

15 Socio-Economic Assessment

15.1 Introduction

15.1.1 The Van Well family, the owners of the Talladh-a-Bheithe Estate in Highland Perthshire and Eventus BV are proposing the proposed development of a wind farm on the Estate. The proposed development is anticipated to consist of 24 turbines with an installed capacity of around 75 megawatts (MW).

Policy, Legislation and Guidance

15.1.2 The scope of this socio-economic and tourism assessment has been guided by the Scottish Planning Policy (SPP) document (Scottish Government, 2010). While SPP recognises that the criteria that should be used in determining wind farm applications will vary depending on the scale of the proposed development and its relationship to the surrounding area. They are generally expected to include an assessment of any effects on the local and national economy, tourism and recreation interests as well as benefits and disadvantages for communities which are considered within this chapter.

15.1.3 Until February 2011, detailed technical guidance on the application of the Government's policy toward wind farm development could be found in planning advice note (PAN) 45 which provided advice to planning authorities on developing supplementary guidance for the proposed development of wind farms. Although PAN 45 has now been superseded by the Scottish Government's specific advice on onshore wind turbines, it remains the only detailed technical guidance available on tourism and recreation interests and therefore has been referred to in this assessment.

15.1.4 In considering tourism and recreational interests, PAN 45 refers specifically to a research report published by the Scottish Government in 2008 (Glasgow Caledonian University et al., 2008). This research suggests a range of issues that planning authorities may wish to consider in order to minimise any adverse local effects including:

- the location of a proposed development in relation to tourist routes, including designated cycling and walking routes;
- the relative scale of recreation and tourism in the area i.e. local and national;
- views from accommodation in the area;
- the potential positive tourism issues associated with the proposed development;
- the views of tourist organisations i.e. local tourist businesses or VisitScotland;
- the visitor population whose recreational interests may be affected;
- be aware of 'double counting' tourist and recreational interests which have already been taken into consideration because an area is otherwise designated; and
- consider likely significant effects within an environmental impact assessment.

15.1.5 These are the main issues considered in this chapter.

15.1.6 In addition, this chapter also specifically considers the economic impact that might be generated by the Proposed Development. The concept of economic benefit is recognised as a material consideration in SPP and is referred to in the Scoping Opinion received from the Scottish Government, which states that:

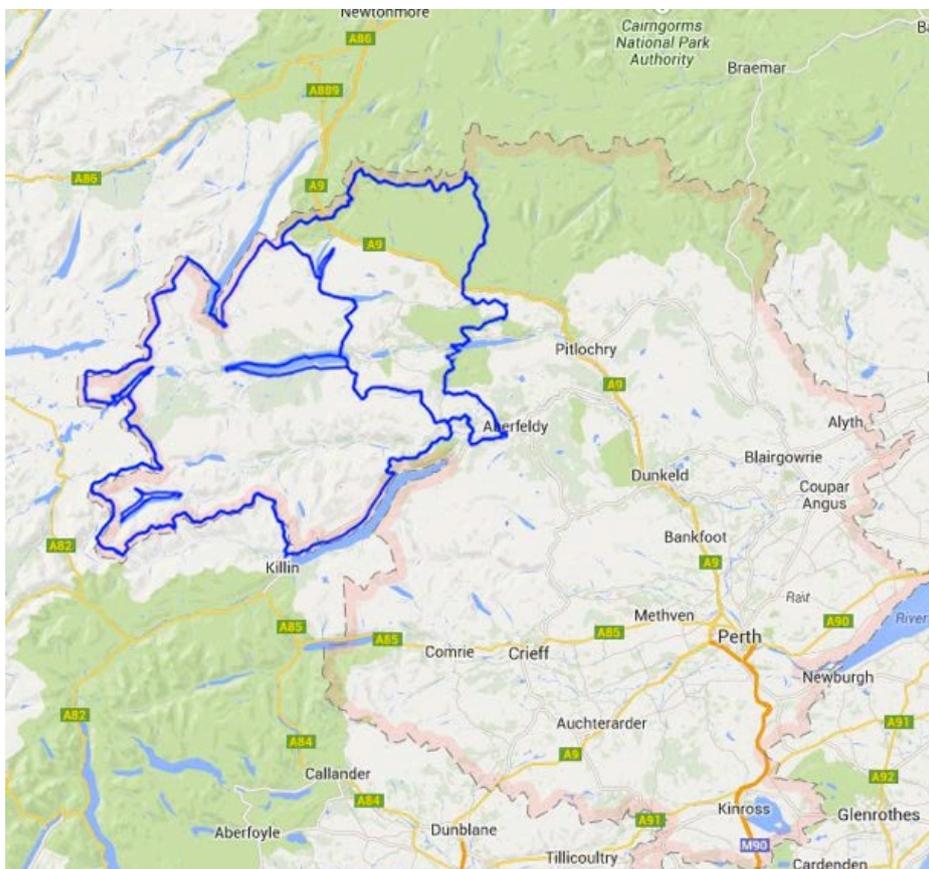
"The application should include relevant economic information connected with the project, including the potential number of jobs, and economic activity associated with the procurement, construction operation and decommissioning of the proposed development."

15.2 Methodology

Study Area

- 15.2.1 The most appropriate study areas for the socio-economic assessment needs to reflect where supplies and staff are most likely to be located and also the policy and economic context are the local authority area of Perth and Kinross and Scotland.
- 15.2.2 In addition a Local Area needs to be defined for the tourism assessment to reflect the potential impact, which could affect the tourism economy. This is encompassed by a zone of 15km from the midpoint of the proposed development as this includes the nearest village, Kinloch Rannoch.
- 15.2.3 It is not possible to get official economic data for the socio-economic baseline conditions assessment that fits exactly this 15km zone. Scottish Data Zones are used to provide socio-economic data for Scottish Government statistics at very local level. The Local Area is defined as the Scottish Data Zones S01005140 and S01005146 and is shown in Figure 15.1. This area was chosen because it is the smallest defined area that incorporates both the site itself and Kinloch Rannoch and is therefore most similar to the local area defined for the tourism assessment.

Figure 15.1: Local Area that is used for socio-economic baseline conditions



Assessment Guideline or Guidance and Methods

15.2.4 The following tables identify the sensitivity criteria and magnitude criteria, used to inform the assessment.

Table 15.1: 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, environmental 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, environmental 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, environmental or tourism value, or is of regional importance.
Low	The receptor is tolerant of change without detriment to its character, is low socio-economic, environmental or tourism value, or local importance.

Table 15.2: Magnitude

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. Examples: - Socio-economic: major long term (5+ years) alteration of community profile (including community cohesion and stability) and business structure. - Tourism: substantial change to regional tourism numbers. Region considered 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. Examples: - Socio-economic: short term alteration of community profile (including community cohesion and stability) and business structure. - Tourism: a substantial change to regional tourism numbers. Region considered 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. Examples: - Socio-economic: a noticeable long term alteration of community profile (including community cohesion and stability) and business structure. - Tourism: a small and short term change to regional tourism numbers. Region considered less/more attractive place to visit.
Negligible	Very little change from baseline conditions. Change is barely distinguishable, approximating to a "no change" situation.

Table 15.3: 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

Note: Shaded boxes indicate what would be a "significant effect" in terms of EIA methodology.

Methodology

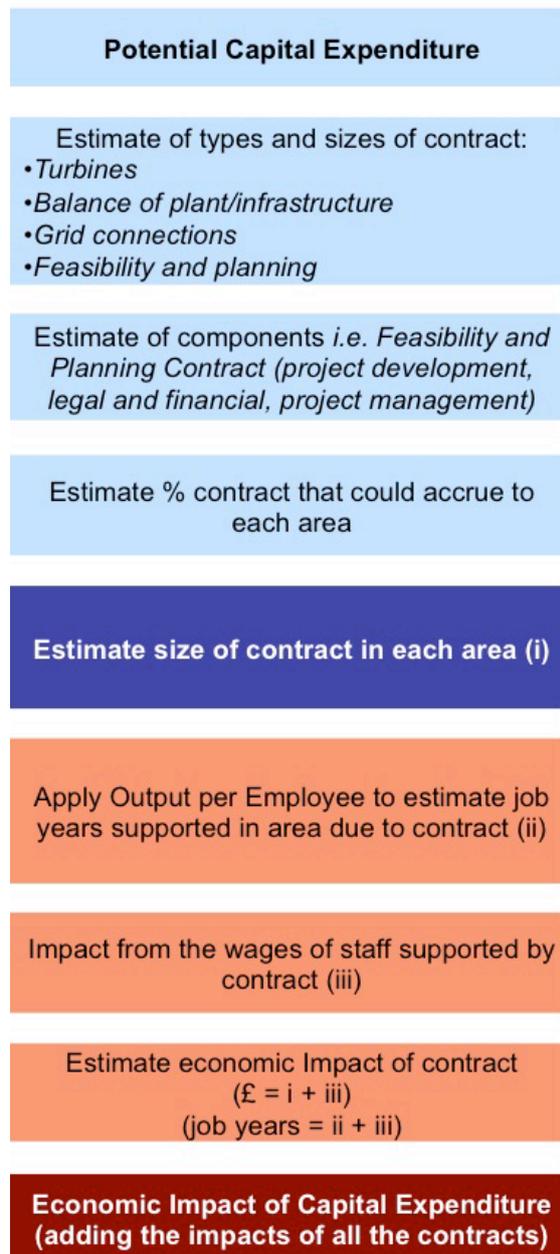
- 15.2.5 The starting point for this chapter was to consider the strategic context for the proposed development. The objective of this exercise was to establish how closely the Proposed Development would fit with strategic priorities and what contribution it could make to achieving strategic objectives. This was done by reviewing relevant regional and national economic and tourism strategies.
- 15.2.6 The next step was to review the socio-economic and tourism baseline of the Local Area to develop a profile of the local economy and tourism sector and identify relevant receptors. The types of receptors relevant to this chapter include:
- the local workforce and economy;
 - tourist routes (walking, cycling and driving);
 - tourist attractions and other service providers; and
 - tourist accommodation providers.
- 15.2.7 Information about each of these types of receptor was gathered by collating publicly available statistical and other information from government agencies such as the Office for National Statistics and VisitScotland. Specific relevant receptors (e.g. tourist routes) were then identified.
- 15.2.8 In order to estimate the economic impacts expected to arise as a result of the construction and operation of the proposed development, the assessment considers the scale of the opportunity for Perthshire and Kinross and Scottish businesses, based on two sources. The first source draws on the experience of what has happened in developments elsewhere as analysed in the BiGGAR Economics report for DECC and RenewableUK in 2012. This examined the size and location of contracts for the proposed development, construction and operation and maintenance of 18 existing wind farms. The second source is an analysis of the economy of Perth and Kinross and Scotland based on national economic statistics. It should be noted that these impacts are estimated based on assumptions about the likely behaviour of businesses and cannot therefore be guaranteed. However as these assumptions are based on experience of what has already happened elsewhere, it is anticipated that these impacts will be realised.
- 15.2.9 This data and baseline data about the local economy was then inputted to a model that has been developed by BiGGAR Economics specifically to estimate the economic impacts of wind farm developments. This model was used in a study commissioned by RenewableUK and the Department for Energy and Climate Change on the economic impacts of the on-shore wind sector (BiGGAR Economics, May 2012) and has become the standard

approach to assessing the economic impact of proposed wind farm developments. There are four key stages involved in this model, these are to:

- estimate total capital expenditure;
- estimate the breakdown of capital expenditure into component contracts;
- assess the capacity of the business base in each study area to carry out the contract; and
- use the resulting figure to estimate economic impact.

15.2.10 These stages are illustrated in the diagram below.

Figure 15.2: Estimating Economic Impact of Development and Construction Phase



Evidence For Tourism Impact Assumptions

15.2.11 Tourism impacts have been assessed using evidence from existing studies on the effect 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 (Glasgow Caledonian University, 2008) on the effects of wind farms on tourism, which remains by far the most robust and comprehensive source available.

Glasgow Caledonian University Research

15.2.12 This study was based on an extensive literature review and a survey. 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. The survey considered 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;
- 2% of those interviewed who had seen a wind farm in the area (4 respondents out of 191) said that it would affect their decision to visit the area again, 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. None of the respondents in Caithness and Sutherland indicated that the wind farm they had seen would affect their decision to visit the area again;
- after seeing a photomontage of a local wind farm before and after development, 3% of respondents said that it would 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, 7% of respondents said that it would affect their decision to visit the area again.
- it is also worth noting that amongst tourists whose main activity was given as walking or hill walking, the general attitude toward wind farms was somewhat more positive than other types of tourists.

15.2.13 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).

15.2.14 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.

15.2.15 This report has been discussed at several wind farm enquiries where there have been challenges to its methodology. These have been found to be without foundation and the Scottish Government and its agencies, including VisitScotland, continue to refer to this report.

VisitScotland Research

15.2.16 Research published by VisitScotland 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. This study 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 spoil 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.

Scottish Parliament Inquiry

15.2.17 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.

15.2.18 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 proposed 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."

15.2.19 This has been confirmed by more recent analysis (BiGGAR Economics, 2013) that found, based on an analysis of wind farm development and tourism employment trends between 2008 and 2011 in each local authority area in Scotland, that there was no correlation between changes in wind farm capacity and tourism employment trends. For example the detailed findings of that research included that, at the end of 2011, the Highland Council area accounted for around 18% of the installed capacity of onshore wind in Scotland with an increase in capacity of more than 50% between 2008 and 2011. Over the same period however tourism employment in the Highland Council area also grew, by 1.2% (bucking the national trend which saw a 2.5% decrease in tourism employment).

Approach to Tourism Impact Assessment

15.2.20 Tourism impacts have been assessed using evidence from existing studies on the effect 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 (Glasgow Caledonian University, 2008) on the effects of wind farms on tourism, which remains by far the most robust and comprehensive source available.

15.3 Baseline Conditions

Land Use

15.3.1 The site of the proposed Development is located 25km south of Dalwhinnie and 14 km west-north-west of Kinloch Rannoch on the Talladh-a-Bheithe Estate. The estate covers 47 square kilometres between the south east shore of Loch Ericht and the north west shore of Loch Rannoch.

- 15.3.2 There is an existing renewable energy infrastructure on the Talladh-a-Bheithe Estate. There is a hydroelectric scheme on the north shore of Loch Rannoch that lies within the estate.

Strategic Baseline Conditions

Scottish Government Economic Strategy

- 15.3.3 Economic policy in Scotland is guided by the Scottish Government's Economic Strategy, which was published in September 2011, with the overarching objective of delivering sustainable economic growth. Like the Scottish Government's earlier economic strategy (published in 2007), the strategy focuses on a set of strategic priorities, which include:
- a supportive business environment;
 - learning, skills and well-being;
 - infrastructure development and place;
 - effective government;
 - equity; and
 - transition to a low carbon economy.
- 15.3.4 The first five of these priorities were included in the 2007 strategy but the sixth strategic priority, transition to a low carbon economy, was added in 2011. The new strategic priority reflects an increased emphasis in the 2011 strategy on the economic potential of renewable energy and low carbon technologies. It is intended that the transition to a low carbon economy will bring about the reindustrialisation of Scotland as a renewable energy powerhouse and centre for low carbon technologies.
- 15.3.5 Although the strategy does not specifically mention onshore wind farms, it does refer to Scotland's comparative advantage in renewable energy technologies and highlights the fact that 25% of Europe's wind potential is located in Scotland. This, along with the new strategic objective, suggests that, in principle, wind farm development is consistent with the aims of the strategy providing it does not compromise other strategic objectives.
- 15.3.6 This strategy shows support for renewable as it has identified energy (including renewables) as one of seven priority sectors that offer particular opportunities for growth. Another of the priority sectors identified is Sustainable Tourism, (i.e. a tourism sector that will exist and grow for many years to come); therefore strategy also acknowledges that sectors such as tourism depend on high quality air, land and water. This means that maintaining Scotland's natural environment by supporting the transition to a low carbon economy is particularly important to the future success of the tourism sector.
- 15.3.7 In pursuing the transition to a low carbon economy, the Scottish Government has committed to decarbonising electricity generation by 2030. The Scottish Government has also set a target of meeting the equivalent of 100% of Scotland's electricity demand through renewables by 2020.

Perth and Kinross Economic Strategy

Perth and Kinross Economic Strategy 2009 - 2014

- 15.3.8 The economic policy and strategy in Perth and Kinross is guided by the Perth and Kinross Economic Strategy and the subsequent Action Plan, both of which were written by the Perth and Kinross Community Planning Partnership.
- 15.3.9 The Economic Strategy was written at the time of the initial downturn of the recession and considers the need for a recovery plan for Perth and Kinross. The strategy identifies six priority areas to be addresses as part of the economic recovery programme, these are:
- maximising the benefits from public sector activity through procurement initiatives;
 - providing focussed, joined up and appropriate business advice and support;
 - providing a pro-active response to redundancy, employability and re-skilling;
 - financial advice and support to individuals;
 - focus on growth opportunities (including tourism, renewable energy and the general insurance sector); and
 - Perth City Centre – improved marketing and environmental improvements.
- 15.3.10 The renewable energy sector is highlighted within these priority areas as one of the potential growth sectors. Supporting the proposed development of alternative sources of energy is identified within the action plan as an important activity. The proposed development would be consistent with the economic strategy.

Perth and Kinross Single Outcome Agreement

- 15.3.11 The Perth and Kinross Community Plan/Single Outcome Agreement (CP/SOA) for 2013-23 was published in June 2013. The Single Outcome Agreement (SOA) defines how Perth and Kinross Council (PKC) and Community Planning Partnership aim to achieve the desired results from the Scottish Government's National Outcomes.
- 15.3.12 The outcomes that are discussed within the CP/SOA are:
- giving every child the best start in life;
 - developing educated, responsible and informed citizens;
 - promoting a prosperous, inclusive and sustainable economy;
 - supporting people to lead independent, health and active lives; and
 - creating a safe and sustainable place for future generations.
- 15.3.13 As part of 'promoting a prosperous, inclusive and sustainable economy' the CP/SOA focuses on the need to create a thriving, expanding economy. The document states, "There is also potential to grow the area's renewable energy sector in terms of wind, hydro and biomass and clean technology which in turn assists economic growth and employment across the region." The contribution that onshore wind and renewable energy in general can make to the economy is highlighted and assigned as a potential area for growth.

National Tourism Strategy

Tourism Scotland 2020

15.3.14 The latest strategy for tourism in Scotland is Tourism Scotland 2020 (Scottish Tourism Alliance, June 2012). The main mission of this strategy is to increase the annual overnight visitor spend 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 through four priorities:

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

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

Perth and Kinross Tourism Strategy

Experience Perthshire Tourism Strategy and Action Plan 2009 – 2015

15.3.16 Tourism in Perth and Kinross is supported by the Perthshire Area Tourism Partnership (PATP), which is a partnership of public and private sector organisations supported by VisitScotland. The draft of the Experience Perthshire tourism strategy was published in 2010 by PATP. The strategy was written considering the national tourism strategy, the Tourism Framework for Change, and the local economic strategy, the Economic Development Strategy for Perth & Kinross.

15.3.17 The tourism sector in Perthshire has been identified as a potential area for significant growth because it is currently operating under capacity. The four broad aims of the strategy are to:

- create a vibrant year round destination;
- build sustainable & competitive tourism businesses;
- influence the proposed development of infrastructure to enable the region to meet visitor needs and compete effectively; and
- to implement focussed, cost effective strategies for integrated product development and marketing.

15.3.18 The overarching objective given to the tourism sector in Perthshire is to increase revenue by 50% between 2009 and 2015.

Socio-Economic Baseline Conditions

Sources of Data

15.3.19 The source used to develop the socio-economic baseline is the Office of National Statistics (ONS).

Current Conditions

15.3.20 This section describes current socio-economic conditions including population and demographics, economic activity and key sectors.

Population and Demographics

15.3.21 Perth and Kinross is one fastest growing council areas in Scotland. Since 1982, the population has grown by 21% and in 2012 the population was 147,700. This represents 2.8% of the population of Scotland, which was 5,313,600.

15.3.22 The population of the Local Area is 1,607, which is approximately 1.1% of the population of Perth and Kinross. The population of the Local Area has also grown recently, by 15.7% between 2002 and 2011.

Table 15.4: Population over time

	Local Area	Perth and Kinross	Scotland
1982	-	122,200	5,164,500
1992	-	129,300	5,085,600
2002	1,389	135,200	5,054,800
2012 (2011 for Local Area)	1,607	147,700	5,313,600

Source: ONS, Mid-year population estimates, 2012

15.3.23 The age breakdown of the Local Area is older than Perth and Kinross and Scotland, with only 13% of the population in the Local Area aged under 16, compared to 17% of the whole of Scotland. The population of Perth and Kinross is slightly older than the rest of Scotland with less young adults, aged between 16 – 39 and more adults of pensionable age (65 and over).

Table 15.5: Population by age

	Local Area	Perth and Kinross	Scotland
Under 16	13%	17%	17%
16 – 39	29%	28%	31%
40 – 64	39%	35%	35%
65 and over	19%	20%	17%

Source: ONS, Mid-year population estimates, 2012

Jobs and Employment

15.3.24 The population of Perth and Kinross are more likely to be economically active and in employment than the population of Scotland as a whole. The economic activity rate in Perth and Kinross is 79.3%, which is higher than that of Scotland 76.7%. The individuals who are economically inactive in Perth and Kinross are less likely

to want to re-enter the labour market, partly because the economically inactive in Perth and Kinross are more likely to be those who have taken early retirement. The proportion of the working age population that are in employment is 74.5% in Perth and Kinross and 70.6% in Scotland.

Table 15.6: Economic Activity

	Local Area	Perth and Kinross	Scotland
Economically active	-	79.3%	76.7%
In employment	-	74.5%	70.6%
Economically inactive who want a job	-	23.1%	25.8%
Economically inactive who have retired early	-	27.0%	16.8%

Source: ONS, Annual population survey those aged 16 – 64 (Jul 2012 – Jun 2013), 2013

- 15.3.25 The breakdown of employment in the study areas is show in Table 15 7. The employment in the Local Area, which has a small population, has more focussed areas of employment compare to Perth and Kinross and Scotland, which have larger populations.
- 15.3.26 The employment in the Local Area is dominated by those working in the accommodation & food services sector. Out of the 440 employees in the Local Area 204 (46.3%) are employed in this sector. This shows that tourism is the main focus of the local economy. However the local tourism economy is a small contributor to the Perth and Kinross tourism economy as a whole since these 204 employees represent 3% of the employees in the accommodation & food services sector in Perth and Kinross. The other sector that is usually important to the tourism industry is arts, entertainment, recreation & other services. In the Local Area the proportion of employment in this area is lower, 0.9%, than Perth and Kinross and Scotland.
- 15.3.27 The public sector (public administration & defence, education and health) only employs 6.1% of the working population in the Local Area but it employs 25.5% of the workforce in Perth and Kinross and 28.9% of the workforce in Scotland.
- 15.3.28 The sectors of the economy that are most relevant to the proposed development, construction and operations of a wind farm are manufacturing, construction, professional scientific and technical services and utilities. The proportion of individuals in Perth and Kinross who work in these sectors is similar to Scotland. Perth and Kinross also hosts headquarters and offices of major renewable energy companies such as SSE and RWE npower renewables, which will have encouraged the growth of renewable supply chain companies.
- 15.3.29 There is also considerable activity in the Local Area with the construction of the Beauly to Denny power line. This includes the construction of a Substation at Tummel Bridge to the east of the Local Area. This construction is expected to continue through 2014.

Table 15.7: Employment by Industry

	Local Area	Perth and Kinross	Scotland
Agriculture, forestry & fishing	8.8%	1.4%	3.4%
Mining, quarrying & utilities	0.5%	2.6%	2.7%
Manufacturing	4.3%	6.6%	7.6%
Construction	6.3%	6.1%	5.2%
Motor trades	0.7%	3.1%	1.6%
Wholesale	0.0%	3.2%	3.0%
Retail	3.6%	11.4%	9.9%
Transport & storage	0.2%	3.7%	4.0%
Accommodation & food services	46.3%	12.5%	6.9%
Information & communication	0.7%	0.8%	2.4%
Financial & insurance	0.0%	3.3%	3.8%
Property	12.7%	1.9%	1.4%
Professional, scientific & technical	7.0%	4.9%	7.1%
Business administration & support services	1.6%	7.7%	7.5%
Public administration & defence	2.0%	5.8%	6.0%
Education	4.1%	7.0%	7.4%
Health	0.0%	12.7%	15.5%
Arts, entertainment, recreation & other services	0.9%	5.3%	4.7%

Source: ONS, Business Register and Employment Survey, 2013

Income and Welfare

- 15.3.30 The level of income for full time workers in Perth and Kinross is marginally lower than in the rest of Scotland. The median weekly wage in Perth and Kinross is £492.60, compared to £498.30 in Scotland. The earnings data is not given for the Local Area. Female full time workers in Perth and Kinross receive 81.4% of the male full time workers, compared to 82.1% in Scotland.

Table 15.8: Median gross weekly pay

	Local Area	Perth and Kinross	Scotland
Full time workers	-	£492.60	£498.30
Male full time	-	£527.20	£535.40
Female full time	-	£428.90	£439.70
Full time workers	-	£492.60	£498.30

Source: ONS, Annual Survey of Hours and Earnings, 2012

- 15.3.31 The proportion of people who are on Job Seekers Allowance in the Local Area is less than half than the Scottish average. However the proportion of young people, 16 – 24 year olds, in the Local Area is higher at 7.9% than both in Perth and Kinross at 4.3% and Scotland at 6.0%.

Table 15.9: JSA Claimants by age

	Local Area	Perth and Kinross	Scotland
16 – 24	7.9%	4.3%	6.0%
25 – 49	0.5%	1.9%	3.6%
50 – 64	1.1%	1.0%	3.6%
Total (16 – 64)	1.6%	2.0%	3.5%

Source: ONS, Annual Survey of Hours and Earnings, 2012

Gross Value Added

15.3.32 The total output of the Scottish economy in 2012-13 was £145 billion. Scottish Government Statistics for gross value added in local authority areas suggests that Perth and Kinross accounted for 2.3% of the Scottish economy in 2011.

Summary Socio-Economic Baseline Conditions

15.3.33 The following receptors have been considered;

- local economy – the sensitivity of the economy to change due to one project is considered to be high as it has a diverse economy and a growing population that is economically active;
- Perth and Kinross economy – the sensitivity of the economy to change due to one project is considered to be medium as it has a diverse economy and a growing population that is economically active;
- Scottish economy – the sensitivity of the economy to change due to one project is considered to be negligible as it has a diverse economy, a population of millions and a growing population that is economically active; and
- public sector finances – the sensitivity of the economy to change due to one project is considered to be negligible as it has a diverse economy, a population of millions and a growing population that is economically active.

Tourism and Recreation Baseline

Sources of Data

15.3.34 For the tourism baseline the main sources include the Office for National Statistics (ONS), and reviews of websites in particular VisitScotland, Rannoch and Tummel Tourism Association, Sustrans and Walk Highlands.

Visitor Destinations

15.3.35 The report Tourism in Scotland's Regions 2012 states that 80% of the visitors to Perthshire were there on holiday. This is higher than the comparative rate for Scotland as a whole, which is 66%. The majority of visitors to Perthshire (88%) were domestic visitors from elsewhere in the UK and 12% were from overseas. Visitors to Scotland as whole were more likely to come from overseas (15%).

15.3.36 The Moffat Centre lists the most popular visitor attraction in Perthshire for 2012 as being:

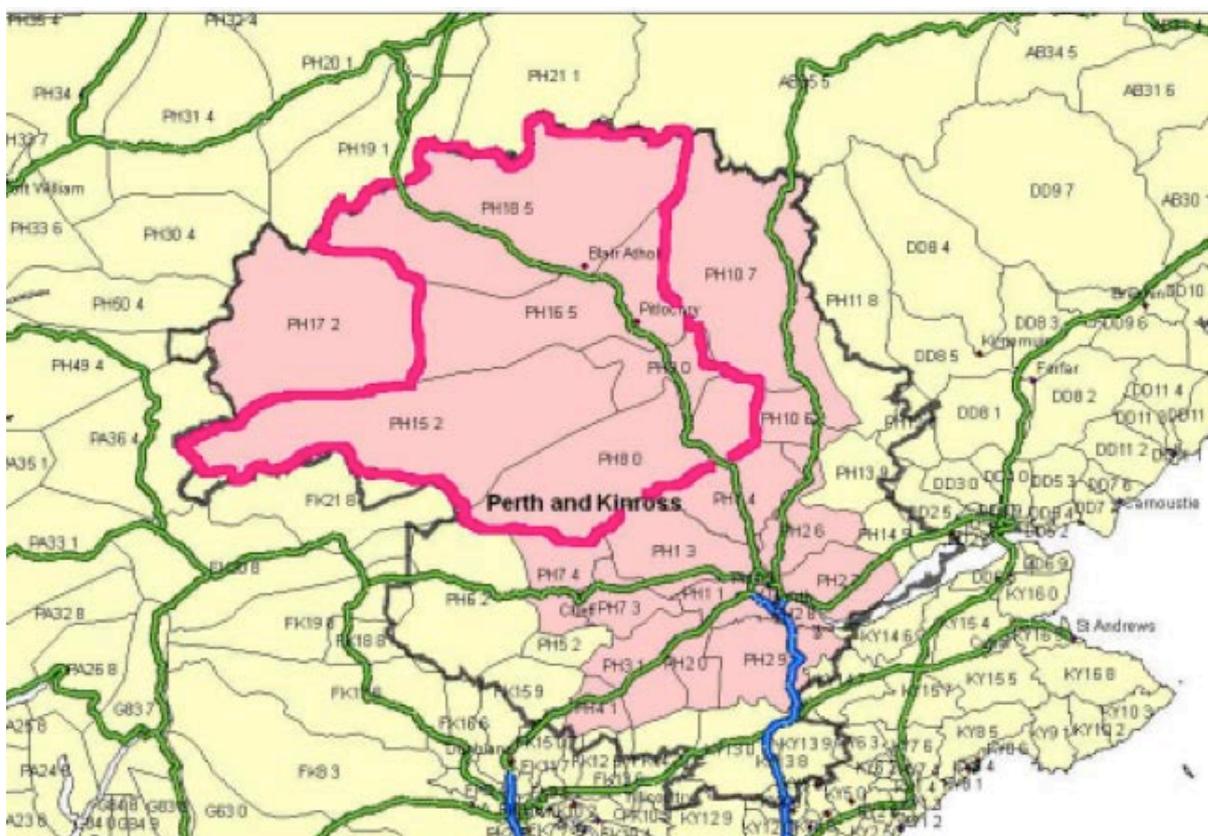
- Queens View Visitor Centre – 110,000 visitors
- The Birnam Institute – 97,000 visitors
- Perth Museum & Art Gallery – 92,889 visitors

- The Famous Grouse Experience – 89,236 visitors; and
- Scone Palace – 88,732 visitors.

15.3.37 The closest of these attractions to the proposed development is the Queens View Visitor Centre, which is 40 km from the proposed site in Pitlochry. However this data is based on the Moffat Centre's Visitor Attraction Monitor and not all attractions participate in this survey. In particular the Munros and Corbetts in the Local Area attract visitors but are not mentioned in this report.

15.3.38 In 2012 a visitor survey was carried out to better understand a part of Perthshire which includes the Local Area, Highland Perthshire. This area was identified as one of Scottish Enterprise's priority destinations in 2004. Highland Perthshire was defined in 2013 as the area in the following figure.

Figure 15.3: Highland Perthshire



Source: SQW, Evaluation of Tourism Destinations, March 2013

15.3.39 This area includes the 15km area around the proposed development. The main tourist centres in the area are Aberfeldy, Blair Atholl, Dunkled/Birnam, Kenmore, Kinloch Rannoch and Pitlochry. In 2012 a survey of visitors visiting Highland Perthshire was carried out (IBP Strategy & Research, 2012). Findings from the survey include:

- the most popular reason to choose to visit the area was to visit the area to enjoy the scenery (71%) followed by 31% who wanted to take part in walking/hill walking/climbing;
- respondents to the survey were mostly likely to be visiting on a day trip (39%) or holiday visit of four nights or more (39%) with 17% visiting on a holiday/leisure trip lasting from 1 to 3 nights;

- the most popular form of accommodation was hotels with 34% of respondents staying in this type of accommodation;
- the most popular activity during the visit was general sightseeing (73%), followed by walking/hillwalking/climbing at 47% and visiting heritage sites such as castles, monuments, museums as being third with 39% of respondents;
- the town/village that most respondents have visited or intended to visit as part of their trip to Highland Perthshire was Pitlochry which was visited by 61% of respondents, followed by Blair Atholl (40%) and Aberfeldy (39%). Kinloch Rannoch was visited by 18% of visitors;
- there is a high degree of crossover between towns and villages, between 22% to 31% of visitors to other towns in Highland Perthshire also visited Kinloch Rannoch; and
- the most important aspects to visitors in choosing Highland Perthshire for people choosing to visit is scenery (79%), culture, history and traditions (45%), number of things to see and do (44%), interesting walks (38%), outdoor activities (30%).

15.3.40 The proposed development is approximately 13km west of the village of Kinloch Rannoch. VisitScotland's website lists three things to see and do within ten miles of Kinloch Rannoch. These are:

- around Loch Rannoch Cycle path;
- Craiganour nature reserve; and
- the Gaick Pass.

15.3.41 Craiganour nature reserve and the Gaick Pass are to the East and North East of Kinloch Rannoch and are beyond the area of scope for proposed development.

15.3.42 The website also lists days out around the area which gives activities that can be done at settlements through the area. The activities for Kinloch Rannoch are based around outdoor activities, Rannoch Station and its tea room (which is discussed in greater detail in a subsequent section) and Rannoch Smokery. The smokery is not open to the public but its products are available from the local shop. It is not a driver of tourism and therefore not considered in the tourism assessment.

15.3.43 In order to better understand the tourism sector in Perth and Kinross and the Local Area, the following sections look at the main tourism conditions considered including: value and volume of activity; accommodation and services; visitor attractions; activities and offering; and tourist and recreational routes.

Accommodation Facilities

15.3.44 The accommodation in the local authority area is a mixture of hotels, self-catering cottages / houses, caravan/camp sites and accommodation provided by estates. The accommodation is focused in the village of Kinloch Rannoch and along the northern and southern shores of Loch Rannoch.

Self-Catering

15.3.45 There are 10 self-catering groups of cottages and apartment locations in the area that are not connected to any of the larger sporting estates. This includes the Loch Rannoch Highland Club which is a timeshare holiday complex with 85 properties available to either rent or purchase and Liarn Farm which has six cottages.

Guesthouses

15.3.46 There are three guesthouses in the study area. One of these is in the centre of Kinloch Rannoch and the second is on the south western corner of Kinloch Rannoch. The third is at the western end of Loch Rannoch, Bridge of Gaur Guesthouse.

Hostels

15.3.47 The Kinloch Rannoch Centre is a groups only hostel, with a sleeping capacity for 24 people on the western edge of Kinloch Rannoch.

Estates

15.3.48 There are multiple estates in the area, which are;

- Craiganour Estate – 21,000 acres, 18 bedrooms self catering;
- Rannoch Estate – 60,000 acres, 3 cottages self catering, additional catered rooms on request;
- Dall Estate – 175 acres, 4 self catering cottages, 12+ bedrooms (however this is empty and for sale and few activities are undertaken here);
- Dunan Estate – 10,000 acres, 2 holiday homes, 8 bedrooms in total;
- Dunalastair Estate – 20,000 acres, 9 self catering cottages, 42 bedrooms in total;
- Loch Ericht Estate – 60,000 acres, 1 catered lodge and two self catering lodges, 22 bedrooms in total;
- Camusericht Estate – 12,000 acres and nine bedrooms;
- Corrievarkie Estate – 5,000 acres and nine bedrooms; and
- Talladh-a-Bheithe Estate – 10,400 acres.

15.3.49 The accommodation provided by these estates is a mixture of hotel style accommodation within the main estate building and self-catering cottages within the estate grounds. These estates also offer a variety of sporting activities including;

- shooting of grouse, pheasant and partridge;
- stalking of deer; and
- fishing;

Hotels

15.3.50 There are three hotels in the Local Area that are outwith the estates. These are:

- Macdonald Loch Rannoch Hotel is the largest hotel in the area (with 44 rooms) and is located at the north eastern corner of Loch Rannoch;
- Loch Tummel Inn Hotel, which is a hotel with six bedrooms located on the northern shore of Loch Tummel; and
- Moor of Rannoch Hotel, which is a hotel with five bedrooms located at the Rannoch Station.

15.3.51 Until 2012 there was a hotel in Kinloch Rannoch, the Dunalastair Hotel, which had 25 bedrooms. This hotel closed in November 2012 and is currently being marketed to find an alternative owner / operator. There is also

the Talladh-a-Bheithe Lodge Hotel, with 17 bedroom which at the time of writing had recently been on the market is also for sale.

Summary Accommodation Facilities

15.3.52 As most of the accommodation on the estates will be driven by the estate activities particularly sporting activities that can be undertaken by the estates and therefore the sensitivity of individual estates has been assessed as low. Most of the non-estate accommodation providers are relatively small. The Macdonald Loch Rannoch Hotel is only open on weekends in the winter, showing the low number of tourists staying in the Local Area in the winter.

Route, Paths and Walkways

Walking Routes

15.3.53 Walkhighlands is a website that provides information about walks throughout Scotland, including a searchable database of walks in every region of Scotland, including Perthshire. The Perthshire area is split into five separate areas and the proposed development is located in the area described as Pitlochry and Blair Atholl. In January 2013, the website listed 32 routes within the Pitlochry and Blair Atholl area. This describes many of the short walking routes in the vicinity of Proposed development. These include:

- Stob an Aonaich Mhoir from Loch Rannoch (28.5km) – This route starts at Bridge of Ericht and continues to the summit of the corbett Stob an Aonaich Mhoir on the Eastern shore of Loch Ericht. This route goes through estate including part of the estate that would be involved in the proposed development;
- Kinloch Rannoch Nature Trail is a short route around the north of Kinloch Rannoch. At the closest point this route is approximately 13km east of Proposed development;
- Craig Varr is a craig to north of Kinloch Rannoch which is climbed to take in the views of Schiehallion which is 18km away and westward down Loch Rannoch. This is a short walk that is approximately 12km from proposed development at its closest point;
- Loch Rannoch Forest Walk is on the southern shore of Loch Rannoch through Tay Forest Park. The route is in Forestry Commission Land and there are a network of paths in this area for a walker to choose from. The route is approximately 8km south east of The proposed development from its nearest point;
- Beinn a'Chuallach is a Corbett to the north east of Kinloch Rannoch. There are a number of routes up this hill and the one described on the Walk Highlands website starts at Drumglas on the northern shore of the Dunalastair reservoir. The summit is 1 approximately 5km east of Talladh-a-Bheithe;
- Ben Alder and Beinn Bheoil which includes the two Munros. The closest of these is Beinn Bheoil which is 8km north west of Talladh-a-Bheithe;
- Aonach Beag ridge is a mountain ridge that is 12km north west of Talladh-a-Bheithe;
- Beinn Pharlagain is a Corbett approximately 8km to the west of Talladh-a-Bheithe. The walk described on the Walk Highlands website is easily accessed by foot from Rannoch Station and would therefore be accessible to walkers who did not have access to car. There are two Munros, Carn Dearg and Sgòr Ghaibre which can be accessed by extending this route.

15.3.54 Some of these walking routes take in Munros. There are 13 Munros within 15km of the proposed site:

- Beinn Bheoil;
- Sgairneach Mhor;

- Beinn Udlamain;
- Ben Alder;
- Carn Dearg (Alder);
- Geal-charn;
- Beinn Eibhinn;
- Carn Dearg (Corrour);
- Sgor Ghaibre;
- Meall Buidhe;
- Meall Garbh;
- Carn Mair; and
- Carn Gorm.

15.3.55 Ben Lawers, Beinn Ghlass and Schiehallion are outside this area. Schiehallion is approximately 18km from the proposed site. Ben Lawers and Beinn Ghlass are part of the same ridge and are frequently climbed together. Both summits are approximately 23km from the proposed site. The Walkhighlands website lists Munros according to the number of its users who have climbed them. These three Munros are listed in the top five.

15.3.56 Under the Scottish access legislation, each local authority and national park 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 Perth and Kinross are coded by community council. All the core paths in the Local Area are in the area of Rannoch and Tummel Community Council. The core paths within 15km of the proposed development are:

- RANN/104 – this is within the site boundary which leads from Talladh-a-Bheithe Estate gatehouse to Loch Erich Dam, following the route of the estate road. It is within 1km of the nearest visible turbine. It is understood however, that the route is very infrequently used as a walking route
- RANN/8/2 2.5 km southeast
- RANN/112/1&3&4, 114/1&4, 51/2&3, 2/2&110 6-8km north
- RANN/11 8.5km east
- RANN/7/4 10km – 20km north east
- RANN9/3 7-8km west

15.3.57 In addition RANN/9 overlaps with the Heritage Path Drove road north from Loch Rannoch.

15.3.58 The Rannoch and Tummel Tourism Association also describe a route around the shores of Loch Rannoch called the Clans of Rannoch trail, which includes landmarks around the shore that are associated with the Clans that were present in the area. This has limited signage and no interpretive material.

15.3.59 Long distance routes for walking are promoted as Scotland's Great Trails and are at least 25 miles in length. There are 26 routes. There are no routes within the Local Area. The nearest of Scotland's Great Trails to the proposed development is the Rob Roy Way is approximately 25km at the North East head of Loch Tay and the West Highland Way which is approximately 28km away from the proposed development.

Cycling Routes

- 15.3.60 The National Cycle Network is a network of routes suitable for bicycles, promoted by Sustrans, a UK sustainable transport charity. There are currently nine National Cycle Routes in the network and numerous regional routes (seven of which are in Scotland).
- 15.3.61 Other websites such as Cycle Highland Perthshire list routes in the area. These include the Loch Rannoch Cycle Path, which is a circular route around the shores of Loch Rannoch. This route will pass within 3.5km of the proposed development.

Summary, Walking and Cycling Routes

- 15.3.62 The routes listed above that are regionally and nationally prominent area outside the Local Area. The routes listed above are of local significance and given the that almost half of visitors do some form of walking during these visits, these routes are therefore assessed as having medium sensitivity.

Outdoor Activities

- 15.3.63 Other outdoor activities aside from activities on the estate and walking and cycling centre on Loch Rannoch. Rannoch and Tummel Tourism Association list Loch Rannoch under the category of Things to Do – Nature and Wildlife. This lists fishing and the wildlife that can be seen around Loch Rannoch. Archery is available as an activity at Rannoch Archery. There are some outdoor activities that are organised by the MacDonald Hotel, including fishing boat hire, archery, canoeing and fishing rod hire.
- 15.3.64 These activities are of local significance therefore their sensitivity has been assessed as medium.

West Highland Railway

- 15.3.65 The West Highland Line, a scenic railway route linking Glasgow to the ports of Oban and Mallaig, runs through the western portion of the Local Area defined in Figure 15.1, located approximately 10km to the west of the site at its closest point, near Rannoch Station (which is on the Mallaig branch of the line). The West Highland Line has been voted the most scenic rail journey in the world. In 2011/12 there were 9,132 passenger arrivals and departures from Rannoch Station (see Table 15.10). Rannoch Station has a tea room, which had closed at the time of writing in June 2014 (although it is understood that it will re-open in the summer of 2014). This receptor is assessed as high significance because of the global reputation of the West Highland Line.

Table 15.10: Selected train stations on West Highland Line by Numbers

	Entries and Exits 2011/12
Oban	125,906
Mallaig	85,386
Fort William	138,876
Spean Bridge	6,960
Tulloch	2,114
Corrour	12,224
Rannoch	9,132
Bridge of Orchy	5,890
Upper Tyndrum	3,458
Crianlarach	16,642
Glasgow Queen Street	20,929,594
Oban	125,906

Source: <http://www.rail-reg.gov.uk/server/show/nav.1529>

Cairngorm National Park

- 15.3.66 Cairngorm National Park is 4,528 square kilometres in area. The major centres of population are Aviemore, Ballater, Braemar, Grantown-on-Spey, Kingussie, Newtownmore and Tomintoul. All of these towns have or are adjacent to a Tourism Information Centre with the exception of Kingussie (which is close to Newtonmore). This indicates that the tourism economy of Cairngorm National Park occurs far from the proposed development.
- 15.3.67 A very small portion of the Local Area, defined as within 15km of the proposed site (Figure 15.1), overlaps with the Cairngorm National Park. At its closest point, the boundary of the Cairngorms National Park is located approximately 10km to the northeast of the nearest proposed turbine in the proposed development. Newtonmore is the closest of the main towns to the proposed development and is approximately 42 km away from the site. Aviemore and Grantown-on-Spey, the largest towns and therefore the main areas of tourism related economic activity are respectively 64km and 84km away from the proposed development. The distance of the main areas of economic activity from the proposed development means there is no reason to expect the proposed development to effect tourism behaviour. There are already wind farm developments a similar distance from the park boundary and there is no evidence they have impacted on the visitor economy within the park. Therefore the National Park is not relevant to the consideration of impact on the local tourism economy.

Tourism Value and Volume

- 15.3.68 In 2012 in Perth and Kinross there were 115,000 trips by overseas visitors and 846,000 trips to Perthshire. The total value of tourism spend in 2012 was £190 million, of which £150 million came from domestic visitors and £40 million came from overseas tourists. The Business Register and Employment Survey found that the total number of persons employed in the tourism sector was almost 7,500 in Perth and Kinross. The VisitScotland Tourism in Regions 2012 report states that the total GVA generated by this spend is £132.9 million.
- 15.3.69 The tourism sector in the Local Area is even more important and employs 46.3% of the workforce. However, the Local Area only accounts for 2.7% of the total tourism employment in Perth & Kinross. This fits with the description of the tourism sector in Highland Perthshire described above which shows that Kinloch Rannoch is the least visited of the tourism centres considered in the Highland Perthshire Survey. Assuming that the level of expenditure and GVA per employee is the same in the Local Area as it is in Perth and Kinross, the total tourism spend in the Local Area is £5.2 million, which would generate £3.6 million GVA.

Table 15.11: Tourism Employment

	Local Area	Perth and Kinross	Scotland
% of total employees	46.3%	12.5%	6.9%
Total employed	204	7,460	167,137
Tourism spend (£m)	5.2	190.0	4,290.0
Tourism GVA (£m)	3.6	132.9	2,882.4

Source: ONS, Business Register and Employment Survey, 2013

15.3.70 Given that most of the economic activity (in particular accommodation in the area related to tourism is located on estates, it is likely that most of these employees are employed by estates. As these the sensitivity of local estates is assessed as low, therefore the tourism sector in the Local Area as a whole is assumed to be low. As the tourism sector in the Local Area is a very small part of tourism in Perth and Kinross as a whole, this receptor is also considered to have a low sensitivity.

Tourism And Recreation Baseline Summary

15.3.71 The tourism sector in the Local Area makes a small contribution to Perth and Kinross' tourism sector as it accounts for 2.7% of the total tourism employment in Perth & Kinross. Tourism is a significant sector for the Local Area accounting for 46.3% of the employment. Estate tourism is a large contributor of activities and accommodation facilities in the Local Area. Tourism activities in the area are mainly outdoor based particularly walking and activities based on Loch Rannoch such as fishing. The West Highland railway brings visitors to the east side of Loch Rannoch.

15.3.72 The following receptors have been considered – as has their sensitivity to change (however, as discussed in the methodology section at the beginning of this chapter, this is not an assessment of impact, which is provided in the residual effects section, later in the chapter):

- individual accommodation business in Local Area (estate) – low;
- individual accommodation business in Local Area (non estate) – high;
- outdoor activities – medium;
- walking and cycling routes in Local Area – medium; and
- West Highland Railway – high;
- Cairngorm National Park – assessed as not relevant to the tourism assessment;
- tourism sector in Local Area as a whole – low; and
- tourism sector in Perth and Kinross – low.

15.4 Potential Economic Effect

15.4.1 This chapter considers the potential effects of the proposed development during the construction and operational phases of the proposed development on the local economy. The following potential economic effects are assessed:

- effect of construction related expenditure;
- effect of operational expenditure; and
- funding for public services as a result of non-domestic rates paid by operator.

Construction Related Expenditure

- 15.4.2 The total development and construction cost of the proposed development was estimated by multiplying the expected installed capacity, around 75 MW, by the industry average development and construction costs per MW, £1.3 million. This gave a total capital cost of £96.9 million.
- 15.4.3 The capital expenditure is split into four main contract categories, these are:
- development and planning;
 - balance of plant;
 - turbine; and
 - grid connection.
- 15.4.4 The proportions of the total contract that are awarded in each of these categories is based on BIGGAR Economics work for DECC and Renewable UK. This report found that the proposed development and planning stage would constitute 8.4% of the capital contract value, the balance of plant would constitute 25.0%, turbine would constitute the majority 59.6% and connecting the wind farm to the national grid would constitute 7.0% of the capital expenditure. BiGGAR Economics analysis of the site has resulted in the proposed development and planning costs anticipated to be higher while the presence of hydro electricity schemes in the area is likely to bring down the cost of grid connection. The contract proportions and their values are given in the following table.

Table 15.12: Development & Construction expenditure by contract

	DECC %	Proposed development%	Value (£m)
Development and planning	8.4%	10.4%	10.1
Balance of plant	25.0%	25.0%	24.2
Turbine	59.6%	59.6%	57.7
Grid Connection	7.0%	5.0%	4.8
Total	100%	100%	96.9

Source: BiGGAR Economics

- 15.4.5 The next step in estimating the economic impact in each of the study areas is to consider the value of each contract that could be awarded in Perth and Kinross and Scotland. This analysis is based on the industries that are present in both study areas and the averages from the BiGGAR Economics report for DECC and RenewableUK.
- 15.4.6 The analysis of the Perth and Kinross economy found that there are a significant number civil engineers and electrical power engineers in the area and the general construction, manufacturing and professional services sector is in line with the proportions for Scotland. Therefore, businesses in Perth and Kinross should be competitive applicants for the balance of plant and grid connection contracts. In particular the location of grid connection and operator companies in Perth and Kinross will result in a significantly higher proportion of these contracts secured in Perth and Kinross compared to the DECC average.

Table 15.13: Development & Construction expenditure by contract type by area (comparison)

	Perth & Kinross		Scotland	
	DECC	Talladh-a-Bheithe	DECC	Talladh-a-Bheithe
Development and planning	8%	23%	98%	90%
Balance of plant	19%	54%	99%	95%
Turbine	1%	2%	14%	12%
Grid Connection	6%	68%	100%	100%

Source: BiGGAR Economics

- 15.4.7 Perth and Kinross could secure 20% of the total capital expenditure in contracts. The largest opportunity would be within the balance of plant contracts. Perth and Kinross could secure 54% of these contracts with a value of £13.0 million. Perth and Kinross could also secure the majority of the grid connection contracts, partly because the grid operator for North Scotland is based in the area.
- 15.4.8 Scotland could secure contracts worth £43.5 million, equivalent to 45% of the total capital expenditure. The largest opportunity would be within the balance of plant contracts. Businesses in Scotland could secure 99% of these contracts with a value of £23.0 million. This assumes that the towers for the turbines are manufactured in Scotland, if they were manufactured elsewhere the impact would be reduced by £5.8 million.
- 15.4.9 The proportions and contract values are shown in the following table.

Table 15.14: Development & Construction expenditure by contract type by area (proportions and values)

	Perth & Kinross		Scotland	
	%	Value (£m)	%	Value (£m)
Development and planning	23%	2.3	90%	9.0
Balance of plant	54%	13.0	99%	23.0
Turbine	2%	0.9	12%	6.6
Grid Connection	68%	3.3	100%	4.8

Source: BiGGAR Economics

- 15.4.10 The contract values awarded in each area represents an increase in the turnover in the companies in these areas. The economic impact of this increased turnover is calculated using data from the Annual Business Survey³, which gives the annual turnover per employee for each of the industries involved. The employment impact is reported in job years, rather than FTE's, because the construction contracts will be short term and the employment on the project would be expected to last less than two years. Therefore an individual working 18 months would be equivalent to 1.5 job years.
- 15.4.11 The contracts that could be secured in Perth and Kinross could support an estimated 145 job years. The contracts awarded in Scotland could secure an estimated 353 job years. The majority of the jobs in Perth and Kinross would be in the balance of plant contracts, which could support 85 job years. The balance of plant contracts in Scotland would support 149 job years and the proposed development and planning could support 101 job years.

Table 15.15: Development & Construction Job years by contract type

	Perth & Kinross	Scotland
Development and planning	25	101
Balance of plant	85	149
Turbine	8	65
Grid Connection	27	38
Total	145	353

Source: BiGGAR Economics

- 15.4.12 The balance of plant contracts involves a variety of engineering, project management and landscaping phases. This will involve a variety of professions, however the majority of employment opportunities would be for civil and electrical engineers, electricians, technicians and project managers.
- 15.4.13 The people who are employed on the Proposed development will have a knock on effect on the economy through the spending of their wages. Previous work by BiGGAR Economics has estimated that the average salary for employees in the onshore wind sector is £34,600. Therefore from the 353 jobs years in Scotland estimates there would be an additional £12.2 million of salaries paid into the Scottish economy during the proposed development and construction phase of the project.
- 15.4.14 It was assumed that workers in Perth and Kinross would spend 35% of their salaries within Perth and Kinross. It was also assumed that employees within Scotland would spend 90% of their salaries in Scotland. The total additional turnover in businesses in Perth and Kinross would be £1.5 million and in Scotland it would be £11.6 million.
- 15.4.15 The economic impact of this increased spend is calculated using the GVA/turnover ratio and turnover per employee for the whole economy. This data is taken from the Annual Business Survey. The economic impact of the increased spend is £0.5 million GVA and 12 job years in Perth and Kinross and £3.5 million GVA and 94 job years in Scotland.

Table 15.16: Activity supported by increased spend

	Perth & Kinross	Scotland
Workers spend (£m)	1.5	11.6
GVA (£m)	0.5	3.5
Job years	12	94

Source: BiGGAR Economics

- 15.4.16 The total economic impact during the proposed development and construction phase is the sum of the direct contract impacts and the induced impacts from workers spend. This gives a total economic impact of £19.8 million GVA and 158 job years in Perth and Kinross. This is 0.9% of Perth and Kinross' GVA and therefore is a noticeable change and this effect has been assessed as having a magnitude of medium. In Scotland the impact is £47.0 million GVA and 447 job years.
- 15.4.17 This potential effect on Perth and Kinross has been assessed as having a magnitude of medium and together with the sensitivity of the receptor being assessed as medium the significance of this effect is considered moderate and therefore considered further in this chapter.

15.4.18 This potential effect on Scotland has been assessed as having a magnitude of medium and together with the sensitivity of the receptor being assessed as low the significance of this effect is considered negligible and therefore not considered further in this chapter.

Table 15.17: Total Development & Construction economic activity

	Perth & Kinross	Scotland
GVA (£m)	19.8	47.0
Job years	158	447

Source: BiGGAR Economics

Operational Phase

Operation Expenditure

15.4.19 Once complete, the proposed development could give rise to a number of different effects, both adverse and beneficial. The beneficial effects would be associated with the expenditure required in order to operate and maintain the wind farm and could include:

- benefits to local, regional and national businesses directly involved in operating and maintaining the wind farm; and
- benefits to local, regional and national businesses that benefit from the expenditure of people employed to operate and maintain the wind farm.

15.4.20 The operations and maintenance economic effects will occur throughout the 25-year life span of the wind farm, therefore the impacts were calculated annually.

15.4.21 Previous work by BiGGAR Economics for DECC and RenewableUK found that the average annual expenditure for operations and maintenance was £52,659 per MW. Therefore the annual operations and maintenance expenditure of the Talladh-a-Bheithe Wind Farm with an installed capacity of 75 MW would be £3.9 million.

15.4.22 The next step in assessing the economic impact of the operations and maintenance phase in each of the study areas was to estimate the proportion of the operations and maintenance contracts that could be secured in Perth and Kinross and Scotland. It was assumed that Perth and Kinross would be able to secure 35% of the operations and maintenance contracts and 90% of the contracts could be secured in Scotland. The value of these contracts could be £1.4 million annually in Perth and Kinross and £3.6 million annually in Scotland.

Table 15.18: Operations and maintenance by study area

	Perth & Kinross		Scotland	
	%	Value (£m)	%	Value (£m)
Operations and Maintenance	35%	1.4	90%	3.6

Source: BiGGAR Economics

15.4.23 The contract values awarded in each area represent an increase in the turnover in the companies in these areas. The economic impact of this increased turnover is calculated using data from the Annual Business Survey⁵, which gives the annual turnover per employee for each of the industries involved. The employment impact is reported in jobs because the impacts are long term over 25 years.

15.4.24 The contracts that could be secured in Perth and Kinross could support an estimated 13 jobs. The contracts awarded in Scotland could secure an estimated 33 jobs.

Table 15.19: Operations and maintenance jobs

	Perth & Kinross	Scotland
Jobs	13	33

Source: BiGGAR Economics

15.4.25 The individuals employed during the operation and maintenance of the proposed development will also have an impact on the economy through the spend associated with their wages. Previous work by BiGGAR Economics has estimated that the average salary for employees in the onshore wind sector is £34,600. Therefore the 33 jobs in Scotland estimates that there would be an additional £1.1 million of salaries paid into the Scottish economy annually.

15.4.26 It was assumed that workers in Perth and Kinross would spend 35% of their salaries within Perth and Kinross. It was also assumed that employees within Scotland would spend 90% of their salaries in Scotland. The total additional turnover in businesses in Perth and Kinross would be £0.1 million and in Scotland it would be £1.1 million.

15.4.27 The economic impact of this increased spend is calculated using the GVA/turnover ratio and turnover per employee for the whole economy. This data is taken from the Annual Business Survey. The economic impact of the increased spend is less than £0.1 million GVA and 1 job in Perth and Kinross and £0.3 million GVA and 9 jobs in Scotland.

Table 15.20: Activity supported by increased spend due to operation expenditure

	Perth & Kinross	Scotland
Workers spend (£m)	1.5	11.6
GVA (£m)	0.5	3.5
Job years	12	94

Source: BiGGAR Economics

15.4.28 The total economic impact during the operations and maintenance phase is the sum of the direct contract impacts and the induced impacts from workers spend. This gives a total annual economic impact of £1.4 million GVA and 14 jobs in Perth and Kinross and £3.9 million GVA and 42 jobs in Scotland.

15.4.29 This potential effect on Perth and Kinross has been assessed as having a magnitude of negligible and together with the sensitivity of the receptor being assessed as medium the significance of this effect is considered negligible and therefore not considered further in this chapter.

15.4.30 This potential effect on Scotland has been assessed as having a magnitude of negligible and together with the sensitivity of the receptor being assessed as low the significance of this effect is considered negligible and therefore not considered further in this chapter.

Table 15.21: Total operations and maintenance economic activity

	Perth & Kinross	Scotland
GVA (£m)	1.4	3.9
Jobs	14	42

Source: BiGGAR Economics

Public Finances

- 15.4.31 The proposed development would positively impact public finances, as the operator would be required to pay non-domestic rates.
- 15.4.32 The rate that the proposed development would be required to pay is dependent on the load factor of the proposed development and the total installed capacity. Analysis of data in the ROC database suggests that the average load factor of Scottish wind farms is 30% and it was assumed that the load factor of the proposed development would also be around 30%. This implies that the proposed development would be required to pay £24,271 per annum per MW. The total installed capacity of the proposed development is around 75MW and so the total non-domestic rates paid each year would be £1.8 million. This would be worth £45.5 million during the 25 year life time of the proposed development.
- 15.4.33 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 low. When combined with the medium sensitivity of the local economy however this could give rise to a minor beneficial effect. As the level at which non-domestic rates is payable could not be influenced by the Applicant it is not necessary to consider how this benefit could be optimised.
- 15.4.34 This potential effect on Scotland has been assessed as having a magnitude of negligible and together with the sensitivity of the receptor (the Scottish economy) being assessed as low the significance of this effect is considered negligible and therefore not considered further in this chapter.

Summary Potential Economic Effect

- 15.4.35 The total economic impact during the proposed development and construction phase is an estimated £19.8 million GVA and 158 job years in Perth and Kinross. In Scotland the potential impact could be £47.0 million GVA and 447 job years.
- 15.4.36 The total economic impact during the operations and maintenance phase is an estimated total annual economic impact of £1.4 million GVA and 14 jobs in Perth and Kinross and an estimated £3.9 million GVA and 42 jobs in Scotland.
- 15.4.37 The contribution to public sector finances through non-domestic rates paid each year would be an estimated £1.8 million. This would be worth £45.5 million during the 25 year life time of the proposed development.
- 15.4.38 During construction phase the potential significance of the potential effects has been assessed as:
- Perth and Kinross economy – medium; and

- Scottish economy – negligible.

15.4.39 During the operational phase the potential significance of the potential effects has been assessed as:

- Perth and Kinross economy – negligible;
- Scottish economy – negligible; and
- public finances – negligible.

15.4.40 Although the magnitude of the economic effect is large, in the context of the whole Perth and Kinross and Scottish economies (the Scottish economy has an annual output of some £145 billion) these effects are negligible.

15.4.41 However, given the low number of jobs in the Local Area and a reliance on a small number of sectors, the additional of even a small number of jobs in the Local Area would make a significant difference. For example if 4 of the 14 jobs (less than a third) supported in Perth and Kinross due to the operations and maintenance spend, were retained in the Local Area, this would increase the number of employees in the Local Area by almost 1%. These jobs would last 25 years and would be assessed as a major long term change. Therefore during the operational phase the potential significance of the potential effects has been assessed as:

- Local Area – high.

15.5 Potential Tourism Effects

15.5.1 This chapter considers the potential effects of the proposed development during the construction and operational phases on the economic activity supported by the tourism sector. The economic activity of the tourism sector is driven by the number visitors and the spending of the visitors. Therefore potential effects in this section will be a change in visitor numbers or visitor spend.

15.5.2 This section identifies whether these effects are likely to occur due to the proposed development and the magnitude of the potential effect.

Potential Tourism Effects – Construction Phase

15.5.3 The potential effect on tourism that could arise during the construction phase will be a change of visitor numbers or visitor spend.

15.5.4 There could be a potential effect on tourism during the construction phase if traffic disruption reduced visitor numbers or visitor spend. However there will be no change to access to the tourism receptors identified in the previous chapter. Therefore there is no effect to mitigate.

Potential Tourism Effects – Operational Phase

15.5.5 There could be a potential effect on tourism during the operational phase if these could occur if the visual impact of the wind farm was sufficient to either change the number of visitors from coming to the area altogether or otherwise change their behaviour while in the area - for example, by changing their spending in the area.

Potential Effects on Walking And Cycling Routes

- 15.5.6 Walking is a very popular activity with visitors to the Local Area so developments that limit visitors access to the countryside have the potential to cause an adverse effect on the local tourism sector. As described in section 15.3, however there are a multitude of walking routes in the Local Area and numerous opportunities for visitors to explore the countryside. Access to them will not be affected
- 15.5.7 In March 2014 the Mountaineering Council of Scotland undertook a survey to test perceptions and intentions towards visiting areas with wind farms. One of the questions asked was 'how is the increasing number of wind farms likely to affect your future plans for walking and climbing in Scotland?' The replies and the respondents selecting the replies are:
- It won't have any impact on my plans and I will still enjoy the mountains (28%);
 - It won't affect my plans, but I don't expect to gain the same level of enjoyment (15%);
 - I will go to the mountains just as often, but will avoid areas with wind farms (40%);
 - I will still go to the mountains, but not as often as I would have (4%);
 - I will still go to the Scottish mountains, but will take more trips to mountains outwith Scotland (9%); and
 - I will stop visiting the Scottish Mountains (3%).
- 15.5.8 The reasons for visiting the area come from the survey of visitors to Highland Perthshire (IBP Strategy & Research, 2012). The most popular reason to choose to visit the area was to visit the area to enjoy the scenery (71%) followed by 31% who wanted to take part in walking/hill walking/climbing.
- 15.5.9 If the proposed development does change behaviour the economic impact of this change in individual behaviour is low as walkers and cyclists do not contribute significantly to the local tourism economy due to the few tourism businesses in the area. In addition a review of evidence in section 15.2 regarding the impact of wind farms on the tourism sector does not find evidence to suggest an impact to occur. Therefore the magnitude of this effect on the tourism industry a whole was assessed as low. When combined with the medium sensitivity of walking routes in general, this means that the overall significance of the effect would be minor. It is therefore unnecessary to consider this potential effect further.

Potential Effects on Accommodation Providers (Estate)

- 15.5.10 As mentioned in the previous section, most of the accommodation within 15km of the proposed site is provided by estates. The driver for staying in this type of accommodation, and therefore the driver for visiting the area and spending, is driven by the presence of estate activities. Evidence from elsewhere in Scotland has suggested that estate visitors are not discouraged by wind farm development. The owner of the Novar Estate submitted evidence to the Glenmorie Wind Farm inquiry confirming that the proposed development of the Novar Wind farm had not discouraged visitors. As the wind farm will not change the capacity of surrounding estates to deliver estate activities, no potential effect is likely to occur.
- 15.5.11 Therefore as the effect will be negligible and the sensitivity of the receptor is low, the effect would be negligible. It is therefore unnecessary to consider this potential effect further.

Potential Effects on Accommodations Providers (Non Estate)

- 15.5.12 The potential effects on tourism could occur in a variety of ways. For example these effects could affect the accommodation that will have views of the proposed development for example if tourists who would have chosen to stay in one establishment chose to stay somewhere else instead because their first choice had gained a view of the wind farm. Although this would have no effect on the local tourism sector as a whole, it could have a significant effect on the individual accommodation provider concerned.
- 15.5.13 The layout of the proposed development means that most non estate accommodation providers will not have a view of the proposed developments as they are located on the north shore of Loch Rannoch which has no visibility of the proposed development. There will be limited views from properties at Bridge of Gaur. This has been assessed in the Landscape and Visual Chapter as non significant. There are two self catering accommodation providers on the south side of Loch Rannoch:
- West Carie Cottage – this is screened by trees so there will be no visibility of the proposed development; and
 - Croiscraig Cottages – there are three cottages on the shore. They will have limited potential visibility of the proposed development of between 1-6 turbines.
- 15.5.14 The magnitude of this effect was assessed with reference to the research undertaken by Glasgow Caledonian University that was summarised above. This research found that 2% of those interviewed who had seen a wind farm in the area (four respondents out of 191) said that it would affect their decision to visit the area again. Of these two indicated that the likelihood would increase and two that the likelihood would decrease. This combined with the non significant visual impact on three accommodation providers means that it is unnecessary to consider this effect further.

Potential Effects on Outdoor Activities

- 15.5.15 The outdoor activities are driven by fish and wildlife. Therefore any change in fish and wildlife would alter the character of the outdoor activities and may result in visitors not coming to the area due to the reduced ability to participate in outdoor activities. This will not be affected by the proposed development. Therefore, the magnitude of this potential effect of reducing the amount of visitors or visitor spending was assessed as negligible. When combined with the medium sensitivity of this receptor the significance of the effect was assessed as negligible. This has not been taken further in this analysis.

Potential Effects on West Highland Railway

- 15.5.16 The drivers for people to take the West Highland Railway will be the scenery on the whole route. The potential visibility from a section approximately 20km south west of the nearest turbine to approximately 3km north west of Rannoch Station. A large portion of this section runs through and adjacent to Rannoch Forest resulting in a very brief section of views from the train just prior to arriving in Rannoch from the north or south. As the potential viewed of the proposed development are very limited, very brief and deemed to not be significant in the Landscape and Visual Chapter, the potential effect is negligible.
- 15.5.17 For individuals, the decision to stop at Rannoch Station will be influenced by the tea room and the opportunity to walk to Corrour. The wind farm will not have an impact on these drivers and people alighting the train at Rannoch Station would not gain views of the proposed turbines. Therefore the potential effect is negligible. When combined with the medium sensitivity of the West Highland Railway to change the overall significance of

the effect would be negligible. It was therefore unnecessary to consider how this potential effect could be mitigated.

Potential Effects on Local Tourism Sector

15.5.18 The potential effect of the potential wind farm on the tourism sector in the Local Area as a whole is assessed by considering whether the potential effects discussed above will cause visitor expenditure on tourism businesses to increase or decrease.

15.5.19 As the industry is mainly based around estates based tourism this means that it is less sensitive to small changes than individual tourism businesses would be. In addition the potential effect of a change in visitor numbers or visitor spending has been assessed as negligible. When combined with the high sensitivity of the local tourism sector to change, the overall significance of the effect would be minor. For this reason the overall sensitivity of the tourism sector as a whole was assessed as low.

Potential Effects on Perth and Kinross Tourism Sector

15.5.20 The potential effect of the proposed development on the Perth and Kinross tourism sector is assessed to be negligible as the change in the local tourism sector which makes a very small contribution to Perth and Kinross tourism as a whole is assessed to be low.

Summary of Potential Tourism Effects

15.5.21 During the construction phase no potential effects in terms of a change in visitor numbers or a change in visitor spend was assessed as likely to occur.

15.5.22 Potential effects could occur during the operational phase. The potential significance of the potential effect of a change in visitor numbers or a change in visitor spend on the following receptors has been assessed:

- walking and cycling routes in Local Area – minor;
- individual accommodation business in Local Area (estate) – negligible;
- individual accommodation business in Local Area (non estate) – negligible;
- outdoor activities – negligible;
- West Highland Railway – negligible;
- tourism sector in Local Area as a whole – minor; and
- tourism sector in Perth and Kinross – negligible.

15.6 Mitigation

No significant adverse effects associated with the proposed development have been identified by the socio-economic and tourism assessment and so no mitigation measures will be required. However, this section considers measures that could help to maximise beneficial effects.

Optimisation of Effects on Perth and Kinross Economy

15.6.1 Section 15.6 identified a potentially beneficial effect that could arise during the construction phase. These effects would all arise as a result of additional expenditure made by the Applicant, its appointed contractors and their employees. The magnitude of these beneficial effects in Perth and Kinross will depend on the proportion of

expenditure that occurs in Perth and Kinross so in order to maximise these beneficial effects the Applicant could take steps to ensure that businesses secure as high a proportion of available contracts as possible.

- 15.6.2 Such steps are likely to include engaging with Perth and Kinross businesses to ensure that they are aware of and know how to find out about new business opportunities. This could be achieved by participating in supplier engagement events that give interested businesses the opportunity to meet the Applicant and key suppliers.
- 15.6.3 Section 15.6 identified a potentially beneficial effect that could arise during the operational phase in the Local Area. These effects would all arise as a result of additional expenditure made by the Applicant, its 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 local so in order to maximise these beneficial effects the Applicant could take steps to ensure that local businesses secure as high a proportion of available contracts as possible in the same way as with construction contracts.

Community Benefit

- 15.6.4 The Applicant has committed to complying with the Scottish Government's guidance on community benefit, which is £5,000 per MW. Based on an installed capacity of 75MW, this would provide £375,000 annually and over the lifetime of the project would be worth £9,375,000. This could have direct economic impact by supporting jobs to deliver the community benefit. It could have indirect economic impact for going to projects that strengthen the local tourism sector. This chapter has shown that there are few businesses in the local tourism economy and so there may be limited capacity to promote the Local Area commercially. Depending on how the community utilises this fund, this figure could represent a considerable contribution to the local tourism economy, if some of the funds were directed towards tourism promotion and development. The benefits to the local social economy could also be significant. For example, a turnover of £58,788 supports one job in the voluntary sector (SCVO, 2014) and so an annual income of £375,000 could support the equivalent of almost 7 jobs.
- 15.6.5 In addition to this the Applicant has committed to investigate and explore models of community ownership. It is anticipated that a Community Liaison Group, established by the Applicant to take account of local views, will act as a forum to explore potential co-operative models such as:
- the community being a co-operative of the wind farm;
 - opportunities for co-investment through a community share offer; and
 - establishing a community green bonds initiative.
- 15.6.6 This could create long term major impact on the local economy during the operational stage.
- 15.6.7 In terms of both the Community Benefit Fund and community ownership models, the Applicant has committed to providing any agreed measures and mechanisms through a binding commitment to the community that would obligate the Applicant, and any subsequent ownership or operator interest should the ownership structure of the project change, to any of the agreed measures for the lifetime of the project.

15.7 Residual effects

- 15.7.1 This section assesses the residual effects of the proposed development assuming that the benefit optimisation measures described in Section 15.6 are implemented.

- 15.7.2 As the previous sections have found one potential effect that was significant and therefore considered in section 6 the residual effects are the same as summarised in section 15.4 and section 15.5.
- 15.7.3 During construction phase the potential significance of the potential effects has been assessed as;
- Perth and Kinross economy – moderate (beneficial); and
 - Scottish economy – negligible.
 - during the construction phase no potential effects in terms of a change in visitor numbers or a change in visitor spend was assessed as likely to occur.
- 15.7.4 During the operational phase the potential significance of the potential effects has been assessed as;
- local economy – major (beneficial);
 - walking and cycling routes in Local Area – minor;
 - individual accommodation business in Local Area (estate) – negligible;
 - individual accommodation business in Local Area (non estate) – negligible;
 - outdoor activities – negligible;
 - West Highland Railway – negligible;
 - tourism sector in Local Area as a whole – minor; and
 - tourism sector in Perth and Kinross – negligible.
- 15.7.5 The potential effect that has found to be significant (beneficial) is construction spend at the level of the Perth and Kinross economy. The beneficial economic effects associated with additional expenditure made during the construction phase were assessed in section 15.5 and the steps that would be required in order for the full benefits of this effect to be realised in the local economy were considered in section 15.6. If these steps are implemented, then it is expected that the potential benefits will be realised.

15.8 Summary and Conclusions

- 15.8.1 The socio-economic assessment has considered how the proposed development might be expected to affect the economy in Perth and Kinross. The assessment has been undertaken in respect of both the economy and tourism sector as a whole and with regard to individual tourism receptors.
- 15.8.2 The socio-economic assessment found one potential effect that has found to be significant (a beneficial effect), the impact of construction spending at the level of the Perth and Kinross economy, which is expected to generate a total economic impact of £19.8 million GVA and 158 job years in Perth and Kinross. Other economic impacts include:
- the total economic impact during the operations and maintenance phase is an estimated total annual economic impact of £1.4 million GVA and 14 jobs in Perth and Kinross and an estimated £3.9 million GVA and 42 jobs in Scotland;
 - the contribution to public sector finances through non-domestic rates paid each year would be an estimated £1.8 million. This would be worth £45.5 million during the 25 year life time of the proposed development;

- the contribution to the Local Area through the community benefit fund which could be worth £0.5 million annually and £9.4 million over 25 years and could support the equivalent of almost 7 jobs in the local social economy; and
- the economic impact from the anticipated community ownership model.

15.8.3 Significant impacts are assessed for how they can either be optimised or mitigated. The impact of construction spend at the level of the Perth and Kinross economy was assessed to be beneficial. Therefore the assessment considered how to optimise these impacts. The magnitude of these beneficial effects in Perth and Kinross will depend on the proportion of expenditure that occurs in Perth and Kinross so in order to maximise these beneficial effects the Applicant could take steps to ensure that local businesses secure as high a proportion of available contracts as possible.

15.8.4 No significant adverse effects have been identified in the socio-economic assessment.

15.8.5 In summary during construction phase the residual effects have been assessed as;

- Perth and Kinross economy – moderate (beneficial); and
- Scottish economy – negligible.
- during the construction phase no potential effects in terms of a change in visitor numbers or a change in visitor spend was assessed as likely to occur.

15.8.6 During the operational phase the potential significance of the potential effects has been assessed as;

- local economy – major (beneficial);
- walking and cycling routes in Local Area – minor;
- individual accommodation business in Local Area (estate) – negligible;
- individual accommodation business in Local Area (non estate) – negligible;
- outdoor activities – negligible;
- West Highland Railway – negligible;
- tourism sector in Local Area as a whole – minor; and
- tourism sector in Perth and Kinross – negligible.

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