

13 Socio-Economics, Tourism and Recreation

Introduction

- 13.1 This chapter considers the potential effects of NLEI ('the Development') on socio-economics, including tourism and recreation.
- 13.2 The socio-economic, tourism and recreation assessment was undertaken by BiGGAR Economics. Some parts of the assessment, in particular the tourism and recreation assessment, were undertaken with reference to **Chapter 6: Landscape and Visual Assessment**.

Scope of the Assessment

Effects Assessed in Full

- 13.3 The following key issues were identified for consideration in the assessment:
 - direct and indirect effects during development and construction on employment and economic activity;
 - direct and indirect effects during operation on employment and economic activity;
 - the direct effects of the community benefit scheme, once the Development is operational;
 - the direct effects of shared ownership of the Development;
 - the contribution of the Development to Non-Domestic Rates (a tax which is paid on non-domestic property);
 - direct and indirect effects on tourism and recreation assets during operation; and
 - direct and indirect effects on tourism accommodation during operation.

Effects Scoped Out

- 13.4 There were no socio-economic, tourism and recreation effects scoped out at the scoping stage.

Assessment Methodology

Legislation and Guidance

- 13.5 There are no recognised standards, guidelines or methodologies for assessing the effects of windfarms on socio-economics, tourism and recreation for the purposes of an EIA. The data sources used to inform the assessment are detailed below.

Consultation

- 13.6 Various organisations contributed to scoping. The nature of the issues that were raised and where they have been addressed are detailed in **Table 13.1**.

Table 13.1: Scoping and Consultation Responses

Respondent	Comment	Where addressed
Scottish Government Local Energy and Consents Unit	An access strategy and effects on core paths should be considered as part of the EIA.	Effects on access are considered under Construction Effects on Local Tourism and Recreation Assets.
South Lanarkshire Council Planning Services	The ES should include an assessment of the tourism impact on the Southern	Effects on tourism, including effects on the Southern Upland Way, have been assessed as part of the EIA and the findings

Respondent	Comment	Where addressed
	Upland Way.	presented under Operational Effects on Local Tourism and Recreation Assets.
VisitScotland	Recommended that any potential detrimental effect on tourism be identified and considered in full.	Effects on tourism are considered in full under Tourism and Leisure Effects.
Mountaineering Council of Scotland (MCoS)	Recommended that "Wind Farms and Changing Mountaineering Behaviour in Scotland" be included in the EIA.	This survey, and another carried out by MCoS included under Evidence on Windfarms and Tourism.
Leadhills Community Council	Consideration should be given to community ownership. The ES should consider the effects of the proposal on the local economy.	The potential for this is discussed under Shared Ownership within this Chapter. Subsequent discussions with Leadhills Community Council have indicated that they are unlikely to want to pursue shared ownership discussions. Discussed with reference to the wider Local Area under Construction Effects, Operational Effects and Community Benefit.
Wanlockhead Village Council	Raised concerns in relation to maintaining tourism and recreational opportunities, particularly the Southern Upland Way The Village Council also raised the issue of how the community benefit fund might be disbursed and how large it would be	Effects on tourism are considered in full under Tourism and Leisure Effects Discussed in the section relating to community benefit.
Lowther Hill Ski Club	Raised concerns regarding effects of windfarm visibility on the use of the Ski Club and highlighted the size and membership of the club.	Effects on tourism, including the Ski Centre, are considered in full under Tourism and Leisure Effects.
Wanlockhead Mining Museum (Meeting 31 st March)	Provided some background to the mining history of the area and the use of the Museum. Also highlighted some of the current challenges faced by the museum. Set out what some of the aims were in terms development, raising the Museum's profile and becoming more sustainable in light of a challenging funding landscape.	Baseline information provided by the Museum is included within this chapter.
Royal Burgh of Sanquhar Community Council	Raised the issue of community benefit and wished to discuss shared ownership opportunities. Discussion regarding these issues is ongoing. Highlighted that the Development is entirely within the Royal Burgh of Sanquhar Community Council Area and that this should be taken into account in considering community benefit options.	Community Benefit and Shared Ownership are discussed in 13.132 to 6. Consultation on the geographical extent and distribution of the community benefit is ongoing although the existence of the Trust established by Sanquhar and Kirkconnel and Kelloholm Community Councils is noted as potential vehicle for administration of funds.
Kirkconnel and Kelloholm Community Council	Raised the issue and distribution of community benefit, noting the existence of the Trust already established between them and Sanquhar Community Councils, and highlighted existing development plans in Kirkconnel that would benefit from funding.	Consultation on the geographical extent and distribution of the community benefit is ongoing although the existence of the Trust established by Sanquhar and Kirkconnel and Kelloholm Community Councils is noted as potential vehicle for administration of funds.

- 13.7 A consultation program was undertaken by Foundation Scotland in late February/early March. The scope of these consultations was deliberately broader than the Development, focusing on how the local economies could be strengthened, and how infrastructure, capacity assets and knowledge between local communities could be enhanced.
- 13.8 It is intended that this consultation exercise will continue irrespective of the progress of the Development with the aim of helping communities work together to identify and overcome barriers to common aims.

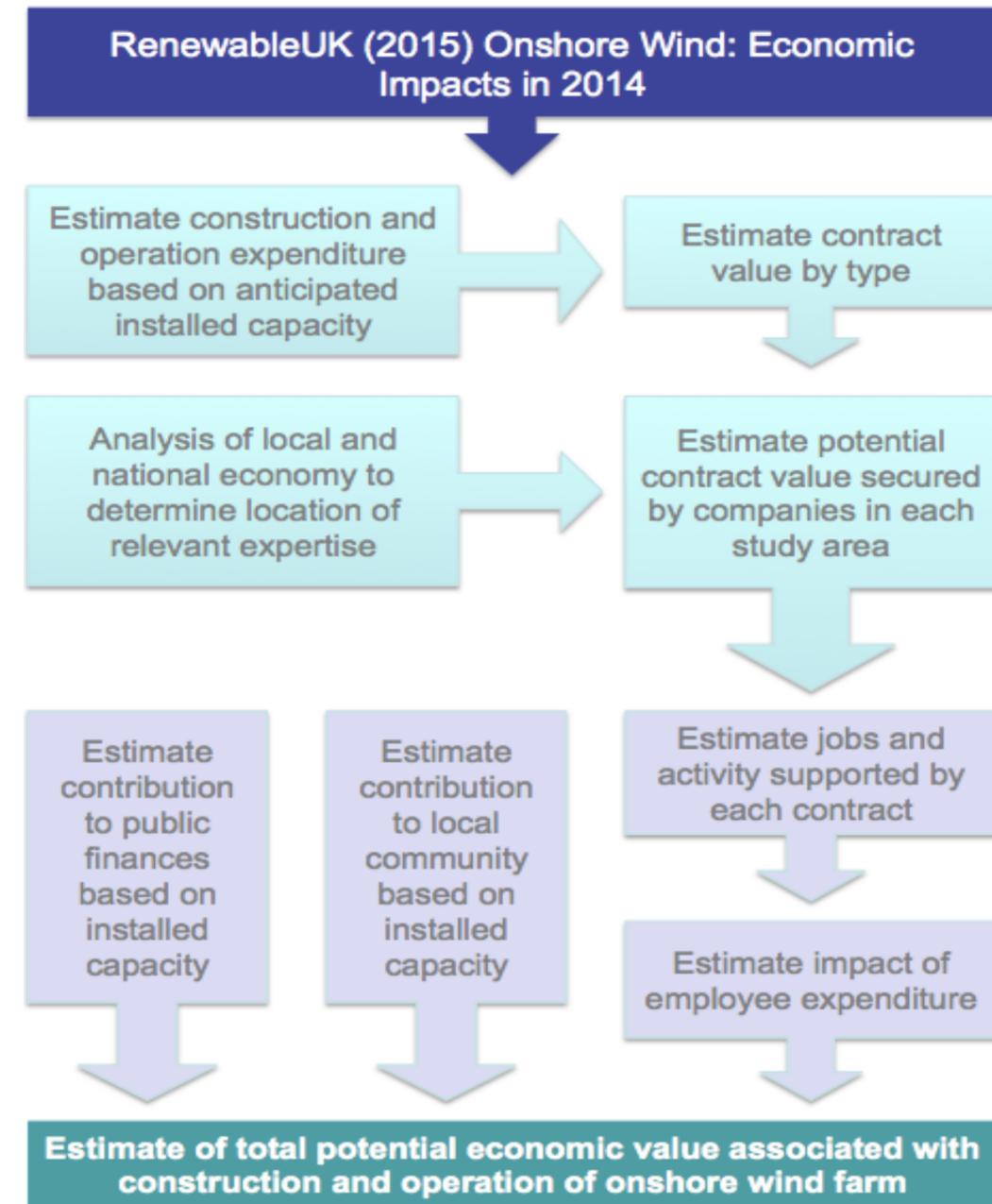
Approach to the Baseline Evaluation

- 13.9 To understand the baseline conditions for the assessment of effects on socio-economics, tourism, and recreation the following has been undertaken in the Strategic Context section:
- a review of national, regional and local economic strategies;
 - an analysis of Office of National Statistics socio-economic statistics for the relevant study areas;
 - a review of national, regional and local tourism strategies;
 - an analysis of tourism statistics in the relevant study areas; and
 - identification of local tourism and recreation assets, and accommodation providers.

Assessment of the Economic Effects

- 13.10 As noted above, there are no recognised standards, guidelines or methodologies for assessing the effects of windfarms on socio-economics, tourism and recreation for the purposes of an EIA. Therefore, to identify and assess the significance of predicted economic effects, the assessment has been based on professional judgement of the degree of change resulting from the Development, using methods commonly used in EIAs for proposed renewable energy developments, as outlined below.
- 13.11 Assessment of economic effects was undertaken using a model that has been developed by BiGGAR Economics specifically to estimate the economic effects of windfarm developments. This model was also the basis of an assessment of the economic effects of the UK onshore wind sector for the then Department of Energy and Climate Change (DECC) and RenewableUK in 2012,ⁱ which was subsequently updated in 2015.ⁱⁱ These assessments were based on case studies of the local, regional and national economic effects of windfarms that have been developed in the UK in recent years.
- 13.12 This approach is now considered industry best practice in the assessment of the economic effects of the onshore wind sector, having been used in reports for the DECC and RenewableUK. This model has been used by BiGGAR Economics to assess the economic effects of numerous windfarms across the UK and the results have been accepted as robust at several public inquiries.
- 13.13 To estimate the economic effects that could result from the construction and operation of the Development, data on the scale of the work, such as the size and capacity of the wind turbines, grid connections, sub-stations etc., was gathered from NLEI Ltd. This was then used to assess the anticipated economic activity using the method illustrated in **Figure 13.1**. This illustrates the stages required to estimate the economic activity supported by the construction and operational phase.
- 13.14 The starting point for estimating the likely economic activity supported by the Development was to consider the level of expenditure during the construction and operational phase of the Development. The next step was to break this expenditure down to its main components and make reasonable assumptions about what will be expected to accrue to the main contractors and sub-contractors.
- 13.15 These assumptions were based on two main sources. The first was the analysis undertaken in the 2015 report on behalf of RenewableUK, which draws on the experience of what happened in developments elsewhere in the UK. This report examined the size and location of contracts for the development, construction, and operation and maintenance of existing windfarms. The second source was a bespoke analysis of the economies of the relevant study areas, specifically undertaken for this assessment. This was based on analysis of local and national statistics.
- 13.16 Applying these assumptions to the initial expenditure provided an estimate of the amount of each component contract that could be secured by companies in the Local Area, and Dumfries and Galloway and South Lanarkshire (study areas are defined below). There are two sources of economic activity: the first arising from each of the component contracts and the jobs they support; the second is from the anticipated spending in the relevant study areas of people employed in these contracts (the income effect).

Figure 13.1: Approach to Economic Impact Assessment



- 13.17 In addition the following effects have also been assessed:
- Public finances – the Development will have an effect on Scotland's public finances due to Non-Domestic Rates (NDRs) generated for the Government; and
 - Community fund – the Development will be expected to have an effect on the community through a community benefit fund.
- 13.18 The possibility of community ownership is also discussed.

Assessment of Tourism and Recreation Effects

- 13.19 Tourism and recreation effects were considered in two ways:
- reviewing the evidence base on the link between wind energy developments and tourism; and

- analysis of the local tourism and recreation assets in the economy, including accommodation providers.

Review of the Evidence Base

13.20 As both renewable energy and tourism are important sectors in the Scottish economy, which are sometimes thought to be in conflict, the link between wind energy developments and tourism in Scotland has been reviewed, informed by the following reports:

- The Economic Impacts of Wind Farms on Scottish Tourism, Glasgow Caledonian University (2008);ⁱⁱⁱ
- Wind Farms and Tourism Trends in Scotland, BiGGAR Economics (2016);^{iv}
- A Report on the achievability of the Scottish Government's renewable energy targets (released by the Scottish Parliament Economy, Energy and Tourism Committee in 2012);^v
- Wind Farms and Changing Mountaineering Behaviour in Scotland, Mountaineering Council of Scotland 2014;^{vi} and
- Wind Farms and Mountaineering Behaviour in Scotland, Mountaineering Council of Scotland 2016.^{vii}

Analysis of Tourism and Recreation Assets in the Region

13.21 An overview of the tourism and recreation assets is provided in the tourism context section and the potential effect of the Development was considered by assessing the potential effects on local tourism and recreation assets based on the significance criteria in Table. The potential effect on accommodation providers in the area was assessed using the same method.

Study Area

13.22 The study areas for the socio-economic, tourism and recreation assessment are as follows:

- the Local Area, which comprises where possible, the 2001 Scottish Data Zones S01001079, S01001083, S01001085, S01001089, S01005669, and S01005670, which can be accessed through Nomis. An illustration of the Local Area is provided in **Figure 13.2**.
- the Regional Area, which comprises the council areas of Dumfries and Galloway, and South Lanarkshire; and
- Scotland.

Desk Based Research and Data Sources

13.23 The following data sources have been used to inform the desk-based research:

- Scotland's Economic Strategy 2015;
- Dumfries and Galloway Regional Economic Strategy 2015-2020;
- Promote - An Economic Strategy for South Lanarkshire 2013-23;
- Upper Nithsdale Regeneration Plan, 2015;
- Tourism Scotland 2020 and Tourism Scotland 2020 - Mid Term Review 2016;
- Dumfries and Galloway Regional Tourism Strategy 2016-20;
- Lanarkshire Area Tourism Strategy 2016-2020;
- Scottish Census 2011;
- the Scottish Growth Sector Database 2014, published in 2016;
- the UK Annual Business Survey 2015, published in 2016;
- the Business Register and Employment Survey 2015, published in 2016, accessed through Nomis, a database of statistics from the Office for National Statistics;
- the GB Tourist: Statistics 2015, and the GB Day Tourist: Statistics 2015, published by VisitBritain in 2016;
- Tourism in Scotland's Regions 2015, published by VisitScotland;

- the International Passenger Survey 2015, undertaken by the ONS; and
- Onshore Wind: Direct and Wider Economic Impacts 2012, published by the Department of Climate Change (DECC) and RenewableUK, and produced by BiGGAR Economics; and
- Onshore Wind: Economic Impacts in 2014, published by RenewableUK, and produced by BiGGAR Economics.

Field Survey

13.24 No specific field survey beyond the consultation was undertaken to inform the assessment. However, where relevant, information on access to the Development Area was obtained during field surveys for other specialist assessments.

Assessing Significance

Sensitivity

13.25 Sensitivity of the various tourism and recreation assets has been determined on the basis of the criteria provided in **Table 13.2**. Where possible the sensitivity of economic receptors, i.e. the local and regional economies, has also been considered.

Table 13.2: Sensitivity Criteria

Sensitivity	Description
Very High	The asset has little or no capacity to absorb change without fundamentally altering its present character, is of very high socio-economic, recreation or tourism value, or of national importance.
High	The asset has low capacity to absorb change without fundamentally altering its present character, is of high socio-economic, recreation or tourism value, or of importance to Scotland.
Medium	The asset has moderate capacity to absorb change without significantly altering its present character, has some socio-economic, recreation or tourism value, or is of regional importance.
Low	The asset is tolerant of change without detriment to its character, has low socio-economic, recreation or tourism value, or local importance.
Negligible	The asset is resistant to change and of little socio-economic or tourism value.

Magnitude

13.26 The magnitude of change has been assessed using the economic model described above, which considers the local, regional and national economic effects that will be generated by the Development.

13.27 The magnitude of effects on tourism and recreation assets was assessed with reference to the evidence from previous research on the effect of windfarms on tourism, and experience from similar existing and proposed developments elsewhere.

13.28 The magnitude criteria used in this assessment are described in **Table 13.3** below

Table 13.3: Magnitude Criteria

Magnitude	Description
High	Major loss/improvement to key elements/features of the baseline conditions such that post development character/composition of baseline condition will be fundamentally changed. For example, a major long term alteration of socio-economic conditions, a major reduction/improvement of recreational assets, or a substantial change to tourism spend.
Medium	Loss/improvement to one or more key elements/features of the baseline conditions such that post development character/composition of the baseline condition will be materially changed. For example, a moderate long-term alteration of socio-economic conditions, a moderate reduction/improvement in recreational asset, or a moderate change to tourism spend.
Low	Changes arising from the alteration will be detectable but not material; the underlying character/composition of the baseline condition will be similar to the pre-development situation. For example a small alteration of socio-economic conditions, a small reduction/improvement in the recreational asset, or a small change in tourism spend.
Negligible	Very little change from baseline conditions. Change is barely distinguishable, approximating to a "no change" situation.

Significance

13.29 The predicted significance of the effect was determined through a standard method of assessment based on professional judgement, considering both sensitivity and magnitude of change as detailed in **Table 13.4** below. Major and moderate effects are considered Significant in relation to EIA regulations.

Table 13.4: Significance Criteria

Sensitivity	Very High	High	Medium	Low	Negligible
Magnitude					
High	Major	Major	Moderate	Moderate	Minor
Medium	Major	Moderate	Moderate	Minor	Negligible
Low	Moderate	Moderate	Minor	Negligible	Negligible
Negligible	Minor	Minor	Negligible	Negligible	Negligible

Assessment Limitations

13.30 The assessment is based on the experience of comparable Developments elsewhere and a review of the local socio-economic context. To maximise economic benefits NLEI Ltd has already held a number of public open days regarding the Development, and has sought to engage more widely through Foundation Scotland to understand local economic and development aims. NLEI Ltd will continue to engage locally as the application progresses and if consented, will work with local communities and businesses in the post consent phase to seek to maximise the economic opportunities arising from the Development. Engagement relating to maximising economic opportunities from the Development will link with other projects currently being delivered by Buccleuch and 2020 Renewables in the area. This includes the already approved Glenmuckloch Pumped Storage Hydro and Glenmuckloch Windfarm proposals.

Strategic Context

Economic Strategy

Scotland's Economic Strategy^{viii}

13.31 In March 2015, the Scottish Government published its economic strategy with the two main purposes of increasing competitiveness and tackling inequality. The Scottish Government has outlined four main priorities to achieve these aims:

- investing in Scotland's people, infrastructure and assets;
- promoting inclusive growth, which creates opportunity through a fair and inclusive jobs market, and regional cohesion to provide economic opportunities across all of Scotland;
- fostering a culture of innovation, which is open to change and new ways of doing things; and
- enabling Scotland to take advantage of international opportunities.

13.32 The Scottish Government sees making the transition to a low carbon economy as a way of investing in Scotland's assets and infrastructure. In 2012, Scottish greenhouse gas emissions had reduced by 39.5% since 1990, and the Scottish Government wants an 80% reduction in emissions by 2050. In 2015, 59% of all electricity in Scotland was generated renewably, with a target of producing 100% from renewable sources by 2020.^{ix}

13.33 To unlock the full potential of renewable energy opportunities, the Scottish Government wants to foster investment in physical infrastructure to ensure that Scotland protects its natural environment while capturing the opportunities offered by the transition to a lower carbon economy. While reducing the cost of climate change to the economy, the Scottish Government also wants to maximise opportunities to export technological innovations and expertise.

13.34 The Scottish Government also wants communities to benefit as much as possible from renewable energy generation, which can catalyse investment at the local level. Schemes such as the Community Energy Empowerment programme put communities at the heart of decisions about local energy generation.

Community ownership and investment from Community Renewable Energy Schemes also ensure that communities benefit from renewable energy projects. This forms part of the Scottish Government's aim to unlock the potential of rural areas.

Dumfries and Galloway Regional Economic Strategy 2015-2020^x

13.35 The regional strategy outlines how the area's objectives can maximise the economy's potential and empower communities, by focusing on specific strengths and priorities. However, this exists in the context of an economy that is less productive than that of Scotland as a whole, an ageing population and low wage low value economy, with higher unemployment and underemployment than elsewhere in Scotland.^{xi}

13.36 However, the strategy highlights significant opportunities, such as good transport links to Scottish hub cities, the North of England and Northern Ireland, several university campuses, a high quality of life and a wide range of natural assets, which may be attractive to workers from outside the area. The region also has strengths and opportunities in high volume sectors such as agriculture, food and drink, health and social care, tourism and culture, as well as high value sectors such as digital industries, energy and timber technologies. Many of these sectors are particularly important to the region's rural areas. Broadband provision was highlighted as an area that could be improved.

13.37 The region's strategic objectives are:

- To have more growing business, to capture the region's entrepreneurial spirit and boost productivity.
- To develop places, which empower communities to tackle their economic challenges.
- To improve skills and opportunities, which should attract more people and improve the competitiveness of businesses. The region is also developing its educational offer through initiatives such as the Dumfries Learning Town, which aims to bring all the schools together to deliver education on a 'whole town' basis, and investments such as Crichton 2020+, a business plan which aims to drive innovation-led development.
- To develop infrastructure such as broadband, which will enhance regional connectivity and remove barriers to competition.
- To make large investments in the area, which will improve existing assets and develop new opportunities, such as the M74 corridor and the Chapelcross site, which are intended to be centres of employment.
- To provide intelligence, leadership and influence, by working towards a shared vision and coordinating with partners such as the Borderlands Initiative, Scottish Enterprise and Skills Development Scotland.

13.38 By making progress in these areas Dumfries and Galloway Council aims to achieve a more diverse, resilient and highly skilled economy, which creates more and higher value jobs, creating benefits for everyone in the region.

Promote - An Economic Strategy for South Lanarkshire 2013-2023^{xii}

13.39 The South Lanarkshire economy suffered from the decline in economic activity following the 2008 financial crisis, with important sectors such as manufacturing, retail and construction particularly suffering. To strengthen the economy, South Lanarkshire Council aims to diversify the area's economy into more resilient high value sectors such as finance and business, and the creative industries. Agriculture continues to be a major source of land use and contributor to the strength of rural communities.

13.40 The region has also tried to boost the level of economic activity by capitalising better on existing assets, such as opportunities for local small and medium enterprises (SMEs) to compete for public sector contracts, through the Supplier Development Plan, which involves Meet the Buyer events and information on how to secure local procurement contracts. This is particularly relevant given the importance of small companies to the overall mix of companies in South Lanarkshire.

13.41 In addition, the region is responding to the needs of businesses by improving skills provision through new schools and colleges, including the South Lanarkshire Energy Academy. Skills provision, including some financed by the Renewable Energy Fund, which is funded by windfarm community benefits, forms part of the region's approach to the Low Carbon Economy, and it hopes to develop the supply chain in the local economy.

13.42 The region also encourages business growth through its development of commercial premises and vibrant town centres. It aims to provide a full service for businesses in the area, with particular support for high value, export-oriented businesses. To achieve this collaboration with national organisations such as Scottish Enterprise, organisations in the wider Lanarkshire region such as the Lanarkshire Chamber of Commerce and local organisations such as the Business Gateway will be necessary.

Upper Nithsdale Regeneration Plan^{xiii}

13.43 Upper Nithsdale is an area in the north-east of Dumfries and Galloway. The largest settlements in the region are Sanquhar (with a population of 2,021), Kirkconnel and Kelloholm (with a population of 2,141), and Wanlockhead (with a population of 150). The area is rural and has a legacy of industrial decline, following the loss of manufacturing and coal mining jobs in the area.

13.44 The economy in the area has a relatively narrow business base, concentrated in a few sectors, such as manufacturing and agriculture, forestry and fishing. Key employers are a specialist food manufacturer, a furniture manufacturer, and a tile manufacturer. The skills base is also limited, and there are a limited range of opportunities for young people in the area. Wanlockhead is particularly remote, although the report considers it to have a strong tourism offering (which is discussed in more detail in the section discussing the local tourism strategy).

13.45 As a result of the legacy of industrial decline there are several vacant buildings with large floorspace. However, there is limited quality space for SMEs outside of manufacturing, and potential growth is hampered by a lack of physical connections such as roads, and digital connections such as broadband. Local to the area near the Development, poor physical infrastructure prevents high-intensity use of Wanlockhead's parking facilities and blocks some vehicular access, and the village has no retail facilities except for the Museum of Lead Mining. The Lola Rose Brewery has recently opened in Wanlockhead, under the same management as the Wanlockhead Inn, and supplies other establishments in the region.

13.46 To boost the economy of Upper Nithsdale, it will be necessary to focus on practical ways of improving the skills of local people, the attractiveness of the local area and the opportunities for communities, particularly young people. The Regeneration Plan sets out a plan for how to do this, aiming to achieve an additional 25-30 jobs and an additional £3.3 million Gross Value Added. In Wanlockhead this involves better marketing of the area, a Green Network that will link spaces and attractions better within the village and with the Southern Upland Way (SUW), supporting the development of the Leadhills and Wanlockhead Railway, and developing a Heritage Trail with appropriate signage and interpretation.

Kirkconnel and Kelloholm Community Action Plan 2014-2019

13.47 The Community Action Plan sets out the challenges facing the local communities in Kirkconnel and Kelloholm and how they hope to address them. The population has been falling since the 1960s, related to the continuing decline of employment in coal and the closure of other significant employers. The population now has a high proportion of people of pensionable age. Many people are employment and income deprived, although there are about 50 businesses in the local area, including a specialist food manufacturer, which is the most significant employer.

13.48 The local economy was chosen as the leading 'dislike' in a community views survey, followed by the village appearance, community safety, housing and roads/traffic. Many of the comments focused on lack of employment opportunities, specifically for young people, with others focusing on bus services, the lack of affordable housing, internet access, and lack of facilities for children and teenagers.

13.49 The main priorities identified were to:

- improve community facilities and develop more activities;
- improve access to further education (many young people have to travel large distances to access education) and training;
- regenerate the main street and support businesses, an area where the role of community benefit funds was highlighted;
- improve local service provision, including broadband and childcare, and better housing for the elderly;
- improve the village appearance, and access to heritage; and
- improve transport access through rail and bus services, and road improvements.

Proposed Wanlockhead Community Land Buyout. Stage 1 - Establishing a Vision and Objectives^{xiv}

13.50 Beginning in early 2016, the Wanlockhead Community Trust has been involved in consulting within Wanlockhead about its aspirations of purchasing some of the land currently owned by Buccleuch Estates. It is understood that the aims of this include improved services, tourism development, forestry and conservation and agriculture.

13.51 It is understood that a feasibility study is currently being undertaken in relation to the Community Land Buyout.

Tourism Strategy

Tourism Scotland 2020^{xv}

13.52 Scotland's tourism strategy sets out how Scotland plans to generate an additional £1 billion of visitor spending by 2020, by focusing on four areas of growth:

- nature, heritage and activities;
- business tourism;
- destination towns and cities; and
- events and festivals.

13.53 The Scottish Tourism Alliance (STA) sets out how Scotland can benefit from and harness the beauty of its dramatic landscapes and the vibrancy of its culture and history. Scotland's countryside can provide an appropriate setting for holidays, with a range of things to see and do, such as walking, playing golf, visiting castles and taking part in adventure sports.

13.54 It emphasises that in order to capitalise on these assets and grow their value, local communities need to communicate and collaborate to develop quality networks. This will allow the community to turn diverse local assets into authentic experiences.

Tourism Scotland 2020 - Mid Term Review 2016^{xvi}

13.55 Since 2012, there has generally been growth in visitor spend from many of Scotland's main markets and a general increase in turnover and jobs supported. The industry is encouraged to focus on digital technology, more effective leadership, influencing investment decisions and improving the quality of the visitor experience.

13.56 In neither the original Tourism Scotland 2020 report, nor the updated report are renewable energy projects considered a barrier to growth. Despite the increase in the number of windfarms in the intervening years, there has been no visible fall in visitor spend, according to these reports.

Dumfries and Galloway Regional Tourism Strategy 2016-2020^{xvii}

13.57 The regional tourism strategy aims to boost the number of people visiting Dumfries and Galloway by 7% and the value of tourism by 10%, building on the wide range of coastal, rural and town-based resources in the region. This will require focus on developing authentic experiences, an improved customer journey and building capabilities.

13.58 To offer a year round tourism resource, the strategy highlights a range of growth sectors in Dumfries and Galloway, including, though not limited to, the region's diverse natural environment, outdoor activities such as walking and cycling, arts, culture and heritage, and food and drink. In addition, the strategy highlights the importance of events and festivals for boosting the rural economy and the number of overnight stays.

13.59 The strategy also highlights the importance of building a resilient, skilled and collaborative network of local businesses and organisations. To achieve this it will be necessary to build skills, particularly in areas such as customer service and the digital sphere, boost transport, signage and broadband infrastructure, and improve knowledge about the markets that are attracted to Dumfries and Galloway. This last point will allow better targeting of marketing, especially on digital platforms, and will be of most value if it can be shared between organisations.

- 13.60 The tourism strategy for Lanarkshire (which includes both North and South Lanarkshire) stresses the continuance of the region's partnership-based approach. Tourism businesses are encouraged to operate through the VisitLanarkshire website,^{xix} those who cater to business tourists are encouraged to operate through VisitLanarkshireVenues,^{xx} and BeLanarkshire^{xxi} provides training to customer service staff. By focusing on the three areas of leisure tourism, business tourism and training, the region hopes to grow tourism spend by 2.5% annually (a compound growth rate of over 10% between 2016 and 2020).
- 13.61 Through this joined up approach and collaboration with groups such as the Lanarkshire Area Tourism Partnership, which considers strategy, and Lanarkshire Tourism Association, which is an organisation for tourism businesses in the area, the area is able to focus on building capability in areas such as skills and marketing intelligence. This also allows the region to focus on delivering parts of the customer journey such as experiences of accommodation, and food and drink, and develop a competitive edge in areas where they see the most potential, such as events and festivals, day trippers and business tourists.

Local Tourism Strategy

- 13.62 Although no formal tourism strategy for the local area exists, representatives from Wanlockhead have expressed their views on how the local tourism offering could be further developed as part of the Proposed Wanlockhead Community Land Buyout consultation referenced above.
- 13.63 It is understood that a feasibility study is currently being undertaken in relation to the Community Land Buyout.
- 13.64 In addition consultees expressed the opinion that the presence of the Museum of Lead Mining (which also incorporates the Lead Miners Library, the second oldest subscription library in the world) and the industrial legacy that it describes could be further exploited through a more comprehensive visitor centre, which could also highlight the area's nature, scenery, history, recreational resources, agriculture and geology, and act as a venue for the sale of local goods. Currently, the town has no retail presence. The community also expects that additional signage and interpretation, as well as improved marketing, could improve the area's tourism offering. This could also incorporate the Wanlockhead to Leadhills railway line.
- 13.65 NLEI Ltd has met with representatives of the mining museum to understand the current position in relation to visitor numbers, future aspirations, development and expansion aims, and some the challenges currently faced by the Museum. One of the core aims of the museum is to increase visitor numbers to a level where it is able to be self-sustaining and no longer requires external funding to cover ongoing costs. There are also aims for to increase the profile of the museum, undertake 'events' such as participatory archaeological excavations, increase its capacity as an education facility for schools and to expand on the existing visitor experience through a number of measures including an expansion to the area of the underground mine that can currently be accessed. The aim of this is to improve the visitor experience and to encourage repeat visits to the Museum. The museum currently attracts around 7,500 visitors annually, with an aim of increasing this to 10,000.

Existing Conditions

Economy (Local Area)

Population and Demography

- 13.66 According to the 2011 Census the population of the Local Area, as previously defined, is 3,744, corresponding to less than 2.5% of the population of Dumfries and Galloway of 151,324. The working age population (aged 16-64) in the Local Area is 62.6% of the total population, which is less than for Scotland as a whole, where it is 65.9%, but higher than the figure for Dumfries and Galloway, where it is 61.5%.
- 13.67 This is partly because the under-16s population of the Local Area at 17.1% is higher than for Dumfries and Galloway, where it is 16.6%, but not higher than Scotland where it is 17.3%. However, the main reason is that the local population is older, with 20.2% of the population 65 and over, compared to 16.8% in Scotland. However, the population has a lower proportion of this age group than in Dumfries and Galloway, where it is 21.8%.

Table 13.5: Population and Demography (2011)

	Local Area	Dumfries & Galloway	South Lanarkshire	Scotland
Population	3,744	151,324	313,380	5,295,403
% under 16	17.1%	16.6%	17.7%	17.3%
% aged 16-64	62.6%	61.5%	65.5%	65.9%
% aged 65 and over	20.2%	21.8%	16.9%	16.8%

Economic Activity and Employment

- 13.68 According to the 2011 Census the economic activity rate in the Local Area in 2011 was 67.7%, slightly below the rate for Scotland, where it was 69.0%, and the same as Dumfries and Galloway (67.7%). Although the unemployment rate of 5.0% is comparable to Scotland where it is 4.8%, it is higher than in Dumfries and Galloway (4.2%).

Table 13.6: Economic Activity and Unemployment (2011)

	Local Area	Dumfries & Galloway	South Lanarkshire	Scotland
Population Aged 16-74	2,754	111,107	234,622	3,970,530
% Economically Active	67.7%	67.7%	70.1%	69.0%
% Unemployed	5.0%	4.2%	5.1%	4.8%

Key Industries

- 13.69 According to the Business Register and Employment Survey (BRES) health and education, where people are typically employed in the public sector, have among the highest shares of employment in the Local Area, with 18.2% of employment in health, and 10.3% of employment in education. In comparison, the proportions of employment are 19.0% and 8.9% in Dumfries and Galloway, 14.9% and 6.8% in South Lanarkshire, and 16.2% and 7.6% in Scotland as a whole, indicating that these sectors represent a higher share of employment than elsewhere in Scotland.
- 13.70 Other industries in the Local Area with high shares of employment are retail, with 16.6% of the total, and accommodation and food services, with 15.5% of the total. In comparison, Dumfries and Galloway, South Lanarkshire and Scotland all have lower proportions of employment in retail (12.1%, 10.1% and 9.6% respectively) and accommodation and food services (10.3%, 6.7% and 8.1% respectively). Arts, entertainment and recreation is also responsible for above average employment, comprising 5.9%, compared to 3.6% in Dumfries and Galloway, 4.0% in South Lanarkshire and 4.2% in Scotland.
- 13.71 However, the share of employment in high value sectors, such as manufacturing which comprises 6.4% of employment, is relatively lower than elsewhere. In Dumfries and Galloway this represents 10.0% of employment, 9.9% and 7.1% in South Lanarkshire and Scotland respectively. Similarly, professional, scientific and technical services are responsible for 2.6% of employment, much lower than in Dumfries and Galloway (4.3%), South Lanarkshire (4.2%) and Scotland (6.6%).

Table 13.7: Key Industries of Employment (2015)^{xxii}

	Local Area	Dumfries & Galloway	South Lanarkshire	Scotland
Agriculture, forestry and fishing	1.6%	1.3%	0.1%	3.0%
Mining, quarrying and utilities	1.7%	1.6%	4.8%	2.7%
Manufacturing	6.4%	10.0%	9.9%	7.1%
Construction	2.5%	5.5%	8.2%	5.4%
Motor trades	2.1%	2.4%	2.2%	1.8%
Wholesale	0.7%	4.3%	4.8%	3.1%
Retail	16.6%	12.1%	10.1%	9.6%
Transport and Storage	1.1%	5.1%	4.5%	4.1%

	Local Area	Dumfries & Galloway	South Lanarkshire	Scotland
Accommodation and food services	15.5%	10.3%	6.7%	8.1%
Information and communication	1.5%	0.8%	1.4%	2.5%
Financial and insurance	0.1%	1.0%	2.4%	3.4%
Property	6.6%	1.4%	1.2%	1.3%
Professional, scientific and technical services	2.6%	4.3%	4.2%	6.6%
Business administration and support services	4.2%	3.4%	8.0%	7.3%
Public administration and defence	2.3%	5.2%	5.8%	6.0%
Education	10.3%	8.9%	6.8%	7.6%
Health	18.2%	19.0%	14.9%	16.2%
Arts, entertainment, recreation and other services	5.9%	3.6%	4.0%	4.2%
Total	1,145	59,073	117,801	2,540,634

13.72 One of the key employers in the area is the Buccleuch Estate, which runs Morton Castle and Drumlanrig Castle, as well as owning the land that Crawick Multiverse is based on.

Foundation Scotland – Wider Consultation Process

13.73 The consultation process undertaken by Foundation Scotland is set out in paragraphs 13.7 and 13.8. At these meetings the key issues that were raised focused on a legacy of poor opportunities in the local economy, compounded by a relatively narrow business base and high numbers of people who either have a second home in the community or commute for higher paid work elsewhere.

13.74 Small local businesses have been struggling as much of the locally earned money is spent outside of the area, and this has occurred at the same time as declining visitor footfall. This has contributed to young people migrating out to seek higher paid work, and the population is becoming increasingly older, with additional demands on housing. An aging population and outfoundation Scotland

13.75 gration of young people raises issues for local employers in filling vacancies, and reduces the pool of people able to volunteer, which creates volunteer fatigue.

13.76 These problems are compounded by poor local broadband and transport infrastructure, as well as few accommodation providers and retail stores. There is a feeling that local businesses need to be supported to grow, although funding for rural communities is sometimes an issue.

Economic Baseline Summary

13.77 Based on this information it can be summarised that the Local Area:

- Has an older population than the Scottish average, with a lower proportion of the working age and under 16 populations, with many young people finding it difficult to find employment in the region and migrating out;
- Has lower economic activity and higher unemployment than the Scottish average for comparable years;
- Has employment is concentrated in the sectors of health, education, retail, and accommodation and food services. The business base is relatively narrow; and
- Is underrepresented in high value sectors such as manufacturing, professional services and information and communication.

Tourism and Recreation

13.78 The following section considers the tourism economy and recreational assets in Dumfries and Galloway, South Lanarkshire and the Local Area.

Dumfries and Galloway

13.79 According to the Scottish Annual Business Survey, in 2014 the contribution of the sustainable tourism sector to Dumfries and Galloway was £132.7 million GVA and it supported 5,600 jobs. By comparison, sustainable tourism contributes £3.7 billion and 191,500 jobs in Scotland.^{xxiii}

13.80 In 2014 (the latest year for which statistics are available), there were 789,000 overnight trips to Dumfries and Galloway from people located elsewhere in Great Britain, and they spent £165 million.^{xxiv} The most significant domestic market is England.^{xxv} In addition, there were over 3.6 million day visits to the region (in 2015), which accounted for spend of £115.4 million.^{xxvi} There were 37,000 trips to Dumfries and Galloway from overseas visitors, accounting for a further £9.9 million of expenditure, with Australia and the USA forming the largest markets.^{xxvii}

13.81 The five most visited attractions in Dumfries and Galloway are listed in **Table 13.8** below. As can be seen the attractions are all located over 30 kilometres from the Development Area.

Table 13.8: Major Tourist Attractions in Dumfries and Galloway (2014)^{xxviii}

Tourist Attraction	Visitor numbers	Approximate distance from Development Area (km)
Gretna Green Famous Blacksmith's Shop	775,856	66km
Galloway Forest Park	446,688	33km
Mabie Farm Park	75,900	42km
Mabie Forest	71,781	40km
Cream o' Galloway	65,800	64km

South Lanarkshire

13.82 According to the Scottish Annual Business Survey sustainable tourism contributed £104.3 million GVA and 7,900 jobs in South Lanarkshire, which indicates a GVA per head of £14,900, significantly less than the average across Scotland.

13.83 In 2015, there were 120,000 overnight trips to South Lanarkshire from people located elsewhere in Great Britain, which generated expenditure of £23 million. In 2015, there were 3.2 million day visits to the region, supporting £112.6 million in expenditure. Data about overseas trips is not available for South Lanarkshire, however data for the Greater Clyde Valley (which excludes Glasgow but includes North Lanarkshire, East Renfrewshire, Renfrewshire and Inverclyde, as well as South Lanarkshire) suggests that this region received 55,000 overnight trips and spend of £45 million in 2014.^{xxix}

13.84 Visitor statistics are not available for individual attractions in South Lanarkshire. However, there are figures for the five most visited attractions in the Glasgow and Greater Clyde Valley area, none of which are close to, or will have visibility from, the Development Area.

Local Area

13.85 The main tourist attraction in the area surrounding the Development is the Museum of Lead Mining, which also includes the Miners' Library, the second oldest subscription library in Scotland (the oldest located in Leadhills). The Museum takes visitors into the former mine located there, as well as showcasing a collection of rocks, local artefacts and gold, and a beam engine.

13.86 The Leadhills to Wanlockhead Railway is also located within the villages of Wanlockhead and Leadhills, and is the highest narrow gauge adhesion railway in Britain. It is operated by enthusiasts on weekends during the summer months, and on some holidays. There is also a museum and various related buildings, which are based in Leadhills. It is understood that plans to extend the existing railway from Leadhills to Wanlockhead are being progressed. This would bring the Wanlockhead station within a 10 minute walk of the mining museum in the village.

13.87 Other leisure and tourist attractions in the area are the Lowther Hills Ski Club, which opened in 1986, and aims to provide a 20 day ski season. A clubhouse and upgraded facilities have recently been added. Also located in the vicinity are the Crawick Multiverse, a landscape art installation on the Duke of Buccleuch's Queensbury Estate, which aims to explain scientific theory through landscape; the Tolbooth Museum, which provides a history of the town of Sanquhar; and the Leadhills Golf Course and Sanquhar

Golf Course. Since its opening in July 2015, Crawick Multiverse has attracted approximately 19,000 visitors^{xxx}.

- 13.88 To the south of the Development Area, near Thornhill, are Morton Castle and Drumlanrig Castle, which are both owned by the Buccleuch Estates and are 10-15 kilometres from the Development.
- 13.89 The Southern Upland Way is a 341 kilometre (roughly 212 miles) route that begins at Portpatrick on the Atlantic coast and crosses to Cove and Cockburnspath on the North Sea coast. The route is mainly located in Dumfries and Galloway, and the Scottish Borders, with a small section in South Lanarkshire. An evaluation undertaken in 2008 (at a time when Artfield Fell Windfarm, comprising 15 turbines near Stage 2, and Black Hill Windfarm, consisting of 22 turbines near Longformacus on Stage 12, were operational) suggests that the Southern Upland Way attracts about 118,000 visitors^{xxxi} each year. Part of the SUW, Stage 5 (Sanquhar to Wanlockhead), passes through the Development Area, as can be seen in **Figure 13.3**. The SUW, though intended as a footpath, is sometimes also used by cyclists.
- 13.90 There are also core paths, identified by Dumfries and Galloway Council, which pass through the Development Area. These include path 6000 which follows the SUW into the centre of the Development Area, core path 108 connecting Bogg to Auchentaggart Moor in the south-west of the Development Area, core path 3365 which connects Nethercog with Mossholm and Clenries, core path 110 which connects Nethercog with Cogshead in the south-west. Additionally, path 110, which connects Mossholm to Wanlock Water, passes through the Development Area in the west. Furthermore, there are a number of rights of way routes that pass through the Development Area and connect with the SUW, including DN7, DN8 and DN9. DN10 passes through the Development Area and runs in parallel with the Coffin Road in the south. The Muirkirk to Wanlockhead Drove Road also traverses the Development Area and corresponds with the SUW between Duntercleuch and Wanlockhead.

Local Accommodation Providers

- 13.91 Based on a search of VisitScotland's database, as well as searching more broadly online, a number of accommodation providers were identified within 15 kilometres of the Development, and are also shown in **Figure 13.3**. This comprised three distinct groups - providers located in Sanquhar and Kirkconnel, those located in Wanlockhead and Leadhills, and those located by the M74 near Abington and Crawford. There were also providers that did not fit into these categories, which are addressed separately
- 13.92 There are a total of eight known accommodation providers within Wanlockhead and Leadhills. Of these, six are self-catered accommodation (Lotus Lodge, Belton House Holiday Home, and Mitchell Place in Wanlockhead, and Ebenezer Hall, Golden Hills and Flordes Cottage in Leadhills), and the remaining two are the Wanlockhead Inn, which offers accommodation in the form of wooden pods, and the Hopetoun Arms in Leadhills, which has eleven rooms. The accommodation providers in Wanlockhead and Leadhills are within 5km of the Development.
- 13.93 Additionally, there are eight accommodation providers in or near Sanquhar, including the Nithsdale Hotel, and Blackaddie Country House Hotel. Of the remaining providers three are classified as bed and breakfasts (Roesmary's Cottage located in Sanquhar, and Newark Farm and Eucharfoot located outside of Sanquhar), and three are self-catered accommodation (The Station Master's House, Viewforth Cottage and Nith Riverside Cottages). All of these accommodation providers are within 5km of the Development.
- 13.94 Of those located on the motorway, three are hotels (the Days Inn, the Red Moss Hotel, and the Abington Hotel). Furthermore, there is the Mount View Caravan Park, and the Holmlands Bed and Breakfast, which are both to the south of Abington. These providers are all between 10-15km from the Development.
- 13.95 Of the remaining five accommodation providers, Rigg House Bed and Breakfast, and Darna Tighe, which is self-catered accommodation, are located in or near Kirkconnel, and are 5-10km from the Development. Stonehill Cottage, which is self-catered, is 5-10km north of the Development, off the B749. Morton Mains and Ghillie's Cottage are located 10-15km to the south, and offer self-catered accommodation.

Tourism Baseline Summary

- 13.96 Of importance to the local tourism offering are that:
- The most popular tourism attractions in Dumfries and Galloway, and South Lanarkshire are a significant distance from the Development;

- The most important tourist attractions in the Local Area are based on region's heritage, such as the Lead Mining Museum, Leadhills to Wanlockhead Railway, the Sanquhar Tolbooth Museum;
- Other attractions include the Lowther Hills Ski Club, Crawick Multiverse, local golf courses, Morton Castle and Drumlanrig Castle;
- There are several recreational routes in the area, most significantly the Southern Upland Way, which passes through the Development Area;
- The majority of accommodation in the local area is small scale self-catered accommodation or bed and breakfasts, with small local hotels including the Wanlockhead Inn, Hopetoun Arms in Leadhills, Nithsdale Hotel in Sanquhar, and Blackaddie Country House Hotel;
- Accommodation providers are clustered around Wanlockhead and Leadhills, Sanquhar and Kirkconnel, and the M74, with some other accommodation providers located away from any settlements.

Assessment of Effects

- 13.97 The assessment of effects is based on the project description as outlined in **Chapter 4: Scheme Description**.

Construction Effects

Effects on Employment and Economic Activity

- 13.98 The total development and construction cost was estimated by multiplying the expected installed capacity by the average development and construction costs per megawatt (MW). As the Development is expected to consist of 35 turbines, with a capacity of up to 4.2MW each, the combined installed capacity will be up to 147MW.
- 13.99 Based on research undertaken by BiGGAR Economics on behalf of the DECC and RenewableUK^{xxxii} average expenditure on the development and construction of windfarms (capex, or capital expenditure) is £1.5 million per MW. Therefore the total development and construction cost of the Development was estimated at £216.0 million.
- 13.100 Development and construction spending is split into four main categories. These are development and planning; balance of plant (i.e. supporting components and auxiliary infrastructure required to deliver the Development); turbines; and grid connection.
- 13.101 The proportion of total development and construction spending that is spent on each of the main categories of contracts was also taken from the DECC research. This found that the largest proportion of expenditure was on turbine related contract (57.8%), followed by balance of plant (25.6%), development and planning (10.2%), and grid connection (6.3%).
- 13.102 The value of these contracts for the Development was estimated by applying these percentages to the total development and construction expenditure. The value of the contract categories are given in grid connection (£13.7 million) – see **Table 13.9**.
- 13.103 . The largest category of spend is turbine contracts, which have an estimated cost of £124.8 million, followed by balance of plant contracts (£55.4 million), development and planning contracts (£22.1 million) and grid connection (£13.7 million).

Table 13.9: Development and Construction Expenditure by Contract Type

Category of spend	% of capex	Value (£m)
Development and Planning	10.2%	22.1
Balance of Plant	25.6%	55.4
Turbine	57.8%	124.8
Grid Connection	6.3%	13.7
Total	100%	216.0

13.104 The economic effect of the construction phase was estimated for the Local Area, and the Regional Area, which includes Dumfries and Galloway and South Lanarkshire, due to the Development's location on the border of the two local authorities. To do this it was necessary to estimate the proportion of each type of contract that could be secured in each of the study areas. This analysis was based on the averages from the DECC report and analysis of the industries and professions in each of the study areas. To estimate the expenditure for each contract in each of the study areas these percentages were applied to the estimated size of each component contract.

13.105 In this way it was estimated that £33.9 million could be generated from development and construction contracts in the Regional Area. Of this £3.4 million could be generated in the Local Area. All effects that take place in the Local Area also take place in the Regional Area.

13.106 As detailed in **Table 13.10**, the largest components of expenditure in the Regional and Local Area will be from contracts related to balance of plant contracts, which could, over the duration of the construction period, contribute £16.2 million in the Regional Area (equal to 29% of balance of plant contracts), of which £2.4 million in the Local Area (equal to 4% of balance of plant contracts). The next largest component will be from turbine contracts, which could contribute £8.0 million in the Regional Area, of which £0.4 million in the Local Area.

Table 13.10: Development and Construction Expenditure by Study Area

Category of spend	Local Area		Regional Area	
	%	£m	%	£m
Development and Planning	1%	0.2	17%	3.8
Balance of Plant	4%	2.4	29%	16.2
Turbine	0%	0.4	6%	8.0
Grid Connection	3%	0.4	44%	6.0
Total	2%	3.4	16%	33.9

13.107 The value of the Development to the local economy could be increased by promoting awareness of the development and associated opportunities among local businesses. Similar developments in other parts of Scotland have achieved this by participating in events hosted by the local Chamber of Commerce to introduce the proposal to other chamber members. If the project is consented, NLEI Ltd will work with appropriate local organisations to promote awareness of the opportunities created by the Development and will encourage qualified local organisations to engage in order to benefit from these.

13.108 The contract values awarded in each area will represent an increase in the turnover of businesses in these areas. The effect that this increased turnover has on employment was estimated using data from the Annual Business Survey (ABS).^{xxxiii} This survey gives turnover per employee for each of the industries involved, which allows the employment from any increase in turnover to be estimated.

13.109 The employment effects during the development and construction phase are reported in job years rather than full-time equivalents (FTE) because the contracts will be short-term. Job years measures the number of years of full-time employment generated by a project. For example an individual working on this project for 18 months will be reported as 1.5 job years.

13.110 In this way it was estimated that expenditure on construction and development could support 28 job years in the Local Area, of which 21 will be in balance of plant contracts. In the Regional Area, 256 job years could be supported, as detailed in **Table 13.11**.

Table 13.11: Employment by Study Area (job years)

Category of Spend	Local Area	Regional Area
Development and Planning	2	37
Balance of Plant	21	121
Turbine	3	63
Grid Connection	2	35
Total	28	256

13.111 There will also be knock-on effects from the direct employment associated with the Development because the people who are employed on the project will have an effect on the wider economy when they spend their salaries. The research undertaken for RenewableUK and DECC in 2012 found that the average salary for employees in the onshore wind industry is £34,600. It was therefore estimated that £1.0 million will be directly paid to staff located in the Local Area, and £8.9 million will be paid to staff in the Regional Area.

13.112 To estimate the economic effect of these salaries in each of the study areas it was necessary to make assumptions regarding the location of employee expenditure. It was assumed that employees that live in the Local Area will spend 10% of their salaries in the Local Area, and that workers living in the Regional Area will spend 40% of their salaries in the Regional Area. This assumption is broadly based on data provided by the Scottish Government's Input-Output tables,^{xxxiv} which find that employees spend 33% of their wages in their Local Authority and 74% in Scotland.

13.113 The economic effect of the increased expenditure was estimated using the average GVA/turnover and turnover/employee for the whole economy as reported in the Annual Business Survey.

13.114 In this way it was possible to estimate those directly employed in the Local Area could spend £0.2 million in the Local Area, supporting £0.1 million Gross Value Added (GVA) and 1 job year. In the Regional Area, employee spending could be £3.5 million, supporting £1.1 million GVA and 23 job years, as detailed in **Table 13.12**.

Table 13.12: Construction and Development Income Effect

	Local Area	Regional Area
Employee Spend (£m)	0.2	3.5
GVA (£m)	0.1	1.1
Employment (job years)	1	23

13.115 The total economic effect during the construction and development phase is the sum of the direct effects and the effects from the expenditure of the direct employees. As a result it was estimated that the total economic effect could be £3.4 million and 28 job years in the Local Area, and £35.0 million and 279 job years in the Regional Area, as detailed in **Table 13.13**.

Table 13.13: Construction and Development Total Effect

	Local Area	Regional Area
Economic Effect (£m)	3.4	35.0
Employment (job years)	29	279

13.116 Based on professional judgement and the existing conditions, the sensitivity of the Local Area is considered to be medium and the effect on it will be medium, suggesting a positive effect of **Moderate** significance. In the Regional Area the sensitivity is considered to be low and the magnitude negligible, suggesting the effect will be positive but **Negligible**.

Predicted Cumulative Effects during Construction

13.117 If other windfarms in the area were to also be under construction at this time, it would provide an opportunity for the developers to co-operate in maximising socio-economic benefits, and could also maximise the potential effect in the local supply chain.

Construction Effects on Local Tourism and Leisure Assets

13.118 As the Southern Upland Way passes through the Development Area there will be disruption, including to the Core Paths and right of way in the area, which could have a **Moderate** effect.

Mitigation of Construction Effects on Local Tourism and Leisure Assets

13.119 NLEI Ltd has committed to keeping a route open between Sanquhar and Wanlockhead during the construction period to reduce disruption. This will be delivered through an Access Plan, which will be agreed with relevant stakeholders should the Development be consented. The Development is not the first site to be constructed in close proximity to the Southern Upland Way, and continued access to the

route has been maintained at other developments during the construction phase e.g. Kilgallioch through implementation of controlled crossing points to ensure that health and safety is not compromised.

Residual Construction Effects on Local Tourism and Leisure Assets

13.120 It is expected that once the Access Plan is implemented, disruption to users of nearby routes (including the SUW) will be minimised and the effect will be reduced to **Minor**.

Operational Effects

13.121 As the Development will require operations and maintenance for its 25-year lifespan, the effects associated with this are reported as annual effects.

13.122 Annual expenditure on operations and maintenance was estimated by multiplying the installed capacity by the industry average annual expenditure per MW on operations and maintenance. The annual expenditure per MW was estimated as £59,867 in the 2015 RenewableUK report. The Development was expected to have an installed capacity of up to 147MW, which implies that the annual operations and maintenance expenditure associated with the Development is £8.8 million.

13.123 To estimate the economic effect of the operations and maintenance expenditure in each of the study areas it was first necessary to estimate the proportion of contracts that could be secured in each of these areas. These assumptions were also based on the RenewableUK report, which found that companies in the Local Authority that the Development is based typically receive 42% of contracts.

13.124 Based on this information it was assumed that residents in the Regional Area could secure 50% of the contracts, and that residents in the Local Area could secure 10% of the contracts. In this way it was estimated that operations and maintenance could generate £4.4 million in the Regional Area annually, of which £0.9 million could be in the Local Area, as detailed in **Table 13.14**.

Table 13.14: Operations and Maintenance Expenditure by Study Area

	Local Area		Regional Area	
	%	£m	%	£m
Operations and Maintenance	10%	0.9	50%	4.4

13.125 As with the construction and development phase, the contract values awarded in each of the study areas represent an increase in turnover in those areas. The employment effect of the increase in turnover was estimated in the same way as the construction expenditure, using the Annual Business Survey.^{xxxv}

13.126 In this way it was estimated that turnover generated by the operation and maintenance of the Development will support 7 jobs in the Local Area, and 33 jobs in the Regional Area, as detailed in **Table 13.15**.

Table 13.15: Operation and Maintenance Employment Effect

	Local Area	Regional Area
Operation and Maintenance	7	33

13.127 As with the construction expenditure, there will be knock-on effects from those directly employed during the operation of the Development. These people will have an effect on the wider economy by spending their salaries. These employees were assumed to have the same pattern of spending and salaries as the construction employees.

13.128 In this way it was estimated that operations and maintenance employees will spend £0.5 million in the Regional Area and less than £0.1 million in the Local Area. By applying turnover/GVA and turnover/employee ratios for the whole economy it was estimated that these employees could support £0.1 million GVA and 3 jobs in the Regional Area, of which less than £0.1 million GVA and 1 job year will be supported in the Local Area, as detailed in **Table 13.16**.

Table 13.16: Operations and Maintenance Income Effect

	Local Area	Regional Area
Employee Spend (£m)	<0.1	0.5
GVA (£m)	<0.1	0.1

Employment (job years)	<1	3
------------------------	----	---

13.129 The total annual economic effect during the operations and maintenance phase of the Development, which is the sum of the direct and income effect, could be £4.5 million and 36 jobs in the Regional Area, and £0.9 million and 7 jobs in the Local Area.

Table 13.17: Operation and Maintenance Total Effect

	Local Area	Regional Area
Economic Effect (£m)	0.9	4.5
Employment (job years)	7	36

13.130 Based on professional judgement and the existing conditions, the sensitivity of the Local Area is considered to be medium and the magnitude of change will be low, suggesting a positive **Minor** effect. At the Regional Area the sensitivity to change is considered to be low and the magnitude of change negligible, suggesting an effect that will be **Negligible**.

Predicted Cumulative Effects during Operation

13.131 As with the construction effects, the development of another windfarm in the area will provide an opportunity for the developers to maximise the socio-economic effects. By creating a concentration of companies with expertise in the operation and maintenance of onshore wind developments this could provide an opportunity for the local supply chain to develop a critical mass, capable of securing more operations and maintenance contracts.

Community Benefits

Good Practice Principles for Community Benefit Fund^{xxxvi}

13.132 Windfarms often deliver a range of benefits to the community such as increased turnover and employment from its construction and operation. In addition, there are community benefits, such as voluntary benefits to the community. The Scottish Government recommends that the monetary value of these benefits equate to £5,000 per MW for each year of operation.

13.133 These benefits should be tailored to the individual needs and situation of the communities involved. These should be identified in consultation with the local community, and would preferably take into consideration benefits accruing from other onshore renewable energy developments. The Scottish Government recommends an approach that ensures the maximum long-term benefit to the community, and appropriate co-ordination so that funding from other bodies can be leveraged.

13.134 The benefits from the community benefit fund can take several forms. For example the local area can invest in energy related projects such as developing revenue-generating renewable energy schemes; boosting the energy efficiency of homes and businesses; increasing skills training in renewable technology; or providing discounts on the price of energy. The community can also invest in local people, by boosting local skills and employability more generally.

13.135 The fund can also support initiatives designed to improve the social fabric of the area. For example, the community can purchase an asset or building; fund a sports or social club; increase the quality of outdoor leisure provision or the local environment; or invest in local museums and other cultural assets. There is also opportunity for funds to be used to support local business aims to help deliver economic sustainability.

The Development Community Fund

13.136 Although the recent change in funding policy with regards to onshore wind schemes has increased incentives to reduce costs as a way of ensuring a route to market, NLEI Ltd has agreed to provide community funding in line with Scottish Government Guidance, which is £5,000 per MW installed capacity per year. As the Development is expected to be 147MW, this suggests that the annual contribution to the fund will be up to £735,000. Over the 25 year lifetime of the Development, this will equate to a total of £18.4 million, a large sum for rural communities.

Table 13.18: Community Benefit Fund

	Regional Area
Funding per MW (£)	5,000
Installed capacity (MW)	147
Annual Contribution (£)	735,000
Lifetime Contribution (£m)	18.4

- 13.137 As an illustration of the level of employment that could be supported by a Community Benefit Fund, figures from the Scottish Council of Voluntary Organisations give a total turnover of £4.9 billion in Scotland's voluntary sector, supporting a full-time equivalent staff of 83,350, meaning that the turnover per full-time equivalent staff member in the voluntary sector was £58,788.^{xxxvii}
- 13.138 By applying this ratio to the annual funding it was estimated that almost 14 full-time equivalent jobs could be supported in the voluntary sector by a community fund of this scale.

Community Aspirations

- 13.139 In relation to achieving community aspirations, the local community has identified problems in the local economy, such as out-migration of young people, poor employment prospects, and infrastructure.
- 13.140 The communities felt strongly that these problems could be better addressed through more coordination and collaboration, rather than individual communities pursuing similar aims separately. This would allow communities to deal more effectively with problems such as slow broadband, and lack of access to transport hubs.
- 13.141 The communities also acknowledged the challenge of navigating a complex funding landscape, securing funding and also ensuring projects are then sufficiently sustainable. Of particular concern is the difficulty of raising the level funding needed to support big capital projects especially when there are match funding requirements. The communities also highlighted that they need to be more strategic, with a long-term view of how inward investment could continue to generate improvements.
- 13.142 It is expected that the community fund could be used to help achieve long-term goals and provide steady long-term source of funding that would otherwise not be available. Extra funding in the area could be used to support a more sustainable employment base, support businesses and young people, improve the appearance of their villages and improve infrastructure.
- 13.143 It is noted that a signed 'heritage trail' in and around Wanlockhead is identified as a potentially positive development within the village. When the Development is approved, the Applicant is committed to providing, in consultation with local residents and businesses, development of signage in and around Wanlockhead to better link the main features of the village. This could take the form of a 'Heritage Trail' starting at the existing car park and/or the station for the proposed railway extension, and could identify a route to the places of interest within the village, particularly locations where a positive economic effect could be realised through increased footfall e.g. the museum and the pub, but will also include elements such as the beam engine and information on the history of Wanlockhead. The delivery of this will be in line with the aims identified in section 13.47.
- 13.144 The Mining Museum in Wanlockhead has identified a series of measures that are aimed at improving the long term sustainability of the Museum and improving the visitor experience as outlined in section 5. Community benefit has the potential to provide a source of funding to help achieve these aims.

Shared Ownership

- 13.145 The Scottish Government's Good Practice Principles for Shared Ownership of Onshore Renewable Energy Developments^{xxxviii} was released in 2015 and sets out the Scottish Government's belief that shared ownership can help to create greater positive public feeling towards proposed projects and strengthen relationships between developers and communities, build the capacity of local communities and empower their members, and support Scotland's ambitious targets for locally owned renewable energy.
- 13.146 NLEI Ltd has held initial discussions with the Upper Nithsdale Trust, representing Royal Burgh of Sanquhar, and Kirkconnel and Kelloholm Community Councils regarding shared ownership. The Trust has expressed an interest in investing in the Development on a shared ownership basis. NLEI has

committed to further discuss the opportunity for shared ownership with the community as the Development proceeds.

Non-Domestic Rates

- 13.147 The Development will be liable for non-domestic rates, the payment of which will contribute directly to public sector finances. Although there is scheduled to be a change in how non-domestic rates are calculated for onshore wind energy developments, the estimation of non-domestic rates is based on previous guidance from the Scottish Assessors Association,^{xxxix} which recommends a Load Factor of 25% for the area considered and rateable value per MW of £18,557.
- 13.148 Given that the Development is expected to be 147MW it is estimated that the total rateable value will be £2.7 million. Given a poundage rate of £0.492 per £1 of rateable value,^{xl} it is estimated that the Development could contribute £1.3 million annually to public finances, and over 25 years contribute £33.6 million.

Tourism and Leisure Effects

Evidence on Windfarms and Tourism

- 13.149 The most comprehensive study of the potential effects of windfarms on tourism was undertaken by the Moffat Centre at Glasgow Caledonian University in 2008.^{xli} The study found that, although there may be minor effects on tourism providers and a small number of visitors may not visit Scotland in the future, the overall effect on tourism expenditure and employment would be very limited. This study is now almost 10 years old and in that time windfarms have become a more common feature in Scotland. As such, it would be expected that any negative effects on the tourism economy would now be apparent.
- 13.150 However, the Moffat Centre study was based on what could happen, rather than what has happened. In 2016 BiGGAR Economics undertook a study^{xlii} into the effects of already constructed windfarms on tourism at the national, regional and local level. The study noted that between 2009 and 2013 the level of tourism employment in Scotland increased by 10%, while over the same period the installed capacity of Scotland's wind energy doubled.
- 13.151 Considering tourism employment at the Local Authority level, the study also found that there was no negative correlation between tourism employment and the number of installed turbines. Over the four year period almost all local authorities increased the number of windfarms, while tourism employment also grew significantly.
- 13.152 The report also considered tourism employment at a much smaller, more granular level, considering data zones up to 15 kilometres from a development. Tourism employment was considered in 2009 and 2013, as all of the sites in the study were built in 2011 or 2012, becoming operational in 2013. The study found no link between the development of a windfarm and tourism related employment. In fact in 15 of the 18 areas considered, tourism employment grew, and in 12 it grew faster than at the Local Authority rate as a whole.
- 13.153 The findings of this research are therefore in accordance with that of the Scottish Parliament's Economy, Energy and Tourism Committee's findings in 2012, when they concluded that there is no robust, empirical evidence of a negative link between windfarm development and tourism.^{xliii}
- 13.154 In 2014, the Mountaineering Council of Scotland (MCoS) undertook a survey of its members,^{xliv} which found that the presence of windfarms discouraged some members from visiting those areas, and suggested that this would reduce the scale of Scottish tourism. However, the survey has drawn criticism, including from its own members as the questions were considered leading and the results biased (as the report on the survey recognises itself) and the survey may not represent the views of all hill walkers or tourists more generally, as it targeted members of MCoS or the British Mountaineering Council.
- 13.155 In 2016, MCoS conducted a new survey of its members,^{xlv} which aimed to address some of these issues. It found that for 75% of respondents windfarms had no effect on their walking and climbing plans. However, 22% responded that they would go as often but avoid areas with windfarms, 1% would go to the mountains less often. However, 2% of respondents said they would go to the mountains more often to see windfarms.
- 13.156 Overall, there is no research evidence that shows that fears of negative effects on the tourism economy in Scotland as a result of windfarms have been realised when the windfarms have been developed.

Within that overall context, the following assessment nevertheless considers whether there might be any specific effects on individual tourism assets. This assessment considers whether the Development could result in changes that could lead to changes in the behaviour of tourists that might result in effects on the tourism economy.

Operational Effects on Local Tourism and Leisure Assets

- 13.157 The main attraction within the Local Area is the Museum of Lead Mining in Wanlockhead, which is signposted from the M74, and therefore considered to be of regional importance and have a Medium sensitivity to change. This attraction builds mainly on the area's industrial and social history, for example involving a trip into the underground mine. Whilst the attractions of the museum extend beyond the building itself, such as the beam engine and the features of the Meadowfoot Mill further along the valley, it is not expected that the key elements that constitute the attraction will be affected by changes to the landscape, and therefore the magnitude is considered Negligible. Therefore, the effect of the Development is considered **Negligible** on the Museum of Lead Mining.
- 13.158 The Leadhills and Wanlockhead Railway is considered to be of local importance, and therefore has a Low level of sensitivity. Part of the attraction of the Railway is related to the scenery of the area, but the main source of attraction is the history of the railway, the engineering required to power the most elevated railway in Scotland, and the enthusiasm of the volunteers. Therefore, it is expected that magnitude of change will be Moderate, and the effect will be **Minor**.
- 13.159 Additionally, the Lowther Hills Ski Club is considering expansion. Given that membership is currently quite limited, and even if they were able to expand the membership of the club will remain limited to a membership of 400,^{xlvi} with a limited amount of skiing time available it is expected that the sensitivity will be Low. Furthermore, the most significant factor in explaining the potential success will be the amount of snow that falls, as this is currently the main issue in ski resorts in Scotland further north as well as across Europe^{xlvii}, so the potential magnitude of change associated with the Development is expected to be Low. Therefore, the effect of the Development is expected to be **Negligible**.
- 13.160 Similarly, the Tolbooth Museum in Sanquhar is considered to be of importance only locally, and therefore to have Low sensitivity to change. As with the Lead Mining Museum, the attraction is based on the local history and heritage, specifically of the Upper Nithsdale Area, and as this will not be affected by the presence of an onshore wind development, the magnitude of change will be Negligible. Therefore, the effect of the Development is considered **Negligible**.
- 13.161 The Crawick Multiverse, which is based to the north of Sanquhar on the Duke of Buccleuch's estate, is considered to be of regional importance and therefore it is expected to have a Medium sensitivity to change. However, the magnitude of change is considered Low, in part because it is a scientific attraction that significantly remodels the land and partly because there are currently two wind turbines that are currently visible in close proximity, with a number of further consented wind energy developments which will be visible in the Nith Valley. Therefore, the effect of the Development is considered **Minor**.
- 13.162 Both the Leadhills Golf Course and Sanquhar Golf Club are expected to be used predominantly by local members, and therefore they are considered to have Low sensitivity. As the Development will not affect the challenge of the course, or the sense of club community it is expected that the Development will have an effect of Low magnitude. This suggests that the effect will be **Negligible**.
- 13.163 Additionally Drumlanrig Castle and Morton Castle, which are each over 10km from the Development, are considered to be of regional importance, and are both owned by the Duke of Buccleuch. They are considered to be of Medium sensitivity. Although the scenery forms a significant element of the attraction of each castle the distance from the Development and the limited visibility mean the magnitude of change is considered Negligible. Therefore, the potential effect is expected to be **Negligible** for both castles.
- 13.164 The Southern Upland Way attracted 118,000 visitors in 2008. Therefore it is considered important regionally, and of Medium sensitivity to change. The route runs for 212 miles and is split into 13 sections, which suggests that any spending is relatively dispersed over the length of the route. Currently there are relatively few accommodation and tourism providers locally (for example Wanlockhead has relatively little retail presence), which suggests that any change will have a limited effect on the local tourism economy. The presence of a windfarm is unlikely to deter those who are intending to walk the whole length of the walk, however it may affect those who are intending to walk for only a stage or part of a stage (for example they may choose to walk another stage). The magnitude of any change is considered to be Low. Therefore, the significance will be **Minor**. NLEI Ltd is expecting that through the

access tracks that will be built as part of the Development, improved access to the Development Area for a range of recreational users including walkers, cyclists and horse riders will be improved. The other recreational routes in the area, including Core Paths 108 and 110, and the DN10 right of way, are considered to be of local importance, and therefore have a Low sensitivity. Given the proximity of these routes, which will pass through the Development Area, it is expected that they will experience significant visual effects. While the landscape is not the only aspect of enjoyment associated with these routes the magnitude of effect on the routes is likely to be Medium. Therefore, the significance of potential effects is considered to be **Minor**.

- 13.165 Based on this analysis of local tourism and recreational assets, and with reference to broader evidence on the link between windfarms and tourism, it has been assessed that the potential effect on the local tourism economy will be **Minor**.

Local Accommodation Providers

- 13.166 The effects on individual accommodation providers were assessed by considering the components of what makes them attractive, then by considering how the Development may affect these components. In this way it was assessed that the majority of accommodation providers within 15km of the Development Area will experience Negligible effects. For those windfarms which are more rural and more likely to rely on landscape as part of their attractiveness it was assessed that may experience Minor effects, as can be seen in **Table 13.19**. Therefore, the overall effect is considered to be **Negligible**.

Table 13.19: Operational Effects on Accommodation Providers

Accommodation provider(s)	Significance
Hotels near M74 (Red Moss Hotel, Days Inn and Abington Hotel)	Negligible
Other accommodation near M74 (Mount View Caravan park and Holmlands B&B)	Negligible
Leadhills accommodation (Ebenezar Hall, Golden Hills, Flordes Cottage, Hopetoun Arms)	Negligible
Wanlockhead accommodation (Wanlockhead Inn, Lotus Lodge, Belton House Holiday Home, Mitchell Place)	Negligible
Sanquhar accommodation (The Nithsdale Hotel, Blackaddie Country House Hotel, The Station Master's House, Nith Riverside Cottages, Viewforth Cottage)	Negligible
Outskirts of Sanquhar accommodation (Newark Farm, Eucharfoot Bed and Breakfast)	Minor
Kirkconnel and Kelloholm (Rigg House Bed and Breakfast, Darna Tighe)	Negligible/Minor
Stone Hill Cottage	Minor
Ghillie's Cottage	Negligible
Morton Mains	Minor

Proposed Mitigation of Effects on Local Tourism and Leisure Assets

- 13.167 No mitigation measures are considered to be necessary given that there are no significant effects on tourism and leisure assets.

Residual Effects on Local Tourism and Leisure Assets

- 13.168 The residual effects of the Development on local tourism and leisure assets are unchanged from those identified above.

Interrelationships between Effects

- 13.169 This chapter has been undertaken with reference to **Chapter 6**.

Further Survey Requirements and Monitoring

- 13.170 No further survey requirements or monitoring is required.

Summary of Significant Effects

13.171 A summary of the predicted significant socio-economic effects (both positive and negative) associated with the construction and operation of the Development are detailed in **Table 13.20**.

Table 13.20: Summary of Significant Effects

Predicted Effect	Significance	Mitigation	Significance of Residual Effect
Local Area construction effect of £3.4 million and 28 job years during construction phase.	Moderate (positive)	n/a	Moderate (positive)
Construction effects on users of the Southern Upland Way (and other tracks)	Moderate	Implement Access Plan during construction	Minor
Community Benefit Fund of £735,000 annually during operational phase.	Moderate (positive)	n/a	Moderate (positive)

13.172 Based on the findings of the assessment it is predicted that the local economy will experience a positive effect of moderate significance in the short term during the construction phase.

13.173 It is also expected that there may be some disruption to users of the Southern Upland Way during construction, although this will be mitigated by the development of an access plan, resulting in a temporary effect of minor significance.

13.174 Furthermore, the contribution of the Community Benefit Fund to the local community is considered to be a positive effect of moderate significance. This may help the community to achieve some of its development aspirations such as improved infrastructure and services.

13.175 No further significant socio-economic effects (either positive or negative) associated with the construction or operation of the Development are predicted, including cumulatively with other Developments.

ⁱ DECC and RenewableUK (2012), Onshore Wind: Direct and Wider Economic Impacts

ⁱⁱ RenewableUK (2015), Onshore Wind: Economic Impacts in 2014

ⁱⁱⁱ Glasgow Caledonian University (2008), The Economic Impacts of Wind Farms on Scottish Tourism

^{iv} BiGGAR Economics (2016), Wind Farms and Tourism Trends in Scotland

^v Scottish Parliament Economy, Energy and Tourism Committee (2012), Report on the achievability of the Scottish Government's renewable energy targets

^{vi} Mountaineering Council of Scotland (2014), Wind Farms and Changing Mountaineering Behaviour in Scotland

^{vii} Mountaineering Council of Scotland (2016), Wind Farms and mountaineering Behaviour in Scotland

^{viii} Scottish Government (2015), Scotland's Economic Strategy

^{ix} Scottish Government (2017), Energy in Scotland 2017

^x Dumfries and Galloway Council (2015), Dumfries and Galloway Regional Economic Strategy

^{xi} Crichton Institute (2014), Dumfries and Galloway Regional Economic Strategy 2014-2020: Baseline Study and Regional Economic Profile

^{xii} South Lanarkshire Community Planning Partnership (2013), Promote - An Economic Strategy for South Lanarkshire 2013-2023

^{xiii} Ironside Farrar on behalf of Dumfries and Galloway (2015), Upper Nithsdale Regeneration Plan

^{xiv} Wanlockhead Community Trust (2016), Community Consultation Report

^{xv} Scottish Tourism Alliance (2012), Tourism Scotland 2020

^{xvi} Scottish Tourism Alliance (2016), Mid Term Review

^{xvii} Dumfries and Galloway Council (2016), Dumfries and Galloway Regional Tourism Strategy 2016-2020

^{xviii} Tourism Lanarkshire 2020 (2016), Lanarkshire Area Tourism Strategy 2016-2020

^{xix} <https://www.visitlanarkshire.com>

^{xx} <https://www.visitlanarkshire.com/venues/>

^{xxi} <https://www.visitlanarkshire.com/belanarkshire/>

^{xxii} ONS (2016), Business Register and Employment Survey 2015

^{xxiii} Scottish Government (2016), Growth Sector Statistics by Local Authority Area

^{xxiv} VisitBritain (2015), The GB Tourist: Statistics 2014

^{xxv} VisitScotland (2016), Tourism in Scotland's Regions 2015

^{xxvi} VisitBritain (2015), The GB Day Visitor: Statistics 2015

^{xxvii} ONS (2016), Inbound nation, region and county data. Available at <https://www.visitbritain.org/nation-region-county-data>

^{xxviii} VisitScotland (2016), Tourism in Scotland's Regions 2015

^{xxix} VisitScotland (2016), Tourism in Scotland's Regions 2015

^{xxx} Buccleuch Estates, direct communication

^{xxxi} MacLeod, D. (2008), Evaluation of the Southern Upland Way Project

^{xxxii} RenewableUK (2015), Onshore Wind: Economic Impacts in 2014

^{xxxiii} Office of National Statistics (2016), Annual Business Survey 2015

^{xxxiv} Scottish Government (2016), Input Output Multipliers

^{xxxv} ONS (2016), Annual Business Survey 2015

^{xxxvi} Scottish Government (2015), Good Practice Principles for Community Benefits from Onshore Renewable Energy Developments

^{xxxvii} Scottish Council of Voluntary Organisations (2014), SCVO State of the Sector

^{xxxviii} Scottish Government (2015), Good Practice Principles for Community Benefits from Onshore Renewable Energy Developments

^{xxxix} Scottish Assessors Association, Revaluation 2010 Public Utilities Committee Practice Note 2: Valuation of Onshore Turbines/Wind Farms, 2011

^{xl} <https://www.mygov.scot/business-rates-guidance/how-your-rates-are-calculated/>, Accessed 15/02/17

^{xli} Moffat Centre (2008), The economic impact of wind farms on Scottish tourism - A report for the Scottish Government

^{xlii} BiGGAR Economics (2016), Wind Farms and Tourism Trends

^{xliii} Scottish Parliament Committee on Economy, Energy and Tourism (2012), Report on the achievability of the Scottish Government's renewable energy targets

^{xliv} Mountaineering Council of Scotland (2014), Wind Farms and Changing Mountaineering Behaviour in Scotland

^{xlv} Mountaineering Council of Scotland (2016), Wind Farms and Mountaineering Behaviour in Scotland

^{xlvi} The Scotsman (August 2014), Ski slope to open in Dumfries and Galloway. <http://www.scotsman.com/news/ski-slope-to-open-in-dumfries-and-galloway-1-3522512>. Accessed 10/03/17

^{xlvii} <http://www.economist.com/news/business/21716659-some-italian-ski-resorts-now-get-complete-coverage-snow-guns-snow-making-companies>. Accessed 17/02/17