Chapter 14 Socioeconomics

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List of Abbreviations

Abbreviation	Description
BESS	Battery Energy Storage System
CAPEX	Capital Expenditure
DECC	Department for Energy and Climate Change
DESNZ	Department for Energy Security and Net Zero
EIA	Environmental Impact Assessment
GVA	Gross Value Added
HGV	Heavy Goods Vehicle
Km	Kilometre
MW	Megawatt
NPF	National Performance Framework
NPF4	National Planning Framework 4
NS	NatureScot
SABS	Scottish Annual Business Statistics

Glossary

Abbreviation	Definition
The Applicant	Fred. Olsen Renewables Limited
Baseline	The existing conditions that prevail against which the effects of the Proposed Development are compared.
Construction Phase	The period during which project infrastructure is being installed.
Cumulative effects	The combined effect of the project acting cumulatively with the effects of one or more projects, on a single receptor/resource. Cumulative effects are those that result from changes caused by other past, present or reasonably foreseeable actions together with the Proposed Development.
Development and Construction Phase	The period that covers all initial project development, design, consenting, manufacturing, construction and commissioning for the Proposed Development.
Effect	Term used to express the consequences of an impact. The significance of an effect is determined by correlating the magnitude of an impact with the sensitivity of a receptor, in accordance with defined significance criteria.
Environmental Impact Assessment	Environmental Impact Assessment (EIA) is a means of drawing together by the developer, in a systematic way, a description of the development and information relating to of the likely significant environmental effects arising from a proposed development.
Environmental Impact Assessment Report	A document reporting the findings of the EIA and produced in accordance with the Electricity Works (Environmental Impact Assessment) (Scotland) Regulations 2017.
Years of Employment	The number of years of employment generated by a project.
Mitigation Measure	Mitigation measures provide for a system to reduce, avoid or offset the potential adverse environmental consequences of development activities. Their objective is to maximise project benefits and minimise undesirable impacts.
Proposed Development	The proposed Lees Hill Renewable Energy Park as described in Chapter 4, Volume 2 of this EIAR.
Proposed Development Site	The project development area within the site boundary as shown in Figure 1.2, Volume 3a.
Receptor	A distinct part of the environment on which effects could occur and can be the subject of specific assessments. Receptors include species (or groups) of animals or plants, people (often categorised further such as ‘residential’ or those using areas for amenity or recreation), watercourses etc.
Sensitive Receptor	Physical or natural resource, special interest or viewer group that may experience an impact.
Study Area	The area which is characterised and assessed in the EIAR chapter.

14. Socioeconomics

14.1. Introduction

14.1.1. This chapter provides an assessment of the potential effects of the Proposed Development on socio-economics, tourism and recreation.

14.1.2. This assessment was conducted on the basis of six turbines being built, each with a generating capacity of around 6 Mega Watts (MW), and a total capacity of around 37MW. It is noted the project, based on current turbine availability for the proposed dimensions could have an installed wind energy capacity of anything between 37MW and 45MW, but in order to present a 'worst case scenario' this assessment was carried out assuming the smaller installed capacity. The analysis also considers the economic impacts associated with the installation of a Battery Energy Storage System (BESS), with indicative capacity of 60 MW, and a ground-mounted solar PV of 60 MW.

14.1.3. The assessment found the Proposed Development will support economic activity in the Scottish Borders and Scotland, including through making use, where possible, of local content. No significant adverse effects on socio-economic, tourism and recreation receptors were identified.

14.2. Legislation Policy and Guidance

14.2.1. There is no specific legislation, policy or guidance available on methods that should be used to assess the socio-economic impact of a proposed onshore wind farm development. Nor is there any specific guidance on maximising net economic impact in the context of NPF4. However, the Onshore Wind Policy Statement 2022[1] identifies a number of potential benefits to communities and to Scotland, including community benefit, shared ownership and opportunities for the Scottish supply chain. These potential benefits are considered in this chapter.

14.2.2. The methodology adopted is based on established best practice, including that used in UK Government and industry reports on the economic benefits from renewable energy developments.

14.2.3. In particular, the assessment draws on studies by BiGGAR Economics on the UK energy sector. This includes a report published by RenewableUK and the then Department for Energy and Climate Change (DECC) in 2012 on the direct and wider economic benefits of the onshore wind sector to the UK economy[2]. An update to this analysis featured in a report published by RenewableUK in 2015[3]. Analysis is also supported by an assessment of solar panel expenditure completed by Solar Power Portal in 2018[4] and a report on the development of energy storage in the UK first published in 2016[5], then updated in 2019[6].

14.2.4. The analysis also relies on more recent evidence from BiGGAR Economics' own work with renewable energy developers across Scotland and the UK.

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[1] *Scottish Government (2022), Onshore Wind Policy Statement 2022*

[2] *RenewableUK and DECC (2012), Onshore Wind Direct & Wider Economic Impacts*

[3] *RenewableUK (2015), Onshore Wind: Economic Impacts in 2014*

[4] *Solar Power Portal (2018), UK solar costs plummeting beyond forecasts, as cheap as £40/MWh by 2030. [Online] Available from - https://www.solarpowerportal.co.uk/news/uk_solar_costs_plummeting_beyond_forecasts_as_cheap_as_40_mwh_by_2030 [Accessed 19/09/23]*

[5] *RegenSW (2015), Energy Storage – Towards a Commercial Model*

[6] *RegenSW (2015), Energy Storage – Towards a Commercial Model – 2nd edition*

14.2.5. Similarly, there is no formal guidance on the methods that should be used to assess the effects that renewable energy developments may have on the local tourism economy. The assessment has been undertaken in line with established best practice in assessing the tourism effects from renewable energy developments.

14.2.6. For recreational assets, the assessment follows the guidance provided by NatureScot (NS)[7] on how to assess effects on recreational amenity. This considers several potential effects, including direct effects on facilities, such as limitation or restrictions on access, and effects on the intrinsic quality of the resources enjoyed by people. In general, this guidance would consider recreational and access effects to be potentially significant if there were:

- Permanent or long-term effects on the resources on which enjoyment of the natural heritage depends, in particular where facilities have been provided by NS or others under statutory powers;
- Permanent or long-term changes that would affect the integrity and long-term sustainable management of facilities which were provided by NS or others under statutory powers;
- Where there are recreational resources for open air recreation pursuits affected by the proposal which have more than local use or importance, especially if that importance is national in significance;
- Major constraints on or improvements for access or accessibility to designated natural heritage sites; and
- Where mitigation and/or compensatory or alternative recreational provision is considered to be inadequate.

14.3. Method of Assessment

Study Area

14.3.1. The socio-economic baseline considered activity across the following study areas:

- The Local Area (i.e., the electoral ward of Mid Berwickshire);
- The Scottish Borders (as defined by the Scottish Borders Local Authority); and
- Scotland.

14.3.2. The study areas considered in the economic analysis were:

- The Scottish Borders (as defined by the Scottish Borders Local Authority); and
- Scotland.

14.3.3. Economic impacts are not estimated for the Local Area. This is because it is challenging to develop reliable assumptions on the likelihood with which businesses within relatively small geographies are able to secure contracts for a project such as the Proposed Development.

14.3.4. For the tourism and recreation assessment, the focus was on the area within a 15 km radius of the Proposed Development. This is consistent with similar assessments and the methodology used in research studies that have considered the relationship between wind farm development and tourism.

Desk Research

14.3.5. To assess the effects of the Proposed Development on socio-economics, tourism, and recreation, the analysis included desk research providing:

- A review of economic strategies for the Scottish Borders, South of Scotland, and Scotland;

[7] *NatureScot (2018), Environmental Impact Assessment Handbook*

- An analysis of socio-economic statistics for the Local Area, the Scottish Borders, and Scotland;
- An analysis of tourism statistics for the Scottish Borders and Scotland; and
- Identification of tourism and recreation assets, including attractions, accommodation providers and recreational trails within 15 km of the Proposed Development.

Assessment of Socio-Economic Effects

14.3.6. No specific legislation or guidance is available on the methods which should be used when assessing the socio-economic effects of a proposed renewable energy development for an Environmental Impact Assessment (EIA). In order to identify and assess the significance of predicted socio-economic effects, the assessment has been based on professional judgement for the degree of change resulting from the Proposed Development, using methods commonly used in EIAs for proposed renewable energy developments, as outlined below.

14.3.7. The assessment of economic effects was undertaken using a model that has been developed by BiGGAR Economics specifically to estimate the socio-economic impacts of renewable energy developments.

14.3.8. The units of measurement which are used to quantify the economic impacts of the Proposed Development are:

- Gross Value Added (GVA): a measure of the economic value added by an organisation or industry;
- Years of employment: a measure of employment which is equivalent to one person being employed for an entire year and is typically used when considering short term employment impacts, such as those associated with construction activity; and
- Jobs: a measure of employment, which considers headcount employment in an organisation or industry.

Stages in Socio-Economic Analysis

14.3.9. In estimating the economic activity supported by the Proposed Development, it was first necessary to calculate the expenditure during the construction and development, and operation and maintenance phases. The total expenditure figure was then divided across key contracts using assumptions on the share of spending that could be expected by main and sub-contractors. This provides an estimate for each contract that could be secured in the Scottish Borders and Scotland.

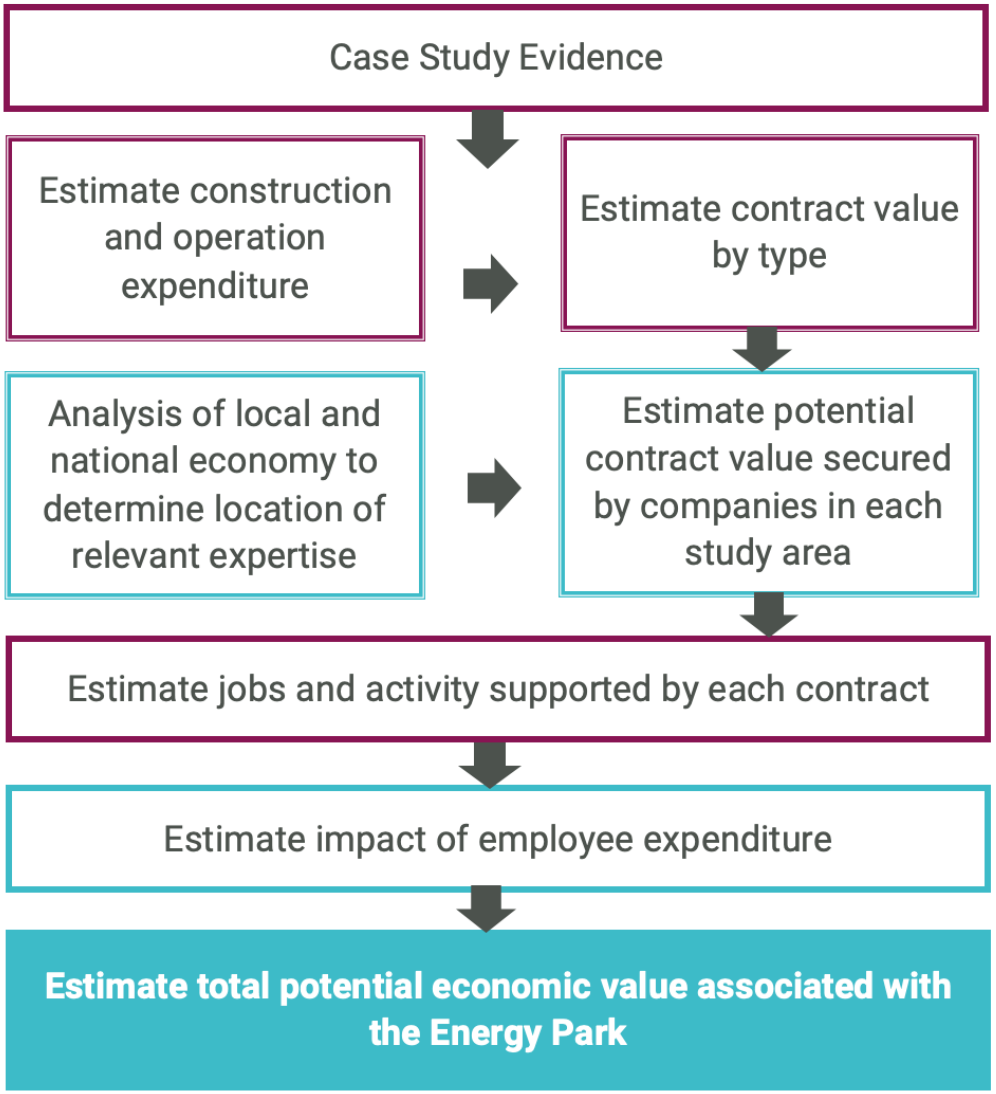
14.3.10. There are three sources of economic activity:

- Component contracts and the jobs they support;
- Wider spending in the supply chain (indirect impact); and
- Spending of the people employed to deliver these contracts (induced impact).

14.3.11. There are four key stages in the analysis, illustrated in Image 14.1:

- Estimation of the capital and operational expenditure;
- Estimation of the value of contracts that make up total expenditure;
- Assessment of the capacity of businesses in the study area to perform and complete contracts; and
- Estimation of economic impact from resultant figures.

Image 14.1 Approach to economic impact assessment



Tourism and Recreation Assessment

14.3.12. The potential effects of wind farm development on tourism and recreation have been the subject of several research studies. Evidence on other technologies such as solar and BESS is more limited, though where available, is referred to. This chapter includes a review of the latest available research evidence.

14.3.13. The assessment identified tourist attractions and accommodation within the vicinity of the Proposed Development. On this basis, it considered the potential effect of the Proposed Development with reference to available research evidence. Important visitor attractions for the wider region were also identified and considered, even if they are not within the vicinity of the Proposed Development.

Effect Evaluation Methodology

14.3.14. The significance of the effect of the Proposed Development on socio-economic, tourism and recreation assets has been considered by determining the sensitivity of the receptor in question and the magnitude of change.

14.3.15. The sensitivity of receptors has been assessed based on professional judgement and previous experience of comparable developments elsewhere in Scotland. The criteria used to do this are provided in Table 14.1.

Table 14.1 Sensitivity criteria

Sensitivity	Description
Very high	The asset has little or no capacity to absorb change without fundamentally altering its present character and/or is of very high tourism, recreational or socio-economic value, or of national importance. For example, it is a destination in its own right (for attractions), with a substantial proportion of visitors on a national level.
High	The asset has low capacity to absorb change without fundamentally altering its present character and/or is of high tourism, recreational or socio-economic value, or of importance to Scotland.
Medium	The asset has moderate capacity to absorb change without substantially altering its present character, has some tourism, recreational or socio-economic value and/or is of regional importance. For example, it is a popular destination among current visitors, with a significant contribution to the regional economy.
Low	The asset is tolerant to change without detriment to its character, has low tourism, recreational and/or socio-economic value, or is of local importance. For example, it is an incidental destination for current visitors.
Negligible	The asset is resistant to change and/or is of little tourism, recreational or socio-economic value. For example, an incidental destination with low current numbers of visitors.

14.3.16. The magnitude of impacts on the Scottish Borders and Scottish economies has been assessed using BiGGAR Economics economic impact model and professional judgement. The magnitude of change on tourism and recreation assets has been assessed with reference to published research evidence and experience of comparable developments elsewhere in Scotland. The criteria followed are set out in Table 14.2.

Table 14.2 Magnitude criteria

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

14.3.17. The sensitivity of the asset and the magnitude of impact will be used as a guide, in addition to professional judgement, to predict the significance of the likely effects. Moderate and major effects are assessed as significant in EIA terms (as shown in bold). The significance criteria are outlined in Table 14.3.

Table 14.3 Significance matrix

Magnitude of Change	Sensitivity				
	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	Negligible	Negligible	Negligible	Negligible	Negligible

14.3.18. For the assessment of recreational effects, magnitude, and significance criteria were assessed following guidance from NatureScot[8]. The criteria for this are outlined in Table 14.4.

Table 14.4 NatureScot assessment of effects criteria

Assessment Factor	Commentary
The magnitude of impacts on access, or on settings in which recreation takes place	Direct physical effects may vary from complete loss of a resource to minor and/or marginal impacts. Visual or noise effects might be accommodated or open to mitigation in an urban edge setting, but much less acceptable or even beyond amelioration in remoter countryside.
The nature, intensity, frequency of occurrence or timing of the effect	These will be important factors in the assessment of the acceptability of effects on recreation. At the less intense levels of impact, the outcomes may be acceptable or open to mitigation either in intensity or through time limitations on certain activities within the development.
Potential for the effects to increase over time	This is a precautionary point of reasonable anticipation of how effects might increase in scale over the years and thereby make mitigation ineffective.
Scarcity value of the recreation resource on a wider strategic scale	This factor recognises there are considerable geographic imbalances in the supply of recreation opportunities, and where a resource is in short supply then less compromise may be feasible. As examples, some parts of the country are very poorly endowed with accessible open water space.
Recognition of the recreation opportunity spectrum	The recreation opportunity spectrum is a basic principle of recreation planning that provision should be made for people's recreation needs along a range which provides for gregarious, active and some noisy recreations at one end of the scale, and solitude and quiet enjoyment at the other.

[8] *NatureScot (2023), Environmental Impact Assessment Handbook*

14.4. Consultation

14.4.1. The assessment has considered responses to the Scoping Report relevant to socio-economics, tourism and recreation. The responses received and actions undertaken by the Applicant are set out in Table 14.5.

Table 14.5 List of consultation responses

Consultee	Consultation Response	Applicant Action
Scottish Government Energy Consents Unit - Scoping Opinion	The EIAR should estimate who may be affected by the development, in all or in part, which may require individual households to be identified, local communities or wider socio-economic groupings such as tourists and tourist related businesses, recreational groups, economically active, etc.	The economic analysis considers which activities are most likely to be affected by the Proposed Development. Potential effects on tourism activity and recreational users are also considered. The potential effects on the economy and tourism and recreation are considered in Section 14.6
Scottish Government Energy Consents Unit - Scoping Opinion	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 development.	The economic impacts of the Proposed Development are assessed across the development, construction and operational phases. The operational life of the Proposed Development is assumed to be 35 years. As there is considerable uncertainty on baseline conditions, economic activity and available technology, decommissioning impacts have been scoped out of the analysis. Economic impacts are considered in Section 14.6
Scottish Government Energy Consents Unit - Scoping Opinion	The EIAR should set out the impact on the regional and local economy, not just the national economy. Any mitigation proposed should also address impacts on the regional and local economy.	Economic impacts are considered for the Scottish Borders and Scottish economies. These are covered in Section 14.6

14.5. Baseline

Strategic Socio-economic Context

Scotland's National Strategy for Economic Transformation

14.5.1. In March 2022, the Scottish Government released the National Strategy for Economic Transformation[9] , which set out its ambition for Scotland's economy over the next 10 years. The Scottish Government's vision is to create a wellbeing economy where society thrives across

[9] *Scottish Government (2022), Scotland's National Strategy for Economic Transformation*

economic, social and environmental dimensions, which delivers prosperity for all Scotland's people and places. Of particular importance is the ambition to be greener, with a just transition to net zero, a nature-positive economy and a rebuilding of natural capital.

14.5.2. A key longer term challenge identified in the strategy is to address deep-seated regional inequality, including in rural and island areas that face a falling labour supply, poorer access to infrastructure and housing. The transition to net zero presents a further issue of delivering positive employment, revenue and community benefits.

14.5.3. To deliver its vision and address the economy's challenges, five programmes of action have been identified (with a sixth priority of creating a culture of delivery). These include:

- Establishing Scotland as a world-class entrepreneurial nation;
- Strengthening Scotland's position in new markets and industries, generating new, well-paid jobs from a just transition to net zero;
- Making Scotland's businesses, industries, regions, communities and public services more productive and innovative;
- Ensuring that people have the skills they need to meet the demands of the economy, and that employers invest in their skilled employees; and
- Reorienting the economy towards wellbeing and fair work.

14.5.4. The strategy notes that Scotland has substantial energy potential. This provides a strong foundation for securing new market opportunities arising from the transition to net zero, for example in the hydrogen economy and in the decarbonisation of heating systems, where Scotland may be able to secure first-mover advantage and will need continuing investment and support. Renewable energy also has a role to play in supporting productive businesses and regions across Scotland.

National Performance Framework

14.5.5. Scotland's National Performance Framework (NPF), first published in 2018[10], sets out the ambitions of the Scottish Government to provide a vision for national wellbeing across a range of economic, social and environmental factors. The framework includes 'increased well-being' as part of its purpose and combines measurement of how well Scotland is doing in economic terms with a broader range of well-being measures. The NPF is designed to give a more rounded view of economic performance and progress towards achieving sustainable and inclusive economic growth and well-being across Scotland. The aims for Scotland are to:

- Create a more successful country;
- Give opportunities to all people living in Scotland;
- Increase the well-being of people living in Scotland;
- Create sustainable and inclusive growth; and
- Reduce inequalities and give equal importance to economic, environmental and social progress.

14.5.6. The NPF also sets out outcomes and indicators to track the progress Scotland is making in improving well-being. The outcomes outlined in the NPF are that people in Scotland:

- Grow up loved, safe and respected so that they realise their full potential;
- Live in communities that are inclusive, empowered, resilient and safe;
- Are creative and their vibrant and diverse cultures are expressed and enjoyed widely;
- Have a globally competitive, entrepreneurial, inclusive and sustainable economy;

[10] *Scottish Government (2018), National Performance Framework*

- Are well educated, skilled and able to contribute to society;
- Value, enjoy, protect and enhance the environment;
- Have thriving and innovative businesses, with quality jobs and work for everyone;
- Are healthy and active;
- Protect and fulfil human rights and live free from discrimination;
- Are connected and make a positive contribution internationally; and
- Tackle poverty by sharing opportunities, wealth and power equally.

14.5.7. The construction and operation of the Proposed Development will contribute to the achievement of the national outcomes set out in the NPF, with the project advancing the development of a competitive, inclusive, and sustainable economy in Scotland.

National Planning Framework 4

14.5.8. The Fourth National Planning Framework (NPF4)[11] is the national spatial strategy for Scotland. The document considers Scotland's spatial principles, national planning policy, national developments, and regional priorities. The NPF4 recognises the global climate emergency and the role renewable energy developments play in the transition to net zero.

14.5.9. Policy 11 (energy) includes paragraph (c) which states that "development proposals will only be supported where they maximise net economic impact, including local and community socio-economic benefits such as employment, associated business and supply chain opportunities".

Programme for Government 2023/24

14.5.10. In September 2023, the Scottish Government published an updated Programme for Government, outlining the strategic aims and plans for the Government for the period 2023/24[12]. The Programme is centred around the delivery of three key missions:

- Equality: tackling poverty and protecting people from harm;
- Opportunity: building a fair, green and growing economy; and
- Community: delivering efficient and effective public services.

14.5.11. The Programme highlights the Scottish Government's intention to support sustainable economic growth and maximise the opportunities for Scottish communities created by the transition to net zero and the green economy. It emphasises the need to scale up renewable energy across Scotland to deliver net zero and commits to establishing a sector deal with the onshore wind industry to encourage growth in the industry. The Programme also highlights the Government's intention to engage with the onshore wind sector to ensure that the transition to net zero delivers good, well-paid jobs in the renewables industry, maximising the potential benefits for Scotland's economy and communities.

Onshore Wind Sector Deal for Scotland

14.5.12. The Onshore Wind Sector Deal for Scotland[13] sets out how the Scottish Government and the onshore wind sector will collaborate to deliver 20 GW of onshore wind in Scotland by 2030. The Deal also includes a series of measures to ensure benefits from onshore wind deployment are maximised.

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[11] *Scottish Government (2023), National Planning Framework 4*

[12] *Scottish Government (2023), Equality, Opportunity, Community Our Programme for Government*

[13] *Scottish Government (2023), Onshore Wind Sector Deal for Scotland*

14.5.13. The Onshore Wind Sector Deal for Scotland includes the following commitments related to socio-economic issues:

- Identification of skill gaps and opportunities for training;
- Enhanced offer of further and higher education training, provision of apprenticeships, training opportunities and skilled jobs;
- Monitoring of local content in the supply chain and O&M arrangements, and promotion of local supply chain opportunities; and
- Continuous engagement with local communities through the offering of community benefits and packages exceeding the principles established in the Good Practice Principles for Community Benefits, as well as the development of practical routes to shared ownership.

Regional Economic Strategy for the South of Scotland

14.5.14. The Regional Economic Strategy for the South of Scotland[14] sets out a bold vision for the Scottish Borders to be 'Green, Fair and Flourishing by 2031'. The strategy stresses the role of placing well-being at the centre of policy, as well as emphasising the need for green growth, employment opportunities and investment in the sector. The strategic framework which provides an anchor point for the strategy consists of six key themes:

- Skilled and ambitious people;
- Innovative and enterprising;
- Rewarding and fair work;
- Cultural and creative excellence;
- Green and sustainable economy; and
- Thriving and distinct communities.

14.5.15. The Regional Economic Strategy highlights a series of challenges facing the Scottish Borders, including an ageing population, limited high-quality job opportunities, and the failure to attract educated professionals to bring essential skills to the area. To respond to these problems, a number of priorities exist under each of the six themes, driving future action and investment.

14.5.16. Notably, the theme 'Green & Sustainable Economy' emphasises environmental responsibility and the generation of significant economic, social and industrial opportunities. The priorities sitting under the broader strategy for achieving a green and sustainable economy include:

- Harnessing and enhancing natural capital;
- Seizing the economic opportunity of a just transition to net zero;
- Improving efficiency of homes and buildings; and
- Supporting community wealth building and growing regional supply chains.

14.5.17. In response to challenges identified within the area, the South of Scotland Regional Economic Partnership are committed to several other priorities across five themes, which will develop the economy placing wellbeing at the centre. Some of these also align with activities associated with the Proposed Development, in particular:

- Attracting and retaining people with a diversity of skills, ambition & knowledge;
- Revitalising towns and rural communities;
- Growing and diversifying our economy;
- Attracting and securing new investment; and

[14] *South of Scotland Regional Economic Partnership (2021), Regional Economic Strategy for the South of Scotland 2021 Strategy*

- Securing and improving fair working conditions and wages.

Scottish Borders Council Plan 2023-2024

14.5.18. The Scottish Borders Council Plan 2023-2024[15], outlines six outcomes:

- Clean green future;
- Fulfilling our potential;
- Strong inclusive economy, transport and infrastructure;
- Empowered, vibrant communities;
- Good health and wellbeing; and
- Working together improving lives.

14.5.19. The Council Plan identifies several challenges for the Scottish Borders, such as the climate emergency, the cost-of-living crisis and difficult labour market conditions. The Plan also outlines actions under each of the outcomes, aligning with the overall vision for the Scottish Borders.

14.5.20. In response to the Climate Emergency, the Council Plan identifies an opportunity to create a green economy and utilise the region's natural capital and resources to reduce greenhouse emissions.

14.5.21. Aligning with the vision of the Scottish Borders to build a 'Strong inclusive economy, transport and infrastructure', key actions have been identified such as building a green economy and providing sustainable employment opportunities for the local community. In particular, the Council Plan highlights the need for finding and maintaining employment for young people and adults, to encourage prosperity.

14.5.22. There are a number of key actions throughout the Scottish Borders Council Plan which align with the Proposed Development, including investment in sustainable local energy systems, generating future 'green' job opportunities in renewables and supporting local supply chains.

Summary of Strategic Context

14.5.23. The Proposed Development supports national strategies seeking to build a well-being economy and deliver the transition to net zero. It also aligns with the Regional Economic Strategy for the South of Scotland which puts a significant emphasis on achieving a green and sustainable economy.

14.5.24. Similarly, the Proposed Development contributes to several key actions outlined by the Scottish Borders Council Plan 2023-2024, including investment in renewable energy, the generation of 'green' employment opportunities and support for local supply chains. Through these channels, the Proposed Development is expected to drive sustainable economic growth in the Scottish Borders.

Socio-Economic Baseline

Population

14.5.25. As shown in Table 14.6, in 2021, the Local Area had a total population of 10,626, accounting for 9.2% of the total population of the Scottish Borders[16].

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[15] *Scottish Borders Council (2023), Scottish Borders Council Plan 2023-2024*

[16] *National Records of Scotland (2022), Mid-2021 Population Estimates*

14.5.26. In the same year, 57.8% of the population in the Local Area was of working age (16-64 years old), similar to the share across the Scottish Borders (58.3%), and lower than that of Scotland (63.8%).

14.5.27. The share of the population in the Local Area aged 65 and over (27.3%) was higher than that of the Scottish Borders (25.6%), and greater than the population share of this age group across Scotland (19.6%).

Table 14.6 Population by age, 2021

	Local Area	Scottish Borders	Scotland
Total	10,626	116,000	5,479,900
0-15	14.9%	16.1%	16.6%
16-64	57.8%	58.3%	63.8%
65+	27.3%	25.6%	19.6%

Source: National Records of Scotland (2022), Mid-2021 Population Estimates

14.5.28. The National Records of Scotland provide population projections at the local authority and Scottish levels[17]. While information is not available at the electoral ward level, current population estimates and future trends at the local authority level can be used to form a view of more localised trends.

14.5.29. As Table 14.7 shows, over the period between 2021 and 2043, the total population of the Scottish Borders is projected to increase by 0.1%, from 116,000 to 116,138. During the same period, the population of Scotland is projected to increase by 0.4%.

14.5.30. Although the population in the Scottish Borders is projected to be fairly stable over this period, its overall structure will change. The share of the working-age population is projected to fall from 58.3% to 53.4% (equivalent to a reduction of 5,611 people), whilst the share of the population aged 65+ is projected to rise from 25.6% to 31.5%. Scotland is predicted to follow a similar but less marked trend. In Scotland, the share of the population aged 16-64 is projected to fall from 63.8% to 61.7% and the share of the population aged 65 and over is projected to increase from 19.6% to 24.8%.

14.5.31. These demographic trends suggest that a declining working age population will have to support an increasingly ageing population. For this reason, it will be increasingly important for the Scottish Borders to attract and retain people of working age. The economic opportunities created by the Proposed Development will contribute towards this.

[17] *National Records of Scotland (2020), Population Projections for Scottish Areas (2018-based)*

Table 14.7 Population projections, 2021-2043

	Scottish Borders		Scotland	
Year	2021	2043	2021	2043
Total	116,000	116,138	5,479,900	5,503,019
0-15	16.1%	15.2%	16.6%	13.4%
16-64	58.3%	53.4%	63.8%	61.7%
65+	25.6%	31.5%	19.6%	24.8%

Source: National Records of Scotland (2020), Population Projections for Scottish Areas (2018-based)

Economic Activity

14.5.32. As shown in Table 14.8, in 2022 the unemployment rate in the Scottish Borders (6.4%) was considerably higher than that of Scotland (3.4%)[18]. At the same time, the rate of economic activity was higher in the Scottish Borders (84.8%) than across Scotland as a whole (77.1%).

14.5.33. In the same year, the median annual gross income for the Scottish Borders (£25,530) was lower than that of Scotland as a whole (£27,698)[19].This suggests the local authority has a lower wage economy than Scotland as a whole.

Table 14.8 Economic activity rates, 2022

	Scottish Borders	Scotland
Economic Activity Rate	84.8%	77.1%
Unemployment Rate	6.4%	3.4%
Median Annual Gross Wage (resident)*	£24,530	£27,698

Source: ONS (2022), Annual Population Survey and ONS (2022), Annual Survey of Hours and Earnings

14.5.34. Table 14.9 shows that historically, the economic activity rate in the Scottish Borders has been higher than Scotland. Following this pattern, in 2022, the economic activity rate in the Scottish Borders is 7.7 percentage points higher than for Scotland[20].

14.5.35. It is likely that the Covid-19 pandemic had a greater impact on the Scottish Borders than other regions given that the rate of economic activity fell by six percentage points in 2021.

[18] *ONS (2022), Annual Population Survey*

[19] *ONS (2022), Annual Survey of Hours and Earnings*

[20] *ONS (2022), Annual Population Survey and ONS 2022*

Table 14.9 Economic activity rates, 2012 - 2022

	Scottish Borders	Scotland
2012	77.3	76.8
2013	77.8	76.9
2014	80.9	77.5
2015	79.7	77.7
2016	78.7	76.7
2017	77.8	77.4
2018	76.9	77.4
2019	78.8	77.5
2020	80.1	76.8
2021	74.1	76.2
2022	84.8	77.1

Source: ONS (2022), Annual Population Survey and ONS 2022

Education

14.5.36. Table 14.10 shows that in 2021, the share of people with a NVQ4+ Qualification, which is equivalent to a Higher Education Certificate, in the Scottish Borders (45.5%) was less than the Scottish average (50.0%)[21]. There were also lower attainment levels compared to Scotland across NVQ3+, NVQ2+ and other qualifications.

14.5.37. The share of the working age population in the Scottish Borders with no qualifications (8%) was also slightly higher than that of Scotland (7.8%).

[21] *ONS (2022), Annual Population Survey and ONS (2022)*

Table 14.10 Education level, 2021

	Scottish Borders	Scotland
NVQ4+	45.5%	50.0%
NVQ3+	59.8%	64.8%
NVQ2+	78.5%	79.6%
NVQ1+	87.4%	86.4%
Other qualifications (NVQ)	4.5%	5.8%
No qualifications (NVQ)	8.0%	7.8%

Source: ONS (2022), Annual Population Survey and ONS (2022)

Industrial Structure

14.5.38. As shown in Table 14.11, 24.4% of people in the Local Area were employed in manufacturing in 2021[22]. Of this, the majority were employed within the food manufacturing industry (82.9%). The level of employment in the manufacturing sector was greater than the average across the Scottish Borders (10.2%) and Scotland (6.8%). This indicates the Local Area relies heavily on manufacturing, and that this sector is a key driver of the local economy.

14.5.39. The construction industry is also overrepresented in the Local Area, employing 9.5% of workers, compared to 7.0% in the Scottish Borders and 6.0% in Scotland.

14.5.40. The wholesale and retail trade sector was an important employer in the Local Area, accounting for 16.2% of total employment. This is similar to the share of employment in the sector in the Scottish Borders (16.1%), and greater than that across Scotland (14.1%).

14.5.41. In the Local Area in 2021, 4.3% of employment was in accommodation and food services, a sector generally associated with the tourism industry. This is below the share of employment in the sector across the Scottish Borders (6.4%) and Scotland (7.5%), indicating the sector is not a key driver of the local economy.

[22] *ONS (2022), Business Register and Employment Survey 2021*

Table 14.11 Industrial structure, 2021

	Local Area	Scottish Borders	Scotland
Manufacturing	24.4%	10.2%	6.8%
Wholesale and retail trade	16.2%	16.1%	14.1%
Human health and social work activities	14.9%	17.2%	15.3%
Construction	9.5%	7.0%	6.0%
Education	6.8%	8.0%	8.3%
Transportation and storage	4.9%	2.0%	4.1%
Professional, scientific and technical activities	4.6%	4.8%	6.4%
Accommodation and food service activities	4.3%	6.4%	7.5%
Real estate activities	3.0%	1.6%	1.5%
Arts, entertainment and recreation	2.4%	3.0%	2.4%
Agriculture, forestry and fishing	2.2%	11.8%	3.4%
Administrative activities	1.9%	3.2%	7.7%
Public administration and defence; compulsory social security	1.6%	4.0%	6.3%
Water supply and waste management	0.9%	0.8%	0.8%
Other service activities	0.9%	1.6%	1.8%
Electricity, gas, steam and air conditioning supply	0.8%	0.3%	0.7%
Information and communication	0.5%	1.4%	3.0%
Financial and insurance activities	0.1%	0.5%	3.0%
Total employment	**3,595**	**45,190**	**2,616,000**

Summary of Socio-Economic Context

14.5.42. The Local Area features an older age profile, with a relatively higher share of its population being 65+ compared to the Scottish Borders and Scotland. This trend is likely to reinforce in the future, as over 31% of the Scottish Borders' population is expected to be 65+ by 2043. Based on these trends, a smaller population of working age will have to support an increasingly old population. Therefore, it is important for the Local Area to attract people of working age. The Proposed Development will generate needed employment opportunities to address this issue.

14.5.43. Although the rate of economic activity in the Scottish Borders is higher than that of Scotland, the unemployment rate is also higher and the median annual gross wage is lower than the Scottish average. The Proposed Development has the potential to generate long-term, well-paid jobs in the Local Area, retaining a skilled workforce and attracting young people through job creation.

14.5.44. The Local Area is also likely to benefit from the construction of the Proposed Development, having a higher proportion of its employment in the construction sector compared to Scotland. The economic structure of the Local Area also suggests that the tourism industry is not a key employer.

Strategic Tourism and Recreation Context

Scotland's Outlook 2030

14.5.45. In 2020 the Scottish Tourism Alliance, a collaborative network of industry experts, published Scotland Outlook 2030[23], a strategy focused on creating a world-leading tourism sector in Scotland that is sustainable in the long-term. The strategy is focused on four priorities:

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

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

- Using technological advancements and information to understand changes and trends in tourist behaviours;
- Ensuring policies are in place that support the vision;
- Enabling investment opportunities into Scotland's tourism market;
- Improving transport and digital infrastructure;
- Greater collaboration between businesses in the industry; and
- Positioning Scotland as a great place to live and visit locally and globally.

14.5.47. A main commitment of the strategy is to address the effects of energy demand associated with tourism and make the sector commit fully to Scotland's ambition of becoming a net-zero society by 2045.

[23] *Scottish Tourism Alliance (2020), Scotland Outlook 2030*

Tourism and Recreation Baseline

Tourism Context

14.5.48. In 2015, Scotland's Economic Strategy[24] outlined six sectors that have the potential to support the growth of Scotland's economy, one of which was sustainable tourism.

14.5.49. The share of people employed in sustainable tourism in the Local Area was 4.7%, comparatively lower than across the Scottish Borders (8.3%) and Scotland as a whole (8.0%).[25]

14.5.50. As shown in Table 14.12, sustainable tourism generated £2,541 million Gross Value Added (GVA) across Scotland in 2022. Of that, the Scottish Borders contributed £49 million GVA, 1.9% of the total value. In the same year, the sector employed 189,000 people across Scotland, of which 3,500 were working in the Scottish Borders.

Table 14.12 Tourism employment and GVA

	Scottish Borders	Scotland
GVA (£ million)	49	2,541
Employment	3,500	189,000

Source: Scottish Government (2023), Growth Sector Statistics

Visitors

14.5.51. Tourism data are not available for the Local Area. However, a range of statistics are available on visitor numbers and visitor spend for the Scottish Borders and Scotland, including from the Great Britain Day Visitor Survey[26], the Great Britain Tourism Survey[27] and the International Passenger Survey[28].

14.5.52. As Table 14.13 shows, there were 3.4 million visitors to the Scottish Borders in 2019. Day visitors accounted for 89% of these visitors, followed by domestic overnight visitors (10%) and international overnight visitors (1%).

14.5.53. In the same year, tourism spend in the Scottish Borders amounted to £132.5 million, or 1.2% of the Scottish total. The highest total visitor spending in the Scottish Borders was associated with domestic overnight visitors at £62.7 million, closely followed by day visitors who accounted for £61.2 million. Although international overnight visitors contributed 6.5% of total spending (£8.6 million), they were associated with the largest spend per visit, spending approximately £295 per visit, followed by domestic overnight visitors (£184 per visit) and domestic day visitors (£20 per visit).

14.5.54. The Scottish Borders accounted for 2% of total visitors across Scotland, which was visited by 161 million visitors with a total spend of £10.6 billion. Day visitors accounted for the largest share of visitors across Scotland (90%), followed by domestic overnight visitors (8%) and international overnight visitors (2%). Similarly to the Scottish Borders, international overnight

[24] *Scottish Government (2015), Scotland's Economic Strategy*

[25] *ONS (2022), Business Register and Employment Survey 2021*

[26] *Kantar (2020), Great Britain Day Visitor Survey*

[27] *Kantar (2020, Great Britain Tourism Survey*

[28] *ONS (2020), International Passenger Survey*

visitors had the highest spend per trip (£694), followed by domestic overnight visitors (£241) and domestic day visitors (£36).

Table 14.13 Number of visitors and visitor spending in Scottish Borders and Scotland

	Scottish Borders	Scotland
Visitors (hundred thousand)		
Day Visitors*	30.0	1,449.1
Domestic Overnight Visitors	3.4	124.3
International Overnight Visitors	0.3	35.4
Total Visitors	**33.7**	**1,608.8**
Spend (£ million)		
Day Visitors	61.2	5,186.6
Domestic Overnight Visitors	62.7	2,989.3
International Overnight Visitors	8.6	2,458.6
Total Spending	**132.5**	**10,634.5**

Source: Kantar (2020), Great Britain Day Visitor Survey, Kantar (2020), Great Britain Tourist Survey, ONS (2020), International Passenger Survey

Visitor Attractions

14.5.55. Table 14.14 shows that of the top ten most visited attractions across the Scottish Borders, as identified by VisitScotland,[29] none are located within 15 km of the Proposed Development. The closest of these attractions - Floors Castle - is 17 km from the Proposed Development.

[29] *VisitScotland (2020), Insight Department: Scottish Borders Factsheet 2019*

Table 14.14 Regional visitor attractions, Scottish Borders

	Number of Visitors	Distance from the Nearest Turbine (km)
Tweed Valley Forest Park	347,763	44 km
St Abb's Head	63,721	24 km
Melrose Abbey	61,325	25 km
Dawyck Botanic Garden	37,051	58 km
Newcastleton Forest	34,943	63 km
Mary Queen of Scots' Visitor Centre	34,300	32 km
Floors Castle	34,284	17 km
Jedburgh Abbey	29,484	32 km
Jedburgh Castle Jail and Museum	26,714	32 km
Dryburgh Abbey	19,590	24 km

Source: VisitScotland (2020), Insight Department: Scottish Borders Factsheet 2019

14.5.56. Through a web search on VisitScotland's website[30] and TripAdvisor[31], a number of local visitor attractions located within 15 km of the Proposed Development were identified. These attractions, and their distance from the nearest turbine of the Proposed Development, are set out in Table 14.15. Identified attractions were located between 1 km and 14 km from the Proposed Development. One attraction, Duns Motocross, which is owned by the landowner of the Proposed Development, is located 1 km from the nearest turbine, within the Proposed Development Area.

[30] *Visit Scotland (2023), Things to do near Duns. [Online] Available from – https://www.visitscotland.com/info/towns-villages/duns-p242451 [Accessed 12/09/23]*

[31] *TripAdvisor (2023), Explore Duns. [Online] Available from – https://www.tripadvisor.co.uk/Tourism-g551951-Duns_Scottish_Borders_Scotland-Vacations.html [Accessed 12/09/23]*

Table 14.15 Local visitor attractions

	Description	Distance from the Nearest Turbine (km)
Duns Motocross	Motocross track and facilities available to beginners as well as motor racing enthusiasts	1
Duns Golf Course	18-hole golf course with clubhouse lounge, bar and catering	4
Marchmont House	Palladian mansion built in 1750	4
Duns Castle Estate	A 14th century castle, surrounded by parkland, Duns Castle is a venue for weddings, filming, and outdoor recreation such as archery, clay pigeon shooting, croquet, and falconry.	5
Putton Mill Golf Driving Range and Fitness Centre	300-yard golf driving range and gym equipped with cardiovascular machines and weights	6
Jim Clark Motorsports Museum	Museum celebrating Jim Clark, a Formula 1 Racer and Scottish Borders Farmer	6
Duns Castle Nature Reserve	Walking area offering access to woodland flowers, breeding birds and butterflies, and featuring Duns Castle in the background	6
Border Kilt Craft and Kilt School	Professional training centre for traditional crafts such as kilt-making and textile production	7
Primrosehill Equestrian	Equestrian centre with a variety of cross country jumps	7
Manderston House	An 18th century stately home close to Duns. Now used as a filming location and for weddings, Manderston House is open to the public for public open days during April.	8
Bughtrig Garden	Garden with a combination of herbaceous plants, shrubs, annuals and fruit	10
Hume Castle	Medieval defensive castle built in the 12th century	10
Whiteadder Watersports Centre	Activity centre offering outdoor activities including sailing, kayaking, paddleboarding and fly-fishing	12
Corsbie Tower	Ruins of a 16th century tower house	14

Source: VisitScotland (2023), Things to Do in Duns and Trip Advisor (2023), Explore Duns

Accommodation Providers

14.5.57. Accommodation providers were identified using VisitScotland's accommodation database and through a web search of local accommodation on TripAdvisor. As shown in Table 14.16, 84 accommodation providers were identified within 15 km of the Proposed Development.

14.5.58. Although accommodation providers are distributed across the Local Area, the main cluster is located in the town of Duns, to the east of the Proposed Development. Other areas where accommodation is clustered include Abbey St Bathans, Auchencrow, Allanton, Swinton and Stichill.

14.5.59. As shown in Table 14.16, there are three accommodation providers within 5 km of the Proposed Development, a further 43 providers between 5 km and 10 km, and 37 between 10 km and 15 km.

Table 14.16 Accommodation providers within 15 km of the Proposed Development

Approximate Distance from the Nearest Turbine (km)	Number of Providers
0 km – 5 km	3
5 km – 10 km	43
10 km – 15 km	37

14.5.60. The split of accommodation providers by type and their distance from the nearest turbine of the Proposed Development is set out in Table 14.17.

14.5.61. Self-catering accommodation accounts for most of the accommodation provision within 15 km from the Proposed Development.

Table 14.17 Accommodation providers within 15 km of the Proposed Development

	Number of Accommodation Providers by Type			
Distance from the Nearest Turbine (km)	Hotel	B&B	Self-Catering	Campsite/ Caravan Park/ Hostel
0 km – 5 km	0	0	3	0
5 km – 10 km	3	6	33	1
10 km – 15 km	4	3	27	3
Total	**7**	**9**	**63**	**4**

Recreational Trails

14.5.62. Within 15 km of the Proposed Development, 31 core paths were identified using the Scottish Borders Council's database of core paths[32]. These are located between 4 km and 15 km away from the Proposed Development. Provision includes clusters of core paths around Duns and Chirnside to the east of the Proposed Development, Greenlaw, Hume, Kelso, Fogo, Birgham and Coldstream to the south, Westruther to the west, and Abbey St Bathans to the south. No core paths pass through the Proposed Development.

[32] *Scottish Borders Council (2023), Scottish Borders Core Paths. [Online] Available from - https://www.scotborders.gov.uk/directory/62/scottish_borders_core_paths [Accessed: 11/09/23]*

14.5.63. A total of 10 recreational trails were identified within 15 km of the Proposed Development, based on a web search of walkhighlands.com[33]. These trails are described in Table 14.18 alongside their distance from the nearest turbine of the Proposed Development at its closest point.

Table 14.18 Recreational trails within 15 km of the Proposed Development

Trail Name	Description	Distance from the Nearest Turbine (km)
Hardens Hill circular, Duns	A 31 km circular route through forest paths and over surrounding hills, following the north-east boundary of the Proposed Development	1 km
Southern Upland Way: Longformacus to Cocksburnpath	29 km section of the 338 km Southern Upland Way which stretches from coast to coast across the country	3 km
Duns Law, Castle and Hen Poo, Duns	A 7 km walk through the grounds of Duns Castle and views over the town of Duns	5 km
Ellemford bridge circuit, Abbey St Bathans	A 11 km walk following the Whiteadder River and passing Abbey St Bathans Church	6 km
Cockburn Law & Edin's Hall broch, Abbey St Bathans	A 10 km circular route reaching the summit of Cockburn Law, passing by the remains of an iron-age broch and crossing a suspension bridge across Whiteadder Water	7 km
Priestlaw Hill circular from Whiteadder Reservoir	A 11 km route which leads walkers up into the Lammermuir Hills before taking them to the summit of Priestlaw Hill	10 km
Gamelshiel Castle and Spartleton Hill	A 7 km hill circuit passing the Gamelshiel Castle and up to the top of Spartleton Hill	13 km
Hirsel Country Park, Coldstream	A 9 km walk around Hirsel estate, passing the Hirsel country house	14 km
Herring Road and Clints Dod, near Stenton	A 19 km walk surrounded by the heathery moors of the Lammermuir Hills with views towards the North Sea	15 km
Meikle Says Law	A 10 km walk climbing up the highest of the Lammermuir Hills	15 km

Source: https://www.walkhighlands.co.uk/

Summary of Local Tourism and Recreation Context

14.5.64. The share of employment in the tourism sector across the Local Area and the Scottish Borders is below that of the whole of Scotland. The local economy relies more heavily on other sectors such as manufacturing and construction.

[33] *Walk Highlands (2023), Search Walks. [Online] Available from - https://www.walkhighlands.co.uk/walk-search.php [Accessed: 11/09/23]*

14.5.65. There are a number of accommodation providers within 15 km of the Proposed Development, some of which sit in the area of Duns. Remaining activity is distributed across surrounding areas, with little evidence of clustering. Most accommodation providers are self-catered facilities, providing access to walks in the surrounding countryside, as well as being close to historical sites.

14.5.66. One of the most important recreational assets within the vicinity of the Proposed Development is the Southern Upland Way. This route stretches from the Atlantic Ocean to the North Sea and is popular among hikers, passing 3 km to the north of the Proposed Development.

14.6. Assessment of Potential Effects

Economic Impact

Construction

14.6.1. The Proposed Development consists of six turbines, with a minimum combined capacity of 37MW. It will also include the provision of a battery energy storage system with an indicative capacity of 60 MW and ground-mounted solar PV with capacity of up to 60 MW.

14.6.2. Using research undertaken by BiGGAR Economics on behalf of RenewableUK and more recent data from evaluations of onshore wind farms, solar farms, and battery storage facilities, it is possible to estimate the average expenditure on construction and development of a similar renewable energy development. For the wind farm element this is either based on the average spend per MW, the average spending per turbine, or a combination of the two. For the solar and battery storage components of the Proposed Development, capital expenditure was estimated based on the capital costs of these technologies per MW of generating capacity. Based on this methodology, the total construction and development cost for the Proposed Development was estimated to be £83.2 million.

14.6.3. Construction and development expenditure on the Proposed Development was split across six contract categories:

- Development and planning;
- Balance of plant;
- Turbines;
- Grid connection;
- Solar energy; and
- Battery storage.

14.6.4. The proportion of construction and development spending on each of the main contract categories was informed by BiGGAR Economics' internal analysis of wind farms, solar and battery storage facilities. As shown in Table 14.19, it was assumed that 36% of capital expenditure (CAPEX) will be spent on the battery energy storage system, with 24% on turbine contracts, 22% on solar energy contracts, 11% on balance of plant contracts, 4% on development and planning and 3% on grid connection.

Table 14.19 Development and construction by contract type

	% CAPEX	Spending (£m)
Development and Planning	4%	3.1
Turbines	24%	20.3
Balance of Plant	11%	9.0
Grid Connection	3%	2.9
Solar Energy	22%	18.0
Battery Storage	36%	30.0
Total	100%	83.2

*Source: BiGGAR Economics Analysis. *Totals may not round due to rounding.*

14.6.5. The economic impact from the construction and development phase was estimated for the Scottish Borders and Scotland. To achieve this, it was necessary to estimate the proportion of each contract that might be secured in each of the study areas. The assumptions were based on the average levels of content from the RenewableUK research, analysis of the industrial structure in each study area, and BiGGAR Economics' previous experience undertaking such analysis for other renewable energy projects in the Scottish Borders. They also take account of the Applicant's commitment and experience in ensuring that, where possible, all main contractors and their sub-contractors will use local content.

14.6.6. On this basis, it was estimated that the Scottish Borders could secure contracts worth up to £9.2 million, equivalent to 11% of total capital expenditure. The largest opportunities would be the contracts related to balance of plant, as companies in the area could secure up to 58% of these contracts, worth a total £5.2 million.

14.6.7. Scotland (including the Scottish Borders) was estimated to secure contracts worth £25.4 million, equivalent to 31% of total capital expenditure. The largest opportunity will be balance of plant contracts, worth around £8.0 million. Estimates of expenditure and shares of contract spending by study area are set out in Table 14.20.

Table 14.20 Development and construction by study area

	Scottish Borders		Scotland	
	%	£m	%	£m
Development and Planning	35%	1.1	77%	2.4
Turbines	2%	0.4	10%	1.9
Balance of Plant	58%	5.2	89%	8.0
Grid Connections	41%	1.2	71%	2.0
Solar Energy	4%	0.7	35%	6.3
Battery Storage	2%	0.6	16%	4.8
Total Spending	11%	9.2	31%	25.4

*Source: BiGGAR Economics Analysis. *Totals may not round due to rounding*

14.6.8. To estimate the direct GVA from each of the main contract categories, each contract was split into sub-contracts. Using industry-specific data on turnover and GVA from the Scottish Annual Business Statistics (SABS), turnover per GVA ratios were applied to each sub-contract in order to estimate direct GVA[34].

14.6.9. In this way, as set out in Table 14.21, it was estimated that construction and development contracts associated with the Proposed Development will generate £4.6 million direct GVA in the Scottish Borders and £12.3 million direct GVA in Scotland.

Table 14.21 Direct GVA by contract and study area

	Scottish Borders	Scotland
Development and Planning	0.8	1.5
Turbines	0.2	1.0
Balance of Plant	2.6	3.9
Grid Connection	0.5	0.9
Solar Energy	0.3	2.8
Battery Storage	0.3	2.2
Total Direct GVA	4.6	12.3

*Source: BiGGAR Economics Analysis. *Totals may not round due to rounding*

14.6.10. Similarly, the contract spending awarded to businesses in each study area will support their direct employment. Turnover per employee ratios for each of the sectors awarded contracts as

[34] *Scottish Government (2022), Scottish Annual Business Statistics 2020*

part of development and construction activity are also provided by the SABS. This allows the employment from any increase in turnover to be estimated.

14.6.11. Employment impacts during the development and construction phase are reported in years of employment as the contracts are expected to be temporary. Years of employment measure the number of years of full-time employment generated by a project. For example, an individual working on the construction of the Proposed Development for 18 months would represent 1.5 years of employment.

14.6.12. In this way, it was estimated that the Proposed Development could support 68 direct years of employment in the Scottish Borders and 202 direct years of employment in Scotland.

Table 14.22 Direct employment by contract type and study area (years of employment)

	Scottish Borders	Scotland
Development and Planning	3	14
Turbines	5	20
Balance of Plant	38	59
Grid Connection	10	18
Solar Energy	6	51
Battery Storage	5	41
Total (Years of Employment)	68	202

*Source: BiGGAR Economics Analysis. *Totals may not round due to rounding*

14.6.13. To fully capture the impacts from development and construction spending, it was necessary to consider activity further down the supply chain (indirect impacts) and activity from the spending of staff salaries (induced impacts). These impacts are estimated by applying Type I (indirect) and Type II (indirect and induced) GVA and employment multipliers, which are sourced from the Scottish Government's Input-Output Tables[35], to the direct GVA and employment impacts.

14.6.14. As these multipliers refer to between-industry interactions and the spending of salaries across the Scottish economy, when considering impacts at the level of the Scottish Borders economy, it was necessary to make adjustments. Based on professional judgement and experience from similar projects, it was assumed that indirect multiplier effects in the Scottish Borders would be 33% of the national impact. Following an analysis of household spending patterns, as set out in the ONS survey of household expenditure[36], induced multiplier effects for the Scottish Borders were estimated as 70% of those for the Scottish economy.

14.6.15. Adding together the direct, indirect and induced impacts, it was estimated the Proposed Development could generate a total £6.2 million GVA and support 88 years of employment in the Scottish Borders, and £22.4 million GVA and 349 years of employment across Scotland.

[35] *Scottish Government (2022), Input Output Tables 2019*

[36] *ONS (2019), Components of household expenditure*

Table 14.23 Total economic impact during development and construction

	Scottish Borders	Scotland
GVA (£m)	6.2	22.4
Jobs (Years of Employment)	88	349

*Source: BiGGAR Economics Analysis. *Totals may not round due to rounding*

14.6.16. Based on the levels of economic activity relative to the size of their economies, the magnitude of these impacts was assessed as negligible with respects to the economies of the Scottish Borders and Scotland. The sensitivity of the Scottish Borders economy was considered as low, whereas that of the Scottish economy was considered negligible.

14.6.17. Therefore, the significance effect of activity associated with the development and construction of the Proposed Development on the Scottish Borders economy was assessed as **minor**. Across Scotland the effect is expected to be **negligible**.

Operation

14.6.18. The economic impacts from the operation and maintenance of the Proposed Development have been estimated as the annual impact that will persist throughout the lifespan of the Proposed Development. This captures the annual expenditure required to carry out a range of contracts such as turbine and site maintenance, as well as spending on transmission costs.

14.6.19. Annual expenditure on operations and maintenance was estimated based on the analysis undertaken by RenewableUK[37]. In a similar way as for the estimation of GVA and employment associated with development and construction activity, spending on operations and maintenance was estimated based on the Proposed Development's number of turbines and the capacity of the turbines, solar panels, and battery storage. In this way, it was estimated that the annual operation and maintenance expenditure associated with the Proposed Development could total up to £1.6 million (excluding community benefit payments and the payment of non-domestic rates). This level of spending would be required each year throughout the 35 years' operational lifetime of the Proposed Development.

14.6.20. In order to estimate the economic impact of operation and maintenance expenditure in the Scottish Borders and Scotland, it was first necessary to estimate the proportion of contracts that could be secured in each of these study areas. These assumptions were based on the contract proportions reported in the RenewableUK report, the analysis of the industries present in each of the study areas, as well as previous BiGGAR Economics experience assessing the impacts of onshore renewable wind farms, solar farms and BESS.

14.6.21. On this basis it was estimated that the Scottish Borders could benefit each year from £0.6 million in operations and maintenance contracts, with Scottish businesses potentially benefitting from £1.8 million.

[37] *RenewableUK (2015), Onshore Wind: Economic Impacts in 2014*

Table 14.24 Operations and maintenance spending by study area

	Scottish Borders	Scotland
Turnover (£m)	0.6	1.8
Share (%)	27%	82%

Source: BiGGAR Economics Analysis.

14.6.22. Applying a similar methodology as that adopted to estimate economic impacts during the construction phase, the contract values awarded in each of the study areas represent an increase in turnover in those areas. The economic impact of the increase in turnover on GVA and employment was estimated in the same way as for construction expenditure, using the economic ratios from SABS[38].

14.6.23. In this way, it was estimated that the turnover generated by the operation and maintenance of the Proposed Development could support up to £0.4 million direct GVA and four jobs in the Scottish Borders, and £0.8 million direct GVA and nine jobs in Scotland.

Table 14.25 Direct annual economic impacts of operations and maintenance

	Scottish Borders	Scotland
GVA (£m)	0.4	0.8
Jobs	4	9

Source: BiGGAR Economics Analysis.

14.6.24. There will also be indirect and induced impacts during the operation and maintenance of the Proposed Development, which were estimated using the same method as for the development and construction phase.

14.6.25. When the relevant economic multipliers are considered, it is estimated that each year the spending required for the operation and maintenance of the Proposed Development could support up to £0.4 million GVA and five jobs in the Scottish Borders and £1.3 million GVA and 15 jobs across Scotland.

Table 14.26 Total annual economic impacts of operations and maintenance

	Scottish Borders	Scotland
GVA (£m)	0.4	1.3
Jobs	5	15

Source: BiGGAR Economics Analysis.

14.6.26. Based on the levels of economic activity relative to the size of their economies, the magnitude of these impacts was assessed as negligible with respects to the economies of the Scottish Borders and Scotland. The sensitivity of the Scottish Borders economy was considered as low. The sensitivity of the Scottish economy was considered as negligible.

14.6.27. Therefore, the effect of the Proposed Development during its operation has been assessed as **negligible** with respects to the Scottish Borders and Scottish economies.

[38] *Scottish Government (2022), Scottish Annual Business Statistics 2020*

Community Benefits and Wider Impacts

Community Benefit

14.6.28. In its publication outlining good practice principles for community benefits arising from onshore wind developments[39], the Scottish Government discusses the approach that developers should take when developing community investment proposals with the local community. The recommended community benefit of £5,000 per MW has the intention of creating value and achieve a lasting legacy for communities.

14.6.29. In line with Scottish Government recommendations, the Applicant has committed to offering each year £5,000 per MW of installed capacity from the wind farm in community investment for the local area, as well as £500 per MW of installed capacity of the solar power component. The community investment offer from the Proposed Development is therefore equivalent to £215,000 annually, or £7.5 million during the 35-year operational lifetime of the Proposed Development. The Community Investment Fund will be distributed to support projects across the communities living in proximity of the Proposed Development.

14.6.30. The good practice principles document published by the Scottish Government also encourages onshore wind developers to offer shared ownership opportunities, enabling local communities to benefit from renewable energy projects in their area. The Applicant is currently considering a similar option, in line with similar offers made elsewhere. For instance, at Scawd Law Wind Farm located in the Scottish Borders the Applicant offered a community ownership package of up to 5% shared revenue to the local community, which could be used in conjunction with the community benefits package to support local projects.

Access Roads

14.6.31. The Proposed Development would require new access roads to enable construction. Subject to the quarry gaining the necessary land rights, once construction is complete, these roads will provide improved access to an onsite stone quarry, reducing costs for the quarry business as well as removing heavy good vehicles (HGV) from a smaller road to the north of the site, enabling improved traffic flow in the area.

Non-Domestic Rates

14.6.32. The Proposed Development would be liable for non-domestic rates, the payment of which will contribute directly to public sector finances.

14.6.33. In 2023, the Scottish Assessors Association[40] published guidance on the valuation of onshore wind developments. The rateable value of the Proposed Development was calculated using the expected income per MW, the expected annual net yield, the cost of equipment per MW and the decapitalisation rate. The annual liability of the Proposed Development was then calculated by multiplying the estimated rateable value by the Scottish Higher Property Rate of 52.4 pence[41].

14.6.34. In this way, it was estimated the Proposed Development would contribute £1.6 million annually through the payment of non-domestic rates. This is equivalent to 0.5% of the Scottish Borders

[39] *Scottish Government (2019), Scottish Government Good Practice Principles for Community Benefits from Onshore Renewable Energy Developments*

[40] *Scottish Assessors Association (2023), Practice Note 2: Valuation of On-shore Wind Turbines*

[41] *Scottish Government (2023), How your rateable value and rates are calculated*

Council budget for 2023/24[42]. The effect from this change in public sector revenue has been assessed as **negligible** with respects to both the Scottish Borders and Scottish economies.

Supply Chain Opportunities

14.6.35. The Applicant has considerable experience in delivering similar projects, having developed and operated wind farms across the UK since the mid 1990s. Its operational portfolio includes renewable energy projects with a combined generating capacity of 529.7 MW. The Applicant's experience in delivering renewable energy projects also includes a commitment to maximising benefits to local supply chains.

14.6.36. Through its projects, the Applicant has supported considerable activity across Scotland including[43]:

- £308.1 million GVA and 5,456 years of employment through development and construction activity; and
- £159.9 million GVA and 3,200 years of employment during operations and maintenance.

14.6.37. On this basis, the Applicant will seek to use local skills and services, where available. This will be done both when appointing contractors and by incentivising all sub-contractors to use local content. Engagement with local suppliers will include the organisation of meet-the-buyer events and increasing awareness around the opportunities associated with the Proposed Development. The Applicant will also keep a record of local spending in the Proposed Development.

Tourism and Recreation

Evidence on the Impacts of Wind Farms on Tourism

14.6.38. Based on survey evidence from the Department for Energy Security and Net Zero (DESNZ), in the summer of 2023, 85% of people across the UK were supportive of renewable energy, with support having remained relatively stable over time[44]. Support for solar energy stood at 88% (1% of respondents opposed this technology), whereas that for onshore wind was 78% (5% were against the use of this technology). This evidence suggests there is widespread support for renewable energy technologies and their role in supporting the energy transition.

14.6.39. In 2008, the Moffat Centre at Glasgow Caledonian University studied the potential effects of wind farms on tourism[45]. The study analysed the possible effects of wind farm development and concluded that, while tourism activity may be affected in small numbers, the overall impact on tourism expenditure and employment would be limited. This study is now dated and since 2008, wind farms have become increasingly common across Scotland. It would be expected that, with the growth in onshore wind since the completion of the Moffat Centre study, any negative effects wind farms have on tourism would now be apparent in tourism employment statistics.

14.6.40. To address this question, in 2021 BiGGAR Economics carried out a study on the relationship between onshore wind and tourism employment[46]. The study, which analysed 16 onshore wind farms constructed between 2015 and 2019 in Scotland, reported on the effect these wind farms had on tourism employment at the national, regional, and local level.

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[42] *Scottish Borders Council (2023), Draft Financial Plan 2023/24*

[43] *Stantec (2023), Fred. Olsen Renewables Ltd, Economic Footprint – 2023 Update*

[44] *DESNZ (2023), DESNZ Public Attitudes Tracker: Energy Infrastructure and Energy Sources, Summer 2023, UK*

[45] *Glasgow Caledonian University/Moffat Centre (2008), The Economic Impacts of Wind Farms on Scottish Tourism*

[46] *BiGGAR Economics (2021), Wind Farms & Tourism Trends in Scotland: Evidence from 44 Wind Farms*

14.6.41. In the analysis, tourism employment was considered over the period 2015 to 2019. During this time, the number of wind farms increased in Scotland and in almost all local authority areas, while employment in tourism also grew. The analysis found no correlation between tourism employment and the number of turbines at the national or local authority level.

14.6.42. The study also analysed the impact onshore wind has on tourism employment proximate to developments. Areas within 15 km of the wind farms constructed between 2015 and 2019 were analysed, comparing employment in tourism in 2015 and 2019, before the construction of the wind farms and after, allowing for the exclusion of construction impacts on tourism (such as wind farm related workers staying at local accommodation).

14.6.43. The study found no link between the development of a wind farm and employment in the tourism sector. Of the 16 local areas included in the study, 11 experienced an increase in tourism employment between 2015 and 2019. In 12 of the local areas, employment grew faster or decreased less than the rate for the corresponding local authority.

14.6.44. The 2021 study also reassessed 28 wind farms constructed between 2009 and 2015 analysed in a previous 2017 study[47], finding that, in the years following the construction of the 28 wind farms, 19 of the small areas experienced an increase in tourism employment, including four areas where tourism employment had fallen between 2009 and 2015. In 16 local areas, employment grew quicker or decreased less than in the corresponding local authority area.

14.6.45. The study concluded that there was no pattern suggesting the development of a wind farm would result in a reduction in tourism employment at a national, regional or local level.

14.6.46. The relationship between other renewable energy technologies and tourism has received considerably less attention. However, in 2013 the South West Research Company carried out a study considering the impact of onshore wind and solar farms on visitors to Cornwall[48]. Their research found that for over 94% of visitors surveyed the presence of a wind or solar farm made no difference, with the remaining visitors either more likely (4%) or less likely (2%) to visit. The authors concluded the presence of these developments was a much less important determinant of activity than other reason such as poor weather and the cost of holidaying.

14.6.47. Although tourism is not a key driver of the local economy in the Local Area, the following assessment considers whether there may be any impact on specific tourism-related businesses.

Visitor Attractions

14.6.48. This assessment is based on whether changes associated with the Proposed Development would impact behaviour in a way that would reduce visitor numbers to attractions with an effect on the local tourism economy.

14.6.49. It is noted Chapter 6: Landscape and Visual Impact Assessment, Volume 2 finds significant visibility effects mostly within 10 km from the Proposed Development. In assessing whether these will affect tourism activity at visitor attractions, the analysis considers the overall tourism proposition of each asset and whether that will be affected by visual impacts. This is then balanced against the existing evidence on tourism and onshore energy developments, as set out above.

14.6.50. Among the ten most visited attractions in the Scottish Borders, as identified by VisitScotland[49], the closest to the Proposed Development is Floors Castle, located 17 km away. The distance

[47] *BiGGAR Economics (2017), Wind Farms and Tourism Trends in Scotland*

[48] *South West Research Company (2013), The Impact of Renewable Energy Farms on Visitors to Cornwall*

[49] *VisitScotland (2021), Insight Department: Scottish Borders Factsheet 2019*

between the Proposed Development and this attraction means it is unlikely the Proposed Development would affect it and change visitors' behaviour. Therefore, the effect on this asset has been assessed as **negligible**.

14.6.51. Based on a web search on VisitScotland[50] [51] and Trip Advisor[52], an additional 12 local attractions were identified within 15 km of the Proposed Development.

14.6.52. Duns Motocross, which the landowner associated with the Proposed Development is involved in running, is located within the Proposed Development Area, approximately 1 km from the nearest turbine. The main motivation for visiting the facility is taking part in dirt bike racing. This is unlikely to be affected by the operation of the Proposed Development. During construction, there may be some disruption to access roads which could affect some visitors. Any such disruption is expected to be limited, since Chapter: 12 Traffic and Transport, Volume 2 found that following the implementation of a Traffic Management Plan, there will not be any significant effects on traffic and transport. Accounting for all these reasons, the effect of the Proposed Development on Duns Motocross has been assessed as **minor**.

14.6.53. Located 4 km from the Proposed Development is Duns Golf Course, an 18-hole golf course with a clubhouse lounge, bar and catering facilities. The main motivations for visiting the golf club are likely to be playing golf as well as spending time in the club's facilities. The Proposed Development is unlikely to affect any of these activities. As such its effect on this asset has been assessed as **negligible**.

14.6.54. Also located 4 km from the Proposed Development is Marchmont House, a Palladian mansion built in 1750 providing space for exhibitions and events. The mansion is open to visitors on a limited number of days every year. Chapter 6: Landscape and Visual Impact Assessment, Volume 2 found a moderate (significant) visual effect at Marchmont House avenue. While this may affect views from the mansion, it is expected visitors are drawn to this attraction mostly because of the art and history displayed in there. As these are not going to be affected by the Proposed Development, its effect on Marchmont House has been assessed as **minor**.

14.6.55. Duns Castle Estate, located 5 km from the Proposed Development, is a 14th century castle, which has become a venue for weddings, filming, and outdoor recreation such as archery, clay pigeon shooting, croquet, and falconry. It is not expected that the Proposed Development will affect the appeal of the building and its history as a wedding and filming location. Similarly, none of the recreational activities offered will be affected. On this basis, the effect of the Proposed Development was assessed as **negligible.**

14.6.56. Putton Mill Golf Driving Range and Fitness Centre is located 6 km from the Proposed Development. The facility has a variety of features including eight bays, a 300-yard driving range and a gym. While there may be visual effects, it is expected the Proposed Development will not affect the motivations to visit the centre, such as an interest in outdoor sports or physical activity. Therefore, its effect has been assessed as **negligible**.

14.6.57. The Jim Clark Motorsports Museum is also located 6 km from the Proposed Development. The museum tells the story of Jim Clark, a farmer in the Scottish Borders who became a Formula 1 Racer. It is not expected that motivations to visit the museum, such as an interest in Formula

[50] *VisitScotland (2023), Accommodation near Duns. [Online] Available from – https://www.visitscotland.com/info/towns-villages/duns-p242451 [Accessed 12/09/23]*

[51] *Visit Scotland (2023), Things to do near Duns. [Online] Available from – https://www.visitscotland.com/info/towns-villages/duns-p242451 [Accessed 12/09/23]*

[52] *TripAdvisor (2023), Explore Duns. [Online] Available from – https://www.tripadvisor.co.uk/Tourism-g551951-Duns_Scottish_Borders_Scotland-Vacations.html [Accessed 12/09/23]*

1, would be impacted by the Proposed Development. Therefore, its effect on the Jim Clark Motorsports Museum has been assessed as **negligible**.

14.6.58. Duns Castle Nature Reserve, located 6 km from the Proposed Development, is a walking area which allows for the sighting of woodland flowers, butterflies and breeding birds. Whilst being in relative proximity to the Proposed Development, the Reserve is partly screened from any of the visual effects identified in Chapter 6: Landscape and Visual Impact Assessment, Volume 2. Because of this and the fact that the motivation for visiting the nature reserve, such as an interest in wildlife, would not be impacted by the Proposed Development, its effect has been assessed as **negligible**.

14.6.59. Located 7 km from the Proposed Development, the Border Kilt Craft and Kilt School is a professional training centre for traditional crafts such as kilt-making and textile production. It is not expected that motivations to visit the school, such as an interest in culture, heritage and craft, would be impacted by the Proposed Development. Therefore, its effect on Border Kilt Craft and Kilt School has been assessed as **negligible.**

14.6.60. Primrosehill Equestrian, located 7 km from the Proposed Development, is a cross country schooling centre catering to different ability levels. Motivations such as an interest in horse-riding and outdoor sport are not expected to be affected by the Proposed Development, and therefore its effect on this asset has been assessed as **negligible**.

14.6.61. Manderston House, located 8 km from the Proposed Development, is an 18th century stately home close to Duns. Similarly to Duns Castle, it is a venue for weddings and filming, alongside offering some open days for the public. It is not expected the Proposed Development will affect Manderston House's appeal regarding any of these activities. Consequently, its effect on this asset has been assessed as **negligible**.

14.6.62. Bughtrig Garden, a traditional hedged garden, is located 9 km from the Proposed Development. The garden showcases a unique combination of herbaceous plants, shrubs and fruits. Motivations to visit the garden, such as an interest in plants, are unlikely to be affected by the Proposed Development. Furthermore, none of the viewpoints in Chapter 6: Landscape and Visual Impact Assessment, Volume 2 where significant effects are recorded is in the proximity of this attraction. Therefore, the effect of the Proposed Development has been assessed as **negligible**.

14.6.63. Located 10 km from the Proposed Development is Hume Castle, a preserved 12th century defensive castle, providing views to the English Border. Alongside these views, there are several other motivations to visit Hume Castle, such as an interest in historical sights. While Chapter 6: Landscape and Visual Impact Assessment, Volume 2 found a moderate (significant) visual effect, it is expected other reasons for visiting this attraction, such as its historical value, will not be affected. As a result, the effect on tourism activity at Hume Castle has been assessed as **minor**.

14.6.64. Whiteadder Watersports is an outdoor activities centre located 12 km from the Proposed Development. The centre offers activities such as sailing, kayaking and paddleboarding. As the motivations to take part in outdoor activities such as these would not be impacted by the Proposed Development, its effect has been assessed as **negligible**.

14.6.65. Corsbie Tower is located 14 km from the Proposed Development and features the ruins of a 16th century tower house. As the motivations to visit the tower, such as an interest in Scottish history, would not be impacted by the Proposed Development, its effect has been assessed as **negligible**.

Accommodation Providers

14.6.66. A number of accommodation clusters within 15 km of the Proposed Development were identified. The assessment considered whether any changes in the baseline environment as a

result of the Proposed Development may have an effect on the tourism economy via a change in visitor behaviour.

14.6.67. The closest accommodation provider to the Proposed Development is Hardens Country Cottages, a little over 2 km from it. This self-catering facility markets itself as a luxury cottage with panoramic views. These are for the most part to the south, rather than in the direction of the Proposed Development. Similarly, the property is screened by the nearby hills. On this basis, the scenic setting key to its marketing proposition is unlikely to be affected. The effect of the Proposed Development on this asset was therefore assessed as **negligible**.

14.6.68. There are two accommodation providers a little over 4 km from the Proposed Development: Millar Organics and Honey House. Millar Organics in Duns is a farmhouse cottage in a tranquil rural environment on the grounds of West Baslebog, an organic farm. Honey House sits in Longformacus and markets itself for its proximity to the towns of Duns and Gifford, and for its location in a peaceful village. There are a range of reasons why visitors may stay at these providers, including access to nearby villages and activities, the peacefulness of the location and its rural character. So, any visual impacts, which are unlikely as the two properties are screened by vegetation, are not expected to considerably affect visitors' decisions. On this basis, the effect of the Proposed Development on these two accommodation providers is expected to be **negligible**.

14.6.69. Another 43 accommodation providers were identified within 5 to 10 km from the Proposed Development. Of these, 33 providers are self-catering, six are B&Bs, three are hotels and one is a campsite/holiday park.

14.6.70. The self-catering providers within this area advertise their farmhouse-like ambience, with many labelling their properties as 'cosy' or as a 'retreat'. Many providers also highlighted the surrounding countryside and their proximity to walking and cycling routes. It is expected the breadth of this offering, including the proximity to a range of recreational opportunities, will not be affected by the potential for any views of the Proposed Development in the distance. On this basis, the effect of the Proposed Development on these providers has been assessed as **negligible.**

14.6.71. The six bed and breakfasts market their homely-feel whilst highlighting their proximity to visitor attractions within the area, in particular the golf course. As these motivations for visiting the six providers would not be impacted by the Proposed Development, its effect has been assessed as **negligible.**

14.6.72. The three hotels within this area, St. Albans, The White Swan and The Plough Inn, advertise their stunning scenery and near-by historical sites. As such, views in the area will form only one of the reasons bringing visitors to these providers. St Albans and the White Swan are located in the village of Duns within a built-up environment, whereas the Plough Inn in Leitholm is likely to be screened from views of the Proposed Development. On this basis,, the effect of the Proposed Development on these accommodation providers has been assessed as **negligible**.

14.6.73. The Black Adder Holiday Park, around 6 km from the Proposed Development, markets its location in the foothills of the Lammermuir Hills, and the proximity to the local river. In its marketing, the Park also advertises the wildlife that can be witnessed from its riverside pitches. The Holiday Park is screened from potential views of the Proposed Development. In addition, the other features part of its offering are not expected to be affected by the Proposed Development, and therefore, its effect has been assessed as **negligible.**

14.6.74. Within 10 and 15 km from the Proposed Development, there are 37 accommodation providers. Of these, 27 are self-catering, four are B&Bs, three are hotels, and the remaining three are campsites or holiday parks. All the significant visual effects identified in Chapter 6: Landscape and Visual Impact Assessment, Volume 2 occur within 10.7 km from the Proposed

Development. So, they are unlikely to affect the decisions of visitors wishing to spend time at the providers considered below.

14.6.75. Many self-catering providers in the area highlight their amenities, such as underfloor heating, private gardens, and private car parking. Some providers, such as Pinewood House, also market additional features including a hot tub. Local accommodation operators also advertise the idyllic location and access to activities such as walking, cycling, golfing and fishing. As the Proposed Development is unlikely to affect local offering, its effect on self-catering providers within this area has been assessed as **negligible**.

14.6.76. The four bed and breakfasts in the area, Crosshall Farm B&B, Crowfootbank Farmhouse B&B, Butterlaw Bed & Breakfast and The Farmhouse, advertise their cosy interior and modern amenities, as well as highlighting their proximity to historical sites, such as Manderston House. Both Butterlaw and Crosshall Farm also market their location as being ideal to 'tour' and 'explore' the Scottish Borders. The Proposed Development is therefore not expected to impact the motivations to visit these providers, and has been assessed as having a **negligible** effect on them.

14.6.77. The holiday parks in the area, Belstruther Glamping (12 km from the Proposed Development), Berryhill Holidays (13 km from the Proposed Development) and Wigwam Holidays Sunnybank (14 km from the Proposed Development), market their emersion in nature and eco-friendly sites. Providers also highlight the ability to see nature, such as Berryhill Holidays highlighting the birdwatching opportunities in the area. The holiday parks also mention their proximity to local walks and the Lammermuir Hills. It is expected the motivations to visit these providers are unlikely to be affected by the Proposed Development, and therefore its effect has been assessed as **negligible.**

14.6.78. The three hotels in the area, the Wheatsheaf, the Allanton Inn and the Craw Inn, advertise their proximity to the historical sites in the Local Area and mention the area's role in Scottish history. The hotels also highlight the surrounding scenery. The Craw Inn, for example, highlights that it sits 'in the heart of beautiful countryside'. The Wheatsheaf also markets its modern and eco-friendly facilities, such as its own EV Charging Points. These aspects of the hotels are not expected to be affected by the Proposed Development given its distance and, for this reason, its effect has been assessed as **negligible.**

14.6.79. The assessment did not find any significant effects on accommodation providers as a result of the Proposed Development.

Recreational Trails and Core Paths

14.6.80. Within 15 km of the Proposed Development, 10 recreational trails were identified. They have been assessed on the basis of whether there would be a reduction in visitors or recreational users in the area.

14.6.81. This assessment is carried out in line with the guidance from NatureScot (Table 14.4), taking account of Chapter 6: Landscape and Visual Impact Assessment, Volume 2 and Chapter 12: Traffic and Transport, Volume 2.

14.6.82. The results of this assessment are shown in Table 14.27, where LVIA impacts refer for the most part to visibility rather than significance of visual effect. This is because the only viewpoints related to recreational trails and core paths considered in Chapter 6: Landscape and Visual Impact Assessment, Volume 2 were on the Southern Upland Way; Core Path Fogo to Gavinton; and at the Rights of Way over Greenlaw Moor, Inch Moor and between the Dirrington Laws.

Table 14.27 Impact on recreational trails

	Tourism	LVIA	Traffic and Transport
Hardens Hill circular, Duns	X	√	X
Southern Upland Way	X	√	X
Duns Law, Castle and Hen Poo, Duns	X	√	X
Ellemford bridge circuit, Abbey St Bathans	X	√	X
Cockburn Law & Edin's Hall broch, Abbey St Bathans	X	√	X
Priestlaw Hill circular from Whiteadder Reservoir	X	√	X
Gamelshiel Castle and Spartleton Hill	X	X	X
Hirsel Country Park, Coldstream	X	X	X
Herring Road and Clints Dod, near Stenton	X	X	X
Meikle Says Law	X	X	X

14.6.83. Based on the Zones of Theoretical Visibility from Chapter 6: Landscape and Visual Impact Assessment, Volume 2, the Proposed Development is likely to be visible from sections of the following recreation routes:

- Hardens Hill circular, Duns;
- Southern Upland Way;
- Duns Law, Castle and Hen Poo, Duns;
- Ellemford bridge circuit, Abbey St Bathans;
- Cockburn Law & Edin's Hall broch, Abbey St Bathans; and
- Priestlaw Hill circular from Whiteadder Reservoir.

14.6.84. The assessment for these routes was based on the following considerations:

- Recreational walkers make use of similar routes for a range of reasons, of which their amenity and visual value is just one;
- The Proposed Development is unlikely to affect views for the full extent of these recreational routes; and
- The routes form part of a cluster of recreational trails in the area and therefore their scarcity value is relatively low.

14.6.85. On this basis, the effect of the Proposed Development on the recreational routes where visitors may experience visual effects was assessed as **minor**.

14.6.86. For the remaining trails where no impacts have been identified, the following assessment applies:

- There would be no expected impact on access to this route as a result of the Proposed Development;
- It is not expected that the nature of the Proposed Development would result in intense levels of effect which would damage recreation on the route;
- Given that there would be no change to the Proposed Development over time, there would be no potential for any effects on the route to increase over time;
- The route forms part of a cluster of recreational trails in the area and therefore its scarcity value is relatively low; and
- Any visitors who prefer not to view manmade structures on recreational paths would have the opportunity to use other routes in the area with no visibility of the Proposed Development.

14.6.87. Consequently, the effect of the Proposed Development on those recreational trails has been assessed as **negligible**.

14.6.88. A total 31 core paths were identified between 4 km and 15 km from the Proposed Development. While significant visual effects have been identified at Core Path Fogo to Gavinton and Rights of Way over Greenlaw Moor, Inch Moor and between the Dirrington Laws, all these paths tend to be used by local residents who, from the perspective of the tourism economy, are less sensitive to change. For these reasons, the effect of the Proposed Development on core paths was assessed as **negligible**.

Wider Tourism Impacts

14.6.89. The Proposed Development has the potential to create positive impacts for the tourism economy in the Local Area. The construction of similar developments often benefits local accommodation providers, as transient workers require temporary accommodation.

14.6.90. The Proposed Development is also likely to improve access to tourist attractions including the golf club. The quarry onsite will be used during construction, and as part of the Proposed Development, a new access track will be constructed. This will remove HGVs from travelling along a smaller road to the north of the site, allowing improved access to attractions along this road.

14.7. Cumulative Effects

14.7.1. There may be cumulative effects on socio-economics if the Proposed Development supports the development of a local supply chain, which other wind farm developments in the area, such as Crystal Rig IV, may benefit from. The Applicant has developed three onshore wind farms in the Scottish Borders, and nine across Scotland as a whole. Consequently, the Applicant has existing relationships with companies in the area, increasing the potential for economic impacts both in the region and nationally.

14.7.2. There is one other wind farm (Black Hill Wind Farm) within 15 km of the Proposed Development. Chapter 6: Landscape and Visual Impact Assessment, Volume 2 found no significant difference in cumulative effects compared to those arising due to the Proposed Development. It is not expected that there would be any significant cumulative effects on tourism and recreation assets, or the tourism economy of the Local Area.

14.8. Mitigation and Residual Effects

Mitigation

14.8.1. No significant adverse socio-economic, tourism and recreation effects have been identified during the construction or operation phase of the Proposed Development.

Residual Effects

14.8.2. As no significant adverse effects have been identified and no mitigation measures are deemed necessary, the residual effects of the Proposed Development are the same as the potential effects described above.

14.9. Conclusions

14.9.1. This chapter assesses the potential effects on socio-economics, tourism and recreation resulting from the development, construction and operation of the Proposed Development.

14.9.2. The Scottish Borders features an ageing population, with the Local Area around the Proposed Development expected to follow a similar trend. This means a smaller population of working age will have to support an increasingly old population, which makes it important for the Local Area to attract people of working age. In addition, the industrial structure of the Local Area suggests it can benefit from the construction of the Proposed Development, as it has above average employment in the construction sector.

Construction

14.9.3. The Applicant will seek to use local skills and services, where available, in line with its experience at similar developments such as Crystal Rig IV. This will be done both when appointing contractors and by incentivising all sub-contractors to use local content. Engagement with local suppliers will include the organisation of meet-the-buyer events and increasing awareness around the opportunities associated with the Proposed Development. The Applicant will also keep a record of local spending in the Proposed Development.

14.9.4. During the development and construction phase, it is estimated that the Proposed Development will generate up to:

- £6.2 million Gross Value Added and support 88 years of employment in the Scottish Borders; and
- £22.4 million GVA and 349 years of employment in Scotland (including in the Scottish Borders).

14.9.5. The development and construction of the Proposed Development is expected to result in:

- A temporary negligible (positive) effect on the Scottish Borders economy; and
- A temporary **negligible (positive)** effect on the Scottish economy.

14.9.6. During each year of the operational phase, it was estimated that the Proposed Development could generate up to:

- £0.4 million GVA and support five jobs in the Scottish Borders; and
- £1.3 million GVA and 15 jobs in Scotland.

14.9.7. The operation and maintenance of the Proposed Development is expected to result in:

- A negligible (positive) effect on the Scottish Borders economy; and
- A **negligible (positive)** effect on the Scottish economy.

14.9.8. It was estimated that the Proposed Development would pay £1.6 million each year in non-domestic rates, helping to support local government services.

14.9.9. The most recent evidence on the relationship between wind farms, solar farms and tourism suggests that there are no adverse effects on the tourism economy resulting from the development of onshore renewable projects. An assessment of the likely effects of the Proposed Development on specific local tourism assets, accommodation providers and routes found no significant adverse effects are expected.

14.9.10. The Applicant has committed to offering £5,000 per MW of installed capacity of the wind farm each year in community investment for the local area, in line with Scottish Government good practice principles, as well as £500 per MW of installed capacity of the solar power component. In this way, the Proposed Development would provide each year community benefit funding for the Local Area of up to £210,000. The Applicant is also considering offering shared ownership of the Proposed Development. As it has developed various onshore wind farms in the region, the Applicant is also well-placed to use existing relationships with companies in the supply chain to maximise local economic benefits.

14.9.11. Overall, there were no significant adverse effects identified. While the beneficial construction and operation socio-economic effects are not significant in EIA terms, they would be important to the local and national economies, contributing to sustainable economic growth.

14.9.12. Table 14.28 summarises the predicted effects of the Proposed Development on socio-economics, tourism and recreation.

Table 14.28 Summary of effects

Predicted Effect	Significance		Mitigation	Significance of Residual Effect	
Construction	**Significance**	**Beneficial/Adverse**		**Significance**	**Beneficial/Adverse**
£6.2 million GVA and 88 job years in Scottish Borders	Negligible and not significant	Beneficial	N/A	Negligible and not significant	Beneficial
£22.4 million GVA and 349 job years in Scotland	Negligible and not significant	Beneficial	N/A	Negligible and not significant	Beneficial
Operation					
£0.4 million GVA and 5 jobs in Scottish Borders	Negligible and not significant	Beneficial	N/A	Negligible and not significant	Beneficial
£1.3 million GVA and 15 jobs in Scotland	Negligible and not significant	Beneficial	N/A	Negligible and not significant	Beneficial
£210,000 annual community benefit payments	Negligible and not significant	Beneficial	N/A	Negligible and not significant	Beneficial
Payment of non-domestic rates	Negligible and not significant	Beneficial	N/A	Negligible and not significant	Beneficial
Effect on local tourism economy	Negligible/Minor and not significant	N/A	N/A	Negligible/Minor and not significant	N/A

14.10. Statement of Competence

14.10.1. BiGGAR Economics is an independent economic development consultancy that provides a range of economic development services for central and local government, economic development agencies, universities, other public sector agencies and private sector firms. The company has particular experience in the renewable energy sector and has assessed the socio-economic impact of over 100 wind farms in the UK and Ireland.