BiGGAR Economics

Socio-Economic Impact Assessment of Harestanes West Windfarm

A report to ScottishPower Renewables (UK) Ltd.
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BiGGAR Economics

Contents

1. Executive Summary

The proposed Development could deliver a total of £8.8 million Gross Value Added (GVA) and 125 years of employment during the development and construction phase in Dumfries and Galloway.

This report assesses the potential socio-economic, recreation and tourism effects of the Harestanes West Windfarm (the 'proposed Development'). No significant socio-economic effects are expected to occur in EIA terms in the presence of the proposed Development. Therefore, the conventional approach based on sensitivity, magnitude and significance has not been pursued in this assessment. However, socio-economics effects are considered following the requirements outlined in NPF4 Policy 11(c) regarding the maximisation of the net economic impact.

The assessment focuses on evaluating whether the proposed Development meets these requirements and contributes to a rapid deployment to achieve the Government's installed capacity targets considering criteria such as the support of a high local supply chain content, the provision of local employment and skills development opportunities, the contribution to the cost for enabling infrastructure and other interventions, the provision of a community benefit package and the promotion of the continuation of innovative processes to enhance community wealth.

The population of Dumfries and Galloway is projected to decline over the next two decades, in contrast to the expected population growth of Scotland. At the same time, the population of Dumfries and Galloway is expected to age, growing older than that of Scotland as a whole. While the Local Area (defined as Lochar, the electoral ward surrounding the proposed Development) is less deprived than Dumfries and Galloway as a whole, economic activity is concentrated in a few sectors, including wholesale and retail trade, manufacturing, and construction, which collectively employ 45% of those in employment.

The socio-economic structure of Dumfries and Galloway and future demographic pressures highlight the need for the creation of job opportunities. The assessment of the economic impacts of the proposed Development estimated that the expenditure associated with development and construction activity could generate:

- £8.8 million Gross Value Added (GVA) and support 125 years of employment in Dumfries and Galloway; and
- £26.8 million GVA and 419 job years across Scotland.

The expenditure required for the operations and maintenance of the proposed Development could generate each year:

- £0.7 million GVA and support 6 jobs in Dumfries and Galloway; and
- £1.5 million GVA and 17 jobs across Scotland.

The proposed Development is expected to support the provision of local public services and the investment priorities of local communities. During its operation, it is expected to generate approximately £1.0 million in non-domestic rates yearly. It is also expected to provide an annual contribution of £0.4 million in community benefits.

The assessment has also considered any impacts on the local tourism economy, in particular tourism assets within 15 km of the proposed Development. It found that the proposed Development is not expected to affect local accommodation providers, recreational activities, and tourism attractions, which is in line with the literature which finds no relationship between wind farm developments and tourism.

Based on insights gathered from a workshop undertaken with the Applicant, the Proposed Development could have a material, positive impact on community wealth building (CWB) in the local area. Key contributions identified include the proposed Community Benefit Package, support for building the local supply chain, and initiatives for skills development.

Based on the abovementioned community and economic benefits expected, it can be concluded that the proposed Development meets the requirements of the NPF4 Policy 11(c) and the relative criteria, and therefore maximises the net economic impact.

2. Introduction

BiGGAR Economics was commissioned by ScottishPower Renewables to assess the potential socio-economic impact associated with Harestanes West Windfarm.

2.1 Background

Harestanes West Windfarm (the proposed Development) is a proposed onshore windfarm development located in Dumfries and Galloway. It is expected that the proposed Development would be comprised of 12 turbines, each with a generating capacity of up to 7 MW, resulting in a total installed capacity of up to 84 MW.

The objectives of this study include:

- contributing to existing analysis by quantifying the potential economic impacts of the proposed Development;
- assessing the potential for any impacts on the local economy such as changes to tourism activity as a result of the proposed Development; and
- outlining the potential for the local community to benefit from the proposed Development.

2.2 Report Structure

The report is structured as follows:

- Section 3 places the proposed Development in the context of national and regional economic strategies;
- Section 4 provides a socio-economic context;
- Section 5 considers the economic impact from the proposed Development;
- Section 6 sets tourism in the area in context and considers the relationship between the proposed Development and the local tourism economy;
- Section 7 considers potential community benefits and opportunities; and
- Section 8 contains a conclusion on net economic benefit.

3. Strategic Context

This section sets out the national and regional context and how the proposed Development would support strategic aims.

3.1 National Strategic Context: Economic and Related Policies

3.1.1 Scotland's National Performance Framework

The National Performance Framework[1] sits at the top of the policy hierarchy in Scotland, with all other policies and strategies designed to meet its purpose and outcomes. The purpose of the National Performance Framework is:

"To focus on creating a more successful country with opportunities for all of Scotland to flourish through increased wellbeing, and sustainable and inclusive economic growth."

The National Performance Framework explicitly 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 National Performance Framework 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 and aims 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.

The National Performance Framework sets out 11 outcomes, underpinned by 81 indicators, that combine to give a better picture of how the country is progressing towards these goals. As well as Gross Domestic Product (GDP) and employment measures, the Framework's outcomes reflect the desired fabric of communities and culture, education, the environment, health and well-being and measures to help

[1] Scottish Government (2023), Scotland's National Performance Framework.

tackle poverty. It is these indicators on which the Scottish Government focuses its activities and spending to help meet the national outcomes.

The 11 national outcomes are that people:

- **children and young people**: grow up loved, safe and respected so that they realise their full potential;
- **communities**: live in communities that are inclusive, empowered, resilient and safe;
- **culture**: are creative and their vibrant and diverse cultures are expressed and enjoyed widely;
- **economy**: have a globally competitive, entrepreneurial, inclusive and sustainable economy;
- **education**: are well educated, skilled and able to contribute to society;
- **environment**: value, enjoy, protect and enhance their environment;
- **fair work and business**: have thriving and innovative businesses, with quality jobs and fair work for everyone;
- **health**: are healthy and active;
- **human rights**: respect, protect and fulfil human rights and live free from discrimination;
- **international**: are open, connected and make a positive contribution internationally; and
- **poverty**: tackle poverty by sharing opportunities, wealth and power more equally.

The proposed Development would contribute to the achievement of the national outcomes set out in the National Performance Framework. Investment in renewable energy can increase productivity in the economy and by creating jobs in the local area the proposed Development will contribute to inclusive growth. It also supports sustainability and the transition to Net Zero, by increasing the generation of renewable energy.

1.1.1 Scotland's National Strategy for Economic Transformation

In March 2022, the Scottish Government published the National Strategy for Economic Transformation[2], which set out its ambition for Scotland's economy over the next decade. The Scottish Government's vision is to create a wellbeing economy where society thrives across economic, social and environment dimensions, which delivers prosperity for all Scotland's people and places. Of particular importance is the ambition to be greener, through a just transition to net zero, a nature-positive economy and rebuilding natural capital.

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), including:

- establishing Scotland as a world-class entrepreneurial nation;

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

- 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;
- reorienting the economy towards wellbeing and fair work.

The strategy notes that Scotland has substantial energy potential and that it has developed a growing green industrial base. This provides a strong foundation for securing new market opportunities arising from the transition to Net Zero and will need continued investment and support. Renewable energy also has a role to play in supporting productive businesses and regions across Scotland.

3.1.2 National Planning Framework 4

The Fourth National Planning Framework (NPF4)[3] is Scotland's national spatial strategy, setting out the principles to be applied to planning decisions, regional priorities and national developments.

The first of six spatial principles to be applied is a just transition that ensures the transition to Net Zero is fair and inclusive, as is rural revitalisation, supporting sustainable development in rural areas. Applying these and other principles is intended to support the planning and delivery of sustainable places, where emissions reduce, and biodiversity is restored and better connected.

As part of the policy 11(a), all forms of renewable technologies, including onshore wind and energy storage, will be supported. This is subject to the test outlined in Policy 11(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".* The proposed Development will support employment and create opportunities for local businesses at both the construction, and operation and maintenance phases. The assessment includes a conclusion on whether this project maximises the net economic impact in the context of NPF4 Policy 11(c).

Policy 11(e) also sets out a range of impacts that should be addressed during project design and mitigation. That list does not include tourism. Whilst not required by NPF4, Section 7 of this report does consider whether there could be any implications for tourism.

3.1.3 Scottish Energy Strategy

The Scottish Energy Strategy[4], outlines Scotland's vision for its energy system through 2050, emphasizing decarbonization, renewable energy, and economic growth. It has implications for various sectors, including electricity, heating, and

[3] Scottish Government (2023). National Planning Framework 4.

[4] Scottish Government (2017). The Scottish Energy Strategy: The future of energy in Scotland.

transport, while also promoting energy efficiency and new technologies like energy storage and low-emission vehicles. The key themes of the strategy are:

- **Decarbonization**: Scotland aims to transition to a low-carbon economy, with renewable energy playing a key role. By 2030, 50% of the energy for heat, transport, and electricity is expected to come from renewables. This supports climate targets under the Climate Change (Scotland) Act.
- **Economic Opportunities**: The strategy highlights Scotland's potential to capitalize on global low-carbon markets, create jobs, and stimulate investments in green energy. It also supports innovation in renewable energy, energy storage, and energy efficiency.
- **Whole-System Approach**: The strategy focuses on integrating renewable energy across heat, transport, and electricity sectors. Energy storage, electric vehicles, and smarter local energy systems are seen as key areas to develop
- **Just Transition and Inclusivity**: The strategy stresses an inclusive energy transition, ensuring that vulnerable groups are not left behind and that energy costs remain affordable.
- **Energy Efficiency**: Scotland's Energy Efficiency Programme (SEEP) aims to make buildings more energy-efficient, reducing energy demand and tackling fuel poverty.

The proposed Development in Dumfries and Galloway aligns with the Scottish Energy Strategy's focus on increasing renewable electricity generation. Wind energy, a major contributor to Scotland's electricity mix, supports the goal of producing 50% of energy from renewable sources by 2030. The proposed Development will help decarbonize electricity while contributing to local economic growth and job creation in the region.

3.1.4 Onshore Wind Sector Deal

The Onshore Wind Sector Deal[5], published in September 2023, outlines the commitment from the Scottish Government and the onshore wind sector to reach 20 GW of onshore wind by 2030, ensuring maximisation of benefits to Scotland. The Deal highlights the increased potential of onshore wind for a low-carbon and prosperous future, the creation of high-quality job opportunities and the empowerment of local communities in Scotland.

The document emphasises the following aspects, and the collaborative, sector and government action required to support the development of onshore wind in each of the following:

- **supply chain, skills and the circular economy**: support the enhancement of the current skills and training provision to deliver the needs of the wind industry;
- **community**: onshore wind will continue to collaborate with local communities, offering impactful community benefits;
- **land use and environment**: onshore wind projects will enhance biodiversity and optimise land use and environmental benefits;

[5] Scottish Government (2023). Onshore Wind Sector Deal.

- **planning**: reduce the time it takes to determine applications for onshore wind projects by increasing skills and resources;
- **legislative and regulatory**: develop evidence to support a strategic approach to delivering investment and transporting wind turbine components, and improve network connections;
- **technical**: enable cooperative coexistence between onshore wind and safe aviation operations; and
- **implementation and governance**: key milestones to be delivered by agreed dates.

Taking these into consideration, the Deal shed light to the importance of onshore wind in accelerating the transition to Net Zero, driving economic growth, creating better job opportunities, and benefitting communities in Scotland. The proposed Development would directly contribute to all the above increasing onshore wind generating capacity in Dumfries and Galloway and Scotland.

1.1.2 Tourism Strategy: Scotland's Outlook 2030

Following on from the Tourism Scotland 2020 (TS2020) strategy[6], a collaborative network of industry experts created Scotland's Outlook 2030, a strategy document which is focused on creating a world-leading tourism sector in Scotland that is sustainable in the long-term. The strategy is focused on four key priorities:

- people;
- places;
- businesses; and
- experiences.

The strategy recognises the effects on tourism of climate change, technological advancements, Brexit and changing consumer behaviour and highlights the need for collaboration between government, communities, and the public and private sectors[7].

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.

[6] Scottish Tourism Alliance (2012). Tourism Scotland 2020
[7] Scottish Tourism Alliance (2020). Scotland's Outlook 2030

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.

3.2 Regional Strategies

3.2.1 South of Scotland's Regional Economic Strategy Delivery Plan 2022-2025

The proposed Development is in the Dumfries and Galloway area, which falls within the scope of the established South of Scotland Enterprise Agency (SOSE). Covering the regions of Dumfries and Galloway and Scottish Borders, SOSE has a remit to promote sustainable and inclusive economic development across the region, as well as supporting the wellbeing of its communities and the environment.

Therefore, South of Scotland's Regional Economic Strategy[8] focused on making the South of Scotland region "Green, Fair and Flourishing" providing opportunities for residents to utilise their potential and attracting people to live, work, visit, learn and invest in the area. The Strategy outlines six priorities:

- skilled and ambitious people;
- innovative and enterprising;
- rewarding and fair work;
- cultural and creative excellence;
- green and sustainable economy; and
- thriving and distinct communities.

To combat challenges within the region, opportunities have been identified from inside the region and include the areas' substantial land and energy resources, which can act as a catalyst for green growth and jobs. The proposed Development would significantly contribute towards these, generating jobs in the local area in sectors associated with development and construction, as well as long-term roles in the local economy associated with the operation of the proposed Development. Projects such as the proposed Development would also support the goal of establishing a sustainable local economy for South of Scotland, allowing the region to benefit from the low carbon renewable energy sector while generating economic impacts in the local economy.

3.2.2 Dumfries and Galloway Council Plan 2023-2028

The Council Plan aims to create a successful, healthy, and well-connected region with a sustainable and fair economy that promotes new opportunities, provides high quality public services that target prosperity and attracts people in the area.

The Plan established the following key principles to deliver its vision:

- **economy**: creation of an attractive region for businesses and skilled people, promotion of inclusive growth and empowerment of communities;

[8] South of Scotland Regional Economic Partnership (2021). Regional Economic Strategy Delivery Plan (2022-2025): Delivering a Greener, Fairer and Fl

- **travel, connectivity and infrastructure**: flood management, improvements in roads, paths and recreation networks, promotion of active travel for a low-carbon future, better access to services and digital connectivity;
- **education and learning**: provision of high-quality learning opportunities from an early age that will boost confidence and future career prospects; and
- **health and wellbeing**: provision of affordable and good quality housing, alleviation of poverty, inequality and increased cost of living.

The proposed Development will provide community benefits that would support the objective to empower local communities and improve the quality of life. By strengthening the renewables sector, the local economy will flourish due to the provision of better job opportunities that would attract investment and skilled people in the area.

3.3 Summary of Strategic Context

The proposed Development is expected to have various socio-economic benefits in line with national and regional strategic policy documents. Through its generation of renewable energy, the project will contribute to the decarbonisation of the Scottish economy and towards Scotland's net-zero target. The proposed Development will also deliver on some of the issues covered by Scotland's NPF4, including the economy, communities, and the environment.

At regional and local level, the proposed Development will create high-quality employment opportunities, further diversifying the region's economic base and generating spend in the local economy through wage expenditure. The proposed Development will also support businesses within the local supply chain, building more sustainable and resilient communities through the diversification of income streams.

4. Local Economic Context

This section considers the socio-economic context of the proposed Development, including population structure, economic activity, skills, and relative deprivation.

4.1 Study Areas

The aim of the socio-economic baseline is to set the proposed Development and its potential for economic benefits within existing socio-economic conditions. This section considers the socio-economic structure of three study areas:

- Lochar (the local area surrounding the proposed Development);
- Dumfries and Galloway; and
- Scotland.

4.2 Demographics

4.2.1 Population Estimates

In 2022, Lochar had a total population of 12,270, accounting for 8.2% of the population of Dumfries and Galloway and 0.2% of the population of Scotland. Of the total population of Lochar, 17% were aged under 16 years old. This proportion is of similar magnitude to Dumfries and Galloway (15%) and Scotland (17%).

The proportion of the working age population was 61%, which was greater than in Dumfries and Galloway (58%) and below the national average (64%). The share of the population in Lochar that was aged 65 and over was 22%, which was below Dumfries and Galloway (27%) but greater than across Scotland as a whole (20%).

Table 4-1: Population Estimates, 2022

Age Group	Lochar	Dumfries and Galloway	Scotland
Total	**12,270**	**148,800**	**5,479,900**
0-15	17%	15%	17%
16-64	61%	58%	64%
65+	22%	27%	20%

Source: ONS (2023), Population Estimates – Local authority based by five-year age band.

4.2.2 Population Projections

Over the period between 2022 and 2043, the population of Dumfries and Galloway is projected to decrease from 148,800 to 136,290, which is equivalent to a decrease of 8.4%. However, the population of Scotland is projected to increase by 2.5% during the same period.[9]

The proportion of Dumfries and Galloway residents aged 16-64 years old is projected to decrease over time, with the share of working age population falling from 58% to 53% between 2022 and 2043. This is equivalent to a decline of over 14,000 working age people in Dumfries and Galloway, from 86,300 to 72,300. The share of the working age population is also projected to fall across Scotland as a whole, from 64% to 60% between 2022 and 2043.

Both Dumfries and Galloway and Scotland are expected to experience ageing populations. Though following a similar trend, this will be more marked in Dumfries and Galloway where the share of the population aged 65 and over is projected to increase to 34% by 2043 whereas this age group is projected to reach 25% in Scotland as a whole.

If the current differences in population structure between the local area and Dumfries and Galloway were to remain in the future, the local area would be even more susceptible to pressure on public services. By creating well-paid employment, the proposed Development could contribute to offset existing depopulation projections.

Table 4-2: Population Projections, 2022-2043

Age Group	Dumfries and Galloway		Scotland	
	2022	2043	2022	2043
Total	**148,800**	**136,286**	**5,479,900**	**5,574,819**
0-15	16%	13%	17%	15%
16-64	58%	53%	64%	60%
65+	27%	34%	20%	25%

Source: ONS (2023), Population Estimates – Local authority based by five-year age band; National Records of Scotland (2020), Population Projections for Scottish Areas (2018-based).

4.3 Industrial Structure

In 2022, 21% of those employed in Lochar worked in the wholesale and retail trade sector, significantly above the share of people in the sector in Dumfries and Galloway (15%), and in Scotland as a whole (13%). Manufacturing is an important sector in

[9] ONS (2023), Population Estimates – Local authority based by five-year age band; National Records of Scotland (2020), Population Projections for Scottish Areas (2018-based).

Lochar, accounting for 15% of employment compared to 8% in Dumfries and Galloway and 7% in Scotland. The highest share of this employment was associated with the manufacturing of rubber and plastic products at Gates Power Transmission Ltd Dumfries.

Construction, a sector which could particularly benefit from contracts relating to the proposed Development, accounted for 12% of employment in Lochar, which was more than in Dumfries and Galloway (5%) and in Scotland as a whole (6%). Transportation was also an important employer in Lochar, constituting 7% of total employment compared to 4% across both Dumfries and Galloway, and Scotland as a whole.

The tourism sector is less important to the economy of Lochar than it is for Dumfries and Galloway and the wider Scottish economies. Accommodation and food services was underrepresented in Lochar, encompassing 5% of total employment, which was less than in Dumfries and Galloway (9%) and Scotland (8%).

In Dumfries and Galloway, the most significant employers were wholesale and retail trade and human health and social work, accounting for 15% and 17% of total employment respectively. Agriculture, forestry and fishing was overrepresented in Dumfries and Galloway, accounting for 13% of employment which was much higher than in Lochar (4%) and across Scotland (3%).

Table 4-3: Industrial Structure, 2022

Industry	Lochar	Dumfries and Galloway	Scotland
Wholesale and retail trade	21%	15%	13%
Manufacturing	15%	8%	7%
Construction	12%	5%	6%
Administrative and support services	9%	5%	8%
Transportation and storage	7%	4%	4%
Education	6%	7%	8%
Accommodation and food services	5%	9%	8%
Professional, scientific and technical	4%	4%	7%
Agriculture, forestry and fishing	4%	13%	3%
Real estate activities	3%	2%	1%
Human health and social work activities	3%	17%	15%
Arts, entertainment and recreation	3%	3%	3%
Water supply; sewerage, waste	2%	1%	1%
Other service activities	1%	1%	2%
Information and communication	1%	1%	3%
Public administration and defence	1%	4%	6%
Financial and insurance activities	1%	1%	3%
Total Employment	**4,750**	**66,500**	**2,622,000**

Source: ONS (2023), Business Register and Employment Survey, 2022.

4.4 Economic Activity

In 2023, the economic activity rate in Dumfries and Galloway was 73.9%, which was lower than across Scotland where the economic activity was 77.9%. The unemployment rate in Dumfries and Galloway was 7.5%, which was higher than in Scotland as a whole (3.4%). The median annual gross salary of residents of Dumfries and Galloway was £25,893, which was significantly lower than across Scotland (£29,842).

Table 4-4: Labour Market Indicators

Economic Indicators	Dumfries and Galloway	Scotland
Economically Active (%)	73.9%	77.9%
Unemployment Rate (%)	7.5%	3.4%
Median Annual Gross Wage (resident analysis)	£25,893	£29,842

Source: ONS (2024), Annual Population Survey Oct 2022-Sept 2023; ONS (2024), Annual Survey of Hours and Earnings – resident analysis.

4.5 Education

The workforce in Dumfries and Galloway has lower levels of qualification than the wider Scottish population. Across Dumfries and Galloway, 43% of people have achieved at least a National Vocational Qualification Level 4 (NVQ4) qualification, equivalent to a higher education certificate. This is lower than the share of people in Scotland of 50%, with a higher education certificate. The proportion of people who have achieved no qualifications in Dumfries and Galloway (9%) is slightly higher than across Scotland as a whole (8%).

Table 4-5: Qualification Levels, 2022

Qualification Level	Dumfries and Galloway	Scotland
NVQ4+	43%	50%
NVQ3+	61%	65%
NVQ2+	80%	80%
NVQ1+	86%	86%
Other Qualifications	5%	6%
No Qualifications	9%	8%

Source: ONS (2023), Annual Population Survey Jan 2022 – Dec 2022.

4.6 Scottish Index of Multiple Deprivation

The Scottish Index of Multiple Deprivation (SIMD) is a relative measure of deprivation which ranks small areas of Scotland across seven dimensions: income, employment, education, health, access to services, crime, and housing. These areas can be ranked based on which quintile (fifth of the distribution) they belong to, with a small area in the first quintile being in the 20% most deprived areas in Scotland.

Lochar has lower levels of deprivation and higher levels of affluence compared to Dumfries and Galloway and Scotland as a whole. There are 17 small areas in Lochar, none of which are in the most deprived quintile and 24% are in the least deprived quintile. Small areas in Lochar are more concentrated towards the least deprived end

of the distribution, with 59% of the small areas in the fourth and fifth quintiles and with 83% in the third, fourth and fifth quintiles.

There are 98 small areas in Dumfries and Galloway, of which 3% are in the most deprived quintile and 12% in the less deprived quintile. Small areas in Dumfries and Galloway are concentrated within the middle of the distribution, with 35% of the small areas in the third quintile and 85% in the second, third and, fourth quintiles.

Both Lochar and Dumfries and Galloway have fewer small areas concentrated in the most deprived quintiles compared to the national average. However, Lochar has more small areas congregated towards the least deprived end of the distribution than Scotland as a whole. Whereas Dumfries and Galloway has fewer small areas in the least deprived quintile than the national average. This implies that both Lochar and Dumfries and Galloway have lower levels of inequality than exists in Scotland as a whole.

Table 4-6: Scottish Index of Multiple Deprivation by Quintile, 2020

Quintile	Lochar	Dumfries and Galloway
1 (most deprived quintile)	0%	3%
2	18%	19%
3	24%	35%
4	35%	31%
5 (least deprived quintile)	24%	12%

Source: Scottish Government (2020), Scottish Index of Multiple Deprivation 2020.

4.7 Fuel Poverty

The proportion of households living in fuel poverty, where at least 10% of income is spent on heating, is higher in Dumfries and Galloway than in the rest of Scotland. In Dumfries and Galloway, 29% of households (20,000) live in fuel poverty, compared to 25% across Scotland. Residents over 65 are most affected by fuel poverty, as they are more likely to be living on a fixed income, spending long periods of time at home, and living in substandard housing.

The proportion of households in extreme fuel poverty, where at least 20% of income is spent on energy, is also higher in Dumfries and Galloway than in the rest of Scotland. In Dumfries and Galloway, 15% of households (11,000) live in extreme fuel poverty, compared to 12% across Scotland.

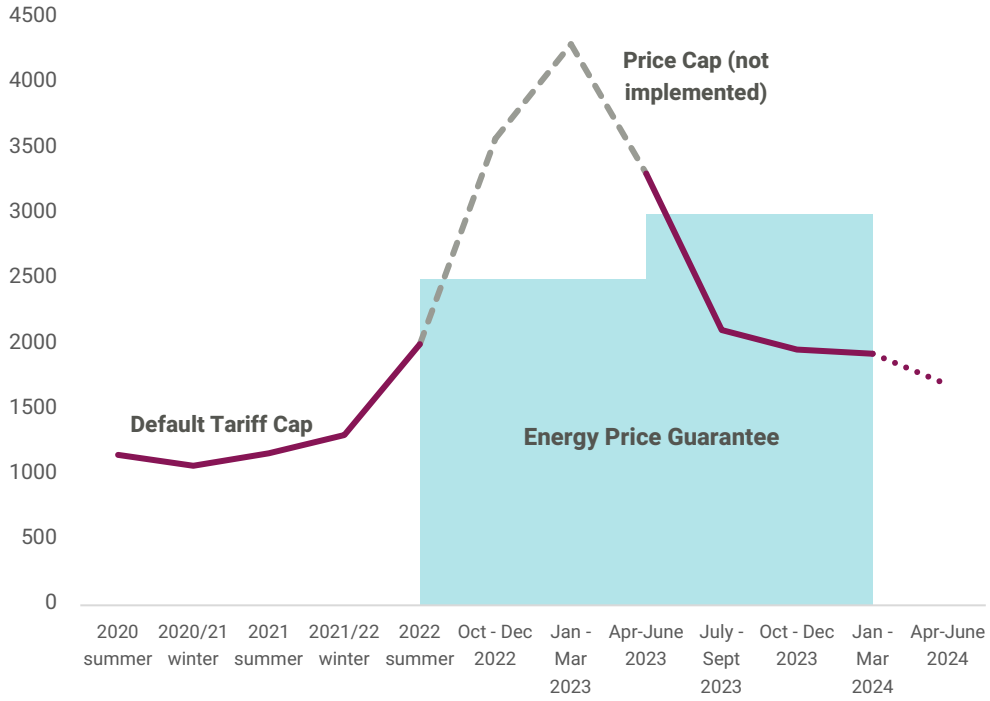
Table 4-7: Fuel Poverty, 2019

Categorisation	Dumfries and Galloway	Scotland
Fuel Poverty	29%	25%
Extreme Fuel Poverty	15%	12%

Source: Scottish Government (2021), Scottish House Condition Survey: Local Authority Analysis 2019.

It is likely, given the rise in energy prices beginning in 2022, that there has been a further increase in the number of households that are in fuel poverty. Figure 4-1 shows the alterations to the default tariff cap for direct debit customers in Great Britain. The price caps of £2,500 and £3,000 (equal to the Energy Price Guarantees) were more than double the price compared to summer 2020. Despite a recent reduction in the price cap to around £1,900 between January and March 2024, annual bills for typical energy consumption remain at least 50% higher than in winter 2021/22.

Figure 4-1: Annual Energy Price Cap (£), 2019/20-2024



Source: Ofgem (2024), Retail market indicators - Breakdown of the default tariff price cap (GBP £, direct debit).

The Scottish Government[10] published scenario modelling of national fuel poverty rates under each Energy Price Guarantee. It was estimated that from October 2022

[10] Scottish Government (2023), Cost of Living (Tenant Protection) (Scotland) Act 2022: first report to the Scottish Parliament.

approximately 860,000 Scottish households (35%) are fuel poor, equivalent to a 10-percentage-point increase from the latest available data in 2019 (Table 4-7).

These significant increases in the fuel poverty rates will also be reflected in Dumfries and Galloway.

4.8 Summary of Socio-Economic Context

Between 2022 and 2043, the population of Dumfries and Galloway is expected to decline, with an above average decrease in its working age population. This suggests that there is a lack of opportunities for workers in the area, which leads to migration and a relatively older population structure. In addition, the median annual gross income of full-time workers is lower than the Scottish average. The proposed Development could contribute to addressing these challenges and offsetting population trends by creating a vibrant onshore wind sector in the area which could favour the retention of young people through high-skilled and high-paying jobs.

At local level, the construction and manufacturing sectors, which are likely to benefit from contracts associated with the proposed Development, account for an above average share of employment compared to Dumfries and Galloway and Scotland as a whole. This suggests local businesses could benefit from the construction of the proposed Development.

Fuel poverty levels are higher in Dumfries and Galloway than in Scotland and are expected to have increased due to the recent energy crisis. The proposed Development, and its associated community benefits, could provide an opportunity to address this.

5. Assessment Methodology

This section describes the methodology used to assess the economic impact from the proposed Development as well as the contribution to the maximisation of net economic benefits.

5.1 Economic Impact Methodology

5.1.1 Modelling the Economic Impact of Onshore Wind Farm Developments

The methodology employed to assess the economic impact of onshore wind developments adheres to industry best practice. It leverages research, conducted by BiGGAR Economics in 2015 on behalf of RenewableUK[11], on the construction and operational costs from numerous onshore wind farm projects across the UK. Furthermore, the approach draws on more recent evidence gathered from a multitude of case studies of construction and operational costs in the sector.

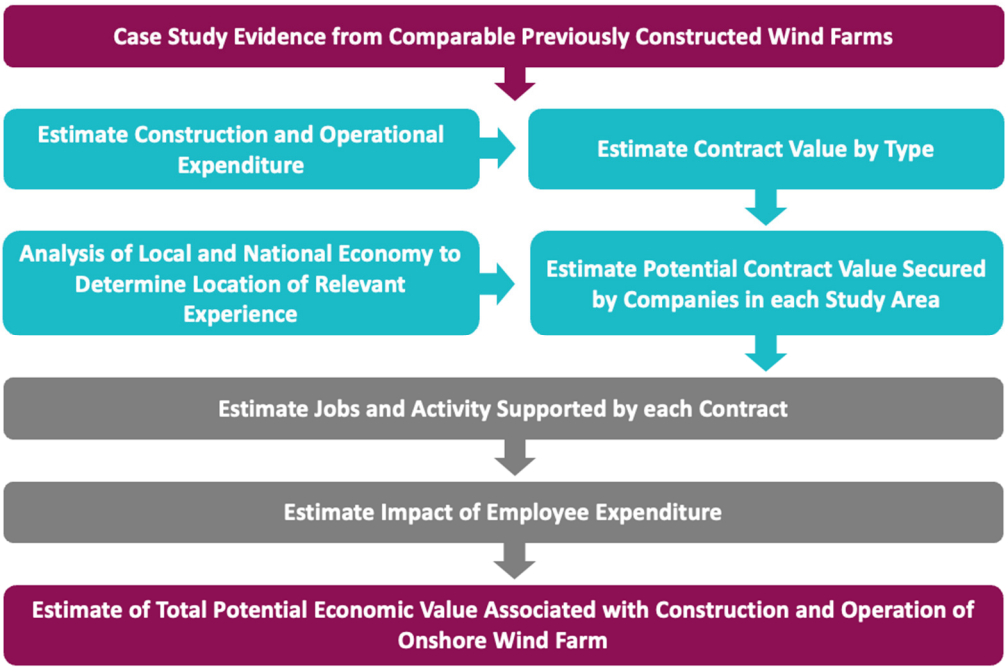
The methodology has now been used to assess the economic impact associated with numerous onshore wind developments across Scotland, and the UK. The economic modelling methodology comprises the following stages:

- Development and planning;
- Turbine;
- Balance of plant; and
- Grid connection.

The economic impact methodology adjusts the assumptions to account for varying capacities of businesses throughout Scotland to fulfil onshore wind contracts.

[11] RenewableUK (2015), Onshore Wind: Economic Impacts in 2014.

Figure 5-1 Approach to Economic Impact



Source: BiGGAR Economics

5.1.2 Measures of Economic impact

The economic impacts are reported with respects to the following measures:

- **Gross Value Added (GVA)**: a commonly used measure of economic output, GVA captures the contribution made by an organisation to national economic activity. This is usually estimated as the difference between an organisation's turnover and its non-staff operational expenditure; and
- **Employment**: this is expressed as years of employment for temporary contracts and as annual jobs for operations and maintenance contracts. Years of employment are used to report the short-term employment that is supported by the construction and development of the wind farm. As an example, a job that lasts for 18 months would support 1.5 years of employment.

5.1.3 Sources of Economic Impact

The assessment will consider the following sources of economic impact:

- **direct impacts**: the economic value generated through the contracts associated with the proposed Development;
- **indirect impacts**: the impact from the spending of contractors within their supply chains; and
- **induced impacts**: the impact from the spending of those workers carrying out contracts for the proposed Development and on behalf of its contractors.

5.1.4 Study Areas

The assessment of economic impacts considered the following study areas:

- Dumfries and Galloway; and
- Scotland.

5.2 Maximisation of Net Economic Impact

5.2.1 Approach

There is no specific legislation, policy or guidance available on the methods that should be used to assess the socio-economic impacts of a proposed onshore wind farm development. The assessment focuses on evaluating whether the proposed Development meets the specific requirements outlined in NPF4 Policy 11(c) concerning the maximisation of net economic impacts.

However, there is also no guidance on maximising net economic impact in the context of the NPF4. The structured approach provided below ascertains the net economic impact of the onshore wind development through the following aspects:

- **alignment with policy statements**: Clarity on the desired outcomes can be obtained from other policies such as Onshore Wind Policy Statement and the Onshore Wind Sector Deal for Scotland which identify the collective vision to use the rapid development of the onshore wind sector to drive long-term economic growth, create high-quality supply chain opportunities, reduce carbon emissions, and ultimately benefit the communities in Scotland.
- **evaluation of applicant commitments**: Commitments made by the Applicant regarding economic contributions, including investments, job creation, and support for local businesses and communities, form an important component of the evaluation process.
- **consideration of applicant control**: There are factors within and outside the control of the applicant that may affect the realisation of the socio-economic benefits. For example, benefits from Applicant's commitments to the local suppliers will only be realised if local suppliers utilise the opportunities provided.

Based on the above, the following criteria are considered for the maximisation of the net economic benefits from onshore wind development:

- **rapid deployment** of projects needed to deliver Scotland's 20GW target of onshore wind installed capacity by 2030;
- **high local supply chain content** to maximise the value of local expenditure;
- **bespoke opportunities for local employment and skills development** that reflect the characteristics of the local labour market;
- **fair contributions to the cost for enabling infrastructure** and other interventions necessary to support the sector;
- **fair community benefit packages** that generate tangible benefits for the host community while remaining affordable for the developer; and
- **continued innovation** to support the process of continuous improvements, including opportunities for community ownership, recreational use of site infrastructure, electricity discount schemes, non-cash benefits, community-led housing development, training.

The assessment concludes on whether the proposed Development maximises the net economic impact in the context of NPF4 Policy 11(c) based on these criteria.

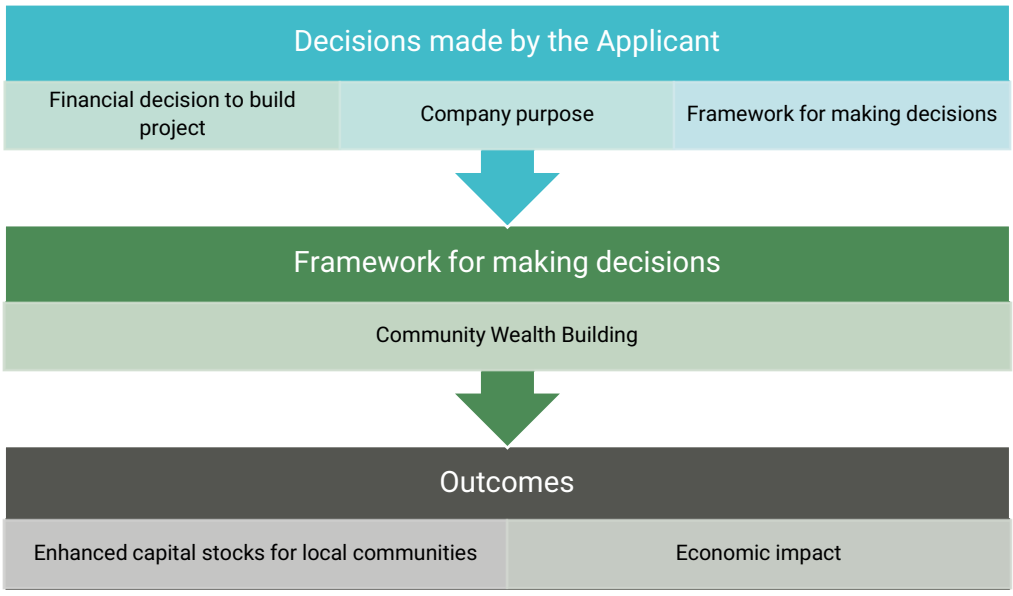
5.2.2 Community Wealth Building Exercise

Developers of renewable energy projects have long been expected to contribute to socio-economic development in host communities. However, NPF4 brought in new requirements for the benefits to be maximised.

There is a wide variety of potential benefits of renewable projects. These include those directly created by the proposed Development, such as supply chain opportunities and community benefit funding, and those that the proposed Development will enable others to realise. Both types of benefits can contribute to community wealth building.

The extent to which a project contributes to community wealth building depends on the decisions that are made by a developer. The primary decision is whether to proceed with a project and make the financial commitment required to build it. A project that is not built will not contribute to the community wealth at all. Therefore, if it wishes to maximise the net economic impact, the decisions made by the Applicant need to ensure that the proposed Development is financially viable.

The framework through which the Applicant makes decisions and the interdependencies of these decisions will determine the scale and distribution of benefits. CWB offers a framework through which decisions can be made in order to maximise the net economic impact of a project. By adopting a CWB framework developers can maximise the positive outcomes for communities local to developments, by enhancing the capital stocks of an area and maximising the economic impact through the supply chain.



Developers can play a transformational role within the communities where they operate and can make an important contribution to their economic development.

However, only the direct benefits are within the sole control of the developers. This necessitates the requirement of a collaborative relationship with the local community and partners to ensure that a lasting legacy of economic development can be created, and benefits are maximised.

The need of a collaborative approach was highlighted in policy statements such as the Onshore Wind Sector Deal which set out joint commitments of the Government and industry to maximise benefits at a national level without translating those into guidance for developers working at the local level.

Nevertheless, these commitments align well with the five pillars of the Community Wealth Building.

CWB is an approach to local economic development that aims to keep wealth circulating locally to ensure more inclusive, resilient, and sustainable local economic development and is regarded as a key strategy for developing a wellbeing economy within Scotland's National Strategy for Economic Transformation. CWB is based around five pillars:

- plural ownership of the economy
- ensuring financial power works for local places
- fair employment and just labour markets
- progressive procurement of goods and services
- socially productive use of land and property.

Policy 25 in the NPF4 also suggests development proposals that contribute to local or regional Community Wealth Building strategies will be supported. Therefore, although it is not necessary to gain consent, developers could use community wealth building as a framework for setting out how they will maximise the benefits of their proposals.

BiGGAR Economics' assessment is based on information gathered during a workshop with the Applicant. At the workshop staff were invited to reflect on the five pillars of community wealth building and identify activity the Applicant is or will be engaged in that may contribute towards them. Participants were then invited to think about whether there were further actions that could be taken to enhance this contribution.

The results of this exercise are outlined in Section 8 of this report.

6. Economic Impact

This section assesses the economic impact could be generated by Harestanes West Windfarm.

6.1 Development and Construction

The assessment of the economic impact arising from the development and construction of the proposed Development utilises the extensive work that BiGGAR Economics has carried out in the onshore wind sector. This includes an evaluation of existing windfarm developments carried out in 2015 by BiGGAR Economics on behalf of RenewableUK. The analysis has been updated over time drawing on evaluations of individual windfarm developments and on experience with developers working across Scotland. This body of research and experience provides the evidence to estimate costs per MW based on a development's number of turbines and its capacity.

The proposed Development is expected to be 12 turbines with a total generating capacity of up to 84 MW. It was estimated that the total development and construction expenditure is likely to amount to £87.0 million. The expenditure was split according to the following component contracts:

- development and planning;
- turbine;
- balance of plant; and
- grid connection.

The greatest expenditure component was associated with turbines, equivalent to £54.0 million, or 62% of total development and construction spend. The following largest expenditure was associated with balance of plant contracts, amounting to £19.8 million (23% of total expenditure). It was estimated that development and planning would account for 8% of spending, and that grid connection would account for 7% of total expenditure.

Table 6-1 Development and Construction by Contract Type

Item	% of Development and Construction Expenditure	Value (£m)
Development and Planning (project management, planning and consents, land agreements, construction engineering, etc.)	8%	£6.8
Turbines (includes nacelle, blades, tower manufacture, shipping, transportation, port fees, assembly, etc.)	62%	£54.0
Balance of Plant (includes design and preliminaries, roads & onsite tracks, foundations & hardstandings, cable trenching, construction compound, civil engineering management, etc.)	23%	£19.8
Grid Connection (engineering services for grid connection, grid connection and substation construction, industrial equipment & machinery, etc.)	7%	£6.4
Total	**100%**	**£87.0**

Source: BiGGAR Economics Analysis of case study evidence from comparable previously constructed wind farms. Note: Totals may not sum due to rounding.

In assessing the economic impacts arising from the development and construction of the proposed Development, it was necessary to make assumptions on the ability of businesses within each study area to carry out contracts.

Based on the evidence from similar developments within Dumfries and Galloway, and ScottishPower Renewables established work with contractors, it was estimated that approximately 37% of the proposed Development's contracts will be carried out by Scottish businesses, with a value of £32.5 million. It was estimated that spending on businesses based in Dumfries and Galloway would be approximately £12.6 million, equivalent to 14% of total development and construction expenditure. The greatest opportunity for Scottish businesses is expected to be in contracts associated with balance of plant, which would be worth up to £17.6 million. Balance of plant contracts are also likely to be the largest opportunity for businesses in Dumfries and Galloway, worth up to £6.8 million.

Table 6-2 Development and Construction Expenditure by Study Area

	Dumfries and Galloway		Scotland	
Item	**%**	**£m**	**%**	**£m**
Development and Planning	35%	£2.4m	75%	£5.1m
Turbines	2%	£1.1m	10%	£5.2m
Balance of Plant	34%	£6.8m	89%	£17.6m
Grid Connection	35%	£2.3m	73%	£4.7m
Total CAPEX in Study Area	**14%**	**£12.6m**	**37%**	**£32.5m**

Source: BiGGAR Economics Analysis. Note: Totals may not sum due to rounding.

Having estimated the size of the contracts that could benefit each of the study areas, it was possible to estimate the Gross Value Added (GVA) and short-term employment that these are likely to support. This was done by splitting each contract category into its component contracts and assigning each to an industrial sector, based on its Standard Industrial Classification (SIC)[12] code. Direct GVA was then estimated by applying the relevant turnover per GVA from the UK Annual Business Survey (ABS)[13].

It was estimated that the development and construction of the proposed Development is likely to generate £7.0 million direct GVA in Dumfries and Galloway and £16.5 million direct GVA in Scotland.

Table 6-3 Development and Construction, Direct GVA by Study Area (£m)

	Dumfries and Galloway	Scotland
Development and Planning	£1.8m	£3.2m
Turbines	£0.6m	£2.6m
Balance of Plant	£3.5m	£8.3m
Grid Connection	£1.2m	£2.4m
Total	**£7.0m**	**£16.5m**

Source: BiGGAR Economics Analysis. Note: Totals may not sum due to rounding.

Similarly, it was feasible to estimate the number of direct jobs supported by spending in construction and development contracts. This was achieved by dividing the expenditure in each contract by the turnover per job ratio for the relevant sector. It was estimated that the development and construction of the proposed Development will generate 102 direct years of employment in Dumfries and Galloway and 267 direct years of employment in Scotland.

[12] Office for National Statistics (2009), Standard Industrial Classification of industrial Activities (SIC 2007).
[13] Office for National Statistics (2020), Annual Business Survey 2018 - Revised.

Table 6-4 Development and Construction, Direct Employment by Study Area, and Contract Type (Years of Employment)

	Dumfries and Galloway	Scotland
Development and Planning	6	30
Turbines	16	60
Balance of Plant	60	139
Grid Connection	19	38
Total	**102**	**267**

Source: BiGGAR Economics Analysis. Note: Totals may not sum due to rounding.

Expenditure in development and construction contracts is also expected to generate 'knock-on' effects across the economy. Specifically, it will be associated with further rounds of expenditure along the supply chain and with the spending of the wages and salaries of those involved in the development and construction of the proposed Development. These are referred to as 'indirect' and 'induced' impacts.

To estimate indirect and induced impacts, it was necessary to apply the relevant Type 1 and Type 2 GVA and employment multipliers from the Scottish Government Input-Output Tables[14] to direct GVA and direct employment. Since the multipliers refer to sectoral interactions occurring at the level of the Scottish economy, it was necessary to adjust them when considering impacts taking place in Dumfries and Galloway.

By combining the direct, indirect, and induced impacts it was estimated that the development and construction of the proposed Development will generate:

- £8.8 million GVA and 125 years of employment in Dumfries and Galloway; and
- £26.8 million GVA and 419 years of employment in Scotland.

6.2 Operations and Maintenance

The initial stage in gauging the economic impact stemming from the operations and maintenance of the proposed Development involved assessing the annual total expenditure necessary for its operation. Based on the number of turbines and the proposed Development's capacity, it was estimated that the annual cost of operations and maintenance (OPEX) is likely to amount to approximately £2.4 million.

It was further assumed that businesses in Dumfries and Galloway could benefit from a total £1.0 million in operations and maintenance contracts (42% of OPEX) annually,

[14]Scottish Government (2020), Supply, Use and Input-Output Tables.

and that annual expenditure in Scottish contractors could be up to £2.0 million (83% of OPEX).

Table 6-5 Operations and Maintenance Expenditure by Study Area

	Dumfries and Galloway		Scotland	
	%	£m	%	£m
Operations and Maintenance	42%	£1.0m	83%	£2.0m

Source: BiGGAR Economics Analysis. Note: Totals may not sum due to rounding.

The total turnover generated in each study area was then divided by the turnover per GVA and turnover per job ratios of the sectors expected to carry out operations and maintenance contracts. In this way, it was estimated that the proposed Development is likely to generate £0.5 million direct GVA and 4 direct jobs in Dumfries and Galloway, and £1.0 million direct GVA and 11 direct jobs across Scotland.

As with the development and construction of the proposed Development, it was necessary to estimate the indirect and induced impacts associated with operations and maintenance contracts. This was done by applying the relevant Type 1 and Type 2 GVA and employment multipliers.

By combining the direct, indirect, and induced impacts it was estimated that the operations and maintenance of the proposed Development will generate:

- £0.7 million GVA and 6 jobs in Dumfries and Galloway; and
- £1.5 million GVA and 17 jobs in Scotland.

6.3 Non-Domestic Rates

The proposed Development is expected to generate a stream of revenue to Dumfries and Galloway Council through the annual payment of non-domestic rates.

To estimate the economic impact generated by non-domestic rates, it was first necessary to consider the rateable value of the development and apply the appropriate poundage rate. This was done by applying guidance developed by the Scottish Assessors Association[15] to information about the performance of the proposed Development.

Using this approach, it was projected that over its operational period, the proposed Development is expected to make an annual contribution of approximately £1.0 million to public finances. Across its 40-year operational lifespan, this contribution towards non-domestic rates is anticipated to accumulate to around £40.3 million.

[15] Scottish Assessors Association (2023). Practice Note 2: Valuation of Onshore Wind Turbines

For the period of 2024/25, Dumfries and Galloway Council has a budget of £456.09 million.[16] The proposed Development would strengthen the financial position of the Council, supporting additional spending on public services, though in practice not all of the income would necessarily go to Dumfries and Galloway Council since the distribution of non-domestic rate revenues are determined nationally.

[16] Dumfries and Galloway Council (2024), Draft Financial Plan 2024/25

7. Tourism and Recreation

This section provides a baseline of tourism activity in the area and assesses the potential impact of the proposed Development on tourism and recreation.

7.1 Tourism Baseline

7.1.1 Sustainable Tourism GVA and Employment

In its 2015 economic strategy[17] the Scottish Government identified six sectors as growth sectors, that is, economic sectors where Scotland had a comparative advantage. Sustainable tourism was one of the sectors identified.

In 2019, around 4,000 people were employed in sustainable tourism in Dumfries and Galloway, equivalent to approximately 2% of the total employment in the sector across Scotland (229,000). It was estimated that the sector generated £76.9 million GVA in Dumfries and Galloway and over £4.5 billion GVA across Scotland.

Table 7-1: Sustainable Tourism: Employment and GVA, 2019

	Dumfries and Galloway	Scotland
GVA (£m)	76.9	4,503.7
Employment	4,000	229,000

Source: Scottish Government (2023), Growth Sector Database.

7.1.2 Visitors

In 2019, it was estimated that 5.3 million day-visitors spent time in Dumfries and Galloway, spending on average almost £46 per visit, which is higher than the average spend per day visit of visitors to Scotland (£36 per visit). There were around 32,000 visits from international visitors, contributing £16 million in spending. Domestic overnight visitors spent on average £187 per visit, equivalent to a total £130.7 million over 2019.

[17] Scottish Government (2015), Scotland's Economic Strategy.

Table 7-2: Visits and Visitor Spending, 2019

Visitor Type	Dumfries and Galloway	Scotland
		Visitor Numbers (million)
Day Visitors	5.3	144.9
Domestic Overnight Visitors	0.7	12.4
International Overnight Visitors	<0.1	3.5
		Spend (£ million)
Day Visitors	243.5	5,186.6
Domestic Overnight Visitors	130.7	2,989.3
International Overnight Visitors	16	2,538

Source: Kantar (2020), Great Britain Day Visitor Survey; Kantar (2020), Great Britain Tourist Survey; Visit Scotland (2021), Insight Department: Dumfries and Galloway Factsheet 2019.

1.1.3 Regional Attractions

The most visited attractions in Dumfries and Galloway are shown in Table 7-3.

Of these attractions, **Forest of Ae**, which attracts 41,793 visitors each year, and lays within the site of the proposed Development, is renowned for its landscapes and is suitable for a range of recreational activities including horse-riding, the 7stanes mountain biking, and wildlife watching.

Table 7-3: Top 10 Attractions in Dumfries and Galloway

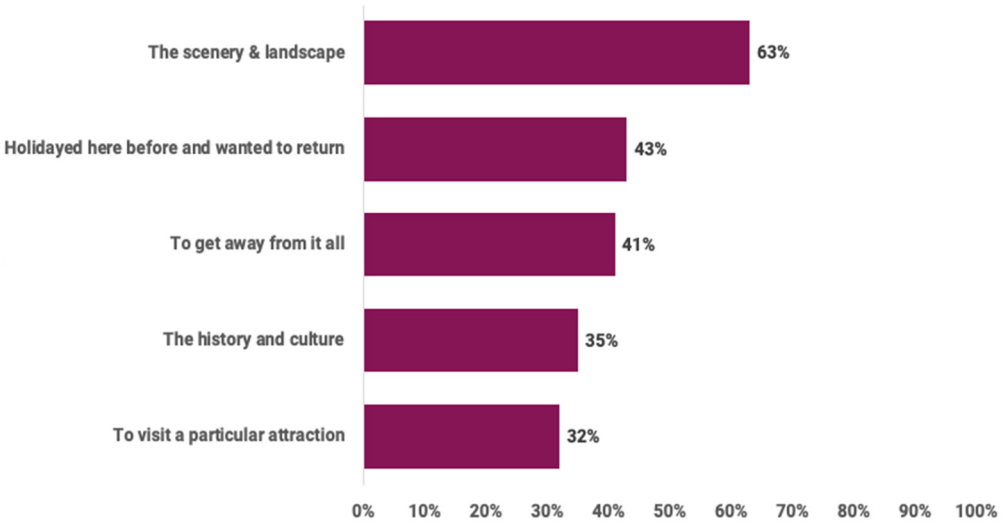
Attraction	Annual Visitors	Distance to Site (km)
Gretna Green Famous Blacksmiths Shop	772,448	40
Galloway Forest Park	385,437	51
Threave Garden	120,840	34
Mable Forest	63,291	20
Dalbeattie Forest	55,042	33
Grey Mare's Tail	45,945	50
Forest of Ae	**41,793**	**0**
Caerlaverock Castle	39,143	25
Logan Botanic Garden	28,761	97
Devil's Porridge Museum	20,001	37

Source: Visit Scotland (2021), Insight Department: Dumfries and Galloway Factsheet 2019.

1.1.4 Motivations to Visit

In 2017, Visit Scotland[18] published the results from a visitor survey considering why people spent time in Dumfries and Galloway during 2015 and 2016. The survey found that 63% of visitors were attracted to the area because of its scenery and landscape. Over one in three visitors mentioned history and culture as the motivation for their visit, whereas 41% visited Dumfries and Galloway to get away from it all.

Figure 7-1: Motivations to Visit Dumfries and Galloway



Source: Visit Scotland (2017), Scotland Visitor Survey 2015 & 2016.

7.1.3 Local Visitor Attractions

Using VisitScotland and Google Maps, local visitor attractions are set out in Table 7-4 below, alongside a short description of them and their distance. These also include outdoor activities, such as mountain biking and country sports, which are relatively popular in the area.

There is a relatively small number of local attractions located in close proximity to the proposed Development. The majority are located in Dumfries City Centre (13-14 km from the Site) and some in the areas around Thornhill and Lochmaben.

Table 7-4: Local Visitor Attractions

Attraction Name	Description	Distance to Site (km)
Ae 7Stanes	Ae 7stanes offers a range of mountain biking trails for various skill levels, including green, blue, and red graded routes. It also has a competition course	6
Ae Forest Bike Shop and Café	Ae offers diverse attractions including walking, biking, and amenities like cafes and bike shops.	3

[18] Visit Scotland (2017), Scotland Visitor Survey 2015 & 2016.

Attraction Name	Description	Distance to Site (km)
Closeburn Castle	Closeburn Castle is a historic tower house near the village of Closeburn in Scotland, dating back to the 14th century.	5
Cample Line	An art organisation hosting international contemporary arts exhibitions, screenings, readings, workshops and events.	6
Robert Burns Ellisland Museum & Farm	A museum which is the former home and farm of the national poet Robert Burns.	6
Thornhill Golf Club	A parkland and healthland golf club with an 18-hole course and views to the Southern Uplands.	7
Lightshot Photography	Photography workshops and courses.	8
Voila Boutique	Women clothing shop with well-known brands.	8
Nith Valley Alpacas	A company providing opportunities for Llama trekking with views across the Nith Valley (towards the proposed Development) and Burnt Hills.	10
Dunscore Heritage Centre	A heritage centre featuring Jane Haining's life and history of Dunscore and its church.	10
Trailskills MTB Coaching and Guiding	A centre offering mountain biking coaching courses and guided journeys.	11
Keir, Penpont and Tynron Community E Bike Scheme	E bikes rental to enjoy the various cycling routes around the area.	11
Rik's Bike Shed	Bike shop that provides guidance and coaching.	11
Joseph Thomson Local Heritage Centre	A centre related to local culture and the life of the explorer Joseph Thomson.	11
Drumlanrig Castle & Gardens	17th century castle and gardens with unique trees collection and a Victorian Greenhouse. There is also a multi-activities centre, a studio-shop, and various recreational trails related to the Douglas Clan.	11
Heathhall Garden Centre	A centre with a wide variety of plants and gardening supplies, and the biggest pet department in South of Scotland.	11

Attraction Name	Description	Distance to Site (km)
Dalscone Farm Fun	Indoor play area and farm park for kids including soft play area, mini golf, trampolines and small animals.	12
Dumfries and Country Golf Club	An 18-hole course located next to the River Nith.	12
Dumfries & Galloway Aviation Museum	An aircraft and flight museum in the World War II control tower at the former Royal Air Force Dumfries.	12
Dumfries Murder Mystery Treasure Trail	A 3 km exploration route which includes clues and puzzle solving activities with a 2-hour limit to be completed.	13
G&G Cycle Centre Dumfries	A cycle centre hiring bikes and offering route guidance to visitors.	13
Dumfries & Galloway Golf Club	An 18-hole course for all levels and coaching sessions available.	13
Dumfries Ice Bowl	Ice hockey and ice-skating rink which is also used for national and international competitions.	13
Farmers Den	Adventure play facility for various occasions.	13
Lochmaben Golf Club	A golf course with views to the Lochmaben Castle and Kirk and Castle lochs (opposite the direction of the proposed Development).	13
Gracefield Arts Centre	Visual art and craft exhibitions and workshops. It also includes a café and a picnic area for visitors.	13
Moat Brae – National Centre for Children's Literature and Storytelling	A storytelling museum linked to the author J.M. Barrie and Peter Pan. It offers interactive exhibitions and play spaces.	13
T B Watson LTD.	A whisky and wine specialist and home to Drambusters Whisky Club which hosts tastings sessions and the annual Whisky Festival.	13
Cruck Cottage	The last 18th-century cruck framed and thatched building.	13
Dumfries Farmers Market	A market with 20-30 stalls of high-quality local products which opens the first Sunday of the month.	13

Attraction Name	Description	Distance to Site (km)
The Globe Inn	A Scottish historic pub and inn where Robert Burns lived.	13
The Old Bridge House Museum	Dumfries' oldest Victorian house built in 1660.	13
Dock Park	A regenerated area which includes facilities such as mini golf, bowling, Peter Pan themed playground.	14
Robert Burns Centre	A centre and cinema located in an 18th-century watermill featuring the life, films and songs of the bard Robert Burns.	14
Strands	A shop for well-known "Slate & Silver" Scottish handmade jewellery, crafts and gifts.	14
The Old School Dumfries	Award winning local facilities including a chocolate shop and café, arts and crafts shops, beauty studios, dance school, spaces for Pilates, yoga and other activities.	14
Theatre Royal	The oldest theatre in Scotland which hosted important figures such as Robert Burns and J.M. Barrie	14
Road-End Studio	Art exhibitions in collaboration with Armed Forces for donations to support injured soldiers and women.	14
Dumfries Museum and Camera Obscura	One of the oldest archaeology, natural and Scottish history museums in Scotland.	14
Kilnford Barns	A local farm shop including a butcher and grocery department, handmade crafts and gifts.	14
Lochmaben Heritage Community Trust	A centre featuring Lochmabens's history and a gallery showcasing local art.	14

Source: Visit Scotland (2024); Google Maps.

7.1.4 Local Accommodation Providers

Through online research on the VisitScotland portal and Google Maps, a number of accommodation providers were identified in the area surrounding the proposed Development. There are 110 accommodation providers within 15 km from the proposed Development. The majority of them are in Dumfries City Centre and some around Thornhill and Lochmaben areas.

Table 7-5: Local Accommodation Providers (Distance to proposed Development)

Provider	0-5km	5-10km	10-15km	Total
Self-Catering Providers	4	22	38	64
B&Bs	0	2	12	14
Campsites or Caravan Parks	2	3	5	10
Hotels	0	6	16	22
Total	6	33	71	**110**

Source: Visit Scotland (2024), Accommodation Dumfries and Galloway. Google Maps.

7.1.5 Recreational Trails and Core Paths

There are 61 core paths[19] [20] within 15 km of the site of the proposed Development, including:

- Path 92: Dalswinton to Ae (this path crosses the site of the proposed Development)
- Path 126: Tyron Circular Route
- Path 97: Lochside Community Pathway
- Path 488: Netheryett to Routin Bridge
- Path 58: Lochar Moss Circular Walk
- Path 89: Barony to Parkgate
- Path 96: Maxwellton High to Barnhill
- Path 120: Cargenbridge to Locharbriggs
- Path 47: Lagg Farm to Glenmidge
- Path 478: Maxweltown to Glenkiln Reservoir
- Path 59: Locharbriggs Quarry Jericho Loch
- Path 260: Cauldholm to Ae Forest
- Path 41: Drumlanrig Estate and Wood
- Path 39: Ae Forest Large Circular
- Path 94: Newbridge to Lincluden
- Path 104: Penpont to Thornhill
- Path 509: Summerfield
- Path 98: Burns Walk
- Path 40: Burnmouth Bridge to Drumlanrig
- Path 90: Kirkton To Edinburgh Road roundabout
- Path 439: Annandale Way
- Path 266: Kinnelhead to Rivox
- Path 467: Kinnel Water Path
- Path 118: Dumfries Cycle Path
- Path 263: Garpol Glen
- Path 301: Old Railway Path

[19] Dumfries and Galloway Council (2024), Core paths: walking and cycling in Dumfries and Galloway. Available at: https://info.dumgal.gov.uk/mapviewers/pathsmap.aspx

[20] Scottish Government Spatial Data (2024), Core Paths – Scotland.

- Path 2: Damhead to Bruntshields
- Path 48: Durisdeer Glen
- Path 302: Millloch to Harefield
- Path 73: Keir to Tynron
- Path 511: Thornhill
- Path 123: Thornhill Circular (Via River)
- Path 264: Beattock Hill
- Path 42: Penpont to Drumlanrig
- Path 522: Through stock field and hardcore track
- Path 435: Morton Wood to Morton Castle
- Path 50: Carron Links
- Path 512: Twelve Apostles Standing Stones
- Path 521: Closeburn To Moffat
- Path 60: Irongray to Newbridge (Following Cluden Water)
- Path 498: Penpont to Drumlanrig Castle
- Path 125: Thornhill To Dabton Loch (Via Kirk Plantation)
- Path 45: Newtonairds to Irongray
- Path 436: Academy Playing Fields Circular (Via Maryholm Burn)
- Path 469: Kirkland Roadside
- Path 46: Newtonairds Wood Circular
- Path 522: Carronbridge River Walk Circular
- Path 95: Gates To Locharbriggs (Via Auchencrieff Loch)
- Path 62: Cowhill Tower to River Nith
- Path 332: Plantation Walk, Newtown-Wamphray
- Path 64: The Coffin Road
- Path 93: Bankfoot to Boghead Bridge
- Path 330: Fingland to Gateside
- Path 91: Kirkton Circular Route
- Path 44: Dunscore to Dempsterton
- Path 125: Thornhill To Dabton Loch (Via Kirk Plantation)
- Path 3: High Auldgirth to Pennyland (Via Watchman Hill)
- Path 262: Beattock to A701
- Path 4: Foresthead to Glenfoot
- Path 63: Alongside A76
- Path 265: South of Scotland Countryside Trail
- Path 38: Kirkland Cottage To Kirkbog Via St Ninian's Well

Hillwalking and cycling play a relatively important role in outdoor tourism in the area. As such, 16 recreational trails were identified within 15 km from the wind farm through the portal Walkhighlands.

Table 7-6: Recreational Trails

Trail Name	Description	Distance to Site (km)
Queensberry, from Mitchellslacks	An 11 km route up the Queensberry, the most southerly of the Lowther Hills.	2
Forest of Ae walks	A 9 km route through plantation forestry and along the riverside in the Forest of Ae with views over Queensberry.	2
Crichope Linn, near Thornhill	A 5 km circular walk to explore a neglected ravine with 18th and 19th Century inscriptions.	4
River Nith circuit, Carronbridge	A 3 km circular walk through rich vegetation from Carronbridge village to the Nith River.	9
Burns walk circular, Dumfries	A 7.5 km walk dedicated to Robert Burns poet and his inspirations along the River Nith and Dumfries.	11
Well Path circuit, Durisdeer	A 7 km circular walk from the village of Durisdeer and through the glen of the surrounding hills with opportunities to explore the Durisdeer Roman Fortlet.	11
Drumlanrig Castle & Burnmouth Bridge circuit	A 16 km route along the River Nith with opportunities to explore Drumlanrig Castle and views to the Southern Uplands.	12
St Ann's to Lochmaben	A 17 km route through woodland paths to the historic town of Lochmaben.	12
St Ann's to Lockerbie	A 21 km route along the river and through woodland with opportunities to explore the historic town of Lockerbie.	12
Earshaig Lochans, near Beattock	A 2 km walk around small lochans offering opportunities for picnic.	12
Moffat to St Ann's	A 13 km route (part of Annandale Way) from Moffat through short roads, forest tracks, field paths and moorland along River Annan.	12

Trail Name	Description	Distance to Site (km)
Southern Upland Way 6: Wanlockhead to Beattlock	A 31 km route through the Southern Uplands starting at a mining museum and traversing varied terrain, including slopes, rivers, and forested areas. It offers stunning views of the Moffat and Ettrick hills.	13
Castle Hill and Mill Loch, Lochmaben	A 6 km walk which starts near Lochmaben, follows lanes and footpaths, skirts Kirk Loch and Mill Loch.	13
Dumfries parks and riverside, Dumfries	A 7 km route following the river south through parks and historic areas like Castledykes Park and the former Crichton Royal Hospital. It descends to Kingholm Quay before looping back to Dumfries via a riverside cycle path through Dock Park.	14
Lochmaben to Hoddom Castle	A 22 km route passing by Castle Loch to Hightae and across open moorland to Almagill Hill. Descending to Williamwath Bridge, it continues through St Mungo's Church to Hoddom Castle, known for its salmon trail and amenities.	14
Castle Loch circuit, Lochmaben	A 6 km walk passing through woods and nature reserves. Highlights include wooden wildlife sculptures, views of the historic Castle Loch. There is also a bird hide and a scenic woodland.	15

Source: Walkhighlands.

7.2 Evidence on Wind Farms and Tourism

Over time, a series of works have considered the relationship between windfarm developments and tourism activity.

A study of potential effects of wind farms on tourism was undertaken in 2008 by the Moffat Centre at Glasgow Caledonian University[21]. The study was based on what could happen and found that, although there may be minor effects on tourism

[21] Moffat Centre (2008), The Economic Impact of Wind Farms on Scottish Tourism.

providers and a small number of visitors may not visit Scotland in the future, the overall effect on tourism expenditure and employment would be very limited.

Since this study, windfarms have become a more common feature in Scotland and any negative effects on the tourism economy as a result of their existence would now be apparent.

In 2021, BiGGAR Economics produced a report analysing the relationship between the construction of onshore windfarms and tourism employment at the national, regional and local level[22]. Nationally, the report found that, while Scotland had experienced a significant increase in onshore wind energy (with the number of turbines increasing from 1,082 in 2009 to 3,772 in 2019) whilst employment in tourism-related sectors had increased by 20%. At the local authority level, those which had seen the largest increase in onshore wind energy also experienced increases in tourism employment equal to, or greater than other areas across Scotland.

The report included case studies of 44 onshore windfarms constructed between 2009 and 2019. This comprised of an updated analysis of 28 windfarms included in a previous report[23] constructed prior to 2015, and 16 additional windfarms constructed between 2015 and 2019. The study reported on changes in tourism-related employment in the small areas within 15km of each windfarm. Of the 28 wind farms previously analysed, the surrounding local areas of 18 experienced an increase in tourism employment above the Scottish average in the years following the construction. Of the 16 local areas surrounding the additional 16 onshore windfarms, 11 experienced increases in tourism employment which outperformed the Scottish average. These results suggested that tourism employment in local areas across Scotland changed independently of windfarms located in the area.

The report concluded that, there was no pattern or evidence suggesting that the development of onshore wind farms in Scotland had any negative effects on the tourism economies across the country as a whole, the local authority areas or immediate areas surrounding windfarms.

These conclusions are not a surprising given that:

- there are high levels of public support for renewable energy; [24]
- as windfarms are well-established in Scotland, tourists might already expect to see windfarms when visiting Scotland, especially rural Scotland;
- the factors that determine the success of the tourism sector do not include the presence or otherwise of an onshore windfarm; and
- issues that influence tourism include the ability and willingness to travel, economic performance (and so whether tourists have disposable income

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

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

[24] BEIS (2022). Public Attitudes Tracker: Energy Infrastructure and Energy Sources. Winter 2021, UK.

available for leisure trips), exchange rates, the quality of the overall tourism product, the effectiveness of destination marketing and the quality and value for money of the services offered by tourism businesses.

7.3 Impact on Recreation and Tourism

The research considered in the previous section points to the lack of a relationship between the tourism economy and wind farm developments. Given the importance of the tourism economy in Dumfries and Galloway, it seems appropriate to consider whether the proposed Development will have any impact on it. The focus in this report is on a high-level account of the key motivations leading visitors to spend time at the attractions identified earlier.

Consideration of the tourism economy in this context is based on spending of visitors and the employment supported by the sector. For a change in spending to take place it is necessary that, as a result of a windfarm development, visitors change their behaviour. This may result, for instance, in deciding not to visit the area, not recommending the area or not visiting again. The changed behaviour would, in turn, affect visitors' spending.

As recorded in visitors' surveys, visitors tend to spend time in an area for a range of reasons. These may include scenery and landscape; history and culture; and the place's reputation. Views are just one of these factors and are more likely to be an important reason when it comes to the choice of recreational walks and outdoor nature-based attractions. Even in those cases, however, they may be one among a host of factors influencing visitors' choice.

The extent to which a given attraction is susceptible to change in its surroundings varies based on:

- its relative importance for the local tourism economy;
- its users; and
- the reasons behind the attraction's appeal (its views, its heritage value, its historical value, its value in relation to local folklore, etc.).

The extent to which a windfarm development may impact on a tourism asset is expected to depend on factors, including:

- distance from the windfarm, as a proxy for how visible the wind farm is; and
- the interaction between the wind farm and the assets' features.

Overall, existing evidence suggests that at wind farm sites across Scotland there have not been any negative impacts on tourism activity. As windfarms are well established within Scotland, any negative impacts on the tourism economy would have been apparent by now. This is not a surprising finding given that:

- there are high levels of public support for renewable energy;

- as windfarms are well-established in Scotland, tourists already might expect to see windfarms when visiting Scotland, especially rural Scotland;
- the factors that determine the success of the tourism sector do not include the presence or otherwise of an onshore windfarm; and
- issues that influence tourism include the ability and willingness to travel, economic performance (and so whether tourists have disposable income available for leisure trips), exchange rates, the quality of the overall tourism product, the effectiveness of destination marketing and the quality and value for money of the services offered by tourism businesses.

7.3.1 Tourist Attractions

In assessing the potential impact of the proposed Development on the drivers of tourism, the key features of individual attractions in Section 7.1.3 have been considered and examples of relevant attractions are provided below.

The proposed Development is located within the Forest of Ae which is one of the most popular attractions in the region due to the recreational activities and natural beauty it offers. Tourists with an interest in mountain biking visit Ae 7Stanes as it provides a variety of trails suitable for different skill levels, including the challenging Ae Line known for its jumps and drops. Despite its close proximity, the proposed Development occupies only a small part of the forest. It is expected that the forest would continue to attract visitors seeking outdoor adventure and nature experiences which is evident from the existing windfarms in the area including Harestanes and its extension to the south.

Tourists seeking outdoor and physical activity are also interested in golf clubs like Thornhill Golf Club, offering a picturesque parkland course with stunning views of the Southern Uplands (located to the north of the proposed Development). Visitors who enjoy adventures explore the countryside with Keir, Penpont, and Tynron Community E Bike Scheme and G&G Cycle Centre Dumfries which offer bike rentals for those interested in cycling and route guidance for exploring the scenic countryside. In addition, families looking for fun-filled activities visit attractions such as Dalscone Farm Fun, featuring indoor play areas, mini-golf, and opportunities to interact with farm animals. These motivations to visit such attractions are unlikely to be altered in the presence of the proposed Development.

Visitors interested in arts and culture explore attractions like Cample Line, known for its contemporary exhibitions, while history enthusiasts visit sites such as the Robert Burns Ellisland Museum & Farm, providing insight into the national poet's life. Drumlanrig Castle & Gardens not only showcases 17th-century architecture but also hosts cultural events and exhibitions. Families also enjoy interactive exhibits at Moat Brae, celebrating J.M. Barrie's literary legacy. For those intrigued by history, Closeburn Castle offers a compelling visit, as does Dock Park, which blends historic features with recreational facilities. Theatre Royal, Scotland's oldest theatre, offers a glimpse into the region's rich cultural heritage through performances by renowned artists. These attractions highlight the diverse offerings in the local area, with

features related to history, arts, and culture, motivations that are unlikely to be affected by the proposed Development.

Tourists interesting in retail visit Voila Boutique, offering a range of women's clothing from well-known brands, or explore T B Watson LTD., a specialist whisky and wine shop hosting tasting sessions. For unique Scottish handmade jewellery and crafts, Strands is also a popular destination, while The Old School Dumfries provides a diverse array of local facilities. For a taste of local produce, tourists visit Dumfries Farmers Market, featuring stalls offering high-quality products. These motivations would not be affected by the proposed Development and therefore, no adverse effect is expected.

Most of these attractions are also located in close proximity to other operational windfarms such as Harestanes Windfarm, and Dalswinton - Pennyland Moor Wind Farm. There is no indication that these developments discouraged tourists from visiting the surrounding attractions.

7.3.2 Local Accommodation Providers

The baseline identified 110 accommodation providers located within 15 km of the proposed Development. There are 6 providers located within 5 km of the proposed Development, 33 located between 5-10 km away and 71 providers located between 10-15 km from the proposed Development.

The majority of providers are **self-catering accommodation** (64), of which 4 are located within 5 km, 22 are between 5-10 km away, and 38 are located between 10-15 km away from the proposed Development. Self-catering providers in the area marketed the amenities they provide, such as private gardens, patios, BBQ areas, hot tubs and contemporary and high-standard facilities. Many accommodation providers also emphasised their proximity to areas suitable for outdoor activities such as mountain biking and horse riding, castles, lochs and tourist attractions such as the Scottish Southern Uplands and Solway Firth, as well as local villages such as Leadhills and Moniaive, the Dumfries City, Galloway Forest Park and gardens in the area, Robert Burns locations, Forest of Ae and Annandale Way for walkers and cyclists. As none of these major motivations to stay at these providers would be impacted by the proposed Development, it is not expected that they will experience any change in activity.

A further 14 providers within 15 km of the proposed Development are **B&Bs**. There are no B&Bs located within 5 km of the proposed Development, 2 are located between 5-10 km away and 12 are located between 10-15 km away. These providers highlight access to additional amenities such as gardens, outdoor seating area and spas and parking spaces. As with self-catering providers, B&Bs in the area market their proximity to recreational trails, cycle routes, areas for wildlife watching, local villages, distilleries, castles such as Drumlanrig & Gardens and historic locations related to Clans such as the Jardine Clan. Various B&Bs also highlighted they provided breakfasts and location near local restaurants. Providers also emphasised their location near lochs or Nith River (located to the west of the proposed

Development). As these benefits to staying with these providers would not be impacted by the presence of a windfarm, it is not expected that the proposed Development would have an impact on activity.

There are 10 **campsites and caravan parks** within 15 km of the proposed Development. Of these providers, two are located within 5 km of the proposed Development, three are located between 5-10 km away and five are located between 10-15 km away. These providers marketed practical facilities such as showers, Wi-Fi, electric hook-ups, bike hire facilities, and caravan service points. A major benefit of visiting various providers was also additional amenities such as games rooms. The majority of the providers market themselves largely on the outdoor activities' visitors can take part in while staying there, including fishing, horse riding, golf and water sports. The campsites and caravan parks in the area also emphasised their proximity to recreational trails and cycling routes. As these major motivations to stay with these providers would not be affected by the proposed Development, it is not expected that they will experience a change in activity.

The remaining 22 accommodation providers are **hotels**, of which none are located within 5 km of the proposed Development, six are located between 5-10 km from the proposed Development, and 16 are located between 10-15 km away. These providers also highlighted their proximity to walking routes, local towns and lochs, tourist attractions as well as their proximity to the Glasgow and Edinburgh airports. Hotels in the area marketed the restaurants and bars available for guests, children's play areas and their multipurpose rooms for events. As these major motivations would not be impacted by the presence of a wind farm, it is not expected that the proposed Development would result in any change in activity.

7.3.3 Recreational Trails and Core Paths

The baseline identified 16 recreational trails within 15 km of the proposed Development. This includes three routes located within 5 km of the proposed Development at the closest point, one located between 5-10 km away, and the rest located between 10-15 km away.

Based on visitors' motivations and the views offered, the recreational trails can be grouped as follows:

- Scenic Routes and River Walks related to Historic and Cultural Motivations and distance from proposed Development:

    - Crichope Linn, near Thornhill, located 4 km away;
    - River Nith circuit, Carronbridge, located 9 km away;
    - Burns walk circular, Dumfries, located 11 km away;
    - Well Path circuit, Durisdeer, located 11 km away;
    - St Ann's to Lochmaben, located 12 km away;
    - St Ann's to Lockerbie, located 12 km away;
    - Drumlanrig Castle & Burnmouth Bridge circuit, located 12 km away;
    - Castle Hill and Mill Loch, Lochmaben, located 13 km away;

- Dumfries parks and riverside, Dumfries, located 14 km;
- Lochmaben to Hoddom Castle, located 14 km away; and
- Castle Loch circuit, Lochmaben, located 14 km away.

- Nature Trails and Hikes with Varied Terrain and Panoramic Views and distance from proposed Development:

  - Forest of Ae walks, located 2 km away;
  - Queensberry, from Mitchellslacks, located 2 km away;
  - Earshaig Lochans, near Beattock, located 12 km away;
  - Moffat to St Ann's, 12 km away; and
  - Southern Upland Way 6: Wanlockhead to Beattlock, located 13 km away.

These trails offer a diverse range of experiences, from historic exploration to scenic walks and nature immersion. Taking into consideration the increased recreational activity in the area and the wide variety of alternatives, it is unlikely that the motivations to use these trails would be affected by the proposed Development. For the majority of them, the closest point to the proposed Development is located within 10-15 km whereas none is crossing the site.

There are also several core paths in the area. A short part of Dalswinton to Ae path passes through the site, but it will remain open, accessible, and in reasonable condition for the public. The core path tends to be used by local residents and as a result, the proposed Development is unlikely to have an impact on activity along it.

8. Community Wealth Building

A community wealth building approach can ensure projects deliver a net economic benefit for host communities.

The Applicant is committed to building wealth in the communities it operates in. This section provides a preliminary assessment of how effectively it does this.

8.1 Approach

Following the workshop with the Applicant, BiGGAR Economics used the information provided to assess the contribution the Applicant and the proposed Development currently makes to the wealth of the local community. Using insight gathered during the workshop and knowledge of what has been delivered by comparable projects elsewhere, BiGGAR Economics then identified a suite of additional actions that could be taken to enhance this contribution.

As the Applicant's plans are still at a relatively early stage of development this assessment did not involve any direct engagement with the local community or other relevant stakeholders. The assessment should therefore be regarded as a starting point for future engagement rather than a fully developed plan. It will be important the ideas and suggestions made are tested with the local community and relevant stakeholders as part of the next steps of the project.

8.2 Principle 1 – Spending

Maximising community benefits through procurement and commissioning, developing good enterprises, fair work and shorter supply chains.

8.2.1 Enabling Local Supply Chains

In 2014, RenewableUK published the "Local Supply Chain in Onshore Wind, Good Practice Guide"[25], which includes guidance for onshore wind developers on how to maximise local content. The report made the following suggestions:

- **maximise your local presence and begin early**: start identifying potential suppliers early by being active and visible locally;
- **partnerships work**: look for partnerships with business groups and local authorities;

[25] RenewableUK (2014), Local supply chain in onshore wind, good practice guide.

- **the developer's role is that of an enabler**: use information on potential suppliers to ensure primary contractors maximise local opportunities;
- **provide the right information, at the right time**: consider adopting an iterative process when communicating with businesses and leave them time to learn and adjust;
- **communicate technical requirements early**: this will give the opportunity for upskilling or the emergence of consortia to occur; and
- **if you can, demonstrate local content in planning**: where possible include a demonstrable commitment to local content in planning and carry out ex-post auditing.

In line with this, the community wealth building model favours dense local supply chains as a way of supporting local employment and retaining wealth locally. Progressive procurement processes that support small and medium-sized enterprises (SMEs), employee-owned businesses, social enterprises, co-operatives and community businesses, can help achieve this. By working collaboratively to support the development of regional supply chains, corporate investors can also help shift the long-term economic prospects for the regions they work in.

The Applicant is committed to maximising local procurement and is putting practices in place to achieve this.

The company's ability to source local supplies will however depend on the extent to which local supply chains have the capacity to meet demand for the goods and services required. This will be easier for some types of contracts than others. For example, a considerable proportion of the project infrastructure considered in this report will require bespoke equipment that is unlikely to be supplied locally. However, a significant proportion of the Balance of Plant contracts could be supplied by companies based in the local region. There will also be an ongoing demand for services such as catering and accommodation, scaffolding, facilities and project management, much of which the company expects to source locally.

The Applicant will build on its previous experience of building and operating onshore wind projects in Dumfries and Galloway. The Applicant has analysed26 £5 million of recent expenditure with companies within Dumfries and Galloway from these projects to identify which sectors have been able to benefit the most and where the opportunities will arise from the future pipeline of work. This found that one of the key sectors that benefited was forestry, which has a well-developed supply chain in Dumfries and Galloway.

The Applicant is aiming to hold 'Meet the Buyer' events along with the Tier 1 Principal Contractor to provide early visibility of upcoming contracts which local suppliers could benefit from.

The Applicant is committed to practical steps to remove barriers to entry for local SMEs to participate in the onshore wind supply chain

At the construction stage, the Applicant will require contractors to submit a monthly local spend report showing the economic benefits associated with the construction of the proposed Development at a local and national level. The information requested includes the number of individuals working on site, local contractors, sub-contractors, suppliers procured, services provided and value of spend as well as spend on local shops, mechanical work on vehicles, fuel and accommodation providers.

It will be important to maintain the abovementioned efforts and including metrics on the extent of local procurement in the community wealth building monitoring plan would help to achieve this.

8.2.2 Community Benefit Package

Community benefits, an annual payment that is made by the Applicant to those communities in the proximity of a windfarm, have become a common practice to support local ambitions and needs. While they do not constitute a material consideration at the planning stage, commitment to a comprehensive package of community benefits has a role in fostering a good relationship between the Applicant and the community hosting the development.

To provide a framework on how to deliver community benefits, in 2018 the Scottish Government released its 'Good Practice Principles for Community Benefits from Onshore Renewable Energy Developments'[26]. The Scottish Government recommends onshore wind developers to deliver community benefit funding worth £5,000 per MW of installed capacity. The document also encourages developers to engage in holistic ways to maximise benefits locally, going beyond a purely monetary approach.

Following this recommendation, the Applicant is proposing a tailored package of benefits for the community from the proposed Development. According to the current layout design and installed capacity of around 84 MW, this could equate to a community benefit funding for the local area worth up to £420,000 annually, which is equivalent to £16.8 million over the project's lifetime. This could support local aspiration and projects and generate economic impacts. The presence of the proposed Development would provide local communities with additional funding, which could support them in delivering larger interventions.

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

Should the proposed Development be consented, the Applicant would consult with the local Community Councils, the local authority and any other stakeholders deemed relevant on how the community benefit package should be managed. A community benefit package could make a significant contribution to community wealth both by providing funding for local projects but also by helping to develop the skills, knowledge and confidence of the local community to initiate such projects.

8.3 Principle 2 – Workforce

Increasing fair work and developing local labour markets that support the wellbeing of communities.

Employment practices can play a defining role in building community wealth. The rise of in-work poverty coupled with the erosion of job security means the reality of employment for many people in the UK is unsecure. Employers can do much to address this by providing fair wages, adhering to progressive employment and recruitment practices and proactively supporting the development of the local labour market. The approach taken by significant employers and/or employment facilitators, e.g. project developers, can have a defining effect on the prospects of local people and can make a major contribution to building community wealth.

While developing the proposed Development, the Applicant will require expert knowledge, which will come from a range of skilled workers, including consultancies and contractors. Many of these workers can be found in Scotland however the extent of the Applicant's ability to source locally will depend on the capacity and availability of the supply chain. This will be easier for some types of contracts than others. However, a significant proportion of the Balance of Plant contracts could be supplied by companies and workers based in the local region. There will also be an ongoing demand for services such as catering and accommodation, scaffolding, facilities and project management, much of which the company expects to source locally.

The Applicant has set up a Workforce Planning team to identify skill needs for key roles and develop a strategy to ensure sufficient talent and capacity for onshore wind projects. They are also actively collaborating with industry and government, contributing to initiatives like the Onshore Wind Sector Deal Skills Report and participating in groups such as the COP26 Net Zero Pact.

Where the Applicant can make the largest workforce community wealth impact with its resources is through development of skills and working with educational institutions in the region.

The Applicant's STEM initiatives, delivered through internal and external partnerships with local bodies like Dumfries and Galloway Council and Skills Development Scotland, align with industry and community objectives. In 2023/2024, they reached over 15,000 students and 100 educators internally, and over 36,000 students and

1,000 educators through external partnerships. Their sponsorships have supported 55 STEM events, promoting diversity and sustainability.

In Dumfries and Galloway specifically, some of the initiatives and strategies currently in place are:

- **The King's Foundation at Dumfries house**: workshops focusing on engineering and targeting primary and secondary students and teachers continuing professional development (CPD) in Dumfries and Galloway, Ayrshire, and South Lanarkshire. The company's funding is used in conjunction with 3 major partners to fund these.
- **DYW Dumfries and Galloway 'Bang Goes DG! 2024'**: an event that aims to inform young people about what STEM is and showcase the opportunities that exist around them in Dumfries and Galloway. This is done in collaboration with college and university students and home schoolers.

The Applicant is creating age-specific STEM lesson plans for schools nationwide and has launched trainee programmes within their onshore business to foster skill development and broaden access for underrepresented groups. These include:

- **Year In Industry programmes**: developed with the Engineering Development Trust, provides young people, originally school leavers and now also university students, with industry experience to help guide their career choices;
- **Summer placements**;
- **Power Academy**;
- **Apprenticeship programmes**; and
- **Master Scholars**.

The pre-apprenticeship programme provides technical training at Dealain and Hoylake for students who did not achieve exam results at school. These candidates are assessed, and the company aims to higher approximately 50% of them annually. In 2023/2024, the company's Operations and Maintenance team alone recruited 2 candidates from Ayrshire and Dumfries.

The Applicant is committed to promoting social inclusion and diversity, partnering on various projects to create opportunities for young people facing challenges in accessing education and employment. These include:

- **Breaking barriers programme**: in partnership with charities, this programme offers young people with learning disabilities access to mainstream university and a work placement within the company;
- **Barnardo's Works Programme**: this programme equips disadvantaged young people (ages 16-24), often from deprived communities, with skills, experience, and opportunities for sustainable employment. It tackles social exclusion and helps participants overcome poverty-related challenges.

These types of activities can make an important contribution to community wealth by helping to create pathways to employment for local young people supporting local labour market development and helping to bridge the skills gap.

8.4 Principle 3 – Ownership

Developing more local and social enterprises which generate community wealth, including social enterprises, employee owned firms and cooperatives.

The UK is the eighth most unequal country in the OECD[27]. One of the reasons for this is that financial wealth is concentrated amongst a relatively small minority of the population. At a local level, this can mean locally generated wealth flowing out of an area to remote shareholders. In the community wealth building model, local ownership is seen as a way of mitigating this.

The ownership pillar of community wealth building seeks to promote models of shared enterprise ownership, that allows the wealth created by these assets and organisations to be retained within the communities. This includes finding ways to support asset transfers and the development of organisation structures such as cooperative or employee-owned enterprises.

One key challenge for communities that are looking to bring assets into community ownership is securing the finance needed to purchase and renovate them. The Applicant has previously supported communities to purchase, own and operate assets through community benefit funding. This has included:

- **The Kenmuir Arms Hotel** – the Kenmuir Arms Hotel had been closed and derelict for five years in the middle of the village of New Luce, Dumfries and Galloway. New Luce Community Trust was awarded around £1 million of funding from ScottishPower Renewables' Kilgallioch Windfarm community benefit fund to support the purchase and development of the old village pub. The renovation work supported local employment, and now the Kenmuir Arms Hotel is a thriving community asset that is the social hub of the village and brings visitors into the area.
- **Catrine Community Renewables Ltd** – Catrine Community Trust is a charity that owns Catrine Community Renewables Ltd and was seeking to upgrade and expand this enterprise for the long-term benefit of the village. Plans were drawn up to convert a redundant hatchery building to a control centre for a hydro system that had been generating electricity courtesy of the River Ayr since 2016. The Applicant has supported the community to invest in this asset to support its long-term viability and value to the community. An additional £5,000 was

[27] OECD data on income inequality for 2022, accessed via https://data.oecd.org/inequality/income-inequality.htm

awarded to establish the feasibility of using two areas of land for the placement of solar panels. An additional £5,000 was awarded to establish the feasibility of using two areas of land for the placement of solar panels.

How any community benefit funding is spent will be determined by the communities themselves. However, as these examples have shown, the funding will create the opportunity for communities to take ownership of local assets and support inclusive ownership models of enterprise.

8.5 Principle 4 - Financial Power

Ensuring that flows of investment and financial institutions work for local people, communities and businesses.

The financial power pillar of community wealth building is about making sure flows of investment and financial institutions work for local people, communities and businesses. To achieve this, it is essential local people have some control or influence over investment decisions that affect them.

As mentioned in paragraph 8.2.2, the Applicant is proposing a tailored package of benefits for the community from the proposed Development of £5,000 per MW of installed capacity. This would support local aspiration and projects and generate economic impacts. The presence of the proposed Development would provide local communities with additional funding, which could support them in delivering larger interventions, sponsoring events (e.g. mountain biking events in the Forest of Ae) or prioritising local needs such as providing toilet facilities at the carpark and more The Applicant will support the local communities to use the Community Benefit Package to leverage access to

even more finance to support larger investment projects and local needs

8.6 Principle 5 – Land and Property

Growing social, ecological, financial and economic value that local communities gain from land and property assets

Across Britain the wealthiest 10% of households hold 43% of all wealth, while the bottom 50% hold only 9%[28]. For those toward the middle of the wealth distribution the most important source of wealth is land and property, however those at the bottom of the distribution typically do not own any property.

The CWB approach is designed to address this by empowering local citizens to take control of common assets when it is feasible for them to do so. This could be achieved by transferring assets to community ownership or by establishing some form of communal governance arrangement that enables local people to have more influence over how an asset is used.

The Applicant is aiming to support community assets in the vicinity of its projects in a diverse, useful and transparent way.

Subject to agreement, the Applicant proposes to implement enhancements in addition to the proposed Development. Proposed recreational enhancements are detailed below:

- Promotion of family friendly biking or horse-riding routes around the proposed Development, using existing tracks;
- Provision of information boards regarding the proposed Development;
- Support for the employment of a seasonal ranger to assist with the management of core footpaths in the area;
- Electric vehicle charging points in Ae Forest Carpark;
- Financial support to facilitate the purchase of E-bikes for rental at the 7 Stanes Forest of Ae Mountain Biking Centre; and
- Sponsorship of events in the Forest of Ae.

This will benefit members of local community who make use of these assets, so it is appropriate to consider it as part of this assessment. The Applicant is investigating this pillar further.

[28] ONS (2022), Wealth and Assets Survey, 2018 – 2020.

8.7 Summary

The Applicant's proposed Development could make a material, positive impact to community wealth building within in the local area. The main contributions relate to the proposed Community Benefit Package, supply chain building, and skills development. The Applicant is committed to working collaboratively with the local community and stakeholders to ensure targeted and relevant support.

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