

13 Socio-Economics

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13 Socio-Economics

13.1 Executive Summary

- 13.1.1 This chapter has considered the potential effects that the Revised Development could have on the socio-economic and tourism resource of the area.
- 13.1.2 The socio-economic baseline indicates that the population in the Local Area is significantly older than the Scottish average, with figures for the working age population expected to decline in the future. Employment opportunities in the local area are primarily in the public sector. The largest source of private sector employment is the food and accommodation services sector. However, the number of jobs within this sector is small and represents just 2.1% of jobs in the sector in South Lanarkshire as a whole. In order to attract and retain working age people, the creation of employment opportunities will be an important priority.
- 13.1.3 The chapter assessed potential effects on tourism assets in the area (including the New Lanark World Heritage Site and Visitor Centre, Craignethan Castle and the Falls of Clyde Wildlife Reserve) as well as tourism routes and accommodation but did not find any evidence indicating any significant adverse effects on any of these assets or the tourism sector as a whole.
- 13.1.4 The Revised Development represents a major investment in the South Lanarkshire and Scottish economies and would therefore deliver a range of positive economic impacts.
- 13.1.5 During the development and construction phase the Revised Development could generate £ 12.4 million GVA and support 100 job years in South Lanarkshire and £ 37.0 million GVA and 330 job years in Scotland.
- 13.1.6 During each year of the operational phase the Revised Development could generate £ 1.1 million GVA and support 8 jobs in South Lanarkshire and £ 2.9 million GVA and 25 jobs in Scotland.
- 13.1.7 Over the 25 year lifetime of the Revised Development, non-domestic rates estimated at almost £ 14.1 million and community benefit equating to a combined total of £ 6.1 million would be generated over the 25 year operational period of the Revised Development.

13.2 Introduction

- 13.2.1 This chapter identifies and assesses the potential effects that the Revised Development could have on the socio-economic and tourism resource of the area.
- 13.2.2 Potential socio-economic and tourism effects are interrelated with effects on the surrounding land and its uses. This chapter should therefore be read in conjunction with other environmental topics assessed in this Environmental Statement (ES), where relevant.

13.3 Legislation, Policy and Guidelines

- 13.3.1 Details of relevant legislation, policy and guidelines that have been taken into consideration during the preparation of this assessment are described below.

Planning Policy

- 13.3.2 Chapter 5 sets out the planning policy framework that is relevant to the Environmental Impact Assessment (EIA). The policies set out below include those from the South Lanarkshire Local Development Plan 2015. This section (Section 13.3) also considers the relevant aspects of Scottish Planning Policy (SPP), Planning Advice Notes and other relevant guidance. Of relevance to the assessment presented within this chapter, regard has been had to the following policies:

- Paragraphs 1.1, 3.7, 3.9, 3.23 of NPF3; and
- Paragraph 169 of SPP;

- Paragraphs 3.4, 4.1, 4.7, 4.9 and policies 1, 7, 11 and 19 within the South Lanarkshire Local Development Plan; and
- SLC's supplementary guidance on renewable energy, published in 2015.

National Economic Strategy

13.3.3 Economic development policy for Scotland is guided by Scotland's Economic Strategy (Scottish Government, 2015). It builds on earlier strategies published in 2007 and 2011 and maintains a focus on six priority sectors, including energy. Energy is one of the six sectors that the Scottish Government has identified as offering opportunities for sustainable economic growth. Throughout the strategy there is an emphasis on ensuring that investment is sustainable in terms of tackling emissions and supporting the transition to a low carbon economy. The long-term strategy is therefore to reduce the cost to the Scottish economy of climate change, while maximising opportunities to export Scotland's technology ambitions and knowledge as other economies make their own low carbon transition.

13.3.4 The Scottish Government is aiming for an 80 % reduction in emissions by 2050 and in 2015 Scottish greenhouse gas emissions had reduced by 40 % since 1990. In May 2011, the Scottish Government set the target to meet the equivalent of 100 % demand for electricity from renewable energy by 2020 (Scottish Government, 2011). In 2015, 59 % of all electricity consumed in Scotland was generated through renewable sources (Scottish Government, 2017).

13.3.5 This target will assist Scotland in its transition to a low carbon economy and is higher than the targets held by the UK Government and the EU. By 2050, the Scottish Government also aims to decarbonise the heat and transport networks. Onshore wind farms will play a vital role in achieving all of these targets. The longer-term focus in the strategy also includes the development of other sources of renewable power such as pumped storage hydro, biomass, offshore renewable resources and the full range of emerging technologies including energy efficiency measures that will allow Scotland to achieve the 2050 targets.

Regional Economic Strategy

13.3.6 South Lanarkshire Council's economic development strategy for the region highlights South Lanarkshire's strong skills base in engineering and related sectors and the potential of this for expansion into renewable technologies (SLC, 2013). The strategy also places an emphasis on ensuring that local people benefit from the renewable energy developments in the area.

13.3.7 As an example of this, it highlights the development of a community benefit policy managed by the Council, known as the Renewable Energy Fund. This has enabled contributions towards a wide range of community based projects as well as partnership programmes aimed at improving employability for unemployed people in South Lanarkshire.

National Tourism Strategy

13.3.8 Tourism Scotland 2020 (Scottish Tourism Alliance, 2012) is Scotland's main tourism strategy. The main mission of this strategy is to increase annual overnight visitor expenditure by £1 billion (in 2011 prices). The largest target market for this growth is visitors from within the UK. The Strategy intends to achieve this growth by focusing on four priorities:

- building sustainable tourism;
- managing the customer journey;
- strengthening leadership and collaboration; and
- knowing our markets.

13.3.9 As part of building sustainable tourism the strategy states that industry should seek out practices that benefit communities and the environment.

Regional Tourism Strategy

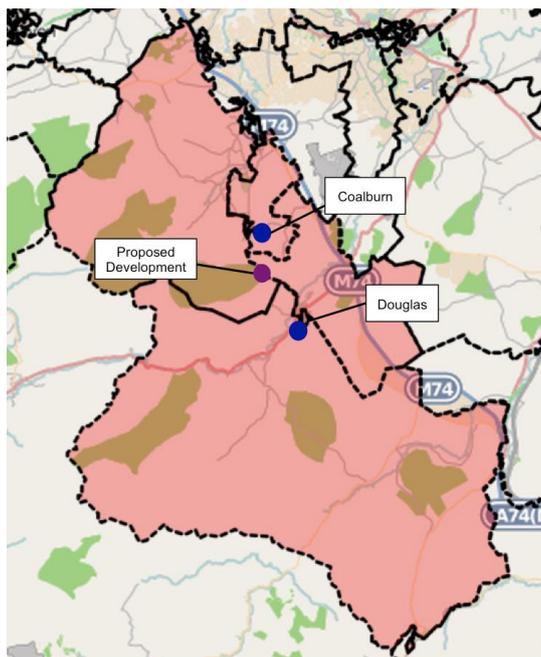
- 13.3.10 The Lanarkshire Tourism Action Plan sets out aspirations for the Lanarkshire tourism industry to 2020 (Lanarkshire Area Tourism Partnership, 2016). The vision of the strategy is to be a destination offering distinct, authentic experiences, excellent quality, value for money and accessible for all. It sets a target of growing tourism expenditure in Lanarkshire by 2.5 % per year (in real terms, excluding inflation) from 2016 to 2020.
- 13.3.11 The Strategy aims to achieve this vision by positioning Lanarkshire as a competitive and appealing day visit and short break destination. It also aims to continue raising awareness of the area's business tourism offering. In addition, the Strategy intends to continue delivering training for the sector through the BeLanarkshire online training module and portal.

13.4 Assessment Methodology and Significance Criteria

Study Area

- 13.4.1 This assessment covers two key topics and accordingly the study area for each individual aspect has been defined based on the nature of the potential effects arising from the Revised Development:
- Economic effects would be related to the extent to which the Revised Development could change levels of activity in the local, regional and national economy. For the purposes of this assessment this has been defined as follows:
 - local area: this is the closest match available from National Statistics, covering 6 data zones, S01005670, S01005672, S01005674, S01005676, S01005679 and S01005680 as shown on Graphic 13.1.
 - regional: covering the South Lanarkshire local authority area; and
 - national: Scotland.
 - The tourism assessment considers potential tourism effects in the immediate vicinity of the Revised Development including on tourist routes, accommodation and attractions. This focuses on a 15 km radius from the centre of the site as shown on Graphic 13.2.

Graphic 13.1 – Local Study Area for Socio-Economic Assessment, Best Match of Data Zones



Source: Nomis

Graphic 13.2 – Study Area for Tourism Assessment, 15 km Radius



Approach to the Baseline Assessment

- 13.4.2 In order to profile the baseline for the purpose of assessing socio-economic effects the following has been undertaken:
- a review of national, regional and local economic strategies; and
 - a review of Office of National Statistics and General Register Office of Scotland’s socio-economic statistics for the study areas.
- 13.4.3 To develop the tourism baseline the following has been undertaken:
- a review of evidence from existing studies on the effects of wind farms on tourism;
 - a review of national, regional and local tourism strategies;
 - a review of tourist accommodation and visitor attractions within the study area using the VisitScotland website, local area specific websites (www.visitlanarkshire.com) and a general Google search, as well as local knowledge; and
 - a review of tourist routes using various online resources including Sustrans (cycle routes) and South Lanarkshire Council (SLC) (core paths).

Assessment of Economic Impact

- 13.4.4 In order to estimate the economic impacts expected to arise as a result of the construction, operation and decommissioning of the Revised Development, data was gathered from the Applicant about the scale and type of work that would be required.
- 13.4.5 This data and baseline data about the local economy was then analysed using a model that has been developed by BiGGAR Economics specifically to estimate the economic impacts of wind farm developments.

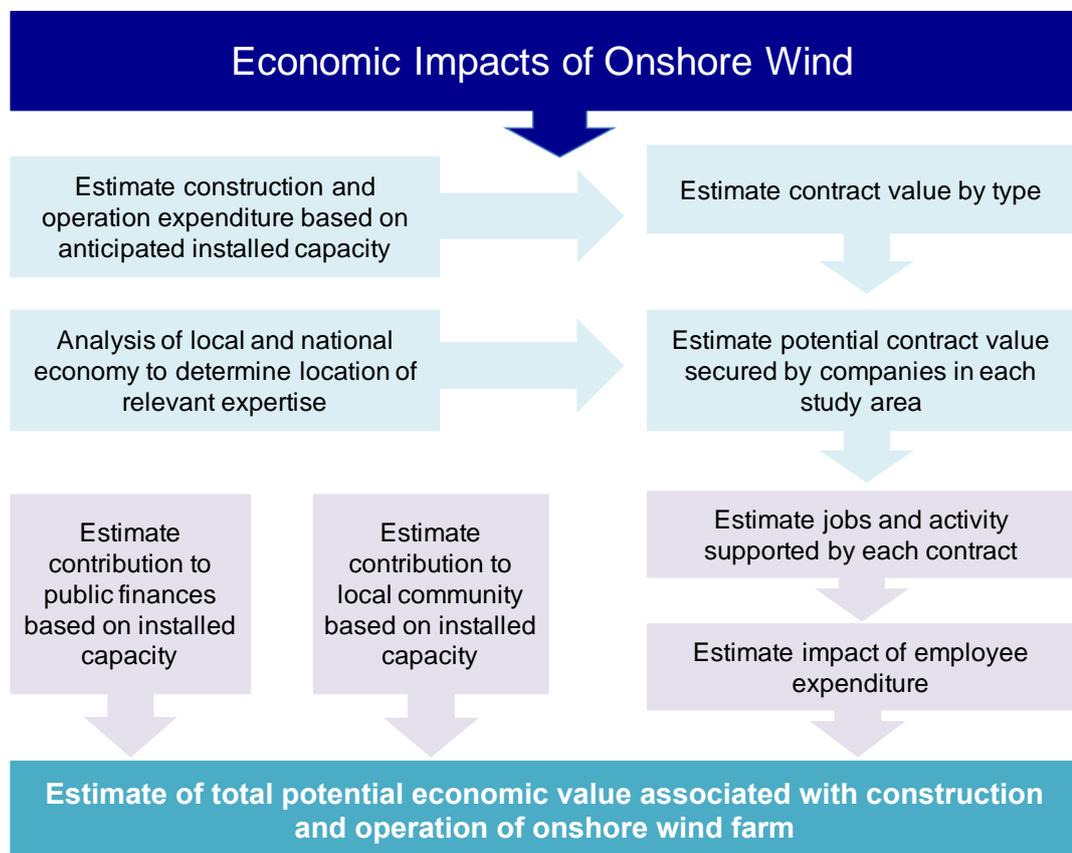
13.4.6 This model was also the basis of an assessment of the economic effects of the UK onshore wind sector for the Department of Energy and Climate Change and Renewable UK (BiGGAR Economics, 2012) and for an update to this study undertaken in 2015 (BiGGAR Economics, 2015). The studies were based on case studies of the UK, regional and local economic impacts of wind farms that have been developed in the UK in recent years. This approach is industry best practice in the assessment of the economic impact of the onshore wind sector.

13.4.7 There are four key stages involved in this model:

- estimating total capital expenditure;
- estimating the breakdown of capital expenditure into component contracts (and sub-contracts);
- assessing the capacity of the business base in each study area to carry out the contracts; and
- using the resulting figure to estimate economic impact.

13.4.8 These stages are illustrated in **Graphic 13.3**.

Graphic 13.3 – Approach to Economic Impact Assessment



13.4.9 This section will also consider the potential benefits of community benefit funding, as well as government revenues from payment of non-domestic rates.

Assessment of Potential Effect Significance

13.4.10 The first step in assessing potential effects was to establish the sensitivity of the various receptors considered. The criteria used to do this are given in Table 13.1.

Table 13.1 – Sensitivity Criteria

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

13.4.11 The next step in assessing potential effects was to assess the magnitude of each potential effect. The magnitude of potential economic effects was assessed using the economic model described above. The magnitude of effects on tourism receptors was assessed with reference to the evidence from previous research on the impact of wind farms on tourism and experience from similar existing and proposed developments elsewhere.

13.4.12 Table 13.2 summarises the magnitude criteria that were used in this assessment.

Table 13.2 – Magnitude Criteria

Descriptor or Criteria	Description
High	Total loss or major alteration 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 community profile and business structure or a substantial change to tourism numbers resulting in the area being considered a less/more attractive place to visit.
Medium	Loss or alteration 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 alteration of community profile and business structure or a substantial change to tourism numbers resulting in the area being considered a less/more attractive place to visit.
Low	Minor shift away from baseline conditions. 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 noticeable long term alteration of community profile and business structure or a small and short term change in tourism numbers resulting in the area being considered a less/more attractive place to visit.
Negligible	Very little change from baseline conditions. Change is barely distinguishable, approximating to a 'no change' situation.

13.4.13 The significance of the effect was determined by combining the sensitivity of the resource with the predicted magnitude of change. This was undertaken using Table 13.3.

13.4.14 The significance can be beneficial or adverse. Moderate and major effects (shaded boxes) are considered to be significant effects in terms of the EIA Regulations.

Table 13.3 – Significance Criteria

Magnitude of Effect	Sensitivity of Receptors				
	Very High	High	Medium	Low	Negligible
High	Major	Major	Moderate	Moderate	Minor
Medium	Major	Moderate	Moderate	Minor	Negligible
Low	Moderate	Moderate	Minor	Negligible	Negligible
Negligible	Minor	Minor	Negligible	Negligible	Negligible

Evidence for Tourism Impact Assessments

13.4.15 Tourism impacts have been assessed using evidence from existing studies on the effects of wind farm development on tourism and experience from existing and proposed developments elsewhere. In particular, this chapter draws on the conclusions of work commissioned by the Scottish Government in 2008 on the effects of wind farms on tourism, which remains by far the most robust and comprehensive source available. In April 2012, VisitScotland added to this research by publishing research on consumer attitudes to wind farms and their effects on tourism. As these studies reflect the views of the Scottish Government and the national tourism agency, they provide an appropriate basis for the tourism assessment.

13.4.16 The key findings of these reports are summarised below.

Glasgow Caledonian University Research

13.4.17 The research commissioned by the Scottish Government was based on an extensive literature review and a survey (Glasgow Caledonian University, Cogent SI, Moffat Centre, 2008). The literature review considered 40 studies from the UK and Ireland and reports from Denmark, Norway, the US, Australia, Sweden and Germany and found that there was no evidence to suggest that wind farms have a serious negative economic effect on tourists. As well as the literature review, it incorporated an intercept survey (a survey conducted in person in a public place) of tourists currently in the area, an internet survey and a Geographical Information Systems (GIS) study about the effect on accommodation.

13.4.18 The survey gathered the views of 380 tourists in four case study areas (Caithness and Sutherland; Stirling, Perth and Kinross; Scottish Borders; Dumfries and Galloway) and was undertaken at locations that maximised the likelihood that respondents would have seen a wind farm during their visit. The key findings from the survey were that:

- 75 % of people felt that wind farms had a positive or neutral effect on the landscape;
- 98 % of those interviewed who had seen a wind farm in the area said that it would not affect their decision to visit the area again. Of the 2 % who said that it would affect their decision to visit the area again (4 respondents out of 191), 2 indicated that the likelihood would increase and 2 that the likelihood would decrease. These 4 respondents were intercepted in the Stirling and Perth and Kinross area;
- after seeing a photomontage of a local wind farm before and after development, 97 % of respondents said that it would not affect their decision to visit the area again; and

- after seeing a photomontage of a local wind farm before and after an extension was added, 93 % of respondents said that it would not affect their decision to visit the area again.

13.4.19 The worst-case scenario was of a negative economic effect equivalent to 3.5 % of jobs in tourism by 2015, compared with a situation where there were no wind farms. This was as a result of two potential effects: visibility from tourist routes (impacting on decisions to return) and visibility from accommodation (impacting prices some tourists might be prepared to pay).

13.4.20 Overall the study concludes that the effects of meeting renewables targets on tourism are so small that, provided planning and marketing are carried out effectively, there is no reason why the two are incompatible.

VisitScotland Research

13.4.21 In 2011, VisitScotland commissioned a survey into attitudes of tourists towards wind farms, which surveyed 1,000 people in Scotland and 2,000 people elsewhere in the UK who had visited Scotland recently. This research found that for 83 % of residents in Scotland the decision to holiday in Scotland would not be affected by the presence of a wind farm (VisitScotland, 2012). The study also found that 80 % of respondents in Scotland, when asked about holidays and short breaks in the Scottish countryside, disagreed or felt neutral that wind farms spoiled the look of the Scottish countryside. Almost half (46 %) of respondents in Scotland stated they would be interested in visiting a wind farm visitor centre. The official position of the VisitScotland (VisitScotland, 2014) is that wind farms have a limited impact on visitors' decisions to holiday in Scotland, and that renewable energy brings visitors in its own right.

Scottish Parliament Inquiry

13.4.22 During 2012, the Economy, Energy and Tourism Committee of the Scottish Parliament heard evidence from a wide range of experts as part of an inquiry into the achievability of the Scottish Government's 2020 renewable energy targets, the merits of the targets, and what the risks and barriers are to realising them.

13.4.23 Tourism was one of the issues investigated by the Inquiry and the evidence considered included both the Glasgow Caledonian University and VisitScotland reports cited above. The findings of the Committee were published in November 2012 and are reiterated below:

"While some strongly held localised and anecdotal opinion exists, the Committee has seen no empirical evidence which demonstrates that the tourism industry in Scotland will be adversely affected by the wider deployment of renewable energy projects, particularly onshore and offshore wind."

"Whilst care always needs to be taken in terms of the planning process and decisions on the siting of individual projects in areas popular with tourists and in our rural and wild land areas, no one has provided the Committee with evidence, as opposed to opinion, that tourism is being negatively affected by the development of renewable projects. However, given the importance of this issue, the Committee recommends that VisitScotland and the Scottish Government continue to gather evidence on this from visitors to Scotland."

BiGGAR Economics Research

13.4.24 This has been confirmed by more recent analysis of wind farm development and tourism employment trends (BiGGAR Economics, 2016). In 2016, BiGGAR Economics carried out a study into the effects of the development of the wind farm sector, during a period of sustained growth in capacity between 2009 and 2013. The report noted that employment in tourism related sectors increased by over 10 % in Scotland, at a time when the installed capacity of wind farms more than doubled.

13.4.25 Furthermore, the analysis found that tourism employment at the Local Authority level was not correlated with growth in wind farms. Over the four year period considered, almost all local authorities increased the number of wind farms, while employment in sustainable tourism also grew

significantly. The analysis found that there was no correlation between employment and the number of wind turbines at the local authority level.

- 13.4.26 The report also considered the impact on employment at a much smaller, more granular level in data zones up to 15 kilometres from a development. The sites considered were built between 2011 and 2012, becoming operational by 2013. As these sites did not exist in 2009, the period was effective for measuring the effect of wind farms on local employment, before and after.
- 13.4.27 In these smaller areas, there was found to be no link between the development of a wind farm and tourism related employment. In 15 out of the 18 areas considered, employment in this sector grew and in 12 it grew faster than the rate for the relevant local authority as a whole.
- 13.4.28 Overall, the conclusion of this study was that published national statistics on employment in sustainable tourism demonstrate that there is no relationship between the development of onshore wind farms and tourism employment at the level of the Scottish economy, at local authority level nor in the areas immediately surrounding wind farm development.

13.5 Baseline Conditions

Economic Baseline

Population

- 13.5.1 The population of the Local Area is 4,988, approximately 2 % of the population of South Lanarkshire. The demographic profile of the Local Area is significantly older than South Lanarkshire and Scotland as a whole, with almost a quarter of the local population over 65. The Local Area also has a smaller proportion of working age people than either South Lanarkshire or Scotland.
- 13.5.2 Population projections (South Lanarkshire Council, 2012) indicate that the population of South Lanarkshire is expected to rise over the period 2011-2031 but below the rate projected for Scotland as a whole over the same period. These projections also show a continuation of the ageing of the population with significantly faster increases in those aged 65 and over. As well as this, the numbers aged 25-49 are expected to fall by 5 %.
- 13.5.3 Overall, this indicates that the Local Area has a small, ageing population with population projections suggesting that this is set to continue.

Table 13.4 – Population of Study Areas

	Local Area*	South Lanarkshire**	Scotland*
Population	4,988	315,300	5,347,600
Under 16	16.3%	17.4 %	17.0 %
16 – 64	59.8 %	64.3 %	64.9 %
65+	23.9 %	18.3 %	18.1 %

Source: * National Records of Scotland (2015), Mid-2014 Small Area Population Estimates Scotland.
 **ONS (2015), Population Estimates 2014.

Economic Indicators

- 13.5.4 As Table 13.5 indicates, economic indicators such as the unemployment rate, economic activity rate and gross weekly pay are broadly similar in South Lanarkshire and across Scotland as a whole. The data on economic activity, unemployment and income is not available for Scottish Datazones, so it cannot be reported in the same way for the Local Area.

Table 13.5 – Economic Indicators

	Local Area	South Lanarkshire	Scotland
Unemployment Rate*	-	5.7 %	6.3 %
Economic Activity Rate*	-	85.6 %	82.1 %
Gross Weekly Pay**	-	£ 518	£ 518

Source: *ONS (2015), Annual Population Survey Jan 2014-Dec 2014. **ONS (2015), Annual Survey of Hours and Earnings – Resident Analysis 2014.

Key Employment Sectors

- 13.5.5 Information about the structure of the economy is provided by the Business Register and Employment Survey published by the Office for National Statistics. This suggests that approximately 1,000 people were in employment in the Local Area in 2014, which represents 1.0 % of the total number of people in employment in South Lanarkshire.
- 13.5.6 The largest sector of employment is the health sector, accounting for almost a fifth of employment in the Local Area, significantly higher than South Lanarkshire as a whole and double the Scottish average. This can be explained by the presence of a community hospital in Douglas.
- 13.5.7 The largest source of private sector employment in the Local Area is the provision of accommodation and food services, an important part of the tourism sector. This sector accounts for almost 15 % of those in employment, higher than the average in both South Lanarkshire (6.6 %) and across Scotland as a whole (7.8 %). This would suggest that the tourism sector is relatively important for the Local Area, but it is important to note that the number of jobs within the accommodation and food services sector is small and only a small proportion of total jobs (2.1 %) in that sector in South Lanarkshire as a whole (as might be expected given that the area only accounts for a small proportion of the population of South Lanarkshire).
- 13.5.8 The manufacturing sector is also a significant source of private sector employment in the Local Area, accounting for 10 % of those in employment, higher than the Scottish average of 7.4 %.

Table 13.6 – Employment by Sector

	Local Area	South Lanarkshire	Scotland
Agriculture, forestry & fishing*	2.9 %	0.2 %	3.1 %
Mining, quarrying & utilities	3.6 %	5.0 %	2.8 %
Manufacturing	10.4 %	10.9 %	7.4 %
Construction	9.7 %	8.1 %	5.7 %
Motor Trades	0.7 %	2.1 %	1.8 %
Wholesale	1.2 %	4.3 %	3.0 %
Retail	7.6 %	10.6 %	10.0 %
Transport & storage (inc. postal)	6.5 %	4.4 %	4.1 %
Accommodation & food services	14.8 %	6.1 %	7.2 %
Information & communication	0.8 %	1.2 %	2.5 %
Financial & insurance	0.3 %	2.4 %	3.4 %

	Local Area	South Lanarkshire	Scotland
Property	0.3 %	1.0 %	1.2 %
Professional, scientific & technical	3.4 %	4.6 %	6.6 %
Business administration & support services	6.5 %	8.6 %	7.8 %
Public administration & defence	0.0 %	5.9 %	5.9 %
Education	4.2 %	6.4 %	7.5 %
Health	19.9 %	14.5 %	15.9 %
Arts, entertainment, recreation & other services	7.2 %	3.8 %	4.1 %
Total Employment	997	116,107	2,540,169

Source: ONS (2015), Business Register and Employment Survey 2014. *These figures exclude farm agriculture.

Conclusions

- 13.5.9 The factors considered in the socio-economic baseline indicate that the Local Area has a small population and a demographic profile that is significantly older than both South Lanarkshire and Scotland as a whole and a lower proportion of working age people. Population projections indicate that these trends are likely to continue. The creation of employment opportunities in the local economy would therefore help to overcome these issues.
- 13.5.10 Employment opportunities in the Local Area are primarily concentrated in the public sector. The largest source of private sector employment is the accommodation and food services sector, which is an important component of the tourism sector. It is important to note however, that the number of jobs within this sector is small and only a small proportion, 2.1%, of jobs in that sector in South Lanarkshire. This is expected given that the area only accounts for a small proportion of the population of South Lanarkshire.
- 13.5.11 At the Scottish level, the sheer size of the Scottish economy relative to the Revised Development means that the economy would be relatively insensitive to the scale of change of the Revised Development. The relative size of the Revised Development to the South Lanarkshire economy would be greater than to the Scottish economy but still comparatively small. For the local economy however, the scale of the Revised Development would be relatively large. The local economy also has a more limited range of employment opportunities than South Lanarkshire as a whole, which suggests that the creation or loss of even a small number of jobs could have a significant effect on the local economy as a whole or individual businesses within it.
- 13.5.12 For this reason, the sensitivity of the national economy to change was assessed as low, the sensitivity of the regional economy was assessed as medium and the sensitivity of the local economy and individual businesses and sectors within it as high.

Tourism Baseline

- 13.5.13 The worst case scenario considered in the research described above identifies two potential sources of negative effects on tourism: visibility from tourist routes and visibility from accommodation, although these are based on research on visitor perceptions and attitudes rather than any evidence of actual negative effects that have occurred. In order to assess the potential impact of the Revised Development on the local tourism sector, this chapter therefore considers the extent to which the behaviour of tourists might be affected by changes to views from important tourist routes in the area and from tourist accommodation.

13.5.14 Views from visitor attractions are not identified as a potential source of negative impact in any of the research described above. Despite this, because tourism is a priority sector for the Scottish economy, the effect on the behaviour of visitors as a result of changes to views from important visitor attractions is also assessed.

Tourism Value and Volume

13.5.15 Sustainable tourism is one of six growth sectors identified in the Scottish Government’s Economic Strategy. Data from the BRES shows that in 2014, sustainable tourism, as defined by the Scottish Government, accounted for 6.8 % of employment in South Lanarkshire. This is slightly lower than the proportion of tourism related employment across Scotland as a whole (7.7 %) and lower than the Local Area (17.2 %). This suggests that tourism is somewhat more important to the Local Area than to other parts of South Lanarkshire.

13.5.16 However, analysis of tourism employment trends indicates that since 2008 there has been a 20 % decline in tourism related employment across South Lanarkshire whereas the national trend has seen a 5 % increase in tourism employment over the same period.

13.5.17 According to the Scottish Government (Scottish Government, 2016) there were 660 registered tourism enterprises in South Lanarkshire in 2014, 8 % of all registered enterprises in South Lanarkshire. The total turnover of these enterprises in 2014 (latest figures available) was estimated at £ 247 million and their contribution to Scottish Gross Value Added (GVA) in 2012 (latest figures available) was estimated at £ 118 million. This represents approximately 3 % of the total GVA of South Lanarkshire.

Tourist Attractions

13.5.18 The Moffat Centre produces an annual Visitor Attraction Monitor, which supplies detailed data on visitor attractions in Scotland. None of the top 20 paid attractions in Scotland are located in South Lanarkshire.

13.5.19 Table 13.7 lists all of the tourist attractions that are within 15 km (straight line distance from closest part of site boundary) of the site.

Table 13.7 – Tourist Attractions

Distance	Location	Attraction/Leisure Asset	Significance
0-5 km	Rigside	Douglas Water Golf Club	Local
	Lesmahagow	Hollandbush Golf Club	Local
5-10 km	Lesmahagow	Kypeside Fishery	Local
10-15 km	Crossford	Valley International Park	Local
	Blackwood	Craignethan Castle	Regional
	New Lanark	New Lanark World Heritage Site and Visitor Centre	National
	New Lanark	Falls of Clyde Visitor Centre and Wildlife Reserve	Regional
	Lanark	Lanark Golf Club	Local
	Lanark	Lanark Loch	Local

13.5.20 There are nine tourist attractions or leisure assets within the study area, only three of which are within 10 km of the Revised Development. Almost all of the tourist attractions in the study area are only of local importance and their sensitivity to change was therefore assessed as low.

13.5.21 Craignethan Castle is a ruined castle located above the River Nethan, dating back to around 1530. It is notable as the last private stronghold to be constructed in Scotland. As a result, Craignethan Castle

has been assessed as being of regional importance with its sensitivity to change assessed as medium.

13.5.22 The village of New Lanark (a UNESCO World Heritage Site), by the banks of the River Clyde, grew up around 18th century mills where cotton was manufactured. The last mill closed in the 1960s but a restoration programme was undertaken during the 1980s and 1990s to restore the village and a visitor centre and hotel were established at the site. The site is surrounded by native woodlands and is the gateway to the Falls of Clyde wildlife reserve. As New Lanark is of national importance its sensitivity to change was assessed as high.

13.5.23 The Falls of Clyde Wildlife Reserve stretches from New Lanark to Bonnington Weir. The visitor centre is situated within the village of New Lanark and allows people to learn about the historic village, waterfalls, woodlands and animals that live there. There are also regular badger and bat walks throughout the year. Also located on the reserve is Britain’s first commercial Hydro-Electric Power Station. Bonnington Power Station was constructed in 1926 and is still in use today. It has the capacity to generate 11 megawatts (MW) harnessing the power of the Bonnington and Corra Linn waterfalls. For these reasons, the Reserve and Visitor Centre have been assessed as being of regional importance and their sensitivity to change was assessed as medium.

Tourist Accommodation

13.5.24 Table 13.8 lists the accommodation providers (individual hotels, bed and breakfasts, self-catering and other accommodation facilities) located within 15 km of the site. Accommodation is grouped by approximate straight-line distance from the site.

Table 13.8 – Tourist Accommodation

Distance	Location	Number of Places to Stay	Approximate Distance from Site (km)
5-10 km	Lesmahagow	2	6 km
	Crawfordjohn	2	8 km
10-15 km	Kirkfieldbank	2	11 km
	New Lanark	5	11 km
	Lanark	8	12 km

13.5.25 The table shows that although there are 19 individual places to stay within 15 km of the site, the majority are located more than 10 km from the Revised Development. Within the study area there are a greater number of tourist facilities to the north-east of the site, with the main clusters of tourist accommodation at New Lanark and Lanark, which are approximately 11 km and 12 km from the site respectively.

13.5.26 Of the 19 places to stay identified, none were within 5 km of the Revised Development.

13.5.27 The sensitivity of individual accommodation providers to the Revised Development will depend on the extent to which views from guest bedrooms in each establishment could be affected. As this is likely to diminish with distance, providers located closest to the Revised Development are likely to be the most sensitive to change.

13.5.28 Accordingly, the sensitivity of accommodation providers was assessed as follows:

- within 5 km of the site – high sensitivity;
- within 10 km of the site – medium sensitivity; and
- within 15 km of the site – low sensitivity.

Tourist Routes

Driving Routes

- 13.5.29 VisitScotland promotes a series of 12 signposted tourist routes throughout Scotland. The National Tourist Routes are designed to provide tourists with an alternative to the main trunk roads and motorways. One of these routes passes through South Lanarkshire, the Clyde Valley Tourist Route. This 67 km route follows the River Clyde through Lanark but the route does not pass along any of the roads close to the Revised Development.
- 13.5.30 The M74 is the only major trunk road close to the Revised Development and provides the main access point to the site. This is not a recognised tourist route and as such any visual impact on this route would have a negligible effect on the local tourism sector.

Walking Routes

- 13.5.31 Walkhighlands is a website dedicated to promoting walking routes across Scotland. It includes a searchable database of walks in every region of Scotland and is an important information source for tourists. The study area of this assessment corresponds to the Lanarkshire region used by walkhighlands where 13 walks are listed. Of these, five pass through the 15 km study area of this assessment.
- 13.5.32 The closest route to the Revised Development is the Douglas Explorer walk, which is 6 km in length and explores the village of Douglas as well as the parkland and woods around it.
- 13.5.33 The Falls of Clyde and New Lanark walk is also 6 km in length and follows a route along the River Clyde from the Heritage Site of New Lanark, passing waterfalls and a peregrine falcon watching area. The starting point of this walk is approximately 11 km from the site.
- 13.5.34 There are also two other walks, each between 6-8 km in length, climbing the summit of Tinto, which is an outlying hill of the Southern Uplands, around 14 km to the east of the site.
- 13.5.35 Scotland's Great Trails is a network of 26 nationally promoted trails in Scotland. Each trail is waymarked, largely off-road, with the potential for multi-day journeys on foot. The Clyde Walkway is a 65 km long route running between Partick in Glasgow and New Lanark. Two stretches of the route, Maudslie Bridge to New Lanark (13.5 km) and Falls of Clyde and New Lanark (6 km) fall within the study area, but both are approximately 11 km from the site.
- 13.5.36 The River Ayr Way is a 65 km route that traces the length of the River Ayr from its source, Glenbuck Loch, to the sea at Ayr. The start/end of the route at Glenbuck Loch is located in East Ayrshire, to the west of the Revised Development but within 15 km of the site. The Access Strategy (refer to Appendix 3.1) for the Revised Development includes proposals to join this route up with the Clyde Walkway.
- 13.5.37 All of these walks can be considered regionally important and therefore of medium sensitivity.
- 13.5.38 In addition to these routes there is also a network of core paths in the local area. Under Scottish access legislation, each local authority in Scotland has a duty to draw up a plan of core paths in their area. These plans are informed by consultation with local communities, land managers and path users. The core paths in the study area include (refer also to Appendix 3.1, Figure A3.1):
- a path beginning in Douglas West leading to Hagshaw Hill Wind Farm and a number of paths around Hagshaw Hill Wind Farm;
 - a series of paths to the south east of Coalburn passing Wallace's Cave (CL/5734, CL/5735);
 - a path (CL/5192, CL/5193) passing to the west of the Revised Development through the adjacent part of the former Dalquhandy Opencast workings; and
 - three paths in and around Coalburn.
- 13.5.39 Although core paths can be used by anyone, including tourists and day visitors, in practice the routes included tend to be those that are most popular with local residents and as such should be

considered primarily as local leisure assets rather than tourism assets. For this reason, the core paths were assessed as having low sensitivity to change.

Cycling Routes

- 13.5.40 Sustrans is a charity dedicated to sustainable travel choices. It publicises a network of cycle routes around the UK. One of these is National Cycle 7, which goes from Sunderland to Inverness. Route 74 is an offshoot of this route. Until recently this route was classified as a regional route but is currently being reclassified as part of the national route.
- 13.5.41 National Route 74 is intended to connect Gretna and Glasgow via Lockerbie and Abington. Between Gretna and Douglas the route follows large sections of the old A74 (B7078) and passes Lockerbie and Moffat before arriving in Douglas. The section between Douglas and Larkhall is under development and the route is therefore incomplete.
- 13.5.42 Once the route is completed it is intended to be 113 km in length. The stretch that now passes parallel to the site between Douglas and Lesmahagow, is approximately 11 km in length. The route's close proximity to the site would suggest that the route may be of medium sensitivity; however, as the stretch that passes the site is only around 10 % of the total route the overall sensitivity of the route to the Revised Development was assessed as low.

Conclusions

- 13.5.43 The immediate locality around the Revised Development has limited tourism activity.
- 13.5.44 Most of the tourist attractions in the study area are of local importance with the remaining attractions primarily concentrated towards the periphery of the study area at New Lanark. Consequently, the main clusters of tourist accommodation are at New Lanark and Lanark, both of which are more than 11 km from the site.
- 13.5.45 In terms of tourist routes, no driving routes or completed cycle routes were identified in the study area. There are a number of walking routes, including short distance routes and a section of the 65 km long distance Clyde Walkway route and a stretch of the River Ayr Way.

13.6 Potential Effects

Potential Tourism and Recreation Effects

- 13.6.1 Research on the effects of wind farm development on tourism, as discussed in Section 13.4, does not provide any evidence of negative tourism impacts. Despite this, it has been the experience of wind farm developers that consultees have nevertheless asked for tourism and recreation effects to be considered. The Moffat Centre Report recommends consideration of the potential effects on tourist accommodation, tourist attractions and tourist routes. This section (Section 13.6) considers each of these receptors in turn, although no evidence of these potential effects has been found elsewhere.

Tourist Accommodation

- 13.6.2 The magnitude of the effect on tourism businesses would depend on the extent to which the additional views that they may acquire may influence the behaviour of tourists visiting the businesses.
- 13.6.3 This effect was assessed with reference to the research evidence cited in Section 13.4. This research found that after seeing a photomontage of a local wind farm before and after development, 97 % of respondents said that it would not affect their decision to visit the area again. This evidence alone suggests that the magnitude of potential effects on local accommodation providers is likely to be low.
- 13.6.4 In addition, Hagshaw Hill and Extension, a wind farm adjacent to the Revised Development has been operational since 1995. More recently, the Nutberry Wind Farm became operational within 5 km of the Revised Development in September 2013. As nearby accommodation providers continue to

operate successfully this suggests that customers of these businesses are relatively insensitive to this type of development. The magnitude of this effect was therefore assessed as negligible. This implies that the overall significance of this effect would be **minor-negligible** and therefore not significant.

13.6.5 It is also possible that the construction of the Revised Development could have a temporary beneficial effect on local tourism businesses as a result of employees either staying locally and/or purchasing food and other supplies while working on site. The relatively low number of tourism businesses in the local area means that the magnitude of this effect across the local tourism sector as a whole is also likely to be low, so the overall significance of this effect would be **negligible** at the regional level.

13.6.6 As there are very few tourism businesses in the immediate vicinity of the site, the magnitude of this beneficial effect on individual businesses could be much higher and was therefore assessed as medium. Combined with the high sensitivity of these businesses to small changes, this suggests that the expenditure of workers involved in the construction of the Revised Development could generate a **moderate** beneficial impact on individual tourism businesses within 5 km of the Revised Development.

Tourist Attractions

13.6.7 Of the nine tourist attractions within the study area, five were identified as being primarily local leisure resources rather than tourism assets. This means that for most people the decision to use these will be determined largely by the convenience of the location and the quality of resource. As the Revised Development would not influence this in any way the magnitude of this potential impact was assessed as low, implying that the overall significance of the effect would be **negligible** and therefore not significant.

13.6.8 The remaining tourist attractions were assessed as having medium (Craignethan Castle and Falls of Clyde Wildlife Reserve) or high sensitivity to change (New Lanark). Each of these three attractions is likely to be of interest to visitors for reasons other than landscape value. Visitors to Craignethan Castle for example are likely to be interested in the history of the site and it is reasonable to assume that visitors to New Lanark would primarily be interested in the social and industrial historical significance of the site. As these are likely to be the primary drivers for visitors it is likely that these sites would be relatively insensitive to changes in the wider landscape, beyond the immediate setting of each asset. In any case, the location of New Lanark, enclosed within the Clyde Valley means that the only views available from the village are of the river and immediate valley. The LVIA (Chapter 6) confirms that there will be no views of the Revised Development available from the New Lanark World Heritage Site.

13.6.9 Also of significance is the fact that there are already operational wind farms in the study area. The continuing successful operation of these tourism assets helps to support the conclusion that visitors are fairly insensitive to this type of development, at such distance from those tourism assets. The magnitude of this effect was therefore assessed as negligible. This implies that the overall significance of this effect would be **minor-negligible** and therefore not significant.

Tourist Routes

13.6.10 The Revised Development could have a temporary adverse effect on tourism routes if it were necessary to divert any routes during the construction phase. The Applicant has stated that it will not be necessary to block any of the core paths in the area during construction but there will be the need for a temporary diversion of aspirational core paths through the site during construction but this would be temporary and only implemented to ensure a safe walking route.

13.6.11 Potential permanent adverse effects on walking and cycling routes in the local area (both short-distance and longer distance) would depend on the extent to which the Revised Development might change the existing character of the routes and tourists enjoyment of them. The fact that there are already operational wind farms in the study area means that this type of development is already an established part of the local environment. This means that walkers and cyclists visiting the area should already have a reasonably high expectation of seeing a wind farm during their trip.

- 13.6.12 The magnitude of the effect of any additional views of wind turbines that may be acquired as a result of the Revised Development would therefore be low. When combined with the low to medium sensitivity of the routes this implies that the overall significance of this effect would be **minor-negligible** and therefore not significant.
- 13.6.13 The Applicant is proposing the development of a Heritage Trail and formal footpath network linking Douglas and Coalburn through the site, with interpretation areas explaining the industrial heritage of the site and its contribution to the nation's energy needs past and present (refer to Appendix 3.1).
- 13.6.14 The Heritage Trail will also include a small memorial to the former railway station and settlement at Douglas West, which lies adjacent to the southern site boundary. Douglas West Station was part of the Caledonian Railway that linked Lanark with Muirkirk and beyond, and was closed in 1964. A new car parking area and entrance feature will also be created at this location. This is just one example of a number of potential points of interest that have been highlighted by the Applicant (based on engagement with local community groups) which could be marked as interpretation features as part of the Heritage Trail.
- 13.6.15 The Heritage Trail could provide a range of recreational opportunities for the local communities of Douglas and Coalburn, with the potential for community groups in both villages to develop guided walks or other events to promote the path network. The development of this path network creates more opportunities to attract those from further afield to use the path networks around Douglas and Coalburn through the creation of further linked walkways and the development of features of interest in the local area. The Applicant has agreed to fund an interpretation panel at each of the 16 points of interest identified throughout the Revised Development (subject to the agreement of third party landowners where relevant). The Revised Development would also fund a promotional leaflet for the Trail, setting out the route and some background on the points of interest of be discovered along the way.
- 13.6.16 The development of this Heritage Trail and footpath network also has the potential to form part of a long distance path network that is currently being developed by SLC and Scottish Natural Heritage (SNH) to link Glasgow with the River Ayr Way and the Southern Upland Way as part of the Clyde Walkway Extension Project.
- 13.6.17 The development of the Clyde Walkway Extension would therefore join up multiple long distance routes through central and southern Clydesdale. The Douglas/Coalburn area could play an important part in these new routes with the potential for the east – west route from Glenbuck to New Lanark to pass through the Revised Development site, and there is also potential for a further route south to the Southern Upland Way from the Douglas area via Crawfordjohn.
- 13.6.18 Graphic 13.4 illustrates how the development of a Heritage Trail and path network around Douglas and Coalburn could contribute to the missing link between the Clyde Walkway and the River Ayr Way.

Graphic 13.4 – Strategic Walking Routes of Scotland



- 13.6.19 Existing long distance path networks have been shown to boost tourism, the economy, the health of local people and the environment of communities through which they pass. The development of a Heritage Trail through the site and adjoining land could provide an interesting part of the Clyde Walkway Extension which could enhance the existing tourism and recreation offering in the local area and bring more passing trade and visitors to Douglas and Coalburn. The Heritage Trail also offers the opportunity to build on existing marketed walks around Douglas such as the 'Douglas Explorer' walk promoted by Walkhighlands.
- 13.6.20 The magnitude of this effect for the local tourism sector could be medium. When combined with the high sensitivity of the local sector to change this implies that the overall significance of this effect could be **moderate** and therefore significant.

Potential Socio-economic Effects

- 13.6.21 The expenditure required to construct, operate and decommission the Revised Development would generate wealth and support employment in each of the study areas. These effects are considered below.
- 13.6.22 An established methodology exists for assessing the economic impact of wind farms (BiGGAR Economics, 2015). As this methodology is based on research undertaken on behalf of the Department for Energy and Climate Change (DECC) and RenewableUK in 2012 (updated in 2015) on the economic impact of on-shore renewables in the UK and has been applied to multiple wind farms across the UK it was appropriate to use it to assess the Revised Development.

Construction Effects

- 13.6.23 The starting point for assessing the construction effect associated of the Revised Development was the total development and construction cost. This was estimated by multiplying expected installed capacity by the industry average development and construction costs per MW. The Revised Development is expected to include 13 turbines, each with capacity of around 3.8 MW with a total installed capacity of around 49 MW.
- 13.6.24 According to research undertaken by BiGGAR Economics on behalf of RenewableUK (BiGGAR Economics, 2015) average expenditure on the development and construction of wind farms is approximately £ 1.5 million per MW. The total development and construction cost (Capex) of the Revised Development was estimated at £ 72.6 million.
- 13.6.25 Development and construction expenditure is split into four main categories of contracts. These are:
- development and planning;

- balance of plant;
- turbines; and
- grid connection.

13.6.26 The proportion of total development and construction spending that is spent on each of the main categories of contracts was taken from research undertaken by BiGGAR Economics on behalf of RenewableUK (BiGGAR Economics, 2015). This found that the largest proportion of expenditure was on turbine related contracts (57.8 %), followed by balance of plant (25.6 %), development and planning (10.2 %) and finally grid connection (6.3 %).

13.6.27 The value of these contracts for the Revised Development was estimated by applying these percentages to the total development and construction expenditure. The values of these contract categories are given in Table 13.9 below.

Table 13.9 – Development and Construction Expenditure by Contract Type

	% of Capex	Value (£m)
Development and Planning	10.2 %	7.4
Balance of Plant	25.6 %	18.6
Turbine	57.8 %	42.0
Grid Connection	6.3 %	4.6
Total	100 %	72.6

Source: BiGGAR Economics, 2017

13.6.28 The economic impact of the development and construction phase of the Revised Development was estimated for South Lanarkshire and Scotland. In order 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, identified in the economic baseline. 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.

13.6.29 The capital expenditure by study area and contract type is given in Table 13.10 below.

Table 13.10 – Capital Expenditure by Study Area and Contract Type

	South Lanarkshire		Scotland	
	%	£m	%	£m
Development and Planning	33 %	2.4	90 %	6.7
Balance of Plant	40 %	7.5	95 %	17.7
Turbine	2 %	0.7	12 %	5.1
Grid Connection	31 %	1.4	100 %	4.6
Total	17 %	12.0	47 %	34.0

Source: BiGGAR Economics, 2017

13.6.30 The proportion of contracts that could be awarded in South Lanarkshire is higher than would generally be expected in other local authority areas for a number of reasons.

- 13.6.31 The Applicant proposes to operate a Responsible Contracting Policy to ensure that the sourcing of local contractors is given the highest priority. As a business located in the Local Area, the Applicant is committed to using suppliers as close to the Revised Development as possible and to delivering a high percentage of construction contracts to local companies. Construction companies would also be encouraged to offer local apprenticeship or work experience places. It is proposed that this would take the form of a Responsible Contracting Policy, which would ensure that tenders submitted by contractors offering substantial community and local employment benefits would be more highly rated during the tender process evaluation than those without such benefits. A copy of the Applicant's Responsible Contracting Policy for the Revised Development is included in Appendix 13.1.
- 13.6.32 The largest opportunity for South Lanarkshire would be with the balance of plant contracts. It was estimated that companies in South Lanarkshire could secure a significant proportion of these contracts (40 %) worth up to £ 7.5 million. It was also estimated that South Lanarkshire could secure 33 % of the development and planning contracts and 31 % of the grid connection contracts, which could be worth £ 2.4 million and £ 1.4 million respectively. In total, South Lanarkshire businesses could secure 17 % of the value of the Capex, worth £ 12.0 million to the regional economy.
- 13.6.33 It was estimated that Scotland could secure up to 47 % of the total Capex, worth £ 34.0 million to the national economy. This estimate was based on the assumption that the towers for the turbines would be secured from a Scottish manufacturer. If this were not the case then the proportion of contracts that could be secured in Scotland would fall to 41 %, with a total value of £ 29.7 million.
- 13.6.34 The contract values potentially awarded in each area would represent an increase in the turnover of businesses in these areas. The impact that this increased turnover could have on employment was estimated using industry specific data from the Annual Business Survey (ONS, 2017). This survey gives the turnover per employee for each of the industries involved, which allows the employment from any increase in turnover to be estimated.
- 13.6.35 The employment impacts during the development and construction phase are reported in job years rather than full-time equivalents (FTEs) because the contracts would be short-term (less than 2 years). Job years measures the number of years of full-time employment generated by a project. For example, an individual working on the Revised Development for 18 months would be reported as 1.5 job years.
- 13.6.36 In this way, the construction impacts were estimated to support 92 job years in South Lanarkshire, of which 48 will be on the balance of plant contracts. The estimate for Scotland is 270 job years.

Table 13.11 – Employment by Study Area and Contract Type (job years)

	South Lanarkshire	Scotland
Development and Planning	23	67
Balance of Plant	55	130
Turbine	6	45
Grid Connection	9	28
Total	92	270

Source: BiGGAR Economics, 2017

- 13.6.37 Should the Revised Development obtain planning permission, the balance of plant contracts would account for the majority of employment in both study areas. The employment opportunities during this phase would draw from a range of professions including civil and electrical engineers, electricians, plant operators and project managers.
- 13.6.38 Table 13.12 below summarises the direct effects of the development and construction phase of the Revised Development.

Table 13.12 – Summary of Direct Effects

	South Lanarkshire	Scotland
GVA (£million)	12.0	34.0
Employment (job years)	92	270

Source: BiGGAR Economics, 2017

- 13.6.39 There would also be knock on effects from the direct employment during the construction phase because the people who are employed on the Revised Development will have an impact on the wider economy when they spend their salaries. The research undertaken for DECC found that the average salary for employees in the onshore wind sector is £ 34,600. It was therefore estimated that £ 9.3 million would be paid in salaries to the staff directly employed during the development and construction phase of the Revised Development.
- 13.6.40 In order to estimate the economic impact 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 in South Lanarkshire would spend 33 % of their salaries in South Lanarkshire and workers in Scotland would spend 95 % of their salaries in Scotland.
- 13.6.41 The economic impact of the increased expenditure was estimated using the average Gross Value Added (GVA)/turnover ratio and turnover per employee for the whole economy, as reported in the Annual Business Survey.
- 13.6.42 In this way, it was estimated that direct employees in South Lanarkshire could spend £ 1.1 million in South Lanarkshire, which would support 7 job years and £ 0.4 million GVA. In Scotland, the direct employees could spend £ 8.9 million, which would support 61 job years and £ 3.0 million GVA.

Table 13.13 – Spending Impact

	South Lanarkshire	Scotland
Employee Spend (£million)	1.1	8.9
GVA (£million)	0.4	3.0
Employment (job years)	7	61

Source: BiGGAR Economics, 2017

- 13.6.43 The total economic impact of the Revised Development during the construction phase is the sum of the direct impacts (Table 13.12) and the impacts from the expenditure of the direct employees (Table 13.13). This gives a total economic impact of 100 job years and £ 12.4 million GVA in South Lanarkshire and 331 job years and £ 37.0 million GVA in Scotland.

Table 13.14 – Total Economic Impact during Development and Construction

	South Lanarkshire	Scotland
GVA (£million)	12.4	37.0
Employment (job years)	100	331

Source: BiGGAR Economics, 2017

- 13.6.44 The magnitude of this effect would be low at the national level but medium at the regional level. When combined with the sensitivity of the regional and national economies this implies that the overall significance of the effect would be **negligible** at the national level but **moderate** at the regional level. This implies that the Revised Development could have a significant beneficial effect on the regional economy during the construction phase.

Operational Effects

Annual Operational Economic Effect

- 13.6.45 The operations and maintenance impact of the Revised Development was estimated annually as the impact that would persist throughout the 25 year life-span of the Revised Development.
- 13.6.46 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 average annual expenditure per MW was found to be £ 59,867 in the RenewableUK report. The Revised Development is expected to have an installed capacity of around 49 MW, which implies that the annual operations and maintenance expenditure associated with the Revised Development is estimated to be £ 3.0 million.
- 13.6.47 In order to estimate the economic impact of the operations and maintenance expenditure in each of the study areas, it was first necessary to estimate the proportion of the contracts that could be secured in each of these areas. These assumptions were based on the regional contract proportions reported in the DECC report and the analysis of the industries present in each of the study areas. Based on this information it was assumed that South Lanarkshire could secure 35 % of the contracts and 90 % of the contracts would be secured from within Scotland.

Table 13.15 – Operations and Maintenance Contract Proportions by Study Area

	South Lanarkshire		Scotland	
	%	£m	%	£m
Operations and Maintenance	35 %	1.0	90 %	2.7

Source: BiGGAR Economics, 2017

- 13.6.48 As with the construction phase, the contract values awarded in each of the study areas represent an increase in turnover in companies in those areas. The economic impact of this increase in turnover was estimated in the same way as the construction expenditure, using the Annual Business Survey. The impacts are long term as they are expected to last for the 25-year life span of the Revised Development. The impact is therefore presented annually and jobs impacts are presented as jobs rather than job years.
- 13.6.49 In this way, it was estimated that the operations and maintenance contracts that could be secured in South Lanarkshire would support 8 jobs, while in Scotland the impact would be 20 jobs.

Table 13.16 – Operations and Maintenance Jobs Impact

	South Lanarkshire	Scotland
Operations and Maintenance	8	20

Source: BiGGAR Economics, 2017

- 13.6.50 As with the construction expenditure, there will also be knock on effects from the direct employment during the operation of the Revised Development. The people who will be employed will have an impact on the wider economy by spending their salaries.
- 13.6.51 In order to estimate the economic impact of this expenditure in each of the study areas, it was necessary to make assumptions about where employees might spend their money. It was assumed that operations and maintenance employees would have the same spending patterns as the development and construction employees. It was therefore assumed that employees in South Lanarkshire would spend 33 % of their salaries in South Lanarkshire and workers in Scotland would spend 95 % of their salaries in Scotland.
- 13.6.52 The economic impact of this increased expenditure was estimated using the average GVA/turnover ratio and turnover per employee for the Scottish economy. This data was also taken from the Annual Business Survey. In this way, it was possible to estimate that the employees in South Lanarkshire

through their spending could support 1 job and less than £ 0.1 million GVA. In Scotland, the direct employees could spend £ 0.7 million, which would support 3 jobs and £ 0.2 million GVA.

Table 13.17 – Spending Impacts

	South Lanarkshire	Scotland
Employee Spend (£million)	0.3	0.7
GVA (£million)	<0.1	0.2
Employment (jobs)	1	3

Source: BiGGAR Economics, 2017

- 13.6.53 The total annual economic impact during the operations and maintenance phase is the sum of the direct impacts and the impacts from the spending of the employees. This gives a total annual economic impact of 8 jobs and £ 1.1 million GVA in South Lanarkshire and 25 jobs and £ 2.9 million GVA in Scotland.

Table 13.18 – Annual Economic Impact during Operations and Maintenance

	South Lanarkshire	Scotland
GVA (£million)	1.1	2.9
Employment (jobs)	8	25

Source: BiGGAR Economics, 2017

- 13.6.54 The magnitude of this effect would be negligible at the national level and low at the regional level. When combined with the sensitivity of the regional and national economies this implies that the overall effect of the Revised Development during the operational phase would be **negligible-minor** and therefore not significant.
- 13.6.55 It is however reasonable to expect that a high proportion of the operational effect expected to occur in South Lanarkshire would occur within the immediate local area. As the local area has a much smaller population and more limited employment opportunities than South Lanarkshire as a whole, the magnitude of this effect would be much greater. The magnitude of this effect on the local area was therefore assessed as medium, which implies that the overall effect of the Revised Development on the local area during the operational phase would be **moderate** and therefore significant.

Decommissioning

- 13.6.56 To date there has been limited decommissioning of onshore wind installations in the UK, therefore the estimated impact of the decommissioning of the Revised Development is based on the cost estimates in the DECC report. This found that wind energy developers anticipated expenditure on decommissioning wind farms to be £ 34,555 per MW. It was therefore estimated that the decommissioning expenditure for the Revised Development would be £ 1.7 million.
- 13.6.57 It was assumed that South Lanarkshire would be able to secure 50 % of the decommissioning contracts and 90 % of the contracts would be secured in Scotland. In this way, it was estimated that South Lanarkshire could secure contracts worth £ 0.8 million and support 6 jobs, while Scotland would secure contracts worth £ 1.5 million and support 12 jobs.

Table 13.19 – Decommissioning Assumptions

	South Lanarkshire	Scotland
Proportion of Contracts Secured	50 %	90 %
Contract Value (£million)	0.8	1.5
Employment (job years)	6	12

Source: BiGGAR Economics, 2017

- 13.6.58 The people employed to decommission the Revised Development would have an impact on the economy by spending their wages in the same way that those employed in the other stages will. The process for estimating the impact of this expenditure was exactly the same as described in the construction and operational phases above. In this way, it was estimated that during the decommissioning phase, employee spending could contribute an additional 3 job years in Scotland.
- 13.6.59 The total economic impact during the decommissioning stage is the sum of the direct impacts and the impacts from the expenditure of direct employees. In South Lanarkshire, the impact could be £ 0.9 million GVA and 7 job years, while in Scotland the total impact could be £1.7 million GVA and 14 job years.

Table 13.20 – Economic Impact during Decommissioning

	South Lanarkshire	Scotland
GVA (£m)	0.9	1.7
Employment (job years)	7	14

Source: BiGGAR Economics, 2017

- 13.6.60 The magnitude of this effect would be negligible at both the national level and regional levels. When combined with the sensitivity of the regional and national economies this implies that the overall effect of the Revised Development during the decommissioning phase would be **negligible** and therefore not significant.

Community Benefit

- 13.6.61 In addition to the operational impact of the Revised Development itself, a further beneficial effect on the local community would be generated by community benefit contributions.
- 13.6.62 The Applicant has committed to providing annual community funding of £5,000 per MW of installed capacity during the 25-year operational life of the Revised Development to Douglas Valley communities, with the distribution mechanism to be agreed with local communities and South Lanarkshire Council.
- 13.6.63 The total installed capacity of the Revised Development is anticipated to be around 49 MW and therefore on this basis the total community funding associated with the Revised Development would amount to £ 245,000 per year, which equates to £ 6.1 million over the lifetime of the Revised Development.
- 13.6.64 An option currently being explored is for £2,500/MW be paid annually to a locally managed trust to deliver community projects, with £15,000/year of this contribution being ring-fenced to support the three community groups (St.Brides Centre Douglas, Coalburn Miners Welfare and Rural Development Trust) who were previously exploring an equity stake in the project (refer to Chapter 1). The economic impact of this £2,500/MW funding will depend on the uses to which it is put but by way of illustration, figures from the Scottish Council for Voluntary Organisations show that each £ 54,229 in income to the voluntary sector in Scotland supports one full-time equivalent job. On that basis, funding of £122,500 per year would be enough to support 2 jobs in the voluntary sector.

- 13.6.65 In the event there is sufficient local support and demand for it, the other £2,500/MW could be used to deliver a Douglas & Coalburn Energy Fund. Based on the pre-application consultation exercise undertaken a local energy fund could be established which would contribute approximately £ 100 per year towards the energy bills of every household in Douglas and Coalburn for the life of the Revised Development. This would inject £122,500 per year, into the communities closest to the Revised Development. The energy bill savings would provide households with additional disposable income which when spent could support one full-time job in the local area.
- 13.6.66 Alternatively, the Applicant would also be supportive of the other £2,500/MW being paid to the SLC Renewable Energy Fund with a proportion of it being used to set up a Local Employment Initiative for residents of Coalburn and the Douglas Valley. Such an initiative would aim to deliver opportunities to train and reskill local people which is seen as particularly important for the Local Area given the large employers that have left the Douglas Valley in recent years and the limited employment opportunities that remain in the area.
- 13.6.67 The magnitude of impact from community benefit contributions would be negligible at the national and regional levels and medium at the local level. When combined with the high sensitivity of the local economy to change this suggests the overall significance of this effect would be **moderate** and therefore significant.

Taxation Revenue

- 13.6.68 The Revised Development would contribute to public finances because the operator would be required to pay non-domestic rates. The rate that the Revised Development would be required to pay is dependent on the load factor of the Revised Development and the total installed capacity. Analysis of data in the Renewables Obligation database suggests that the average load factor of Scottish wind farms is 30 % so it was assumed that the load factor of the Revised Development would also be around 30 %.
- 13.6.69 Guidance produced by the Scottish Assessors Association (Scottish Assessors Association, 2011) suggests that the rateable value for a wind farm of this scale and load factor would be calculated on the basis of £ 24,271 per annum per MW. The total installed capacity of the Revised Development would be up to 49 MW, which implies a total rateable value of £ 1.2 million. Non-domestic rates are charged/£ of rateable value at a poundage rate that is currently set at £0.492/£. This implies that the Revised Development would be liable to non-domestic rates of up to £0.6 million/year, which amounts to a total of £14.6 million during the 25-year life time of the Revised Development.
- 13.6.70 Non-domestic rates are not retained within the local authority where they are gathered so this additional revenue will not be used directly to fund local services. The additional revenue would however increase the total amount of funding available for public services in Scotland and would therefore have a beneficial effect. Given the indirect nature of the benefit the magnitude of this effect was assessed as negligible. When combined with the high sensitivity of the local economy this could give rise to a **minor** beneficial effect; however, this would not be significant. As the level at which non-domestic rates is payable could not be influenced by the Applicant it was not necessary to consider how this benefit could be optimised.

13.7 Maximising Local Benefits

- 13.7.1 This assessment has not identified any significant adverse effects associated with the Revised Development and therefore it is unnecessary to consider mitigation. However, a number of potential beneficial effects have been identified and therefore it is appropriate to consider how these effects could be maximised.
- 13.7.2 Most of these effects would arise as a result of additional expenditure made by the Applicant, appointed contractors and their employees. The magnitude of these beneficial effects in the local area will depend on the proportion of expenditure that occurs in the local area so in order to maximise these beneficial effects the Applicant will take steps to ensure that local businesses secure as high a proportion of available contracts as possible.

- 13.7.3 3R Energy is already involved in a number of activities locally such as sponsoring Lanark Rugby Club, Lanark Golf Club and the annual fireworks display in Douglas, as well as supporting a number of charity events in the local area. Blue Energy have provided support and sponsorship for various local activities close to their wind farm sites such as providing new shirts for Glengarry Shinty Team and providing financial support for Glengarry Highland Games. Blue Energy were also the main sponsor at the 2016 Galloway Show, and the 2016 Tarbet Book Festival in Kintyre. At its four recently constructed wind farms Blue Energy used a Scottish Principal Contractor (RJ MacLeod) and Contractor (Natural Power). At all four windfarms locally based subcontractors were extensively used to provide the plant, materials and services for construction. This demonstrates the Applicant's involvement in the community and the Applicant's commitment to a local supplier approach provides evidence that actions will be taken to maximise local economic benefits. It is proposed that this would be secured through a Responsible Contracting Policy (Appendix 13.1), which would ensure that tenders submitted by contractors offering substantial community and local employment benefits would be more highly rated during the tender process evaluation than those without such benefits.
- 13.7.4 In addition, the Applicant has committed to providing annual community benefit funding of £5,000/MW of installed capacity. The Applicant is currently exploring with the local community and SLC three main options for this funding to be put to best use:
- Option 1 - £2,500/MW paid annually to a locally managed trust to deliver community projects, with £15,000/year of this contribution being ring-fenced to support the three community groups (St.Brides Centre Douglas, Coalburn Miners Welfare and Rural Development Trust) who were previously exploring an equity stake in the project.
- 13.7.5 The remaining £2,500/MW could be used to deliver one of the following two options, or an alternative scheme yet to be determined:
- Option 2 - £2,500/MW being used to deliver a local energy fund which would contribute approximately £ 100 per year towards the energy bills of every household in Douglas and Coalburn for the life of the Revised Development; or
 - Option 3 - £2,500/MW being paid to the SLC Renewable Energy Fund with a proportion of it being used to set up a Local Employment Initiative for residents of Coalburn and the Douglas Valley.
- 13.7.6 The final arrangements for use of the community benefit contribution (£5,000/MW) will be agreed with the local community and SLC during the consideration of the planning application.
- 13.7.7 The Applicant is also proposing the development of a Heritage Trail and formal footpath network (based on community consultation) formally linking Douglas and Coalburn through the site, with interpretation areas explaining the industrial heritage of the site (refer to Appendix 3.1) and historic assets of the local area. The development of this path network has the potential to provide a range of recreational opportunities for local communities. The access strategy also has the potential to provide the missing link between two of Scotland's key long distance walking routes and thereby creating opportunities to attract those from further afield to the local area.
- 13.7.8 The Applicant's local supplier approach as well as the proposed community benefit contributions, alongside the proposed Heritage Trail and access improvements all provide evidence of the Applicant's commitment to maximising benefits for the local area.

13.8 Residual Effects

- 13.8.1 The residual effects identified in this assessment include:
- a temporary, **moderate** beneficial effect on local tourism businesses arising from the expenditure of workers involved in the construction of the Revised Development;
 - a temporary, **moderate** beneficial effect on the regional economy generated by construction related expenditure;

- a permanent, **moderate** beneficial effect on the local economy as a result of the ongoing operation of the Revised Development (this would include the permanent employment created in the Revised Development);
- a permanent, **moderate** beneficial effect on the local tourism sector generated by the expenditure of additional tourists who might be attracted to the area by the development of new access improvements and a Heritage Trail; and
- a permanent, **moderate** beneficial effect on local communities arising from the community benefit funding associated with the Revised Development.

13.9 Cumulative Assessment

- 13.9.1 There are three main ways in which the Revised Development could contribute to cumulative socio-economic effects. Two of these could result in beneficial cumulative effects and the other could result in an adverse cumulative effect.
- 13.9.2 Adverse cumulative effects on tourism, recreation and socio-economics could occur if the Revised Development was expected to have a significant cumulative visual impact on important tourism receptors. The cumulative visual impact of the Revised Development is assessed in Chapter 6, Landscape and Visual. It is however, important to note that even if such effects were to occur, they would not necessarily be significant. This is because landscape is likely to be a somewhat less important driver of tourism in South Lanarkshire than it is for other parts of Scotland.
- 13.9.3 The Revised Development also has the potential to generate beneficial cumulative impacts if it were to help encourage the development of a significant local renewable energy supply chain. Initial investigations undertaken by the Applicant have identified a number of potential suppliers in the local area so there is some evidence that this effect may already be occurring.
- 13.9.4 The development of a strong local supply chain would help to increase the economic benefits of the Revised Development and similar projects in the local area, which could help to increase the magnitude of the long-term beneficial economic effects considered in this chapter. The Applicant's stated preference for securing supplies locally where possible should help to support this.

13.10 Summary

- 13.10.1 The socio-economic baseline for this chapter indicates that the proportion of working age people living in the Local Area is significantly older than either South Lanarkshire or Scotland as a whole. It also suggests that employment opportunities in the Local Area are primarily concentrated in the public sector. The main source of private sector employment in the local area is food and accommodation services; however, the number of jobs within this sector is small and represents just 2.1% of jobs in the sector in South Lanarkshire as a whole. The creation of new job opportunities will therefore be an important priority for the area in order to attract and retain working age residents.
- 13.10.2 The significant beneficial socio-economic effects identified in this assessment included:
- a temporary, moderate beneficial effect on local tourism businesses arising from the expenditure of workers involved in the construction of the Revised Development;
 - a temporary, moderate beneficial effect on the regional economy generated by construction related expenditure;
 - a permanent, moderate beneficial effect on the local economy as a result of the ongoing operation of the Revised Development (this would include the permanent employment created to maintain the Revised Development);
 - a permanent, moderate beneficial effect on the local tourism sector generated by the expenditure of additional tourists who might be attracted to the area by the development of a new Heritage Trail; and

- a permanent, moderate beneficial effect on local communities arising from the community benefit funding associated with the Revised Development.
- 13.10.3 The main driver of tourism activity in the local area is the New Lanark World Heritage Site and Visitor Centre. The tourism interest of this site is primarily linked to its historical importance and as such it is expected that visitors to the site would be relatively insensitive to changes in the wider landscape, beyond the immediate setting of New Lanark. In any case, the location of New Lanark, enclosed within the Clyde Valley means that the only views available from the village are of the river and immediate valley. The LVIA (Chapter 6) confirms that there will be no views of the Revised Development available from the New Lanark World Heritage Site.
- 13.10.4 This chapter also assessed potential effects on other tourism assets in the area (including Craignethan Castle, the Falls of Clyde Wildlife Reserve) as well as tourism routes and accommodation but did not find any evidence to suggest that the Revised Development would generate any significant adverse effect on any of these assets or on the tourism sector as a whole.
- 13.10.5 As this assessment did not identify any potentially significant adverse effects it was not necessary to consider mitigation but it was necessary to consider how the beneficial effects of the Revised Development could be maximised.
- 13.10.6 The Applicant has committed to taking a number of steps to ensure that benefits are maximised locally. The Applicant has previously demonstrated commitment to using local suppliers, and is supportive of initiatives to maximise local opportunities. This would ensure that supplier contracts are sourced locally wherever possible, sustaining local businesses and providing employment opportunities for local people. The Applicant is also proposing the delivery of an Access Strategy, including a Heritage Trail, with interpretation areas informed by community consultation.
- 13.10.7 The Revised Development represents a major investment in the South Lanarkshire and Scottish economies and would therefore deliver a range of positive economic impacts.
 - During the development and construction phase the Revised Development would generate:
 - £ 12.4 million GVA and support 100 job years in South Lanarkshire; and
 - £ 37.0 million GVA and 330 job years in Scotland.
 - During each year of the operational phase the Revised Development would generate:
 - £ 1.1 million GVA and support 8 jobs in South Lanarkshire; and
 - £ 2.9 million GVA and 25 jobs in Scotland.
- 13.10.8 The total construction and operational cost of the Revised Development over its 25 year lifetime is estimated to be £ 220.4 million. Of this, more than half (69 %) is expected to be retained within Scotland.
- 13.10.9 Over the 25 year lifetime of the Revised Development, non-domestic rates estimated at almost £ 14.1 million and community benefit equating to a combined total of £ 6.1 million would be generated over the 25 year operational period of the Revised Development.
- 13.10.10 A summary of the potential effects identified in this chapter is provided below in Table 13.21.

Table 13.21 – Summary Table

Description of Effect	Significance of Potential Effect		Mitigation Measure	Significance of Residual Effect		Comparison with the Consented Development
	Significance	Beneficial/ Adverse		Significance	Beneficial/ Adverse	
Effect on turnover of tourist accommodation providers due to changes in visitor behaviour.	Minor-negligible	Adverse	n/a	Minor-negligible	Adverse	No Change
Effect on local tourism sector due to additional expenditure by workers during the construction phase.	Negligible	Beneficial	n/a	Negligible	Beneficial	No Change
Effect on amenity value of local leisure assets.	Negligible	Adverse	n/a	Negligible	Adverse	No Change
Effect on visitor numbers to local tourist attractions.	Minor-negligible	Adverse	n/a	Minor-negligible	Adverse	No Change
Effect on number of tourists using tourist routes in the local area.	Minor-negligible	Adverse	n/a	Minor-negligible	Adverse	No Change
Effect of expenditure of workers in tourism businesses within 5km of the Revised Development during the construction phase.	Moderate	Beneficial	n/a	Moderate	Beneficial	No Change
Effect of additional tourism visitors attracted to the area by the development of a new Heritage Trail on local tourism sector during the operational phase.	Moderate	Beneficial	n/a	Moderate	Beneficial	No Change
Effect on national economy of construction related expenditure.	Negligible	Beneficial	n/a	Negligible	Beneficial	No Change

Description of Effect	Significance of Potential Effect		Mitigation Measure	Significance of Residual Effect		Comparison with the Consented Development
	Significance	Beneficial/ Adverse		Significance	Beneficial/ Adverse	
Effect on regional/local economy of construction related expenditure.	Moderate	Beneficial	n/a	Moderate	Beneficial	No Change
Effect on national/regional economy of operational expenditure.	Negligible/Minor	Beneficial	n/a	Negligible/Minor	Beneficial	No Change
Effect on local economy of operational expenditure.	Moderate	Beneficial	n/a	Moderate	Beneficial	No Change
Effect of community benefit funding on local economic opportunities during the operational phase.	Moderate	Beneficial	n/a	Moderate	Beneficial	No Change
Effect of decommissioning expenditure on regional/national/local economy	Negligible/Minor	Beneficial	n/a	Negligible/Minor	Beneficial	No Change

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