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INTRODUCTION

16.1 This Chapter assesses the likely socio-economic effects, including land use, recreation and tourism effects, associated with the proposed development.

16.2 Effects may occur as a result of direct or indirect interaction between the proposed development and socio-economic resources including land use, tourism and recreational resources. Direct effects can be both positive and negative.

16.3 The majority of socio-economic impacts experienced during the construction phase relate to the creation of employment opportunities and increased spend on local services. Other potential construction phase effects may include temporary restrictions on the use of access tracks used for recreational purposes and potential secondary effects arising from disruption to neighbouring businesses.

16.4 Once operational, impacts on the local labour market arising from operation and maintenance jobs would be more limited. Long term socio-economic benefits to the community would result from the proposed shared ownership scheme and community benefit fund payments. Potential adverse effects may arise from impacts on the tourism economy, including the operations of neighbouring businesses.

LEGISLATION, PLANNING POLICY AND GUIDANCE

16.5 There is no relevant legislation with regard to the assessment of socio-economic effects. Relevant national and local policy and guidance are considered with regard to potential effects on socio-economics, tourism, recreation and land use.

National Policy

Scottish Planning Policy (2014) (SPP)

16.6 SPP (Ref. 16.1) Paragraph 29 requires that policies and decisions should, amongst other matters, give '*due weight to net economic benefit*'.

16.7 Paragraph 169 requires that the planning system supports the transformational change to a low carbon economy, consistent with national objectives and targets. Considerations in respect of proposals for onshore wind that are relevant to this Chapter include:

- net economic impact, including local and community socio-economic benefits such as employment, associated business and supply chain opportunities;
- the scale of contribution to renewable energy generation targets;
- public access, including impact on long distance walking and cycling routes and scenic routes identified in the National Policy Framework (NPF); and
- impacts on tourism and recreation.

16.8 Paragraph 79 also requires that the planning system promotes economic activity and diversification including, where appropriate, sustainable development linked to farm diversification and

renewable energy developments.

National Planning Framework 3 (2014) (NPF3)

16.9 NPF3 (Ref. 16.2) is the spatial expression of the Government's Economic Strategy and sets out a long-term vision for development and investment across Scotland over the next 20 to 30 years. NPF3 aims "to share the benefits of growth by encouraging economic activity and investment across all of Scotland's communities, whilst protecting our natural and cultural assets". A sustainable, economically active rural area, which attracts investment and supports vibrant, growing communities, is said to be essential to the Government's vision.

16.10 With regard to rural development, NPF3 identifies that in rural areas there should be strengthened links between people and the land, including increased community ownership of rural assets.

National Guidance

Scottish Natural Heritage (2013) Handbook on Environmental Impact Assessment

16.11 The SNH handbook on Environmental Impact Assessment (Ref. 16.3) states (at E.2.4) that *"the Environmental Statement may set out material considerations which could outweigh the [relevant planning] policies - such as economic benefits or benefits to other aspects of the environment that may be enhanced rather than harmed."*

Scottish Government (2019) Good Practice Principles for Community Benefits from Onshore Renewable Energy Developments

16.12 This guidance (Ref. 16.4) was updated in 2019 and the revised guidance places a greater focus on achieving a lasting legacy for local communities underpinned by a well-developed community action plan. The guidance notes that within the last 12 months, 214 projects have offered community benefits packages totalling over £15 million. The guidance is supportive of renewable energy businesses that seek to offer communities a flexible package of benefits; such flexible packages of benefit should offer an element of additionality and go beyond the requirements of the planning process.

16.13 The package of benefits that a renewable energy business offers may vary in line with the priorities of community/communities involved, and the size and scope of the renewable energy project. However, community benefits should relate to the specific needs and aspirations of local people. The guidance advises that possession of a community action plan is key to delivering a community's aspirations and ambitions, and guidance is provided as to how this should be developed with a view to establishing a lasting legacy. This guidance was updated in 2019 and provides guidance on the process of a renewable energy business making an offer, and a community accepting that offer. The aim of the review was to ensure that Scottish communities continue to benefit from local projects in a manner that is appropriate for the current and future context in which renewable energy projects are developed, and advises on how local communities, renewable energy companies and local authorities can work together to achieve this.

Scottish Government (2019) Good Practice Principles for Shared Ownership of Onshore Renewable Energy Developments

16.14 This guidance (Ref. 16.5) was updated in 2019 and provides guidance on the process of a renewable

energy business making an offer, and a community accepting that offer. The aim of the review was to ensure that Scottish communities continue to benefit from local projects in a manner that is appropriate for the current and future context in which renewable energy projects are developed, and advises on how local communities, renewable energy companies and local authorities can work together to achieve this.

Scottish Government (2016) Draft Advice on Net Economic Benefit and Planning

16.15 The draft advice on net economic benefit from the Scottish Government (Ref 16.6) provides advice to developers on the methodology to be used when modelling economic benefits. The advice states the importance of using assumptions that are completely transparent, evidence-based and as accurate as possible. The assessment is expected to consider the net economic benefit by comparing the estimated economic position where the development proceeds with the position if the proposal does not go ahead.

Scottish Natural Heritage (2019) Good Practice During Windfarm Construction

16.16 The Good Practice Guidance on windfarm construction (Ref. 16.7) contains advice on management measures during construction to provide for continuing public access. Access rights may be suspended on land on which construction work is being carried out, except for routes that are core paths or rights of way. The Guidance advises that management measures should be flexible enough to take reasonable account of public access requirements and adapt as the Site progresses. The Guidance emphasises the importance of effective communication. During operation, public access will often share vehicular tracks with maintenance traffic, but this position is common to a wide range of tracks used for forestry and upland estate management and is unlikely to require any special provision.

Local Policy

16.17 Aberdeenshire Local Development Plan (Ref. 16.8) Policy C2 is concerned with renewable energy. It states that *"Unacceptable significant adverse effects on the amenity of dwelling houses or tourism and recreation interests including core paths and other established routes used for public walking, riding or cycling should also be avoided".*

Local Guidance

Aberdeenshire Forestry and Woodland Strategy (2017)

16.18 This Supplementary Guidance (SG), part of a series of SGs that support the LDP, identifies key issues and opportunities in relation to the county's woods and forests. The Strategy's Vision is that: *'The forestry and woodlands of the Aberdeenshire Local Development Plan area are resilient to the effects of climate change, protect and enhance the environment, habitats, species and local culture, benefit and support the local and national economy and are valued and enjoyed by people, both residents and visitors*'. Four themes are identified, including 'Communities, Development, Access and Health', which aims to '*promote and support woodland's role in providing opportunities for community development and recreational access*'.

Aberdeenshire Core Paths Plan

16.19 The Land Reform (Scotland) Act 2003 requires local authorities to prepare a Core Paths Plan. The adopted Core Paths Plan aims to ensure that Core Paths:

- *"Provide the basic framework of paths to meet communities' needs*
- *Minimise any potential conflict with land management*
- *Be well sign posted, well maintained and welcoming".*

SCOPE AND CONSULTATION

Scoping

16.20 The scope of the assessment has been determined through a combination of professional judgement, reference to relevant guidance documents and consultation with stakeholders.

Consultation

16.21 Consultation for the proposed development was undertaken with statutory and non-statutory bodies during 2017 and 2018 as set out in Chapter 6: Scoping and Consultation. The outcome of the relevant consultations in relation to socio-economic interests is summarised in Table 16-1.

Table 16-1
Key Issues Identified at Scoping

Consultee	Comments	Action	Reference within EIAR
Aberdeenshire Council	It is noted that the proposed scheme will utilise as far as practical existing access tracks. The designed new network of access tracks directly associated with the proposed development will need to be assessed through the EIA process and designed to minimise any environmental impacts with any mitigating measures identified and assessed.	Existing access tracks are identified in the baseline information. The effects of using these tracks, (or crossing of these tracks) during the construction and operational phases of the proposed development have been assessed.	Described in Baseline and assessed in Assessment of Effects
British Horse Society Scotland	Emphasises the importance of off-road hacking, including its economic importance to the rural economy.	The use of existing access tracks and public roads by horse riders is identified in the baseline information. The effect on horse riders due to use of these tracks by the proposed development (or crossing of tracks) during the construction and operational phases has been assessed and opportunities for enhancement considered.	Described in Baseline and assessed in Assessment of Effects
Cairngorms	Cross-boundary effects	The potential effect on views from	Described in

Consultee	Comments	Action	Reference within EIAR
National Park Authority		the National Park are assessed in terms of their potential effect on recreational users and the tourism and visitor economy, both within and outwith the National Park.	Baseline and assessed in Assessment of Effects
Huntly Nordic & Outdoor Centre	Outline of concerns relating to access for skiers and other recreational users (issues relating to visual impact are addressed in Chapter 7: Landscape and Visual): • damage to road surfaces or hinderance to skiing. • would object to any restrictions to access onto the Ski Trails as a result of construction and/or operation of the wind farm • many members of the Club ski, walk, run and cycle throughout the entire Clashindarroch Forest. e.g. The British Nordic Development Squad host a well-attended run/cycle fund raising event within the forest each summer.	Use of the forest for Nordic Skiing and other recreational activities are taken into account in the baseline information, including reference to general use of the forest and open moorland outwith the designated trails. The baseline information also includes organised events within the forest including skiing, cycling and running events. The assessment takes account of potential effects on recreational users of the forest and any resulting effects on the tourism and visitor economy. Measures to avoid potential conflict especially during construction would be addressed in the Construction Environmental Management Plan (CEMP).	Described in Baseline and assessed in Assessment of Effects
ScotWays		Information provided by ScotWays has been incorporated into the baseline information and is shown on Figure 16.1: Socio-economic Plan.	Shown on Figure 16.1 and assessed within Assessment of Effects
Visit Scotland	Effect on tourism and visitor economy (TVE), including employment, should be addressed. This needs to recognise the importance of scenery to the Scottish TVE. The following specific issues should be addressed: • the number of tourists travelling past en-route elsewhere; • the views from accommodation in the area; • the relative scale of tourism impact, i.e. local and national; • the potential positives associated with the development.	Effects on the TVE during the construction and operations phases of the proposed development have been assessed. Specific effects on tourism receptors (drawing from the landscape and visual assessment) have been identified and assessed, and reference has been made to published studies. Tourists travelling through the area by car or active transport have been assessed where specific tourist / recreational routes could be identified. Effects on accommodation providers and other tourism receptors that are	Described in Baseline and assessed in Assessment of Effects

Consultee	Comments	Action	Reference within EIAR
		sensitive to visual impact within the study area have been assessed. These have drawn on the findings from the assessment of visual effects that are presented in Chapter 7: Landscape & Visual. The scale of the tourism economy is set out in the baseline information, and the likely effects are then addressed qualitatively in the assessment. Potential economic benefits in relation to common supply chain businesses, including accommodation businesses are assessed.	

16.22 Further consultation was undertaken through correspondence with the Huntly Nordic Ski Club. A letter of response received from the Ski Club dated 6 July 2017 provides additional information regarding the location of trails, main areas skied, and events held in the forest. The response also provided an estimate of numbers of participants for a range of activities.

Effects Scoped Out

16.23 As a result of the scoping process, based on the preliminary desk-based review undertaken and application of professional judgement, the following aspects were scoped out of the assessment:

- effects on demand for housing, health or educational services. This is based on past experience of onshore wind farm projects of this scale, as it is not expected that there would be a large influx of workers to the area during the construction phase.

APPROACH AND METHODS

Study Area

16.24 A two-tiered Study Area has been used for the assessment; the study areas are defined as follows:

- a Wider Study Area (WSA) that is intended to encompass the area within which significant effects on employment and the local economy, including the tourism economy, could occur. The WSA is required for certain receptor groups because the majority of the business and labour market effects that could occur would be experienced by population and business centres located across a wide area. Due to the location of the Site close to the local authority boundary with Moray, the WSA comprises both the Aberdeenshire Council and the Moray Council areas. Effects are also considered within the rest of Scotland and the UK where relevant; and
- a Local Area of Influence (LAI) that forms the focus for assessment of both direct and indirect

effects on those receptors (land use, recreation and tourism assets) that are likely to experience effects at a more local level. The LAI extends to 5km from the Site into the southern part of the Moray local authority area. The extent of the LAI is shown on Figure 16.1: Socio-economic Plan. Whilst the primary focus for the LAI is within 5km of the Site, account is also taken of high sensitivity receptors such as the Cairngorms National Park at distances beyond 5km. Note that visual impacts are assessed separately in Chapter 7: Landscape and Visual.

Information and Data Sources

16.25 The assessment uses desk-based information sources to assess the likely effects of the proposed development. This has been supplemented by consultation with relevant stakeholders and professional judgement which is based on previous experience of wind farm development. A complete schedule of data sources referred to in undertaking this assessment is contained in Appendix 16.1.

Assessment Methods

16.26 Chapter 5: Environmental Impact Assessment provides an overview of the approach to assessment and explains the parameters being assessed in the EIA. Chapter 6: Scoping and Consultation also sets out the information on cumulative sites, and the approach to assessing cumulative effects.

16.27 There are no published standards or technical guidelines that set out a preferred methodology for assessing the likely socio-economic effects of an onshore wind farm proposal. However, there is a series of commonly used methodologies for such assessment, including recognised approaches to quantifying economic effects both during the construction of a development and following its completion, that have been widely used in other major projects. These have been adopted here and are described below.

16.28 The approach to the socio-economic assessment is presented in two parts, addressing both the construction phase aspects of the proposed development and the longer term economic effects once the proposed development is built and operational.

Assessment of Likely Effects on the WSA

16.29 This part of the assessment comprises a quantitative assessment of the likely direct, indirect and induced effects of the proposed development on the WSA (as defined in paragraph 16.24) in terms of investment, employment, additional Gross Value Added (GVA)[1] and contribution to the labour market.

16.30 The employment effects that are attributable to the proposed development are divisible into three components. These are:

- **direct:** the employment and other economic outputs that are directly attributable to the delivery of the proposed Development. These include any new jobs that are created to manage and supervise the construction and operational phases of the proposed Development and that are filled by employees of the Applicant or the appointed Contractor

[1] Gross value added (GVA) measures the contribution to an economy of an individual producer, industry, sector or region.

(or sub-contracted employees);

- **indirect:** employment and other outputs created in other companies and organisations that provide services to the proposed development (i.e. procurement and other supply chain effects); and
- **induced:** additional jobs and other economic outputs that are created in the wider economy as a result of the spending of employee incomes and other ripple effects that occur as a result of direct and indirect effects of the proposed development.

16.31 Construction phase job creation and investment has been assessed through the use of employment estimates provided by the Applicant and the estimated construction elements categories within which these jobs would fall. The assessment addresses the potential effects of the proposed development to the labour market and the local supply chain and economic output in terms of GVA. The estimate for construction phase GVA is calculated using the latest regional estimates for the average yield of GVA per worker for the construction and civil engineering sector in Highland obtained from the Office of National Statistics (ONS).

16.32 Information gathered from the baseline data review has been used to develop a quantitative economic model which includes direct, indirect and induced effects of the development.

16.33 In the case of operational phase effects, quantitative economic modelling has been undertaken based on information regarding likely creation of permanent jobs based on experience of similar projects. As well as direct job creation (e.g. facility management and maintenance), the assessment models indirect and induced job effects (i.e. supply chain jobs and multiplier effects; and jobs arising from investment of funds from the shared ownership scheme and community benefit fund).

Assessment of the Likely Effects on the LAI

16.34 The proposed development may have direct and indirect effects on tourism and recreation receptors within the LAI. This part of the socio-economic assessment comprises a qualitative assessment of the effects of the proposed development on receptors within the LAI including land use, recreational paths and long distance routes, and tourist attractions.

16.35 This Chapter assesses the significance of the likely socio-economic effects of the proposed development based on the magnitude of the impacts and the sensitivity of the receptor groups. The following sections set out the criteria for establishing magnitude of impact and sensitivity of the receptors

Sensitivity of Receptor

16.36 There are no published standards that define receptor sensitivity relating to socio-economic, tourism, recreation or land use assessment. As a general rule the sensitivity of each receptor or receptor group is based on its importance or scale, and the ability of the baseline to absorb or be influenced by the identified effects. In assigning receptor sensitivity, consideration has been given to the following:

- the importance of the receptor e.g. local, regional, national, international;
- the availability of comparable alternatives;
- the ease at which the resource could be replaced;

- the capacity of the resource to recover or adapt to identified impacts over a period of time; and
- the level of usage and nature of users (e.g. sensitive groups such as people with disabilities).

16.37 Based upon professional judgement and experience on other large-scale projects, four levels of sensitivity have been used: high; medium; low; and negligible. Proposed sensitivity criteria are set out in Table 16-2.

Table 16-2
Determining the Sensitivity of Receptors

Sensitivity Criteria	Description
High	The receptor: • has little or no capacity to absorb change without fundamentally altering its present character; or • is of high socio-economic, recreational, or tourism value[2]; or • is of national or international importance; or • is accorded priority in national policy; or • has no alternatives with available capacity within its catchment area; or • is a destination in its own right (as regards tourism and visitor attractions).
Medium	The receptor: • has moderate capacity to absorb change without fundamentally altering its present character; or • has a moderate socio-economic, recreational or tourism value; or • is of regional importance; or • is accorded priority in local policy; or • has some alternatives with available capacity within its catchment area; or • is a destination for people already visiting the area (as regards tourism and visitor attractions); or • forms a cluster of low sensitivity receptors.
Low	The receptor: • is tolerant of change without detriment to its character; or • is of low socio-economic, recreational or tourism value; or • is of local importance; or • is accorded low priority in policy; or • has a choice of alternatives with available capacity within its catchment area; or • is an incidental destination for people already visiting the area (as regards tourism and visitor attractions).
Negligible	The receptor is resistant to change and is of low socio-economic, tourism, recreation or land use value or there is a wide choice of alternatives with available capacity within its catchment area.

Magnitude of Impact

16.38 There are no published standards that define the magnitude of socio-economic, tourism, recreation or land use impacts. In order to aid clear and robust identification of significant effects, specific and

[2] Which may include being of high value to a user group of high sensitivity (e.g. mobility impaired users)

targeted criteria for defining the magnitude of impact have been developed for this assessment based on experience on other similar projects. The following four levels of magnitude have been adopted using professional judgement: high; medium; low and negligible. These impacts can be beneficial, adverse or neutral. Criteria for each of these levels of magnitude for each receptor group are set out in Table 16-3.

Table 16-3
Magnitude of Impact

Receptor Group	High	Medium	Low	Negligible
WSA Labour Market	An impact that would dominate over baseline labour market conditions and/or would affect a large proportion (>10 %) of the existing resident workforce.	An impact that would be expected to result in a moderate change to baseline labour market conditions and/or would affect a moderate proportion (>5 %) of the existing resident workforce.	An impact that would be expected to result in a perceptible difference from baseline labour market conditions and/or would affect a small proportion (>0.5 %) of the existing resident workforce.	An impact that would not be expected to result in a measurable variation from baseline labour market conditions.
WSA Economy	An impact that would dominate over baseline economic conditions by >10 %.	An impact that would be expected to result in a moderate change to baseline economic conditions by >5 %.	An impact that would be expected to result in a perceptible difference from baseline economic conditions by >0.5 %.	An impact that would not be expected to result in a measurable variation from baseline economic conditions.
WSA Tourism and Visitor Economy	An impact that would dominate over baseline tourism and visitor economy conditions.	An impact that would be expected to result in a moderate change to baseline tourism and visitor economy conditions.	An impact that would be expected to result in a perceptible difference to baseline tourism and visitor economy conditions	An impact that would not be expected to result in a measurable variation from baseline tourism and visitor economy conditions
Land Use	An impact that would lead to a major restriction on the operation of a receptor, e.g. forestry business, or complete closure of receptor.	An impact that would lead to a moderate to major restriction on the operation of the receptor.	An impact that would lead to a minor restriction on the operation of the receptor.	An impact that would lead to a negligible restriction on the use of the receptor.
Tourism and Recreation Assets	An impact that would be expected to cause a major restriction of access to or availability of tourism and visitor assets in the LAI or would result in a major change to existing patterns of use.	An impact that would be expected to have a moderate restriction of access to or availability of tourism and visitor assets in the LAI or would result in a moderate change to existing patterns of use.	An impact that would be expected to have a small restriction of access to or availability of tourism and visitor assets in the LAI or would result in a small change to existing patterns of use.	An impact that would be unlikely to result in a noticeable difference to tourism and visitor assets in the LAI.

Potential Effects

16.39 The level of effect of an impact on socio-economic and land use receptors is initially assessed by combining the magnitude of the impact and the sensitivity of the receptor. The level of effects presented in Table 16-4 provides a guide to the decision-making process.

Table 16-4
Level of Effects Matrix

Sensitivity or Value of Resource or Receptor	Magnitude of Impact			
	High	**Medium**	**Low**	**Negligible**
High	Major	Major	Moderate	Minor
Medium	Major	Moderate	Minor	Negligible
Low	Moderate	Minor	Negligible	Negligible
Negligible	Minor	Negligible	Negligible	Negligible

16.40 Effects may be positive (beneficial) or negative (adverse). Where an effect is classified as major, this is considered to represent a 'significant effect' in terms of the EIA Regulations. Where an effect is classified as moderate, this may be considered to represent a 'significant effect' but should always be subject to professional judgement and interpretation, particularly where the sensitivity or impact magnitude levels are not clear or are borderline between categories or the impact is intermittent.

16.41 The level of effects matrix shown in Table 16-4 therefore provides a guide to decision making, but is not a substitute for professional judgement. Impacts and effects can be beneficial, neutral or adverse and these would be specified where applicable. It should be noted that significant effects need not be unacceptable or irreversible.

Potential Cumulative Effects

16.42 In relation to economic effects, cumulative effects depend on the extent to which the supply chain and labour market within the WSA have the capacity to meet demand for construction services from a number of similar projects. An assessment has been made as to whether it is considered likely that the cumulative effect indicates a loss of benefit as a result of cumulative projects, or an enhancement of opportunity which would help to develop expertise and capacity in the market. The cumulative effects assessment is able to make a quantitative judgement on potential loss of benefit due to cumulative projects. Enhancement of opportunity is identified only in qualitative terms.

16.43 Other cumulative effects may arise if the construction and / or operation of a number of wind farms were to affect receptors in the LAI.

Mitigation

16.44 The assessment takes account of any environmental principles that are incorporated into the design of the proposed development. These include good practice measures with regard to traffic management, control of noise and dust, signage and provisions for maintaining access for walkers, details of which are set out in Technical Appendix 3.1: Outline CEMP. Any additional mitigation measures that would reduce the level of any significant effects are set out and considered prior to assessing residual effects.

Residual Effects

16.45 A statement of residual effects, following consideration of any specific mitigation measures, is provided.

Statement of Significance

16.46 The assessment approach is to describe the baseline conditions, to identify likely effects from construction and operation of the proposed Development, consider the sensitivity of receptors, and then to assess the likely significance of any effects. Any adverse effects considered to be 'significant' are further considered with regard to bespoke mitigation measures and residual effects following mitigation are then identified. Any significant effects that would be direct, indirect, secondary, cumulative, short, medium and long term, permanent or temporary are examined and their significance assessed. These effects are identified as being positive or negative.

Assumptions, Limitations and Confidence

16.47 Assumptions used in the assessment are stated where relevant and are set out in such a way as to be as transparent, evidence-based and as accurate as possible. No particular limitations were noted with regard to the assessment of socio-economic effects. However, as data have been collated from published sources rather than Site specific surveys it is possible that not all receptors have been identified.

BASELINE CONDITIONS

Existing Socio-economic Conditions (WSA)

Overview

16.48 The proposed development is located to the south of Huntly within Aberdeenshire, although the western boundary of the Site lies within 50m of the Moray boundary. The nearest town to the proposed wind farm is Huntly approximately 4km to the north. Huntly has a population of 4,768 (Ref 16.9).

Population

16.49 According to the 2018 mid-year estimates, Aberdeenshire's population stands at 261,500, which is approximately 4.8% of Scotland's total (Ref. 16.10). The population of Moray (Ref. 16.11) is 95,500, approximately 1.8% of the total population of Scotland. The proportion of the total population in the WSA that is of working age (16 -64 years) is lower in both Aberdeenshire (62.2%) and Moray (61.7%) than Scotland's average (64.2%).

16.50 According to the National Record of Scotland council area profiles (Ref. 16.12) by 2026, the population of Aberdeenshire is projected to be 280,779, an increase of 7.1% compared to the population in 2016. In contrast, the population of Moray is projected to be 100,251 by 2026 (Ref. 16.13), an increase of 4.4% compared to the population in 2016. This is a faster rate of growth (especially for Aberdeenshire) than the population of Scotland as a whole which is projected to increase by 3.2% between 2016 and 2026.

Labour Market and Supply Chain

16.51 The economy in Aberdeenshire is growing, with employment rates at 81.4%, which is higher than the Scottish average of 74.7% (Ref. 16.14). Average weekly income within Aberdeenshire is £629.9 gross earnings, £52.20 higher than the Scottish average of £577.70 (Ref. 16.15).

16.52 The economy in Moray is also growing with an employment rate of 74.9%, similar to the Scottish average of 74.7% (Ref. 16.16). In contrast to Aberdeenshire, many jobs attract a lower rate of pay with gross earnings at £561.60, below the Scottish average (Ref. 16.17).

16.53 According to the ONS Job Density (Ref. 16.18) data series there were 130,000 jobs located in Aberdeenshire in 2017 and 46,000 in Moray (Ref. 16.19). For Aberdeenshire, this is an increase of 24,000 compared to 2010; in Moray job numbers have increased by 4,000.

16.54 According to the ONS Annual Population Survey (Ref. 16.14), as of 2018 there were 142,900 economically active residents of Aberdeenshire, implying an economic activity rate of 84.0%. This is higher than the equivalent rate for Scotland as a whole (77.9%).

16.55 The ONS Annual Population Survey (Ref. 16.16), as of 2018 also showed Moray to have a higher economic activity rate than the whole of Scotland at 78.6% with 48,200 economically active residents of Moray.

16.56 Economic activity rates and employment rates are higher in both Aberdeenshire and Moray for males than for the Scotland average. However for females, whilst activity rates in Aberdeenshire are higher than the Scottish average for activity and employment, Moray sits 5.3% lower on females in employment than the Scottish average.

16.57 The unemployment rate in Aberdeenshire as of March 2019 was 2.8% lower than the average for Scotland as a whole (4.1%). Moray's rate for unemployment was also lower at 3.8%.

16.58 Economic inactivity (i.e. those of working age who are not employed nor seeking work) is also lower in both Aberdeenshire (16.0%) and Moray (21.4%) compared to Scotland as a whole (22.1%).

16.59 Taken together, all of these indicators suggest that the local labour market in both Aberdeenshire and Moray are tighter than for Scotland as whole, but that the economy of Aberdeenshire is more buoyant than Moray.

16.60 A notable feature of the local labour market is the higher level of self-employment in Aberdeenshire (9.0%) compared to the Scotland average (8.7%), which is also the same in Moray (12.2%).

16.61 Useful insights into the dynamics of the labour market are often revealed by consideration of the occupational structure of those in employment. In Aberdeenshire, the proportion of the workforce in managerial and professional occupations is high at 43.0% of the workforce, and in Moray 33.3%. The average for Scotland is 43.6%.

16.62 In terms of qualifications, 43.1% of the resident working age population in Aberdeenshire is qualified to degree level or equivalent, which is lower than the average for Scotland as a whole (44.2%). The proportion of the resident working age population with no qualifications is only 7.4%, compared with 9.7% for Scotland as a whole (Ref. 16.20). Moray has a lower percentage of its working population with degree level qualifications (38.5%). The proportion of the resident working age population with no qualifications is 8.2% (Ref. 16.21).

16.63 Data on an area's business population can be obtained from the ONS UK Business Counts data series (which is sourced from the Interdepartmental Business Register). According to this source, there were about 13,940 businesses located in Aberdeenshire in 2018 (Ref. 16.22), and 3,250 in Moray (Ref. 16.23). As one would expect, the majority of these are micro-businesses (those employing zero to nine people); in Aberdeenshire 91.0% were micro businesses while in Moray 88.5% were micro businesses.

16.64 The same data source can be used to identify the structure of the local business base by sector: this is potentially useful in assessing the capacity of the local area to host supply chain activity for infrastructure and other large-scale construction projects. Table 16-5 provides the latest (2018) data on the structure of the local business base, both in absolute and relative terms.

16.65 As can be seen from Table 16-5 , in both areas the manufacturing and wholesale/retail industries each account for well over 10% of the business base, higher than the Scottish average. In Aberdeenshire professional services also have a large proportion. Numbers employed in construction are somewhat above the national average in both Aberdeenshire and Moray.

16.66 Note, persons in agriculture and the self-employed are not included in the NOMIS data set out in Table 16-5.

Table 16-5
Structure of the Business Populations of Aberdeenshire and Moray, 2018

Industry	Aberdeenshire		Moray		Scotland 2017
	2017	%	2017	%	%
A. Agriculture, forestry & fishing					
B: Mining & quarrying	6,000	6.0	100	0.3	1.1
C: Manufacturing	13,000	13.0	6,000	17.1	7.2
D: Electricity, gas & steam and air conditioning supply	450	0.4	175	0.5	0.7
E: Water Supply; Sewerage, Waste Management and Remediation Activities	800	0.8	250	0.7	0.8
F: Construction	8,000	8.0	2,250	6.4	5.5
G: Wholesale & retail trade	14,000	14.0	5,000	14.3	13.9
H: Transportation & storage	4,000	4.0	1,500	4.3	4.3
I: Accommodation & food service Activities	7,000	7.0	3,000	8.6	8.1
J: Information & communication	1,250	1.2	400	1.1	3.2
K: Financial & Insurance Activities	700	0.7	350	1.0	3.5
L: Real Estate Activities	900	0.9	300	0.9	1.3
M: Professional, Scientific and Technical Activities	10,000	10.0	1,500	4.3	7.1

Industry	Aberdeenshire		Moray		Scotland 2017
	2017	%	2017	%	%
N: Administrative & Support Service Activities	6,000	6.0	1,500	4.3	8.2
O: Public administration & Defence; Compulsory Social Security	4,000	4.0	2,250	6.4	6.3
P: Education	8,000	8.0	3,000	8.6	7.8
Q: Human health & social work activities	10,000	10.0	56000	17.1	15.7
R: Arts, entertainment & recreation	2,500	2.5	900	2.6	2.8
S: Other service activities	1,750	1.8	700	2.0	2.1

Source: ONS UK Business Counts, 2018 (Ref 16.24 and 16.25)

Tourism Economy

16.67 Tourism is worth some £166 million annually to Aberdeenshire and employs 8,300 in sustainable tourism[3] employment, while in Moray tourism is worth £56 million and employs 3,200 people according to the Visit Scotland Tourism in Scotland's Regions 2016 (Ref. 16.26).

16.68 The Scotland Visitor Survey identified that in Aberdeenshire, the scenery/landscape was the most popular reason for visiting for 50% of visitors, while in Moray it was the most popular reason for 57% of visitors. These figures are not as high as certain other areas such as Highland where 87% of respondents give scenery/landscape as a reason for visiting.

16.69 The information from the Scotland Visitor Surveys identifies that sightseeing by car/coach or foot is the most popular activity undertaken during visits to Aberdeenshire (78%) followed by visiting historic castles/houses, a short walk and shopping. In Moray the most popular activity was taking short walks (54%) followed by general sightseeing, visiting historic castles/houses and trying local food (51% each).

Existing Socio-economic Conditions (LAI)

Land Use

16.70 Clashindarroch Forest is a large commercial forest that is extensively used for recreational purposes. The forest is described by the Forestry and Land Scotland as the best snow-holding forest in the country (Ref. 16.27). The snow conditions and the landscape combine to make it popular for cross-country (Nordic) skiing. Other activities include walking, cycling and horse riding. Within the Forest there are general access rights under the terms of the Land Reform (Scotland) Act 2003.

Recreation

16.71 The British Nordic website states (Ref. 16.28) that the Clashindarroch Forest is the best snow

[3] The definition of sustainable tourism represents the SIC07 industry classifications for tourism used within the Scottish Government's growth sector; latest data available at time of publication

holding forest in the UK. The forest averages 45 days of skiing each year although in 2011/12 and 2012/13 the forest had over 100 days of skiing.

16.72 The managed ski trails are all located in the southern part of the forest (see Figure 16.1), outwith the Site boundary. The main access to the ski trails is from the south, from the A941 Rhynie to Dufftown road. Trails are managed by the Huntly Nordic Ski Club. There are a number of set routes and trails in this area of the forest, which have interpretative maps at each junction throughout the forest to assist recreational users with navigation. The most northerly managed trail is 2km away from the Site boundary of the proposed wind farm. Other parts of the forest and nearby open moorland hills are also used for off-piste skiing.

16.73 The managed ski trails are considered to be of regional importance and medium sensitivity. Other recreational paths within the Forest and nearby moorland that are used by skiers and other users including walkers, mountain bikers and horse riders are considered to be of local importance and low sensitivity.

16.74 There is one designated path within the Site, a right of way (GG1) which takes a curvilinear route north-south from Bailiesward to Whitestones. The path is located over 2km from the proposed new turbines, but within 1km of the existing Clashindarroch Wind Farm. The path would be crossed by the Site access road.

16.75 Elsewhere within the LAI there are various designated paths and other recreational features; these are detailed in Table 16-6 and shown on Figure 16.1.

Tourism

16.76 The area is not a popular tourism destination and other than the ski trails and the Nordic Ski Centre in Huntly there are no formal visitor attractions in the LAI. Huntly is an attractive and historic market town and a centre for the local area, and as such supports a range of services including shops and accommodation that would support the tourism economy. Due to the range of services provided, Huntly is considered to be of regional importance and medium sensitivity. Individual accommodation businesses (outwith Huntly) are considered to be of local importance and low sensitivity.

16.77 Elsewhere within the LAI there are very few tourism-related businesses, although there are three self-catering cottages at Aswanley in the Deveron valley to the north of the Site and a guest house at Coynochie approximately 1.5km to the south east of the Site. These businesses are considered to be of local importance and low sensitivity.

Future Baseline

16.78 To assess the potentially significant effects of the project, it is necessary to predict how conditions observed and recorded at the time of baseline data collection could change prior to the commencement of construction and during the construction, operation and decommissioning phases of the project.

16.79 Many of the potential changes are incapable of accurate prediction, for example the timing/location/nature of new visitor attractions. Therefore, such changes are not taken into account in the assessment of effects. For the potential changes relating to wider demographic matters, expected future demographic changes can be estimated; important sources of data

include the ONS sub-national population projections, which includes a series of projections providing estimates to 2037.

ASSESSMENT OF EFFECTS

16.80 This section considers both construction phase and operational phase effects of the proposed development. Details of the proposed development are set out in Chapter 3: Description of the Development.

Construction Effects

16.81 This section assesses the effects of the proposed development during the proposed 18-month construction period.

Potential Effects on the Construction Sector

16.82 During the construction phase of the proposed development there would be local economic effects resulting from project expenditure on items such as Site preparation, improvements to access roads, purchase and delivery of materials, and the procurement of plant, equipment and components of different types.

16.83 The Applicant has provided estimates of pre-development and construction phase expenditure which amounts to a predicted £52.64 million, including contingency. Table 16-6 provides a breakdown of this expenditure, disaggregated into main categories of predicted spend.

Table 16-6
Predevelopment, Construction and Commissioning Cost Estimates

	£million
Development budget	2.44
Pre-construction	0.84
Turbines	32.74
Grid connection	2.62
Balance of plant	10.03
Construction management	0.05
Miscellaneous	2.46
Contingency	1.46
Total	**52.64**

16.84 Based on this information and experience with other wind farm schemes in adjacent areas (Moray, Highlands) and elsewhere in Scotland, assumptions have been developed regarding the likely potential location of expenditure for each category in the table above, in terms of local, other-UK and non-UK expenditure.

16.85 This indicative destination of expenditure has been converted into estimated proportions of expenditure in terms of the following spatial areas based on experience of other projects: Aberdeenshire and Moray; Scotland; other-UK; and international.

Gross Effects During Construction

16.86 Estimates of the expected direct construction phase employment implications of the project have been derived using the information on projected capital expenditure set out above, as well as assumptions obtained from the following sources:

- employment and GVA multipliers for Scotland, obtained from Input-Output tables for Scotland (1998-2016) published by the Scottish Government (Ref. 16.29);
- employment and GVA multipliers for the UK obtained from Input-Output tables published by the UK Government (16.30); and
- ratios of turnover per unit of GVA and GVA per employee have been derived from Scottish and UK Government data.

16.87 Using all of these sources summarised above, the following estimates of direct gross employment and GVA effects have been derived for three spatial areas: Aberdeenshire and Moray; Scotland; and the UK as a whole. These are summarised in Table 16-7.

Table 16-7
Estimates of Gross Development Phase GVA and Employment Effects

	GVA £million	Employment (person years)
Aberdeenshire and Moray	2.84	48
Scotland (total, including Aberdeenshire)	12.00	202
UK (total, including Scotland)	15.23	257

16.88 In terms of GVA, assuming the project proceeds, a gross total of £2.84 million is predicted to be generated by the project in the Aberdeenshire and Moray economies during the development, construction and commissioning phase. The equivalent predicted GVA total for Scotland is £12.00 million and for the UK it is £15.23 million.

16.89 In terms of employment, a total of 48 person-years of gross temporary employment is predicted to be generated in the local (Aberdeenshire and Moray) economy during construction. The equivalent predicted total for Scotland is 202 person-years, and for the UK it is 257 person-years.

Net Effects During Construction

16.90 So far, the focus has been on the anticipated gross employment and output effects of the project. The next step is to consider and quantify the potential net additional effects by taking into account a number of additionality concepts:

- **Leakage**: is the proportion of project outcomes (e.g. jobs, GVA) that benefit individuals or organisations located beyond the relevant area of impact. Leakage is generally higher at a local level, although it also varies by the development type;

- **Displacement**: is an estimate of the economic activity hosted by the Site that would be diverted from other businesses in the spatial impact area (e.g. WSA or Scotland). This again varies by the development type; and
- **Multipliers**: an estimate for further economic activity associated with additional income and/or project procurement activity stimulated by project activity within the spatial impact area under consideration (e.g. WSA or Scotland).

16.91 The specific values assumed for multipliers for Scotland and the UK are sourced for national input-output tables and vary by the project expenditure category.

16.92 Assumptions about local multiplier effects for the WSA have been developed using post-development evaluation evidence of the impacts of other wind farms developed elsewhere in Scotland. These assumptions are also in line with guidance on local development project additionality published by UK Government and its regeneration agencies.

16.93 Assumptions about leakage are based on local labour market indicators and experience of other wind farm projects located in Scotland.

16.94 The results obtained from the assessment are summarised in Table 16-8.

Table 16-8
Estimates of Net Additional Development Phase Effects

	GVA £million	Employment (person years)
Aberdeenshire and Moray	3.04	51
Scotland (total, including Aberdeenshire)	14.40	243
UK (total, including Scotland)	21.69	366

16.95 With respect to employment, a total of 51 person-years of net additional temporary employment is predicted to be generated in the WSA economy during construction. The equivalent total for Scotland is 243 person-years, and for the UK it is 366 person-years.

16.96 The predicted duration of the construction project is 18 months. Therefore, there is predicted to be an additional boost to local employment amounting to 34 jobs for 1.5 years.

16.97 As at June 2019, there was a total of 184,300 residents of the WSA in employment (Ref.16.31). The temporary addition of 34 jobs to this total would increase the number by just 0.02%. The effects on the local employment base is therefore considered to be negligible and so **Not Significant.**

16.98 In terms of output, a net additional total of £3.04 million of GVA is predicted to be generated by the project in the WSA economy during the development, construction and commissioning phase (i.e. over 18 months). The equivalent predicted total for Scotland is £14.40 million and for the UK it is £21.69 million.

16.99 As of 2016, the annual value of output in the WSA was £6.93 billion (Ref. 16.31). Adjustment of this total to 2019 prices produces an adjusted estimate of total of about £7.21 billion. The temporary

augmentation of the local economy by around £2.03 million per annum[4] would increase the size of the local economy by around 0.03%. The effects on the value of the local economy is therefore considered to be negligible and so **Not Significant.**

Supply Chain

16.100 Whilst the overall value of the project to the local economy is assessed as negligible, the value to those local businesses within the supply chain that secure work as a result of the project can be substantial. The net additional impacts estimated above includes the potential for local procurement of goods and services as part of the overall supply chain for the project. The types of supply chain companies that could benefit from this expenditure is wide ranging, and is likely to include the following:

- traffic management;
- materials supply;
- plant hire;
- vehicle servicing / tyres;
- forestry services;
- fencing;
- fuel;
- security;
- waste management;
- signing and lighting;
- telecommunications;
- drainage;
- planting and seeding; and
- accommodation.

16.101 The Applicant is committed to employing good practice measures with regard to maximising local procurement such as those set out in the Renewables UK Good Practice Guidance relating to local supply chain opportunities (Ref. 16.33).

16.102 There is an established supply chain of experience wind farm Tier 1 contractors based in Scotland. These firms have developed their own local supply chains throughout the local area, and work with subcontractors to invest in training and skills development. The Applicant has demonstrated on other wind farm projects in Scotland, including Clashindarroch Wind Farm, Aberdeen Bay EOWDC and South Kyle, how it is willing to proactively work with local suppliers to maximise benefits to the local economy.

16.103 The South Kyle Wind Farm in East Ayrshire/ Dumfries & Galloway, which is currently commencing its procurement process, demonstrates how the Applicant has engaged with the local supply chain

[4] That is, £3.04 million divided by 1.5 years

businesses over a period of several years to ensure that they can optimise their ability to supply the wind farm contracts. Initiatives adopted include running supply chain/Meet the Buyer events once the application is submitted. Similar initiatives would be adopted for Clashindarroch II.

16.104 In terms of a quantitative assessment of effects, the provision of goods and services by local businesses (within the WSA) has been taken into account in the assessment of employment and GVA estimates reported in the previous section. At this stage in the development process it is not possible to quantify economic benefits in respect of individual supply chain companies, as contracts would not be let until consent is granted. However, it is evident from recent wind farm construction experience in Scotland (including BVG Associates (2017) *Economic Benefits from Onshore Wind Farms)* that suppliers of a wide range of goods and services within Aberdeenshire and Scotland as a whole would obtain benefit from the proposed development.

16.105 Whilst overall effects on the local economy are considered to be negligible and **Not Significant**, the benefits to individual businesses within the supply chain may be substantial and may indeed be significant. However, until such time as contracts are let it is not possible to identify the level of benefit to individual businesses.

Effects on Tourism Economy

16.106 The construction phase would benefit the economy of the WSA through expenditure on purchases of accommodation, food, drink, fuel, etc. that are needed to sustain the construction workforce. These beneficial effects would be experienced mainly by businesses within the tourism sector, or that are partly dependent on tourism for their income. These likely effects are included within the quantification of the indirect employment effects that are reported in Table 16-8.

16.107 Anecdotal evidence arising from other wind farm construction projects shows that local businesses such as accommodation providers welcome the enhanced level of occupancy that is achieved due to construction contractors using their accommodation on a year-round basis, including periods of the year that are traditionally considered 'low season'. The benefits of increased business, although temporary, can allow businesses to invest in improvements that would not otherwise be affordable, leading to a long term enhancement.

16.108 The positive effects arising during the construction period are expected to more than offset any possible temporary losses to the tourism economy that may occur in the event that tourist visitors were deterred (for example, if holiday accommodation was in use by construction workers) during this phase.

16.109 Whilst overall effects on the tourism economy are considered to be negligible and **Not Significant,** the benefits to individual businesses may be substantial and may indeed be significant. However, until such time as contracts are let it is not possible to identify the level of benefit to individual businesses.

Effects on Land Use

16.110 Land uses within the Site would be affected throughout the construction period by construction activities. Whilst some parts of the Site may not be directly affected for lengthy periods, it is expected that the public would need to be excluded from parts of the forest for a time as part of the Site health and safety plan. Measures to ensure public safety and minimise disruption to recreational activities, including use of the right of way that is crossed by the access track, would

be provided in the detailed CEMP that would be prepared prior to construction commencing.

16.111 There would be adverse effects on the use of the forest for recreational activities for a temporary period during construction. Construction would not affect the formal skiing trails as these lie outwith the Site boundary, but the forest is known to be used for informal cross-country skiing and for other informal recreational activities such as walking and horse riding. The restriction of access to certain parts of the Site for several months at a time during the construction period is considered to have a low level of impact due to the alternative routes that are available and the short duration of the disruption. As the sensitivity of the receptors is no greater than medium the level of effect would be minor and **Not Significant**.

Effects on Tourism and Recreation Receptors

16.112 The principal potential impact on receptors outwith the Site is expected to be caused by delivery vehicles on local roads. The proposed route to the Site is described in Chapter 13: Highways, Traffic & Transport, and within the LAI construction traffic would enter from the A920 at the existing entrance used for the existing Clashindarroch Wind Farm, at Craighead/Wellheads.

16.113 The assessment in Chapter 13: Highways, Traffic & Transport takes account of the implementation of a Construction Traffic Management Plan (CTMP) that would in particular manage the movement of abnormal loads and general access for heavy goods vehicles. The assessment of construction traffic effects concludes that no significant residual impacts are anticipated in relation to the proposed development, with effects being no greater than minor on those days when abnormal loads are delivered. Information with regards to abnormal loads would be provided to local residents and users of amenities to alleviate anxiety and to allow them to plan alternative routes. Tourism and recreational receptors within the LAI are considered to be of no more than medium sensitivity and as impacts following implantation of the proposed CTMP would be low, effects on tourism and recreation receptors are assessed to be no more than minor (adverse) and **Not Significant.**

Mitigation

16.114 There is no requirement for mitigation over and above the proposed environmental measures including in the assessment of construction effects.

Residual Effects

16.115 As there is no requirement for mitigation, the residual effects would remain as negligible and are considered to be **Not Significant.**

Operational Effects

Economic Effects

16.116 The operational phase of the proposed development occurs over a period of 25-30 years and would require a small team of personnel to provide servicing, maintenance, repairs and other operational support for the life of the wind farm. The operational team would not be based on the Site, but would visit as and when required. Based on experience of similar onshore wind farm projects elsewhere in Scotland, it is estimated that between 4 and 5 permanent direct jobs are likely to be created by the project during its operational phase.

16.117 As well as the direct impacts on employment during the construction phase there would also be indirect effects generated throughout the operational phase. Indirect effects arise from the placing of contracts with other businesses – both in the local area and elsewhere in Scotland – supplying services and materials to the project during its operational phase. Examples of such supply chain activity would include the procurement of:

- Site and building maintenance and cleaning (e.g. electricians, painters, roofing and flooring contractors, etc);
- waste management and recycling to provide services for hazardous and non-hazardous materials;
- onsite forestry management;
- civil engineering contractors for road maintenance, ditching, crane pad repairs, grass cutting, weed control, road furniture and gate repair etc;
- maintenance of fencing;
- fuel supplies;
- plant and equipment hire;
- crane companies to provide lifting services;
- snow clearing;
- supply of consumable items (e.g. lubricants and oils, spare parts, office supplies, etc.);
- statutory turbine inspections;
- catering for meetings and visits; and
- in addition, local shops, cafes, accommodation providers and hotels often experience an increase in business during the operational phase (e.g. extra technicians onsite for during wind farm maintenance and servicing).

16.118 Overall, it is expected that there could be between 1 and 2 indirect jobs created in the operational and maintenance supply chain for the project locally, and a total of between 2 and 3 jobs created in Scotland as a whole.

16.119 In terms of the local direct and indirect jobs creation, the overall amount of permanent full time equivalent employment that could be created in the WSA during the operational phase of the project is between 5 and 7 jobs.

16.120 However, given that there are currently around 183,500 jobs held by residents of the area, this stimulus to local job creation is judged to represent a negligible magnitude of impact on both the local labour market and the Scottish labour market as a whole. This is because an increase in demand of just 5 - 7 FTE jobs is considered to be only sufficient to cause '*an impact that would not be expected to result in a measurable variation from baseline labour market conditions*' as set out in Table 16-3. This level of effect is **Not Significant.**

16.121 Similarly, the level of effect on the local economy from this level of direct and indirect employment generation would also be negligible and **Not Significant.**

Community Benefits

16.122 The Applicant has stated that it wishes to share the benefit of the proposed development with the local community. To this end, it has commenced discussions with stakeholders, including community councils, regarding the opportunity for local communities to benefit from shared revenue in the wind farm. Discussions are ongoing, and local community councils are being supported by Local Energy Scotland.

16.123 The Applicant would provide additional community benefit funding from the operation of the proposed development, supplementing that from the established Clashindarroch Community Fund. The existing Clashindarroch Community Fund, funded by Clashindarroch Wind Farm, awarded grants of nearly £550,000 in the three years from 2015 to 2018 across a wide range of projects in line with the fund's priority areas: contemporary culture, events and recreational activities; improve community services and facilities; promote rural regeneration; cultural, historic and archaeological heritage; preserve and enhance the natural environment for residents and visitors.

16.124 The level of Community Benefit would be in line with prevailing Scottish Guidance. This is currently £5,000 per MW installed per annum, however, the recently updated Scottih Governments Good Practice Guidance on Commnity Benefit now promotes the possibility of a more flexible package of benefits-in-kind, rather than simple annual monetary payments. The Applicant has also approached local community partnerships to discuss the potential for shared ownership of the proposed development.

16.125 Shared ownership is considered an opportunity to look at strategic priorities for the long term and create a legacy. There is an opportunity to distinguish between strategic initiatives which might be assisted by shared ownership (housing, economic development, transport etc) and the smaller projects (community and other facilities, events, etc) typically financed by community benefit funds.

16.126 Further information on the proposed shared ownership mechanism and the potential benefits is provided in the Community Partnership Strategy that accompanies the Section 36 application, which provides estimates of potential community value arising from a number of different energy generation scenarios.

16.127 The Community Partnership Strategy calculates the net economic benefit that is expected to arise for energy generation scenarios of between 50 and 80MW. With regard to a community benefit rate of £5,000 per MW, this would result in an annual community value of between £250,000 to £400,000. This would be a higher level of income that that currently gained from the existing Clashindarroch Wind Farm.

16.128 Further value for the local communities could be gained from shared ownership. The amount payable would be calculated post-commercial operation of Clashindarroch II. This would be in addition to the proposed community benefit payment and would provide a strategic opportunity to achieve local socio-economic objectives.

16.129 This level of funding could result in a measurable difference to the local economy around the Site. The existence of such a fund would allow projects and activities that otherwise may not be able to attract sufficient funding to go ahead. Such activities, being locally instigated and relatively small in scale, tend to utilise local labour and services, and consequently the direct and indirect economic effects disproportionately benefit the local area.

16.130 The Community Partnership Strategy estimates that the proposed level of income for local communities arising from the proposed development could translate into the creation of 38-55 employment opportunities in the local area. Other benefits are likely to arise that would address strategic policy priorities for the area such as support for local housing, broadband connection, and measures to address social isolation.

16.131 The information provided in the Community Partnership Strategy indicates that, subject to the decisions taken by the local community with regard to use of income from the wind farm, there is potential for beneficial effects on employment. At the level of the WSA the effects would be negligible, but as suggested in the Community Partnership Strategy there would be a more concentrated impact within the communities immediately surrounding the proposed development. Additional beneficial effects in the local area would include non-quantifiable effects on socio-economic policy priorities.

Effects on Tourism and Visitor Economy

16.132 A review was undertaken of relevant literature published on the impact of wind farms on tourism and the tourism economy. This provides context to the assessment of the effects of the proposed development on specific tourism and recreation receptors.

16.133 This section provides a summary of the review findings, which is undertaken in the context of the acknowledged importance of tourism to the Scottish economy, and the recognition that the character and visual amenity value of Scotland's landscapes is a key driver of tourism in Scotland. The VisitScotland Visitor Experience Survey 2015/16 (Ref. 16.34) confirms the basis of this argument with its ranking of the key factors influencing visitors when choosing Scotland as a holiday location. In this study, over half of visitors rated scenery and the natural environment as the main reason for visiting Scotland: a majority of visitors to Scotland were found to come because of the landscape, scenery and the wider environment, which supports important visitor activities such as walking, cycling wildlife watching and visiting historic sites.

16.134 A key source of data on the economic impact of wind farms on tourism in Scotland is the 2008 Moffat Report (Ref. 16.35), commissioned by the Scottish Government. This study considered whether there would be any reduction in tourism employment and income for Scotland as a whole as a result of the impact of wind farms on tourism, and concluded that the negative impact of wind farms on tourism at national level is small and any reduction in employment in tourism would be far less than the numbers directly employed in the wind power industry. Even using a worst-case scenario the impact of wind farm applications would be very small, and would be more than balanced by the economic benefits of wind farm development.

16.135 The study also found that large single developments are preferable to a number of smaller developments as it is the basic intrusion into the landscape that generates the initial loss, rather than subsequent developments on the same site.

16.136 ClimateXChange was asked by the Scottish Government in 2012 to review evidence published since the Moffat Report and to examine what more recent research has to say about the impact of wind farms on tourism in Scotland. The report (Ref. 16.36) concluded that there is no new evidence to contradict the earlier findings that wind farms have little or no adverse impact on tourism in Scotland.

16.137 Subsequent studies have reported similar findings. One of the most recent is the report by BiGGAR

Economics on Wind Farms and Tourism Trends in Scotland, published in July 2016 (Ref. 16.37), at which time installed onshore capacity had risen from 2.0 gigawatts (GW) in 2009 to 4.9GW in 2014. During this time, employment in the tourism sector also rose by over 10% in Scotland as a whole.

16.138 The BiGGAR study specifically addressed the expectation that any impacts associated with a wind farm development are most likely to be felt strongest in the immediate vicinity of the proposed development. An analysis of the levels of employment in the sustainable tourism sector in the immediate vicinity of onshore wind farm developments did not find any evidence of these areas being adversely affected. On the contrary it was found that the tourism sector in the majority of areas surrounding wind farms grew faster than in the local authorities where they were situated.

16.139 This evidence was drawn out specifically in relation a number of sample study areas selected by the BiGGAR report for more detailed assessment, of which one (Hill of Towie) was located relatively close to the proposed development in Moray. The report shows that in Moray as a whole, tourism-related employment grew by 3.9% in the period 2009 – 2013. In relation to the specific study area around the Hill of Towie wind farm, the study found that tourism-related employment grew by 18.1% during the same period.

16.140 Although the BiGGAR study did not suggest that there is any direct relationship between tourism sector growth and wind farm development, it does show that wind farms do not cause a decrease in tourism employment either at a local or a national level.

16.141 The overall conclusion of this review is 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, either at local authority level or in the areas immediately surrounding wind farm development. Therefore, the likely effect of the proposed development when operational on the tourism and visitor economy is assessed as negligible and **Not Significant.**

Land Use

16.142 Within the Site, the construction of the proposed development would leave a legacy of an additional 11km of new tracks, which would be available for recreational use and forestry purposes. These are considered likely to benefit recreational users by opening up new routes although as the sensitivity of the users is no more than medium and the level of impact would be low, the level of effect would be minor (beneficial) and **Not Significant**.

16.143 With specific regard to horse riders using the Clashindarroch Forest, the majority of turbines are not located on or close to tracks, although a small number of turbines are located within the distance recommended by the British Horse Society (BHS) for horse riders using paths (three times the height of the turbines or 450m). The reason for the buffer distance provided in the BHS Guidance is to provide a precautionary measure to protect equestrians unfamiliar with wind turbines. In the case of the proposed development, it is likely that horses and riders using the paths within the forest would already be familiar with wind turbines due to the presence of the Clashindarroch Wind Farm.

16.144 The magnitude of impact on horse riders using the paths within the forest is therefore expected to be low adverse, which would result in a negligible level of effect that would be **Not Significant** on this receptor which is considered to be of low sensitivity.

16.145 With regard to the commercial forestry use of the Site, such forests are dynamic and their structure continually undergoes change due to normal felling and restocking by the landowner and natural events, such as windblow, pests or diseases. The Applicant is committed to providing appropriate compensatory planting to mitigate the loss of woodland area, as described in Technical Appendix 3.2: Forestry.

Effects on Tourism and Recreation Receptors

16.146 The conclusions of the previous section (paragraphs 16.132 to 16.141) with regard to studies of effects on tourism are relevant with regard to individual tourism and recreational receptors.

16.147 Chapter 7: Landscape and Visual concludes that the visual receptors that would experience the greatest magnitude of change are those using the Clashindarroch Forest for recreational purposes and walkers using the immediately adjacent hillsides where the proposed development would become a defining feature, extending the presence of turbines from the Clashindarroch Wind Farm to the north east. Overall, including assessment of cumulative effects with other wind farms, the significant effects of the proposed development are considered to be very limited for a wind farm of its size and scale.

16.148 Whilst the Visual effect from certain viewpoints on paths within and adjacent to the Site is assessed as major in Chapter 7: Landscape and Visual, it is considered that this would not necessarily result in a similar level of effect for users of the paths, in particular users of the paths and ski trails within Clashindarroch Forest. Much of the recreational use of these paths is concerned with active recreation, in which landscape setting is only one of the reasons that users are drawn to the Site. Furthermore, whilst the turbines would form a substantial part of certain viewpoints, the route as a whole would only afford glimpsed views of the proposed development which would be seen in the context of other wind farms, including Clashindarroch Wind Farm. The level of impact is therefore assessed as no greater than low on the majority of recreational receptors which are generally considered to be of local importance and low sensitivity. The managed ski trails are of regional importance and medium sensitivity and therefore the level of effect on these receptors is therefore assessed as no greater than minor and **Not Significant**.

Mitigation

16.149 There is no requirement for mitigation over and above the proposed environmental measures included in the assessment of operational effects.

Residual Effects

16.150 As there is no requirement for mitigation, the residual effects would remain as minor (or lower) and are considered to be **Not Significant.**

Decommissioning Effects

16.151 The effects arising during the decommissioning phase are expected to be similar to those experienced during the construction phase.

FURTHER SURVEY REQUIREMENTS AND MONITORING

16.152 There are no requirements for further surveys or monitoring.

SUMMARY OF PREDICTED EFFECTS

16.153 The predicted socio-economic effects associated with the proposed development are summarised in Table 16-9.

Table 16-9
Summary of Predicted Construction Effects

Type	Duration	Sensitivity	Effect	Mitigation Measures	Residual Effect
WSA Labour Market	Temporary	Low	Negligible (beneficial)	None required	Negligible
WSA economy	Temporary	Low	Negligible (beneficial)	None required	Negligible
WSA Tourism Economy	Temporary	Low	Negligible (beneficial)	None required	Negligible
Land Use	Temporary	Low to Medium	Minor (adverse)	Implementation of a Construction Environmental Management Plan (CEMP) to manage use of tracks by construction traffic within Clashindarroch Forest	Minor (adverse)
Tourism and Recreational Receptors	Temporary	Low	Minor (adverse)	Production of a Construction Traffic Management Plan (CTMP) including campaign of provision of information to local residents and users of amenities.	Minor (adverse)

16.154 The predicted socio-economic effects associated with the proposed development are summarised in Table 16-10.

Table 16-10
Summary of Predicted Operational Effects

Type	Duration	Sensitivity	Effect	Mitigation Measures	Residual Effect
WSA Labour Market	Long term	Low	Negligible (beneficial)	None required	Negligible (beneficial)
WSA economy	Long term	Low	Negligible (beneficial)	None required	Negligible (beneficial)
WSA Tourism Economy	Long term	Low	Negligible (adverse)	None required	Negligible (adverse)
Land Use	Long term	Low to Medium	Minor (beneficial to Minor (adverse)	None required	Minor (beneficial to Minor (adverse)
Tourism and Recreational Receptors	Long term	Low to Medium	Negligible to Minor (adverse)	None required	Negligible to Minor (adverse)

CUMULATIVE EFFECTS ASSESSMENT

16.155 Wind farms which are currently operational, under construction or in the planning stage, within a 40km radius of the Site are shown on Figure 7.7a. Wind farms that may be under construction concurrently with the construction of the proposed development are:

- Dorenell Wind Farm (under construction);
- Hill of Towie II Extension (Consented);
- Greenmyres Wind Farm (Consented); and
- Jericho Forest Wind Farm (Consented).

16.156 There are no specific construction projects that would give rise to employment and additionality effects with the proposed development.

16.157 Chapter 13: Highways, Traffic and Transport has assessed the potential for cumulative effects on local roads and concludes that this would not lead to any further environmental effect in transportation terms provided that the measures proposed in the CTMP for management of abnormal loads and days of specific high density of traffic movement (e.g. concrete pour days) are implemented.

16.158 Cumulative operational effects on employment at not expected due to the low numbers of operational staff involved. Cumulative effects on the tourism economy, including specific tourism receptors, are considered unlikely in the context of the published studies reviewed in the Baseline.

16.159 Based on the assessment of Landscape and Visual effects undertaken in Chapter 7: Landscape and Visual, no significant cumulative effects on recreational receptors have been identified.

STATEMENT OF SIGNIFICANCE

16.160 This assessment has considered data from a diverse range of sources to determine the likely effects of the proposed development on the local economy, together with local effects on tourism and recreation assets. The potential effects on the economy and identified assets take account of good practice measures to be adopted. No specific mitigation has been identified to be required and therefore residual effects of the proposed development are effectively the same as the predicted effects. Predicted adverse effects have been assessed as not significant; predicted beneficial effects have been assessed as significant with regard to effects on the local construction sector during the construction phase.

16.161 With regard to local land use, recreational and tourism assets, no significant adverse construction phase effects have been identified.

16.162 The Community Partnership Strategy presents a number of scenarios with a number of potential outcomes relating to the net economic benefit resulting from the revenue sharing scheme and the community benefit fund. These have the potential to result in localised significant and positive effects; however, as the actual outcome is unknown no reliance is placed on it in the assessment of the proposed development on socio-economics.

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