and
- Other relevant research, statistics and data sources as referenced throughout the text.

13.13 The statutory and policy framework is discussed further within **Chapter 5: Statutory and Policy Framework** of the EIA Report and in the Planning Statement which accompanies the EIA Report.

Field Survey

13.14 No field survey was necessary to inform the assessment of effects in this chapter. Desk-based study and consultation were considered to be the most appropriate means of collecting data for the assessment.

¹¹ Argyll and Bute Council (2018) Renewable Energy Action Plan [online]. Available at: <https://www.argyll-bute.gov.uk/planning-and-environment/renewable-energy-action-plan>

¹² Argyll and Bute Council (2015) Local Development Plan [online]. Available at: <https://www.argyll-bute.gov.uk/ldp> [Accessed on 19.07.2022]

¹³ The next plan (LDP2) is currently being prepared but was not currently adopted at the time of preparing this chapter.

¹⁴ Argyll and Bute Council (2015) Argyll and Bute Guidance for Community Benefits from Onshore Renewables [pdf]. Available at: http://www.argyll-bute.gov.uk/sites/default/files/community_benefit_framework_v1.0.pdf [Accessed on 20.10.2022]

¹⁵ Scottish Government (2019) Community benefit from onshore renewable energy developments [online]. Available at: <https://www.gov.scot/publications/scottish-government-good-practice-principles-community-benefits-onshore-renewable-energy-developments> [Accessed on 12.04.2022]

¹⁶ Highlands and Islands Enterprise (2019) Highlands and Islands Enterprise 2019-2022 Strategy [pdf]. Available at: <https://www.hie.co.uk/media/5006/strategyplusplanplus2019-2022-1.pdf> [Accessed on 15.11.2022]

¹⁷ Department of Energy and Climate Change and Renewable UK (2012) Onshore wind: direct and wider economic impacts [online]. Available at: <https://www.gov.uk/government/publications/onshore-wind-direct-and-wider-economic-impacts> [Accessed on 19.07.2022]

¹⁸ Scottish Natural Heritage and Historic Environment Scotland (2018) Environmental Impact Assessment Handbook – Guidance for competent authorities, consultation bodies, and others involved in the Environmental Impact Assessment process in Scotland (Version 5) [pdf]. Available at: <https://www.nature.scot/sites/default/files/2018-05/Publication%202018%20-%20Environmental%20Impact%20Assessment%20Handbook%20V5.pdf> [Accessed on 19.10.2022]

¹⁹ Scottish Natural Heritage (2010) Guidance for the Preparation of Outdoor Access Plans [pdf]. Available at: <https://www.nature.scot/sites/default/files/2017-06/B639282%20-%20A%20Brief%20Guide%20to%20Preparing%20Outdoor%20Access%20Plans%20-%20Feb%202010.pdf> [Accessed on 20.07.2022]

13.15 Details of field survey work undertaken to inform the landscape and visual amenity assessment, the findings of which have been drawn upon in this chapter, can be found in **Chapter 6**.

Assessing Significance

13.16 The significance criteria, outlined in **Table 13.2** below, are based on professional judgement and previous experience of undertaking socio-economic assessments. The criteria primarily consider the magnitude of effects (e.g. the number of people, recreational or economic activities affected). However, when applying the criteria, professional judgement has been employed and consideration taken of the receptor sensitivity, where appropriate.

13.17 For this assessment, effects associated with the construction phase of the Proposed Development are considered to be temporary and short-term and effects during operation are considered to be long-term.

13.18 Major and Moderate effects are considered significant in the context of the EIA Regulations.

Table 13.2: Significance criteria

Significance of Effect	Description
Major	Where the extent of the effects on economic activities, local businesses, recreation, tourism or the local population is large in scale or magnitude, and a large number of people or activities will be affected (either positively or negatively).
Moderate	Where the extent of the effects on economic activities, local businesses, recreation, tourism or the local population is small in scale or magnitude, but a large number of people or activities will be affected (either positively or negatively). Or Where the extent of the effects on economic activities, local businesses, recreation, tourism or the local population is large in scale or magnitude, but only a small number of people or activities will be affected (either positively or negatively).
Minor	Where the extent of the effects on economic activities, local businesses, recreation, tourism or the local population is small in scale or magnitude, and only a small number of people or activities will be affected (either positively or negatively).
Negligible	Where the extent of the effects on economic activities, local businesses, recreation, tourism or the local population is barely noticeable in scale or magnitude, and only a small number of people or activities will be affected (either positively or negatively).

Assessment Limitations/Assumptions

Assessment Limitations

13.19 The key assumptions made to inform the assessment include the following:

- The assessment is based on the description in **Chapter 4: Project Description**. The construction phase is expected to be up to 18 months and the operational phase is expected to be 40 years.
- The estimated development and construction cost of the Proposed Development is expected to be approximately £85.8 million²⁰ based on an estimated capital expenditure of £1m per installed MW²¹.
- Community benefit proposals following best practice^{22 23} will be paid at £5,000 per MW of installed capacity per annum.

²⁰ Estimated MW output (85.8MW) x £1 million.

²¹ Based on the case studies in the RenewableUK (2015) report, the weighted average construction cost per MW was £1.32 million ±15%, therefore as a conservation estimate 1 million per MW has been used. RenewableUK (2015) Onshore Wind: Economic Impacts in 2014 [pdf]. Available at: https://cdn.ymaws.com/www.renewableuk.com/resource/resmgr/publications/reports/onshore_economic_benefits_re.pdf [Accessed on 09.01.2023]

²² Argyll and Bute Council (2015) Argyll and Bute Guidance for Community Benefits from Onshore Renewables [pdf]. Available at: http://www.argyll-bute.gov.uk/sites/default/files/community_benefit_framework_v1.0.pdf [Accessed on 20.10.2022]

Existing Conditions

13.20 This section details:

- The current socio-economic conditions within Argyll and Bute and the locality within which the Site is situated, including population, demographics and employment;
- Tourism and recreational information and statistics within the respective study areas; and
- Published study findings on public attitudes to wind farms, specifically in terms of amenity of local residents and effects on tourism.

Population Profile

13.21 According to data from the National Records of Scotland²⁴, as of June 2020, the population of Argyll and Bute was 85,430. This was a decrease of 0.5% from the previous year, making it the 27th highest population of all 32 council areas in Scotland that year. By the year 2028, the population of Argyll and Bute is projected to be about 81,197 (a decrease of 5.9% when compared to 2018), while Scotland's entire population is expected to increase by 1.8%.

13.22 The 0-15 age group is projected to see the largest percentage decrease (-17.6%) over this period from 13,024. Conversely, the 75+ age group is expected to see the largest percentage increase from 9,636 to 11,885 (23.3%) and this trend is projected to continue across Scotland as a whole.

13.23 The Argyll and Bute region has the fourth sparsest population among the 32 local authorities with an area population density of 0.12 persons per hectare, compared to the national average of 0.70 persons per hectare.

Deprivation

13.24 The Scottish Index of Multiple Deprivation (SIMD) 2020, is the Scottish Government's standard tool for identifying concentrations of deprivation across Scotland.

13.25 The SIMD measures area deprivation based on seven domains which are:

- Income;
- Education;
- Skills and Training;
- Employment;
- Health;
- Geographic access to services;
- Housing; and
- Crime.

13.26 These domains are measured using a number of indicators to form ranks for each domain. Data zones are ranked from one being the most deprived to 6,976 being the least deprived. Each of the seven domain ranks are then combined to form the overall SIMD. This provides a measure of relative deprivation at data zone level, so it demonstrates that one data zone is relatively more deprived than another but not how much more deprived.

13.27 The data from the SIMD 2020 shows that 13 out of the Council area's 125 data zones were identified as being amongst the 20% most overall deprived data zones in Scotland. These 13 data zones all located in the towns of Rothesay, Dunoon, Campbeltown, Helensburgh and Oban. None of Argyll and Bute's rural data zones fall into the 20% most overall deprived data zones in Scotland.

²³ Scottish Government (2019) Community benefit from onshore renewable energy developments [online]. Available at: <https://www.gov.scot/publications/scottish-government-good-practice-principles-community-benefits-onshore-renewable-energy-developments> [Accessed on 12.04.2022]

²⁴ National Records of Scotland (2021) Highland Council Area Profile [online]. Available at: <https://www.nrscotland.gov.uk/files/statistics/council-area-data-sheets/highland-council-profile.html> [Accessed on 11.07.2022]

The deprivation situation has deteriorated since 2012, when there were 10 data zones ranked amongst the most 20% most deprived across Scotland, and 11 in 2016.

13.28 All of these data zones are located in the area's towns, however, deprivation can, and does, occur elsewhere. Because the SIMD identifies concentrations of deprivation, smaller pockets and instances of individual deprivation are not picked up by the index, for instance, 52 (42%) of Argyll and Bute's data zones are within the 20% most access deprived data zones in Scotland. Because the SIMD identifies areal concentrations of deprivation, smaller pockets and instances of individual deprivation are not highlighted by the index. Thus, although Argyll and Bute has few areas with high levels of multiple deprivation, other instances of deprivation will occur outside these areas, especially in rural areas which are deprived in access to services. The closest settlement to the Site is 'Inveraray' with a population of 560.

Fuel Poverty and Cost of Living Crises

13.29 The 2019 Scottish House Condition Survey²⁵ identified that in 2019, 24.6% of all households in Scotland were in fuel poverty which is defined as at least 10% of income is spent on heating. In the same year, 12.4% were in extreme fuel poverty. Between 2018 and 2019, fuel poverty increased in remote rural areas from 33% up to 43%. Argyll and Bute was one of seven local authority areas which had significantly higher fuel poverty rates than the national average at 32%.

13.30 Since 2019 when the data was collected, there have been considerable surges in the costs associated with heating and power, which is expected to increase the proportion of the population in fuel poverty. Prices have been increasing rapidly since mid-2021 for a number of reasons including the Russian invasion of Ukraine which is contributing to a cost-of-living crisis.

13.31 On April 1st 2022, the energy price cap rose by over 50%, and now many more households are struggling to heat their homes since the above data was collected. Furthermore, the State of Ageing Report 2022²⁶ has concluded that pensioners are being hit hard by the big increases in energy prices. More than 200,000 pensioners are now living in relative poverty in the UK. In October 2022 it was announced that the energy price cap would be reviewed every three months instead of every six months meaning customers will experience changing market prices more quickly.

13.32 On 8th September 2022, the government announced changes to how energy bills will be charged to help reduce the severity of the October price cap. The then Prime Minister, Liz Truss, said that average bills will be held at £2,500, under the Energy Price Guarantee (EPG), for the next two years. On 17th October 2022 the new Chancellor, Jeremy Hunt, reduced the length of the EPG scheme saying that it would run until April 2023 and not the originally proposed 'two years'. On 17th November 2022 the Chancellor said that the EPG would be extended from 1st April 2023 for a further 12 months but the level would be raised to an average of £3,000.

13.33 There is a drive to take the UK off fossil fuels and boost the sources of homegrown energy for better energy security in the long-term which is set out within the British Energy Security Strategy (2022)²⁷ which states that "Onshore wind is one of the cheapest forms of renewable power. The UK already has over 14 gigawatts (GW) of onshore wind, with a strong pipeline of future projects in Scotland. We will improve national network infrastructure and, in England, support a number of new projects with strong local backing".

Employment and Economic Development

13.34 The Office for National Statistics (ONS) provides unemployment rates across local council regions²⁸. Argyll and Bute has a fairly average proportion of working age (16-64) population (59.1%), although slightly lower than the Scottish average (63.9%) and UK average (62.4%).

13.35 From January 2021 to December 2021, 1,400 people within Argyll and Bute were unemployed, equating to 3.6 of Argyll and Bute's economically active population. This was slightly lower than the Scottish average (3.9%) and the UK average (4.4%). The latest review of unemployment shows that the position has improved, with regional unemployment now at 2.8%, compared to 3.2% at the Scottish level and 3.6% nationally. There are still almost 1,500 people out of work and seeking work in Argyll and Bute. It should

be noted that this hides the issue of under-employment and low incomes as there almost 6,000 people claiming Universal Credit in Argyll and Bute.

13.36 Across the January 2021 to December 2021 period, the employment rate for Argyll and Bute was 74.9% slightly above the Scottish (73.1%) and UK average (74.8%).

13.37 Data regarding the job density of the study area which represents the number of jobs per head, of resident population, aged 16 to 64 years shows that Argyll and Bute has a considerably higher job density rate than that of the Scotland and UK, suggesting that an above average proportion of people will stay within the local authority area for work.

13.38 Table 13.3 below shows the highest proportion of the working population in Argyll and Bute were employed in 'professional occupations'.

Table 13.3: Employment by occupation in Argyll and Bute (January 2021-December 2021)

Occupation Type	Argyll and Bute ²⁹	Scotland
Managers, directors and senior officials	10.3%	8.7%
Professional occupations	20.1%	23.8%
Associate professional and technical	13.7%	15.5%
Administrative and secretarial	6.7%	9.9%
Skilled trades occupations	13.3%	9.0%
Caring, leisure and other service occupations	12.0%	9.3%
Sales and customer service	6.0%	8.4%
Process plant and machine operatives	3.6%	5.2%
Elementary occupations	13.9%	9.9%

Economic Strategy

13.39 The Scottish Government recently adopted new national planning guidance³⁰ in the form of National Planning Framework (NPF) 4. NPF4 supersedes Scottish Planning Policy³¹. NPF4 places an increasing importance on supporting the development of new renewable energy technologies, with the overarching energy policy being "To encourage, promote and facilitate all forms of renewable energy development onshore and offshore. This includes energy generation, storage, new and replacement transmission and distribution infrastructure and emerging low-carbon and zero emissions technologies including hydrogen and carbon capture utilisation and storage (CCUS)".

13.40 NPF4 has a regional focus and has three key themes which are 'sustainable places', 'liveable places' and 'productive places'. For the north, which includes mainland Argyll, these themes have the following priorities:

- "To deliver sustainable places, Regional Spatial Strategies and Local Development Plans in this area should protect environmental assets and stimulate investment in natural and engineered solutions to climate change and nature restoration, whilst decarbonising transport and building resilient connections."
- "To deliver liveable places, Regional Spatial Strategies and Local Development Plans in this area should maintain and help to grow the population by taking a positive approach to rural development that strengthens networks of communities."

²⁵ Scottish Government (2019) Scottish House Condition Survey [online]. Available at: <https://www.gov.scot/collections/scottish-house-condition-survey/> [Accessed on 15.07.2022]

²⁶ Centre for Ageing Better (2022) The State of Ageing Report 2022 [online]. Available at: <https://ageing-better.org.uk/state-of-ageing> [Accessed on 19.07.2022]

²⁷ Department for Energy Security and Net Zero, Prime Minister's Office, 10 Downing Street and Department for Business, Energy and Industrial Strategy (2022) British energy security strategy [online]. Available at: <https://www.gov.uk/government/publications/british-energy-security-strategy>

²⁸ nomis (Office for National Statistics) – official census and labour market statistics website. Available at: <https://www.nomisweb.co.uk/>

²⁹ % is a proportion of all persons in employment.

³⁰ Scottish Government (2023) National Planning Framework 4 [online]. Available at <https://www.gov.scot/publications/national-planning-framework-4/>

³¹ Scottish Government (2014) Scottish planning policy [online]. Available at <https://www.gov.scot/publications/scottish-planning-policy/>

- *“To deliver productive places, Regional Spatial Strategies and Local Development Plans in this area should support local economic development by making sustainable use of the area’s world-class environmental assets to innovate and lead greener growth.”*

13.41 NPF4 is clear in its desire to rebalance the north of Scotland economy to enable it to make a strong contribution towards meeting the country’s ambition for a net zero and nature positive country by demonstrating how natural assets can be managed and used to secure a more sustainable future. It seeks to protect environmental assets and stimulate investment in natural and engineered solutions to climate change and nature restoration, whilst decarbonising transport and building resilient connections.

13.42 Importantly for the north of Scotland, NPF4 seeks to maintain and help to grow the population by taking a positive approach to rural development that strengthens networks of communities. Importantly, it also sets out the importance of *“supporting local economic development by making sustainable use of the area’s world class environmental assets to innovate and lead greener growth”*.

13.43 NPF4, which entered into legislation in February 2023, mirrors the aim of the National Strategy for Economic Transformation³² to focus on green growth to foster economic wellbeing and prosperity. The Strategy confirms that the planning system should proactively support development that contributes to sustainable economic growth and to create sustainable places.

Just Transition

13.44 On 7th September 2021, the Scottish Government provided an initial response to the final report of the Just Transition Commission³³. It sets out their long-term vision for a ‘just transition’ and provides details on their National Just Transition Planning Framework. The Just Transition has been published alongside the Economic Strategy. The Ministerial Foreword states that *“A just transition means:*

- *Skills training and education that helps to secure good, high value jobs in green industries like low-carbon manufacturing, renewables, and tech.*
- *Job security for those in industries that will play the biggest part in the transition – at every level – from those working in petrol stations to those on oil platforms.*
- *Homes that are energy efficient and help to reduce fuel poverty.*
- *Building infrastructure, transport and communities that support our efforts to decarbonise, to enhance biodiversity and which are resilient in the face of the impact of climate change that we are already feeling.*
- *Making sure the costs do not burden those least able to pay and the benefits of our transition are felt regardless of where you live, who you are and what you do.”*

13.45 It further states that *“As the birthplace of the Industrial Revolution, we see it as only right that Scotland is at the forefront of the green revolution. We have a once in a lifetime opportunity to make changes that will be good for our people, our communities, our economy and our planet”*.

13.46 Specifically related to renewable energy, the vision for a fairer, greener 2045 includes all energy needs being met by renewable sources.

13.47 Chapter 5 discusses NPF4 and the Just Transition Plan in greater detail and the Planning Statement which accompanies the EIA Report presents an assessment of the Proposed Development against relevant policy.

³² Scottish Government (2022) Scotland’s National Strategy for Economic Transformation [online]. Available at <https://www.gov.scot/publications/scotlands-national-strategy-economic-transformation/>

³³ Scottish Government (2021) Just Transition – A Fairer, Greener Scotland: Scottish Government response [online]. Available at: <https://www.gov.scot/publications/transition-fairer-greener-scotland/documents/>

³⁴ Scottish Government (2022) Scotland’s National Strategy for Economic Transformation [online]. Available at: <https://www.gov.scot/publications/scotlands-national-strategy-economic-transformation/>

³⁵ Oxford Economics Commissioned by Lloyds Banking Group (2021) UK Green Growth Index – Challenges and Opportunities from the Net Zero Transition Across the Nations and Regions of the UK [pdf]. Available at: <https://www.lloydsbankinggroup.com/assets/pdfs/who-we-are/green-economy/uk-green-growth-index.pdf> [Accessed on 12.04.2022]

Scotland’s National Strategy for Economic Transformation

13.48 Scotland’s National Strategy for Economic Transformation³⁴ published in March 2022 sets out an approach to delivering sustainable growth in Scotland. The vision of the Strategy is to make Scotland stand out as *“an international benchmark for how an economy can transform itself, de-carbonise and rebuild natural capital whilst creating more, well-paid and secure jobs and developing new markets based on renewable sources of energy and low carbon technology”*.

13.49 In addition, the Strategy also states that *“The Lloyds Banking Group and Oxford Economics Green Growth Index³⁵ ranks Scotland as the number one region in the UK for green growth potential and opportunity. This reflects Scotland’s existing green industrial base which supports a growing number of green jobs and innovation activity, the take-up of relevant skills and training and the development and use of renewable energy infrastructure”*.

Onshore Wind Policy Statement 2022

13.50 The Onshore Wind Policy Statement 2022 (OWPS)³⁶ sets out an ambition to deploy 20GW of onshore wind by 2030. Chapter 4 of the OWPS states that *“The Scottish Government remains committed to the principles of a just transition to a net zero economy, and that means ensuring that communities across Scotland feel the benefits of this transition. Community benefit and shared ownership can be transformational for the communities who host renewable developments, and we must ensure that industry continue to deliver on these expectations”*.

13.51 The OWPS 2022 is discussed further in Chapter 5 and in the Planning Statement.

Quantifying the Economic Benefits of Onshore Wind to the UK

13.52 Research published in 2019 by Vivid Economics³⁷ suggests that *“If more new onshore wind projects were to go ahead to help the UK to reach net zero emissions, consumers would save money on their electricity bills in the decades ahead, and thousands of jobs would be created”*.

13.53 The report states that deploying 22GW of onshore wind (across the UK) by 2035 generates additional economic benefits. Onshore wind is the cheapest source of new generation and could reduce electricity costs to the consumer by up to 7% compared to natural gas (with carbon costs) in 2035, saving the average household £50 per year. The sector could also nearly triple employment, supporting 31,000 jobs by 2035 with 14,000 directly employed in the Industry. Importantly, whilst onshore wind jobs are projected throughout the UK, onshore wind employment is likely to be located in local authorities most in need of high-paying, high-productivity jobs, particularly in Scotland, Wales and Northern Ireland. Finally, the UK supply chain could capture £360m of the global onshore wind market by 2035, a rapidly growing market which is expected to increase by 4-fold from today.

Onshore Wind Vision and Sector Deal for Scotland

13.54 Scottish Renewables is leading a conversation between the renewable energy industry and The Scottish Government in relation to the establishment of a Vision and Sector Deal for onshore wind for Scotland³⁸.

Scottish Government Good Practice Principles for Community Benefit of Onshore Renewable Development

13.55 Community benefit is usually a direct payment to a defined community, linked to the power output of the wind farm, i.e. an annual fee per MW of installed capacity of the wind turbines. The Scottish Government’s most recent guidance, Good Practice Principles for Community Benefits from Onshore Renewable Energy Development³⁹, continues to recommend community benefit of the value equivalent to £5,000 per MW at a national level.

³⁶ Scottish Government (2022) Onshore wind: policy statement 2022 [online]. Available at: <https://www.gov.scot/publications/onshore-wind-policy-statement-2022/pages/6/#:~:text=Sets%20out%20our%20ambition%20to,an%20onshore%20wind%20sector%20deal>

³⁷ RenewableUK and Vivid Economics (2019) Quantifying the economic benefits of onshore wind to the UK [online]. Available at: <https://www.renewableuk.com/news/news.asp?id=458483&hhSearchTerms=%22economic+and+benefits%22> [Accessed on 08.02.2023]

³⁸ Scottish Renewables (2022) Onshore Wind Vision and Development of Offshore Supply Chain Announced in Programme for Government [online]. Available at: <https://www.scottishrenewables.com/news/1150-onshore-wind-vision-and-development-of-offshore-supply-chain-announced-in-programme-for-government>

³⁹ Scottish Government (2019) Community benefit from onshore renewable energy developments [online]. Available at: <https://www.gov.scot/publications/scottish-government-good-practice-principles-community-benefits-onshore-renewable-energy-developments> [Accessed on 12.04.2022]

13.56 The Good Practice Principles for Community Benefits from Onshore Renewable Energy Development emphasises that “community benefits from projects developed to date are making a real – and in some cases, transformational – difference at a local level”.

13.57 It provides examples of the types of projects supported by community benefit payments, including refurbishments of village halls, start-up grants for small businesses and bursaries for further education.

13.58 In accordance with the Good Practice Principles for Community Benefits, the Applicant will contribute £5,000 per MW of installed capacity of the wind turbines to a ‘Community of Interest for Community Benefit’, i.e. those Community Council areas defined following consultation which will receive community benefit funding from the Proposed Development. These areas will generally be either directly affected by the Proposed Development (the red line application boundary lies within the area) or are immediately adjacent to such areas and may be indirectly affected by the Proposed Development, particularly during construction.

Highlands and Islands Enterprise 2019-2022 Strategy

13.59 Highlands and Islands Enterprise is the economic and community development agency for the Highlands and Islands of Scotland (including Argyll and the Islands) and supports a broad range of sectors, organisations and communities. The Highlands and Islands Enterprise 2019-2022 Strategy sets out the ambition to attract new major investments through the region and cites the “fresh and exciting” energy sector as key to achieving this. The Strategy recognises that the low carbon economy and renewables sector already contribute substantially to the region and create many economic and social opportunities. Using its current international reputation of excellence in the energy and the low carbon sector, the Strategy seeks to strengthen these through capitalising upon the UK and Scottish Governments’ commitments to move to a lower carbon, decentralised and locally based energy system. For onshore wind farms, the Strategy aims to secure supply chain opportunities and promote a supportive energy policy and regulatory environment.

Argyll and Bute Council Renewable Energy Action Plan

13.60 The Argyll and Bute Renewable Energy Action Plan 2019 (REAP)⁴⁰ has been developed to help the Council realise its vision for the development of the renewable energy sector which is as follows “Argyll and Bute will be at the heart of renewable energy development in Scotland by taking full advantage of its unique and significant mix of indigenous renewable resources and maximising the opportunities for sustainable economic growth for the benefit of its communities and Scotland”.

13.61 The REAP outlines several actions alongside partners and timescales to help achieve this goal. According to the plan there is currently over 1GW of operational and consented renewables, both onshore and offshore in Argyll and Bute which makes it an important economic sector within the region.

13.62 In recent years, community benefits have become more common and the terms on which they are offered has changed. Therefore in 2015 ABC reviewed and updated their guidance to increase the payment levels from £2,000 per MW to at least £5,000 per MW and provide advice to communities and developers when considering community benefits, leading to the development of Argyll and Bute Guidance for Community Benefits from Onshore Renewables⁴¹. The 2019 figures suggested that community benefit funds provide about £800,000 per annum to local communities.

Argyll and Bute Economic Strategy 2019-2023

13.63 The Economic Strategy 2019-2023⁴² for Argyll and Bute is a key document created with the aim to help deliver the overarching vision of the Argyll and Bute Outcome Improvement Plan 2013-2023⁴³. The strategy focuses on three key priorities which are:

1. Critical economic infrastructure;
2. Place and people; and
3. Smart growth.

⁴⁰ Argyll and Bute Council (2019) Renewable Energy Action Plan [online]. Available at: <https://argyll-bute.maps.arcgis.com/apps/MapJournal/index.html?appid=cc865cd9c1224fadacae3a0ebd4c491f> and Argyll and Bute Council (2019 update) Update on Renewable Energy Action Plan [pdf]. Available at: <https://www.argyll-bute.gov.uk/moderngov/documents/s152942/Update%20on%20Renewable%20Energy%20Action%20Plan%20-%20Covering%20Report.pdf>

⁴¹ Argyll and Bute Council (2015) Argyll and Bute Guidance for Community Benefits from Onshore Renewables [pdf]. Available at: http://www.argyll-bute.gov.uk/sites/default/files/community_benefit_framework_v1.0.pdf [Accessed on 20.10.2022]

13.64 Under the smart growth charter, one of the key issues identified is developing and capitalising on Argyll and Bute’s “low carbon economy”.

13.65 Argyll and Bute currently produces over 1 gigawatt (GW) of clean energy including onshore wind and other sources of renewable energy which mostly goes into the national grid.

13.66 ABC, alongside regional stakeholders, are therefore focusing on tackling key issues that currently limit the potential of the community to tap into the economic benefits these infrastructures provide including employment and direct supply of clean energy to the local area.

Public Access and Recreation

13.67 The Site is used for recreational shooting at various times throughout the year. In addition to the Loch Lomond and Trossachs National Park, which is popular for recreation, there are a number of long-distance walking routes nearby, including:

- The West Highland Way;
- The West Island Way;
- The Cowal Way; and
- The Three Lochs Way.

13.68 A number of Core Paths⁴⁴ and regional cycle routes are located within the vicinity of the Site, clustered around the communities and settlement, particularly along the shores of the Lochs, Inveraray and Dalavich (see **Figure 13.1a** and **13.1b**). There are three Core Paths located within the in the area which includes the Site access track, outlined in **Table 13.4**.

Table 13.4: Core Paths within/traversing the Site access

Path Name	Total Walk Length and Information	Location
C200(a) – Coille Bhraghad-Queens Drive-Inveraray	1.2km stone track with moderate slope – not waymarked.	Route is an extension to the north-west of C203(a) which goes up slope through woodland and joins C200(b). The Site access passes through the join of these two paths at the south-west of Inveraray.
C200(b) – Coille Bhraghad-Queens Drive-Inveraray	4.7km stone track with moderate slope – not waymarked.	A circular route through woodland passing Steallaire Ban waterfall. The Site access follows this Core Path for approximately 3km.
C203(a) – Bealach an Fhuarain, Inveraray (circular)	0.2km section of a circular route around Inveraray. Stone track with gentle slope – not waymarked.	The Site access goes through this route where it terminates and C200(a) begins to the south-west of Inveraray.

13.69 Other routes located within the Site include:

- The Inveraray Forest Circuit which is advertised on the Walk Highlands website⁴⁵, runs around Inveraray and forms a loop, including within the Proposed Development following the above Core Paths.

13.70 Other published routes and Core Paths located outside the Site but within 10km⁴⁶ include:

- Core Path C199(e) Furnace to Inveraray via Kenmore which begins at the southern end of the site 50m south-east of the Inveraray Bypass at the southern extent of Inveraray, the Path then heads south to Furnace;

⁴² Argyll and Bute Council (2019) Argyll and Bute Economic Strategy 2019-2023 [pdf]. Available at: https://www.argyll-bute.gov.uk/sites/default/files/economic_strategy_2.pdf

⁴³ Argyll and Bute Community Planning Partnership (2013) Argyll and Bute Outcome Improvement Plan 2013-2023 [pdf]. Available at: https://www.argyll-bute.gov.uk/sites/default/files/aboip_v1_2018.pdf

⁴⁴ Argyll and Bute Council (undated) Core Paths [online]. Available at: <https://www.argyll-bute.gov.uk/core-paths> [Accessed on 21.07.2022]

⁴⁵ Walk Highlands (undated) Inveraray Forest circuit [online]. Available at <https://www.walkhighlands.co.uk/argyll/inveraray-forest.shtml>

⁴⁶ Distances have been measured to the nearest turbine and are all approximate.

- Core Path C201 Dun na Cuaiche which is outside the Site, starting in Inveraray and heading north;
- Core Paths C305 Dalavich to Barnaline Lodge and C490 Dalavich, Loch Awe on the western side of Loch Awe 4.7km north-west from Turbine 9;
- The previously advertised National Cycle Network (NCN) Route 78 now advertised by sustrans as the Caledonia Way cycle route which is located on the western side of Loch Awe approximately 4.8km from Turbine 12;
- The Tall Trees Trail on the western side of Loch Awe 5km from Turbine 12;
- Barnaline Oakwoods and Avich Falls, near Dalavich, on the western side of Loch Awe, 5km from Turbine 12;
- Core Path C173 Ford to Annat via Loch Avich and Inverinan 5km from Turbine 12 on the west side of Loch Awe;
- Inverinan Trail, Loch Awe running 5.3km north-west of Turbine 10 within Inverinan;
- Core Path C323 Drissaig to Inverinan via Gleann Meisean 6km north of Turbine 10;
- “Durrán to Furnace Drove Road” which is a Heritage Path is within 6km of Turbine 13 located 6km south-west of the site⁴⁷. This route is also listed as a Core (C119(b)) Braevallich, Loch Awe to Furnace;
- Core Paths C176 Loch Avich South (Two Lochs Trail) and C175 Kilmeford to Loch Alvich 7.5km to the west of Turbine 11;
- Core Path C206 Leacainn Walk Furnace 7.9km south of Turbine 13;
- Core Paths C523 and C300 Kilchrenan to Taynuilt 8km north of Turbine 10; and
- Core Path C172 Loch Scammadale o Loch Alvich 9km west of Turbine 12.

13.71 Loch Awe is utilised by a range of water sport enthusiasts including kayakers and pleasure boaters. British Canoeing publishes a guide for a route extending the length of Loch Awe. Argyll & Bute Council have also identified 10 boat launching sites along the shores of Loch Awe.

13.72 Loch Fyne is utilised for a diverse range of activities including aquaculture, commercial and recreational fishing, recreational activities including scuba diving, sailing, charter boat operations and ministry of defence activities as discussed in the Loch Fyne Integrated Coastal Zone Management Plan⁴⁸.

13.73 There are also many hills nearby in the north and north-east, including numerous Munro hill summits, which are popular with hill walkers and other recreational users (e.g. mountain bikers). These include the closer Munro hill summits of Ben Lomond, Ben Ime and Beinn Bhuidhe to the north-east of the Site and other hill summits located near the Site and in the Loch Lomond and the Trossachs National Park.

Tourism

13.74 Tourism makes an important contribution to the national, regional and local economies. According to Scottish Government Annual Business Statistics⁴⁹ data, sustainable tourism employment in Scotland in 2017 was approximately 206,600 with Sustainable Tourism GVA (Gross Value Added) being approximately £4,127.1 million. The comparative figures for Argyll and Bute were 5,500 and £103.4m respectively. This figure for Argyll and Bute had increased in 2018 by 4% (5,700) for employment and 9% (114.8) for GVA.

13.75 This is backed by data from an ABC study in 2018⁵⁰ which highlights the fact that the tourism industry provides about 25% of all private sector jobs in Argyll and 9% of the GVA compared to a 3% GVA average for Scotland.

13.76 According to the VisitScotland Argyll and the Isles Factsheet⁷ from data gathered in 2019, there were 993,000 overnight visits, 5.5 million-day visits, 3.9 million nights and a total expenditure of £443 million⁵¹.

13.77 The top ten reasons for visiting Argyll and the Isles and top ten activities undertaken, according to a VisitScotland Survey (2015-2016), in which 117 respondents were able to provide more than one response, are given in the **Table 13.5** below.

⁴⁷ ScotWays (undated) Heritage Paths [online]. Available at: <http://www.heritagepaths.co.uk/#zoom=13&lat=56.2020&lon=-5.2552>

⁴⁸ Argyll and Bute Council (2009) Loch Fyne Integrated Coastal Zone Management Plan – A Spatial Planning Framework for Future Development [pdf]. Available at: <https://www.argyll-bute.gov.uk/sites/default/files/planning-and-environment/Loch%20Fyne%20Plan%20Sections%201%20to%204.pdf> [Accessed on 09.01.2023]

⁴⁹ Scottish Government (2019) Scottish Annual Business Statistics 2017 – Sustainable Tourism by Local Authority Area 2017 [online]. Available at: <https://www.gov.scot/publications/scottish-annual-business-statistics/documents>

Table 13.5: Top 10 reasons and activities ranked by visitors in Argyll and the Isles (2015-2016)

Top 10 Reasons for Visit (%)	Top 10 Activities (%)
The scenery and landscape (84%)	Sightseeing by car/coach/foot (79%)
To get away from it all (48%)	Short walk/stroll (61%)
The history and culture (45%)	Visited a beach (57%)
Holidayed there before and wanted to return (38%)	Visited a historic house, stately home, castle (50%)
A place I have always wanted to visit (35%)	Visited a cathedral, church, abbey, other religious building (49%)
To visit family/friends who live here (27%)	Watched wildlife, bird watching (44%)
The range of activities available (26%)	Long walk, hike, ramble (43%)
To visit a particular attraction (24%)	Visited a woodland/forest area (37%)
Its reputation for friendly people (20%)	Visited a country park/garden (34%)
It is easy to get to (15%)	Visited a museum/art gallery (33%)

13.78 Outdoor activities featured prominently in this area compared to Scotland as whole, with other visitors not in the top 10 going fishing (7%). One in ten visitors to Argyll and the Isles mentioned attending Highland Games (12%).

13.79 According to the VisitScotland Factsheet⁵², within the Argyll and the Isles area, the top paid for visitor attraction in 2019 was Inveraray Castle with 125,462 visitors, located approximately 5.5km to the south-east of the nearest turbine (Turbine 1). This figure is almost twice the number of visitors to the 2nd place attraction at Iona Abbey & St Columba Centre (Mull). The other three are Oban Distillery Visitor Centre, Benmore Botanic Garden and Mount Stuart.

13.80 The top five free visitor attractions in 2019 based on the same source as paid for attractions were Argyll Forest Park, Staffa National Forest Reserve, Oban War and Peace Museum, Iona and Aros Park. With the exception of Inveraray Castle, none of these attractions are within 15km of the Site.

13.81 A number of other visitor attractions around the Proposed Development Site (within 15km) were identified through a search on VisitScotland and Google. These local attractions include:

- Inveraray Jail;
- Dunderave Castle;
- The Tinkers Heart (a Scottish Travellers' commemorative monument);
- Beinn an Lochain;
- Beinn Ime;
- Dalavich Oakwood Walks;
- Duncan's walk; and
- Innes Chonnel Castle.

⁵⁰ Argyll and Bute Council (2018) Update on Tourism Activities [pdf]. Available at: <https://www.argyll-bute.gov.uk/moderngov/documents/s124575/Update%20on%20Tourism%20Activities.pdf>

⁵¹ Figures based on 3-year annual averages between 2017-2019.

⁵² VisitScotland (2021) Insight Department: Argyll and the Isles Factsheet 2019 [online]. Available at: <https://www.visitscotland.org/research-insights/regions/argyll-isles>

13.82 The nearest Tourist Route⁵³ identified is the Argyll Coastal Route which starts at Tarbet and ends at Fort William. The 208km long route passes through Inveraray within 5km to the south-east of the Site. Other Tourist Routes in the vicinity include the Clyde Sea Loch Trail which starts at Dumbarton and ends at Arrochar, joining the Argyll Coastal Route approximately 20km east of Inveraray.

13.83 There is a large range of accommodation types within the surrounding area. The majority of accommodation in proximity to the Site is within Inveraray. These include the popular George Hotel, Brambles, The Inveraray Inn and a range of self-catering and B&B accommodation.

13.84 The main types of accommodation stayed in by visitors to the region are B&B/guest house/restaurant with rooms, self-catering, hotel, friends/family, and camping⁵⁴.

13.85 Although this data is from Argyll and the Isles at a regional level and whilst equivalent local data is not as robust, it is considered that broadly similar reasons for visiting the local area will apply.

13.86 The relationship between wind farm development and tourism has been the subject of several studies. A 2021 study by Biggar Economics⁵⁵ found “no relationship between tourism employment and wind farm development, at the level of the Scottish economy, across local authority areas or in the locality of wind farm sites”.

13.87 A recent 2022 socio economic impact appraisal for Twyn Hywel energy park showed that the project could make a positive contribution to over 80% of the well-being indicators of Wales⁵⁶. Furthermore, within the report, tourism at comparable sites were looked at, which included Stirling Castle in Scotland. Braes of Doune Wind Farm has a significant visual impact on Stirling Castle and is regularly discussed in the media around the potential impact of onshore wind and tourism. According to the Association of Leading Visitor Attractions (ALVA) figures⁵⁷ in 2019 there were over 600,000 visitors to Stirling Castle, which is over 60% more than the figures from 2005 when the construction of the wind farm began. This suggests that the presence of the wind farm hasn't caused tourists to stop visiting the castle.

Scotland Outlook 2030

13.88 Scotland Outlook 2030⁵⁸ is a strategy prepared by a collaborative network of industry experts focussing on creating a world leading tourism sector in Scotland that is sustainable in the long term. The Strategy sets out four key priorities which are:

- People;
- Places;
- Businesses; and
- Experiences.

13.89 The Strategy recognises the effects of climate change, technological advancements, Brexit and changing consumer behaviour on tourism and highlights the need for collaboration between government, communities, and the public and private sectors. There are six conditions that the Strategy has highlighted as being crucial for success:

- Using technological advancements and information to understand changes and trends in tourist behaviours;
- Ensuring the right policies and regulatory landscape are put in place;
- Making investments (public and private) readily accessible to businesses in the sector;
- Putting the right transportation and digital infrastructure in place to improve connectivity;

- Improving collaboration between businesses in the sector; and
- Positioning Scotland to attract visitors locally and internationally.

13.90 The Scotland Outlook 2030 acknowledges the impact of tourism on energy consumption, and therefore recognises the role it has to play in addressing the issue. One of the commitments the Strategy sets out to fulfil is to make sure the tourism sector contributes to the national ambition of Scotland becoming a net-zero society by 2045.

Argyll and the Isles Tourism Cooperative

13.91 The Argyll and the Isles Tourism Cooperative (AITC)⁵⁹ is a strategic Destination Management Organisation for Argyll and The Isles with an overarching vision to “ensure that tourism activity in Argyll and the Isles has a significant impact on key economic drivers and the sustainability of the region”.

13.92 AITC, alongside VisitScotland and ABC conduct quarterly barometer studies on the tourism sector. The most recent update in June 2022⁶⁰ highlighted that the region was experiencing the first full season without any legal restrictions from Covid in three years. The Regional Director, David Adams McGilp, from VisitScotland stated “International visitors are returning but travel issues remain, the cost of living is putting a squeeze on budgets and making the everyday experience for our businesses difficult”.

Argyll and Bute Economic Strategy 2019-2023

13.93 The places and people priority of this Strategy⁶¹ makes note of Argyll and Bute's strong cultural identity which has helped it retain and attract people to live and visit the community. The Council has also initiated a network called the Culture, Heritage and Arts Assembly (CHArts) which aims to deliver a sustainable future and growth for business sectors including tourism. The “Smart growth” charter also identifies the need for ABC to focus support in sectors (which includes tourism and renewables) with the highest growth potential which have “a track record of recent private investment in the region”. This bid includes the need to make Argyll and Bute a world class tourism destination.

Studies into Public Attitudes to Wind Farms

Amenity of Local Residents

13.94 Potential effects on the amenity of local residents are considered to include changes to views, potential noise disturbance and potential effects as a result of increased traffic and heavy goods vehicles on routes. There are often preconceptions about wind farms and how they will affect the amenity of local residents and the surrounding area. As a result, a number of surveys and studies have been undertaken to investigate the attitudes of the public to wind farms, including those focused on people who live in close proximity to wind farms and those focused on tourists and visitors to areas where wind farms are present.

13.95 A survey undertaken by YouGov⁶² on behalf of Renewable UK in June 2018 found that, of a sample size of 3,609 of British adults, more people (23%) will prefer a wind farm in their local area than other types of infrastructure, such as a fracking site, a new railway line, a new housing development of 150 homes or a nuclear power station. The survey also found that 69% of respondents support the building of more onshore wind farms as it reduces our dependency on fossil fuels (72% of supporters) and will have positive effects on climate change/meeting carbon reduction targets (53% of supporters). 66% of all respondents also support lifting the ban on funding for onshore wind farms.

13.96 In addition, more recent findings from the BEIS Public Attitudes Tracker (Autumn 2022)⁶³ showed that support for renewable energy (including wind power) was 88%, which was up 1% from 87% from the Autumn 2021 results. In total, 56% of people said they strongly supported renewable energy.

⁵³ VisitScotland (2021) Scotland's Most Scenic Driving Routes [online]. Available at: <https://www.visitscotland.com/see-do/tours/driving-road-trips/routes/>

⁵⁴ In order of ranking (highest % of respondents to lowest).

⁵⁵ BiGGAR Economics (2021) Wind Farms and Tourism Trends in Scotland: Evidence from 44 Wind Farms [pdf]. Available at: <https://biggareconomics.co.uk/wp-content/uploads/2021/11/BiGGAR-Economics-Wind-Farms-and-Tourism-2021.pdf>

⁵⁶ BiGGAR Economics (2022) Twyn Hywel Energy Park Socio Economic Impact Appraisal [pdf]. Available at: https://twynhywelenergypark.wales/wp-content/uploads/15.1_Twyn-Hywel_Socio-Economic-Impact-Appraisal.pdf

⁵⁷ Association of Leading Visitor Attractions (ALVA) (2020) 2019 Visitor Figures [online]. Available at <https://www.alva.org.uk/details.cfm?p=610>

⁵⁸ Scottish Tourism Alliance (2020) Scotland Outlook 2030 – Responsible Tourism for a Sustainable Future [online]. Available at: <https://scottishtourismalliance.co.uk/scotland-outlook-2030-overview/>

⁵⁹ Wild About Argyll website. Available at: <https://www.wildaboutargyll.co.uk/> [Accessed on 19.07.2022]

⁶⁰ VisitScotland (2022) Argyll and the Isles Industry Update. Available at: <https://www.visitscotland.org/news/2022/argyll-industry-update> [Accessed on 19.07.2022]

⁶¹ Argyll and Bute Council (2019) Argyll and Bute Economic Strategy 2019-2023 [pdf]. Available at: https://www.argyll-bute.gov.uk/sites/default/files/economic_strategy_2.pdf

⁶² Renewable UK (2018) Majority of voters say Government should lift onshore wind ban – YouGov poll [online]. Available at: <https://www.renewableuk.com/news/409159/Majority-of-voters-say-Government-should-lift-onshore-wind-ban---YouGov-poll-.htm>

⁶³ Department for Business, Energy and Industrial Strategy (BEIS) (2022) BEIS Public Attitudes Tracker: Autumn 2022 [online]. Available at: <https://www.gov.uk/government/statistics/beis-public-attitudes-tracker-autumn-2022#:~:text=The%20Autumn%202022%20wave%20of,2021%2C%20uses%20random%20probability%20sampling>

13.97 A recent socio-economic appraisal for Twyn Hywel energy park⁶⁴ stated that based on Association of Leading Visitor Attractions (ALVA) (2020) 2019 Visitor Figures “The construction of the Braes of Doune Wind Farm has not restrained the development of Stirling castle as a leading tourist attraction. In 2019, there were over 600,000 visitors to Stirling Castle. This is over 60% more than the number who visited the castle in 2005 when the construction activities of the Braes of Doune Wind Farm began. Visitors to heritage attractions are more likely to consider climate change to be a global emergency⁶⁵. A study by the National Trust for Scotland (NTS) found that 92% of visitors to NTS attractions considered climate change to be a global emergency. Younger visitors were more likely than older visitors to consider it to be a global emergency, in particular 97% of visitors aged 16-24 year olds considered it to be global emergency compared to 89% of visitors aged 75 or over. 86% of visitors thought the world should do “everything necessary, urgently”. It is therefore not surprising that the visibility of onshore wind projects has not deterred these visitors”.

Implications of Climate Change

13.98 The summary of the relevant climate change projections using the UK Climate Change Projections 2018 (UKCP18) are:

- Temperatures are projected to increase, particularly in summer;
- Winter rainfall is projected to increase and summer rainfall is most likely to decrease;
- Heavy rain days (rainfall greater than 25mm) are projected to increase, particularly in winter;
- Near surface wind speeds are expected to increase in the second half of the 21st century with winter months experiencing more significant effects of winds; however, the increase in wind speeds is projected to be modest; and
- The frequency of winter storms over the UK is projected to increase.

Future Baseline in the Absence of the Proposed Development

13.99 If the Proposed Development was not to proceed, there will be little or no change to the baseline condition of the various tourism assets identified within the local area. Local communities will still receive direct economic benefits in terms of community benefit payments and direct and indirect employment benefits from the construction and operation of the consented wind farms within the region. This will, however, not be to the same extent if the Proposed Development is not constructed.

Design Considerations

13.100 No specific design changes have been made to the layout of the Proposed Development in relation to socio-economic considerations including recreation and tourism. However, as detailed in **Chapter 3: Site Selection and Design Strategy**, one of the main objectives of the design process was to design the Proposed Development in such a way that it relates to the surrounding landscape and minimises effects on landscape and visual amenity, including from viewpoints and surrounding areas of importance for tourism and recreation.

Assessment of Effects

13.101 The assessment of effects is based on the project description as outlined in **Chapter 4**. Unless otherwise stated, potential effects identified are considered to be negative. The assessment is structured as follows:

- Construction effects;
- Operational effects; and
- Cumulative effects of the Proposed Development and other wind farms within the study area during construction and operation, with a focus on operational and consented wind farms where publicly available information was available.

⁶⁴ BiGGAR Economics (2022) Twyn Hywel Energy Park Socio Economic Impact Appraisal [pdf]. Available at: https://twynhywelenergypark.wales/wp-content/uploads/15.1_Twyn-Hywel_Socio-Economic-Impact-Appraisal.pdf

⁶⁵ National Trust for Scotland (2021) National Trust for Scotland Visitors Convinced on Climate Action

⁶⁶ BVG Associates (2017) Economic benefits from onshore wind farms [online]. Available at: <https://bvgassociates.com/economic-benefits-onshore-wind-farms/#>

⁶⁷ BVG Associates (2017) Economic benefits from onshore wind farms [online]. Available at: <https://bvgassociates.com/economic-benefits-onshore-wind-farms/#>

Construction Effects

Direct Employment and Economic Benefits

13.102 According to a BVG associates report⁶⁶ Scotland and the UK capture the majority of the economic value generated by wind farms which are built here. The report suggests that on average, 66% of the total economic value of a wind farm accrues to the UK; 51% of which is in Scotland. Local areas also benefit, with on average, 16.5% of the total value accruing to the local region. Benefits include local employment and service contracts during project operations, direct payments to local economies via land rents, indirect income through business rates and spend on travel, accommodation, and supplies, as well as community benefit packages⁶⁷.

13.103 A study in 2009⁶⁸ showed that a significant number of jobs were created in the wind energy sector with a positive relationship between the MW installed and number of jobs. Over 10 years' later, a study into the economic impact of Scotland's renewable energy sector published in 2021⁶⁹ found that a significant amount of the full time equivalent (FTE) employment in renewables was supported by onshore wind (8,780) and offshore wind (4,700). In 2019, the report calculated that Scotland's renewable sector had a turnover of £2.8 billion and approximately 6,440 FTEs. The report highlights that the direct employment of renewable activities is mostly in the electricity and gas, construction, and manufacturing industries, however, the spill-over impacts extend into many other sectors. It is suggested that renewable activities support over 3,000 FTE employment in the wholesale and retail sector, 1,600 FTE employment in professional, scientific and technical services, and 1,800 FTE employment in the admin and support services sector.

13.104 Wherever reasonably practicable, the Applicant is committed to using local contractors, suppliers, and employees during the construction phase of the Proposed Development. In relation to this, the Applicant has set up a local supplier register on the project website to encourage interest which can be accessed at <https://www.statkraft.co.uk/projects/carduibh/local-suppliers-register/>. Argyll and Bute has an excellent variety of businesses that have extensive experience and skills in wind farm development. Some of the employment opportunities during the construction phase of the Proposed Development relate to civil engineering, groundworks, electrical works, steel fixing, plant hire, concrete, and aggregates supply.

13.105 **Chapter 4** states that an average workforce of 35 people will be employed during the 18-month construction period for the Proposed Development. As the construction phase is short term and temporal employment it is assumed that 35 people being employed for 18 months equates to 52.2 Person Years Employment (PYE).

13.106 **Table 13.6** applies both a leakage⁷⁰ factor (assuming that all construction jobs will not be secured by local residents) and a displacement⁷¹ factor (assumes that individuals may leave their current employment in order to secure work in the construction project) to arrive at a net employment benefit.

13.107 A conservative estimate based on comparable projects within the UK is that 10 employees from the turbine supplier (out of a total of 35) will be employed during construction. It is therefore estimated that the regional population will take up to 72% of the direct construction jobs. Notwithstanding this leakage factor of 28%, it is possible that employees from outside Argyll and Bute may choose to live in the region during their period of employment and may also bring their families. This may in turn increase both population and spending levels within Argyll and Bute, as discussed under 'Indirect and Induced Employment and Economic Benefits' below.

13.108 Displacement of existing employees between sectors can occur where individual projects (such as construction) require a large supply of temporary employment. Individuals may use this opportunity to secure higher paid employment for a defined period, or to redirect their career. This impact is deducted from the gross employment generated as the movement of employees does not necessarily result in their old job being made available to the local economy. This impact is estimated to account for 20% of the construction employment secured by residents moving from their current job.

⁶⁸ Blanco, M. I. and Rodrigues, G. (2009) Direct employment in the wind energy sector: An EU study [online]. Available at: https://www.researchgate.net/publication/223854602_Direct_employment_in_the_wind_energy_sector_An_EU_study [Accessed on 20.07.2022]

⁶⁹ Fraser of Allander Institute on behalf of Scottish Renewables (2021) The Economic Impact of Scotland's Renewable Energy Sector [online]. Available at: <https://www.scottishrenewables.com/publications/857-untitled> [Accessed on 20.07.2022]

⁷⁰ Leakage refers to the proportion of output which benefit those outside of the project's target area or group. In other words, if the output were employment, the leakage would relate to how many construction jobs would be secured by people who don't live in Argyll and Bute.

⁷¹ Displacement refers to the proportion of project outputs accounted for by reduced outputs elsewhere in the region.

Table 13.6: Direct employment created during construction

	PYW Employment Created by Wind Farm Construction	PYEs Coming into Argyll and Bute (Leakage) ⁷²	Displacement from Other Local Economy Sectors ⁷³	Net Direct PYE Generated in the Local Economy ⁷⁴
Construction Employment	52.5	14.7	7.6	30.2

13.109 Once leakage and displacement figures have been accounted for, it is estimated that there will be 30.2 PYEs generated by the construction of the Proposed Development.

13.110 In terms of GVA and salary effects of these new jobs, the assessment has drawn on average GVA per head and salaries for the civil engineering sector in Argyll and Bute from the Scottish Annual Business Statistics⁷⁵. This presents an average annual GVA per head effect of £63,320 and an average annual salary effect of £30,019. In relation to 30.2 PYEs, this translates to a GVA effect of £1.91 million and a salary effect of £907,000 as a direct result of employment onsite during the construction of the Proposed Development.

13.111 The main contractor is likely to be Scotland-based, but it is assumed that whoever is appointed as the main contractor, that a significant proportion of the work will be carried out by sub-contractors and labour resident in Argyll and Bute. The Applicant is committed to giving local businesses opportunities to share in the financial and employment benefits of the construction and operation of the Proposed Development. If consented and constructed, the Proposed Development will offer opportunities for local businesses such as accommodation providers, hire companies, fencing contractors, tradesmen etc.

13.112 The estimated development and construction cost of the Proposed Development is expected to be approximately £85.8 million⁷⁶ based on an estimated capital expenditure of £1m per installed MW⁷⁷. Based on economic research for the onshore wind energy industry⁷⁸, it is anticipated that this value will be divided approximately as follows: development and planning costs (10%); balance of plant (26%); turbines (58%); and grid connection costs (6%). It is anticipated that up to 10% of the overall value of contracts could be realised in Argyll and Bute (up to £8.58 million).

13.113 This level of expenditure will support the employment forecasts set out above, and this figure can be corroborated through an assessment of turnover: job ratio from figures from the Scottish Annual Business Statistics, which assumes at the Argyll and Bute level that one civil engineering job is created for every £173,000 of construction expenditure. Assuming this, figures suggests a local employment effect of 50 PYEs, which is broadly consistent with the 52.5 PYE presented above.

13.114 As such, it is considered that construction will have an effect of Minor (positive) significance on direct employment and economic benefits for Argyll and Bute.

Indirect and Induced Employment and Economic Benefits

13.115 It is likely that there will be some local employment generated indirectly because of the construction of the Proposed Development. This could include supply chain spin-offs for local businesses and sub-contracted work relating to the transportation of construction workers and materials. The local supply chain spin-offs and sub-contractor work will depend upon local capacity. In terms of local skills, it is considered feasible that during the construction process there will be opportunities for 'up-skilling' of local people either directly or indirectly employed in relation to the Proposed Development. Those employed may develop skills that will be of benefit to the local economy in the longer term, such as project management and/or construction skills which are transferrable to other potential renewable energy developments.

⁷² Assumed to be 33% of XX FTE employment.

⁷³ Assumed 20% of XX FTE employment.

⁷⁴ FTE employment (5.25) minus leakage (1.7) and minus displacement (1.0).

⁷⁵ Scottish Government (2022) Scottish Annual Business Statistics 2020 [online]. Available at <https://www.gov.scot/publications/scottish-annual-business-statistics-2020/>

⁷⁶ Estimated MW output (85.8MW) x £1 million.

⁷⁷ Based on the case studies in the RenewableUK (2015) report, the weighted average construction cost per MW was £1.32 million ±15%, therefore as a conservation estimate 1 million per MW has been used. RenewableUK (2015) Onshore Wind: Economic Impacts in 2014 [pdf]. Available at: https://cdn.ymaws.com/www.renewableuk.com/resource/resmgr/publications/reports/onshore_economic_benefits_re.pdf [Accessed on 09.01.2023]

13.116 Scottish Government 'Type II Multipliers'⁷⁹ can be used to assess the likely scale of indirect employment generated, and also induced employment generated by the expenditure of those directly and indirectly employed by the businesses involved with the Proposed Development. The latest 2018 Type II indirect plus induced employment multiplier of 1.82 has been chosen for 'construction'. The relevant GVA multiplier is 2.11 and for salaries it is 1.88.

13.117 Figures for the total direct, indirect, and induced employment FTEs generated during construction of the Proposed Development are shown in **Table 13.7**.

Table 13.7: Indirect and induced employment during construction

	Net Direct Effects Generated in the Local Economy	Indirect Plus Induced Multiplier	Additional Indirect and Induced Effects
Construction Employment	30.2 PYE	1.82	55.0 PYE
Construction GVA	£1.91 million	2.11	£4.03 million
Construction Salaries	£907,000	1.88	£1.71 million

13.118 Construction workers may choose to reside in local accommodation which will further benefit the local economy through spending in local hotels, B&Bs, shops and restaurants. It is worth noting Renewable UK research in 2012⁸⁰ which estimated that the expenditure of workers who visit the local area benefit the accommodation and food service sector to the value of around £7,500 per MW constructed. The wider 'knock-on' impacts can in turn support the supply chain of other activities such as the spending habits of retail operations and accommodation providers. Based on the 85.8MW Proposed Development, this suggests a further £644,000 in construction related expenditure in the local areas during the construction phase.

13.119 The effect of the creation of 55.0 additional direct, indirect and induced PYEs, £4.03 million in GVA effects and salary effects of £1.71 million and wider expenditure benefits in the region of £644,000 is of Minor (positive) significance for the local employment and economic benefits within Argyll and Bute.

Public Access and Recreation

13.120 There are no Rights of Way (RoW) paths within the Site; however, there are three Core Paths (C200a, C200b and C203a) which are located within/traversing the Site Access (which also form part of an advertised route on Walk Highlands called the Inveraray Forest Circuit as discussed previously), these are outlined in **Table 13.3** and are shown on **Figure 13.1**. There is potential for direct disruption to the use of these Core Paths and circuit during construction for a small number of people. The routes may have restricted access and there are also potential implications for public health and safety if not managed.

13.121 Given that Core Paths C200a and C203a are only traversing the Site access briefly and Core Path C199(e) is outwith the Site but within 50m a Minor (adverse) effect is predicted. Core Path C200b follows the Site access for approximately 3km and therefore a **Moderate (adverse)** effect is predicted for this Core Path.

13.122 Recreational shooting occurs within the Site at various times of the year. There may be times when this is disrupted during construction and a temporary Minor (adverse) effect is predicted for recreation.

Tourism

13.123 It is possible that the construction of the Proposed Development could lead to a decrease in the availability of tourist accommodation within the area surrounding the Site, as construction workers from outside the area will require accommodation for

⁷⁸ BiGGAR Economics (2015) Northern Ireland renewables industry group – October 2015 [online]. Available at: <https://biggareconomics.co.uk/northern-ireland-renewables-industry-group-october-2015>

⁷⁹ Scottish Government (2019) Input-Output Tables and Multipliers for Scotland [online]. Available at: <https://www.gov.scot/binaries/content/documents/govscot/publications/statistics/2019/08/input-output-latest/documents/all-tables-all-years/all-tables-all-years/govscot%3Adocument/SUT-98-17.xlsx>

⁸⁰ Department of Energy and Climate Change and Renewable UK (2012) Onshore Wind: Direct and Wider Economic Impacts [online]. Available at: <https://www.gov.uk/government/publications/onshore-wind-direct-and-wider-economic-impacts>

the duration of the construction phase. However, as there are accommodation options nearby in Inveraray, Eredine, Lochgilphead and Dalavich, it is not considered that the construction of the Proposed Development will have a significant effect on the availability of tourism accommodation. In addition, it is considered that any reduction in accommodation will be compensated for by revenue generated by the (non-seasonal) accommodation of construction workers.

13.124 It is not considered that construction of the Proposed Development, particularly construction traffic, will discourage tourists from visiting the local area, including nearby tourist attractions in Inveraray.

13.125 Results of studies discussed previously within this report have found no evidence that the presence of a wind farm would dissuade tourists from visiting an area.

13.126 The effect of construction of the Proposed Development on tourism is therefore predicted to be Negligible.

Proposed Mitigation

13.127 As good practice, it is proposed that a Construction Traffic Management Plan (CTMP) will be implemented for the Proposed Development to manage the effect of construction traffic on the public road network, following the principles set out in **Chapter 12**. This will include measures such as ensuring roads are maintained in a clean and safe condition, deploying a wheel washing facility onsite to reduce mud and debris being deposited onto surrounding roads and the erection of site signage along the traffic route to warn people of construction activities and associated construction vehicles.

13.128 Standard health and safety mitigation will be implemented during the construction period of the Proposed Development as outlined in the Outline CEMP. As the Site access encroaches on three Core Paths, a Site-specific Access Management Plan (AMP) will also be prepared for use during construction to ensure that health, safety and public access isn't adversely affected. An Outline AMP has been provided, following guidance⁸¹, in **Appendix 13.1: Outline Access Management Plan**.

Residual Construction Effects

13.129 Taking account of the implementation of the CTMP, CEMP and AMP, whilst adopting a precautionary worst-case approach, the residual effect of the Proposed Development in relation to public access and specifically to the Core Paths/Inveraray Forest Circuit will be Minor (adverse).

13.130 All other effects remain as above, i.e. a temporary Minor (positive) effect in terms of direct employment and economic benefit opportunities, and indirect and induced employment and economic benefits, a temporary Minor (adverse) effect on recreation (recreational shooting) and a Negligible effect on tourism.

Operational Effects

Direct Employment and Economic Benefits

13.131 Due to their remote operational control and limited need for servicing, wind farms do not create large numbers of jobs during the operational stage. It is expected that about 2 FTE staff will be employed to operate the Proposed Development and undertake routine maintenance work during its lifetime (40 years). It is assumed that 80% of these jobs could be filled by regional technicians (giving a leakage factor of 20%). Therefore, the operational phase of the Proposed Development will directly generate 1.6 FTE employees⁸². Displacement is not considered likely during the operational phase.

13.132 In terms of GVA and salary effects of these new jobs, the assessment has drawn on average GVA per head and salaries for the professional, scientific and technical sector in Argyll and Bute from the Scottish Annual Business Statistics⁸³. This presents an average annual GVA per head effect of £34,698 and an average annual salary effect of £24,135. In relation to 1.60 FTEs, this translates to an annual GVA effect of £56,000 and an annual salary effect of £39,000 as a direct result of employment onsite during the operation of the Proposed Development. Over the 40 year operating lifetime of the Proposed Development, this equates to a GVA effect of £2.2 million and a salary effect of £1.6 million (in 2023 prices).

⁸¹ Scottish Natural Heritage (2010) Guidance for the Preparation of Outdoor Access Plans [pdf]. Available at: <https://www.nature.scot/sites/default/files/2017-06/B639282%20-%20A%20Brief%20Guide%20to%20Preparing%20Outdoor%20Access%20Plans%20-%20Feb%202010.pdf> [Accessed on 20.07.2022]

⁸² 0.80*2 FTEs.

⁸³ Scottish Government (2022) Scottish Annual Business Statistics 2020 [online]. Available at <https://www.gov.scot/publications/scottish-annual-business-statistics-2020/>

13.133 A Minor (positive) effect is therefore likely in relation to direct employment generation.

13.134 It is proposed that the Applicant will provide annual community benefit fund payments. The fund could be used by local community groups to secure long-term economic benefits and will act as a significant contribution to meeting local developmental aspirations. The Applicant will pay £5,000 per MW of installed capacity per annum into the fund. This equates to £429,000 of income per annum⁸⁴, or over £17.1 million over the 40-year operational life of the Proposed Development, subject to the eventual turbine type installed and capacity installed.

13.135 The Applicant is not prescriptive in the way the Community Benefit Funds are administered or can be used but are keen to ensure Community Benefit Funding meets local needs and delivers projects can meet short term needs and deliver long term sustainable benefits to the local community. Examples of previous projects funded have included education activities, Sustainable energy schemes and schemes to promote recreation. The Applicant is open to offering shared ownership to the community as part of the Proposed Development but as this is not certain to be taken up at this stage shared ownership has not been assessed as part of this chapter.

13.136 A **Moderate (positive)** effect is predicted for the Proposed Development in relation to direct economic benefits.

Indirect and Induced Employment and Economic Benefits

13.137 It is likely that there will be some local employment generated as an indirect result of the operation of the Proposed Development, and this will be associated with indirect and induced employment effects resulting from increased household expenditure among those individuals who have gained employment both directly and indirectly because of operation of the Proposed Development. The Scottish Government Type II Multipliers suggest that the appropriate indirect plus induced employment multiplier to apply to the operational direct employment for repair and maintenance jobs will be 1.85. The relevant GVA multiplier is 1.78 and for salaries it is 1.63. Figures for the total estimated direct, indirect and induced FTEs generated during operation of the Proposed Development are shown in **Table 13.8**.

Table 13.8: Annual indirect and induced employment during operation

	Net Direct Effects Generated in the Local Economy	Indirect Plus Induced Multiplier	Additional Indirect and Induced Effects ⁸⁵
Operational FTE Employment	1.60	1.85	2.96
Operational GVA	£56,000	1.78	£99,700
Operational Salaries	£39,000	1.63	£63,600

13.138 The potential annual indirect and induced job creation of 2.96 FTEs, £99,700 in GVA terms and £63.6k in salary terms from the operation of the Proposed Development over 40 years is considered to be of Minor (positive) significance for the local economy in terms of indirect and induced employment and economic benefits. Over the 40 year lifetime of the Proposed Development, this equates to a GVA effect of £4.0 million and a salary effect of £2.5 million. There is also the potential for employment and local spending to be generated from projects associated with the community benefit payments which is not accounted for.

13.139 Furthermore, the study undertaken for RenewableUK into the economic impacts of onshore wind (2012)⁸⁶ concluded that there were a number of additional economic benefits associated with onshore wind farms in addition to direct employment and supply chain benefits. Examples cited include:

- Impacts on landowners providing the option for them to:
 - Manage energy consumption;

⁸⁴ 85.8MW x £5,000.

⁸⁵ Net direct FTEs (1.6) x indirect and induced multiplier (1.5).

⁸⁶ Department of Energy and Climate Change and Renewable UK (2012) Onshore Wind: Direct and Wider Economic Impacts [online]. Available at: <https://www.gov.uk/government/publications/onshore-wind-direct-and-wider-economic-impacts>

- Green their business (reducing carbon impact by setting up turbines on their premises); and
- Diversify their businesses (using the development of wind farms to support other operations).
- Community ownership and investment in wind energy, which can provide income to help other economic and social development projects;
- Wildlife and habitat management and enhancement projects which help support the local area and, in some cases, provide employment; and
- Investment in local infrastructure such as access roads which brings wider benefits to the local economy and community, including longer-term benefits as a result of the improvements to infrastructure.

13.140 Furthermore, there are local and national exchequer effects such as income tax and National Insurance Contribution, Non-Domestic Rates and Corporation Tax effects as a result of the Proposed Development. Adopting a conservative approach, indirect economic benefits from the Proposed Development will result in a Minor (positive) effect to the local economy.

Public Access, Recreation and Tourism

13.141 There will be restrictions on access and recreation within the Site during normal operation of the Proposed Development as there will be gates in situ along the newly constructed access tracks within the Site. However, right to roam provisions as introduced by the Land Reform (Scotland) Act 2003 will remain.

13.142 Operation of the Proposed Development will not prevent people from visiting the area or from undertaking recreational activities in the area, such as using the Core Paths and exercising wider access rights.

13.143 It is possible that the change in views from certain areas and routes could influence some individuals in their choice of location to visit or recreational activities to undertake. Landscape and visual effects during operation are considered in **Chapter 6** and this assessment takes into consideration the receptors of landscape and visual effects. Viewpoints and routes for the assessment were selected partly on the basis of accessibility and on the number of potential viewers. The 'type' of viewers (i.e. local residents, tourists, walkers etc.) has also been considered when making judgements on the sensitivity of these views to change.

13.144 Key attractions in Argyll and Bute include the landscape, scenery, and historic environment. It is noted that, as per recreational users, the effect that changes of views will have on tourism will depend on the personal opinion of the viewer; some people may dislike wind turbines, whilst others may view them as complementary to the landscape or have no strong opinion. However, the operation of the Proposed Development will not prevent people from visiting the area around the Site. In addition, there is no evidence to suggest that the top tourist attractions in the Argyll and Bute region, or those more locally are likely to be adversely affected in terms of reduced visitor numbers as a result of the operation of the Proposed Development, given the distance of them relative to the Site.

13.145 Predicted significant visual effects of the Proposed Development in relation to viewpoints (VPs) of relevance to recreation and/or tourism, either as tourist attractions or potential stopping points, and in relation to popular recreation walking or driving routes, within approximately 15km, are outlined below:

- Viewpoint 1 – Loch Awe **Significant (Major)**;
- Viewpoint 2 – Dalavich Jetty **Significant (Major)**;
- Viewpoint 4 – Folly at Dun na Cuaiche (Inveraray Castle GDL) **Significant (Major)**;
- Viewpoint 5 – Minor road to west of Loch Awe (north of Dalavich) **Significant (Major)**;
- Viewpoint 7 – Core Path above Inverinan **Significant (Moderate)**;
- Viewpoint 9 – Kilmaha Viewpoint **Significant (Moderate)**;
- Viewpoint 11 – Loch Avich, east of Loch Avich House **Significant (Moderate)**;
- Viewpoint 13 – Loch Avich Not Significant (Minor; this could increase to **Significant (Moderate)** if forestry is removed in the future); and

- Viewpoint 15 – Fincham Castle, Loch Awe **Significant (Moderate)**.

13.146 Seven viewpoints of relevance to recreation and/or tourism within 15km where the predicted visual effects are Not Significant are outlined below:

- Viewpoint 3 – B840, north of Balliemanoach Not Significant (Minor);
- Viewpoint 6 – Beinn Dearg Not Significant (Minor);
- Viewpoint 8 – Loch Fyne Not Significant (Minor);
- Viewpoint 10 – Jetty at St. Catherines Not Significant (Minor);
- Viewpoint 12 – Parking spot, Loch Awe no visual effect; and
- Viewpoint 14 – A886 at Strachur Not Significant (Minor).

13.147 The effect which changes in views will have on recreational activity will depend on the personal opinion of the viewer and is subjective; some people may be predisposed to dislike wind turbines while others could view them as complementary to the landscape. As a consequence, the alteration in views from surrounding areas (including hill summits and walking routes) may influence some individuals in their choice of location to visit or recreational activities to undertake. However, on balance, it is not considered that the changes in views from the viewpoints and routes assessed (from which recreational users will be receptors) will result in a significant negative effect on informal recreation.

13.148 The overall direct effect on public access, recreation and tourism during operation is considered to be of Minor significance.

Proposed Mitigation

13.149 No operational mitigation measures are proposed.

Residual Operational Effects

13.150 All effects will remain as per above i.e. a Minor (positive) effect for direct employment benefits, a **Moderate (positive)** effect for direct economic benefits, Minor (positive) effects for indirect and induced employment and economic benefits and a Minor effect for public access, recreation and tourism.

Cumulative Effects

13.151 Should the schemes identified within 45km (as identified in **Chapter 6**) and indeed within Argyll and Bute be constructed, the cumulative effect on direct and indirect employment and economic benefits will be positive for both the Argyll and Bute region and wider economies. It is beyond the scope of this chapter to calculate the likely direct employment and economic benefits of all the other surrounding schemes. However, it is noted that consented wind farms within Argyll and Bute with publicly available socio-economic assessments include Airigh and Tangy 4.

Cumulative Effects During Construction

Direct Construction Employment and Economic Benefits

13.152 The estimated development and construction cost of the Proposed Development is expected to be approximately £85.8 million⁸⁷ based on an estimated capital expenditure of £1m per installed MW. It is outwith the scope of this chapter to calculate expected direct economic benefits of construction of all schemes within the area, however, if the Proposed Development combined with the consented schemes within the region were constructed then a **Moderate (positive)** effect is predicted in relation to direct economic and employment benefits.

Indirect and Induced Construction Employment and Economic Benefits

13.153 It is likely that there will be some local employment generated indirectly as a result of the construction of the Proposed Development cumulatively with other consented wind farms. This could include supply chain spin-offs for local businesses and sub-

⁸⁷ Estimated MW output (85.8MW) x £1 million.

contracted work relating to the transportation of construction workers and materials. A Minor (positive) effect is predicted in relation to indirect and induced employment and economic benefits.

Public Access and Recreation

13.154 The Site is in a remote location where there isn't a high density of consented wind farm schemes which could cumulatively impact public access in the local area. Therefore, whilst **Moderate**-Minor cumulative effects on public access and recreation are predicted, these effects are effectively already accounted for when the Proposed Development is considered in isolation.

Tourism

13.155 It is possible that the construction of the Proposed Development simultaneously with other schemes nearby could lead to a greater decrease in the availability of tourist accommodation within the area surrounding the site, particularly as there are limited accommodation opportunities within the local area. However, it is unlikely that this would cause a significant effect, and businesses would benefit during the 'off peak' season when there would usually be less demand for accommodation, therefore, a Negligible cumulative effect is predicted.

Proposed Mitigation

13.156 No additional mitigation is proposed above what is accounted for the Proposed Development in isolation.

Residual Cumulative Effects During Construction

13.157 All residual cumulative effects during construction remain as per above i.e. a **Moderate (positive)** effect for direct economic and employment benefits, a Minor (positive) effects for indirect and induced employment and economic benefits and **Moderate**-Minor effect for public access and recreation and a Negligible cumulative effect for tourism.

Cumulative Effects During Operation

Direct Employment and Economic Benefits

13.158 Although community benefits and shared ownership will be offered for Tangy 4, no information was publicly available on the rate of payments within available documents. For Airigh Wind Farm, the same rate of payment was proposed at £5,000 per MW of installed capacity. This amounts to up to £294,000 per annum for the 30 years of operational period of the wind farm, equating to up to £8.8 million worth of community benefit payments for the local communities in the area. In combination with the Proposed Development, this would equate to £31.2 Million over the operational life of these two schemes.

13.159 As an illustrative example, using Local Energy Scotland⁸⁸ and publicly available information from the ABC website, other community benefits schemes for onshore wind have been identified that are (notwithstanding numerous community benefits schemes for numerous hydro schemes in the Argyll and Bute region) already in place are shown in **Table 13.9**. This illustrates how cumulatively the renewable schemes can impact on local communities around Argyll and Bute in terms of direct economic benefits.

13.160 Adopting a conservative approach, if the schemes within the wider area and Argyll and Bute region are constructed, then the predicted cumulative effects with existing schemes on direct economic benefits will be **Moderate (positive)**.

13.161 Due to their remote operational control and limited need for servicing, wind farms do not create large numbers of jobs during the operational stage therefore, a Minor (positive) effect is predicted for cumulative direct employment benefits.

⁸⁸ Local Energy Scotland (undated) Community Benefits Map [online]. Available at: <https://localenergy.scot/community-benefits-map/> [Accessed on 19.10.2022]

Table 13.9: Local Energy Scotland community benefits registered projects⁸⁹

Project Name	Operation Start Date/Consented Date	Installed Capacity	Beneficiary Communities	Rate of Payment per MW per Annum	Total Payments Potentially Made per Annum	Potential Payments Made Since Operation Start Year
Operational Schemes						
Beinn Ghlas	09.06.1999	8.4MW	Taynuilt Community Council Area.	£952	£8,000	£183,900
Carraig Gheal	05.11.2013	46MW	Taynuilt, Glenorchy & Innishail, Kilniver & Kilmelford, Avich & Kilchrenan and Kilmore Community Councils.	£1,100	£50,600	£455,400
Clachan Flats	08.12.2008	15.03MW	Inveraray Community Council.	£900	£13,500	£189,300
An Suidhe	2010	Unknown	Glenorchy & Innishail (Eredine only), Inveraray, Furnace and Dalavich Improvement Group.	Unknown	£28,500 ⁹⁰	£342,000
A'Chruach	29.06.2016	42.6MW	West Loch Fyne, Dunadd and Lochgilphead.	£3,500	£149,000	£894,600
Clachan Flats	2010	15MW	Clachan Flats Windfarm Trust in Cairndow and Inveraray Community Council.	£1,000	£15,000 ⁹¹	£375,000
Cruach Mhor	13.01.2003	29.75MW	Not listed.	£1,009	£30,000	£570,300
Allt Dearg Community Wind	14.12.2012	10.8MW	Not listed.	£3,015	£32,500	£325,600
Cour Wind Farm	17.03.2017	20.5MW	East Kintyre, West Kintyre and Tarbert & Skipness.	£5,000	£102,500	£512,500
Deucheran Hill	01.03.2001	15.75MW	West Kintyre and East Kintyre Community Councils.	£666	£10,500	£220,200
Total Operational Schemes					£396,600	£335,059,000 (£3.35 million)
Consented Schemes and Proposed Development						
Barran Caltunn	2013	900Kw	Oban Community Council.	£5,000	£4,500 ⁹²	-
Airgh	2018	50.4MW	South Knapdale, West Kintyre, Tarbert & Skipness Development Trust and Adrishraig Community Trust.	£5,000	£252,000	-
Tangy 4	2019	80MW	Unknown.	Unknown	Unknown	-
An Carr Dubh (The Proposed Development)	-	85.8MW	To be confirmed.	£5,000	£429,000	-
Total Consented Schemes and Proposed Development					£685,500	-
Total Operational and Consented					£1,082,200 (£1.08 million)	-

⁸⁹ Other schemes were listed but information on capacity and rate of payment was not provided and therefore they haven't been assessed. Schemes where there was limited information available have been partially assessed based on information gathered from project websites online.

⁹⁰ Rate rises in line with inflation and was £36,000 in 2020, a conservative approach has been taken in this assessment. Information taken from Foundation Scotland (undated) An Suidhe Wind Farm Community Fund [online]. Available at: <https://www.foundationscotland.org.uk/apply-for-funding/funding-available/suidhe>

⁹¹ Based on figures from ScottishPower (2010) ScottishPower Renewables Opens Clachan Flats Windfarm [online]. Available at: https://www.scottishpower.com/news/pages/scottishpower_renewables_opens_clachan_flats_windfarm.aspx

⁹² Based on the ABC guidance for community benefits £5,000 per MW = £4,500 per 900Kw.

Indirect and Induced Construction Employment and Economic Benefits

13.162 It is likely that there will be some local employment generated as an indirect result of the operation of the Proposed Development cumulatively, and this will be associated with induced employment effects resulting from increased household expenditure among those individuals who have gained employment both directly and indirectly because of operation of the Proposed Development in combination with the other schemes. However, due to the low numbers of operational employment required for wind farms, a Minor (positive) effect is predicted for cumulative indirect employment and economic benefits.

Public Access, Recreation and Tourism

13.163 It is predicted that there may be some positive cumulative effects on public access and recreation in the wider area through the provision of new paths and access routes available to walkers and cyclists, where this is being promoted actively as part of the wind farm scheme. Adopting a conservative approach, however, this beneficial effect is considered to be Negligible.

13.164 Chapter 6 also assesses cumulative effects on visual receptors of relevance to public access, recreation and tourism (As discussed in operational effects section above). Given the varied status, and therefore certainty, associated with un-built wind farms across the Study Area the Cumulative Landscape and Visual Amenity Assessment has been structured so as to report on two potential development scenarios:

- Scenario 1: Higher level of certainty: the addition of the Proposed Development to a landscape with operational, under construction and consented wind farms.
- Scenario 2: Lower level of certainty: the addition of the Proposed Development to a landscape with operational, under construction, consented and undetermined valid planning applications (including any applications at Scoping).

13.165 Predicted cumulative visual effects for Scenario 1 and Scenario 2 of the Proposed Development in relation to viewpoints (VPs) of relevance to recreation and/or tourism, either as tourist attractions or potential stopping points, and in relation to popular recreation walking or driving routes, within approximately 15km, are outlined below:

- Viewpoint 1 – Loch Awe **Significant (Major)**
 - Scenario 1 – No significant additional or total visual effects
 - Scenario 2 – **Significant (Major)**
- Viewpoint 2 – Dalavich Jetty **Significant (Major)**
 - Scenario 1 – No significant additional or total visual effects
 - Scenario 2 – **Significant (Major)**
- Viewpoint 3 – B840, north of Balliemanoach Not Significant (Minor)
 - Significant cumulative effects are not predicted likely to occur
- Viewpoint 4 – Folly at Dun na Cuaiche (Inveraray Castle GDL) **Significant (Major)**
 - Scenario 1 – No significant additional or total visual effects
 - Scenario 2 – **Significant (Major)**
- Viewpoint 5 – Minor road to west of Loch Awe (north of Dalavich) **Significant (Major)**
 - Scenario 1 – No significant additional or total visual effects
 - Scenario 2 – **Significant (Major)**
- Viewpoint 6 – Beinn Dearg Not Significant (Minor)
 - Scenario 1 – No significant additional or total visual effects
 - Scenario 2 – Not Significant (Minor)
- Viewpoint 7 – Core Path above Inverinan **Significant (Moderate)**
 - Scenario 1 – No significant additional or total visual effects

- Scenario 2 – **Significant (Moderate)**
- Viewpoint 8 – Loch Fyne Not Significant (Minor)
 - Significant cumulative effects are not predicted likely to occur
- Viewpoint 9 – Kilmaha Viewpoint **Significant (Moderate)**
 - Scenario 1 – No significant additional or total visual effects
 - Scenario 2 – **Significant (Moderate)**
- Viewpoint 10 – Jetty at St. Catherines Not Significant (Minor)
 - Significant cumulative effects are not predicted likely to occur
- Viewpoint 11 – Loch Avich, east of Loch Avich House **Significant (Moderate)**
 - Scenario 1 – No significant additional or total visual effects
 - Scenario 2 – No significant additional or total visual effects
- Viewpoint 12 – Parking spot, Loch Awe no visual effect
 - Significant cumulative effects are not predicted likely to occur
- Viewpoint 13 – Loch Avich Not Significant (Minor)
 - Scenario 1 – No significant additional or total visual effects
 - Scenario 2 – Not Significant (Minor)
- Viewpoint 14 – A886 at Strachur Not Significant (Minor)
 - Significant cumulative effects are not predicted likely to occur
- Viewpoint 15 – Fincharn Castle, Loch Awe **Significant (Moderate)**
 - Scenario 1 – No significant additional or total visual effects
 - Scenario 2 – Not Significant (Minor)

13.166 The overall cumulative operational effect on public access, recreation and tourism during operation is considered to be of Minor significance.

Proposed Mitigation

13.167 No mitigation is proposed. For visual receptors, mitigation was through design whereby turbines were sited to reduce visual effects as far as possible. See **Chapters 3** and **6** of the EIA Report for further detail on mitigation by design.

Residual Cumulative Effects During Operation

13.168 All residual effects remain as above, i.e. **Moderate (positive)** effects in relation to direct economic benefits, Minor (positive) effects for direct employment benefits, Minor (positive) effects for indirect and induced employment and economic benefits. Overall Minor (adverse) effects are predicted in relation to public access, recreation, and tourism.

Interrelationship Between Effects

13.169 The potential effects of the Proposed Development are considered above in terms of effects on socio-economics, including recreation and tourism. As mentioned above, there is a correlation between recreation and tourism effects and views of the Proposed Development from viewpoints within the wider 45km landscape and visual study area. Whilst the assessment of such interrelated effects is presented within this chapter, the assessment necessarily relates to the assessment in **Chapter 6**. There is also some correlation between potential effects on recreational amenity resulting from noise effects during construction. Effects on noise are considered in **Chapter 11**.

13.170 Overall, however, no significant interrelated effects in relation to socio-economics are predicted as a result of the Proposed Development.

Further Survey Requirements and Monitoring

13.171 No further surveys or monitoring are proposed.

Summary of Significant Effects

13.172 **Table 13.10** summarises the predicted significant effects of the Proposed Development on socio-economics, including tourism and recreation in Argyll and Bute, all other effects are not significant. While the effects on Core Paths and Inveraray Forest Circuit during construction are **Moderate**-Minor (temporary) prior to mitigation, the implementation of the Access Management Plan, in addition to the CTMP and CEMP will reduce these effects to Minor, and not significant.

Table 13.10: Summary of significant effects

Predicted Effect	Significance	Mitigation	Significance of Residual Effect
Construction			
Public Access (Core Path C200(b)) and Inveraray Forest Circuit	Moderate (adverse)	Standard health and safety mitigation implemented via the CTMP and CEMP and the AMP (presented in outline Appendix 13.1).	Minor (adverse)
Operation			
Direct Economic Benefits	Moderate (positive)	Not applicable.	Moderate (positive)
Cumulative Construction			
Direct Employment and Economic Benefits	Moderate (positive)	Not applicable.	Moderate (positive)
Cumulative Operation			
Direct Economic Benefits	Moderate (positive)	Not applicable.	Moderate (positive)