BiGGAR Economics

# Economic and Community Impact Report of Blair Hill Wind Farm

A report to RES
December 2024

BiGGAR Economics

# Contents

# 1. Executive Summary

This report assesses the potential socio-economic, recreation and tourism effects of the Blair Hill Wind Farm (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 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 (see Section 6.1):

- £12 million Gross Value Added (GVA) and support c.128 job years in Dumfries and Galloway (with peak employment of 68 jobs); and
- £33 million GVA and c.360 job years across Scotland (with peak employment of 183 jobs).

The expenditure required for the operations and maintenance of the Proposed Development could generate each year (see Section 6.2):

- £1.1 million GVA and support c.6 jobs in Dumfries and Galloway; and
- £2.4 million GVA and c.19 jobs across Scotland.

The Proposed Development will support local economic activity and the role of onshore wind as a local employer. The Applicant is committed to engaging with local suppliers to maximise benefits from the wind farm by commissioning local contractors. All the above would ensure a **contribution to the maximisation of the local supply chain content** and provide **opportunities for local employment**.

The Applicant is committed to engage with the local college and schools to support the development of skills within the local onshore wind sector while also engaging with universities and colleges to provide field courses for archaeology students. These initiatives would provide **opportunities for training and development** and

support the **continuation of innovative processes** to maximise onshore wind benefits.

The Applicant is committed to a Local Electricity Discount Scheme (LEDS) offering an annual discount to the electricity bills of those closest to the proposed wind farm and follows a Cultural Heritage Enhancement Strategy to improve existing conditions in the area such as recreational paths. These also support the **continuation of innovative processes** to maximise benefits.

The Proposed Development is expected to support the **provision of local public services and the investment priorities of local communities**. During its operations, it is expected to generate approximately £1.1 million in non-domestic rates yearly. It is also expected to provide an annual **contribution of £462,000 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 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 RES to assess the potential socio-economic impacts from the construction and operation of Blair Hill Wind Farm.

## 2.1 Background

Blair Hill Wind Farm is a proposed onshore wind farm development located approximately 4.5 km north of Newton Stewart in Dumfries and Galloway. It is expected that the Proposed Development would be comprised of 14 wind turbines, each with a generating capacity of up to 6.6 MW, resulting in a total installed capacity of up to 92 MW.

The objectives of this study include:

- contributing to existing analysis by quantifying the potential economic impacts of the wind farm;
- assessing the potential for any effects on the local economy such as changes to tourism activity as a result of the Proposed Development;
- outlining the potential benefit for the local community and contribution to the wellbeing; and
- assessing the alignment with the NPF4 Policy 11(c) requirements.

## 2.2 Report Structure

The report is structured as follows:

- Section 3 places the development in the context of national and regional economic strategies;
- Section 4 provides a socio-economic context;
- Section 5 describes the assessment methodology used;
- Section 6 considers the economic impact from the Proposed Development;
- Section 7 sets tourism in the area in context and considers the relationship between the proposed wind farm and the local tourism economy;
- Section 8 considers potential community and wider benefits;
- Section 9 sets out the contribution to wellbeing; and
- Section 10 contains a conclusion on net economic benefit.

# 3. Strategic Context

This section considers national, regional and local strategies and how the Proposed Development supports their delivery.

## 3.1 National Strategic Context

### 1.1.1 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.

### 1.1.2 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, with a just transition to net zero, a nature-positive economy and a rebuilding of 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; and
- 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 continuing investment and support. Renewable energy also has a role to play in supporting productive businesses and regions across Scotland.

### 1.1.3 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 number 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.

### 1.1.4 Onshore Wind Sector Deal

The Onshore Wind Sector Deal[4], 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

[3] Scottish Government (2023). National Planning Framework 4.
[4] Scottish Government (2023). Onshore Wind Sector Deal.

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;
- **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 on 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.

### 1.1.5 Tourism Strategy: Scotland's Outlook 2030

Following on from the Tourism Scotland 2020 (TS2020) strategy[5], 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[6].

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

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.

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 Strategic Context

### 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[7] 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 within 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

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

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;
- **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 NPF, 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. Socio-Economic Context

This section discusses 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:

- Mid Galloway and Wigtown West (the local area surrounding the Proposed Development);
- Dumfries and Galloway; and
- Scotland.

## 4.2 Demographics

### 4.2.1 Population Estimates

In 2022, Mid Galloway and Wigtown West had a total population of 13,461, accounting for 9% of the population of Dumfries and Galloway and 0.3% of the population of Scotland. Of the total population of Mid Galloway and Wigtown West, 14% 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 56%, which was less than in Dumfries and Galloway (58%) and below the national average (64%). The share of the population in Mid Galloway and Wigtown West that was aged 65 and over was 29%, which was above Dumfries and Galloway (27%) but greater than across Scotland as a whole (20%).

**Table 4-1: Population Estimates, 2022**

| | Mid Galloway and Wigtown West | Dumfries and Galloway | Scotland |
|---|---|---|---|
| **Total** | **13,461** | **148,800** | **5,479,900** |
| 0-15 | 14% | 15% | 17% |
| 16-64 | 56% | 58% | 64% |
| 65+ | 29% | 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.

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 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**

| | 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, 16% of those employed in Mid Galloway and Wigtown West worked in the wholesale and retail trade sector, just above the share of people in the sector in Dumfries and Galloway (15%), and in Scotland as a whole (13%). Human health and social work activities are an important sector in Mid Galloway and Wigtown West,

accounting for 15% of employment compared to 17% in Dumfries and Galloway and 15% in Scotland.

Construction, a sector which could particularly benefit from contracts relating to the Proposed Development, accounted for 12% of employment in Mid Galloway and Wigtown West, which was more than in Dumfries and Galloway (5%) and in Scotland as a whole (6%). Manufacturing employment (6%) in Mid Galloway and Wigtown West was less than in Dumfries and Galloway (8%), and less than the wider Scottish economy (7%). Similarly, administrative and support services were underrepresented in Mid Galloway and Wigtown West, encompassing 4% of total employment, which was less than in Dumfries and Galloway (5%) and Scotland (8%).

In Dumfries and Galloway, the most significant employers were also 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 there, accounting for 13% of employment which was higher than in Mid Galloway and Wigtown West (7%) and across Scotland (3%).

Accommodation and food services were also one of the most important employers in Mid Galloway and Wigtown West, constituting 12% of total employment compared to 9% across both Dumfries and Galloway, and 8% in Scotland as a whole.

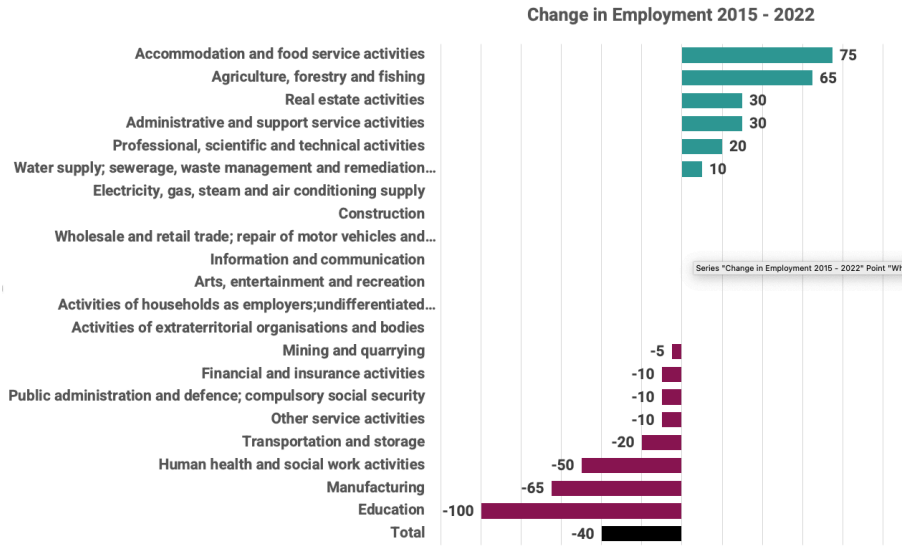
### Table 4-3: Industrial Structure, 2022

| | Mid Galloway and Wigtown West | Dumfries and Galloway | Scotland |
|---|---|---|---|
| Wholesale and retail trade | 16% | 15% | 13% |
| Human health and social work activities | 15% | 17% | 15% |
| Construction | 12% | 5% | 6% |
| Accommodation and food services | 12% | 9% | 8% |
| Education | 8% | 7% | 8% |
| Agriculture, forestry and fishing | 7% | 13% | 3% |
| Manufacturing | 6% | 8% | 7% |
| Professional, scientific and technical | 5% | 4% | 7% |
| Administrative and support services | 4% | 5% | 8% |
| Public administration and defence | 3% | 4% | 6% |
| Transportation and storage | 3% | 4% | 4% |
| Arts, entertainment and recreation | 2% | 3% | 3% |
| Other service activities | 2% | 1% | 2% |
| Real estate activities | 2% | 2% | 1% |
| Information and communication | 1% | 1% | 3% |
| **Total Employment** | **3,675** | **66,500** | **2,622,000** |

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

Across Mid Galloway and Wigtown West the number of jobs has decreased since 2015. However, as shown in Figure 4-1, tourism-related employment has seen the strongest growth in that time period, while employment in other sectors has decreased, particularly that associated with education.

**Figure 4-1: Total change in employment by Sector since 2015 in Mid Galloway and Wigtown West**




Source: BiGGAR Economics using ONS (2024), Business Register and Employment Survey.

## 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**

| | 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**

| | 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.

There are 20 small areas in Mid Galloway and Wigtown West, none of which are in the most deprived quintile and 5% are in the least deprived quintile. Small areas in Mid Galloway and Wigtown West are more concentrated towards the most deprived end of the distribution, with 90% of the small areas in the second and third quintiles and with 10% in the 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 least 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.

Overall, Dumfries and Galloway has fewer small areas concentrated in the most deprived quintiles compared to the national average. However, Mid Galloway and Wigtown West has more small areas congregated towards to most deprived end of the distribution than Dumfries and Galloway.

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

| | Mid Galloway and Wigtown West | Dumfries and Galloway |
|---|---|---|
| 1 (most deprived quintile) | 0% | 3% |
| 2 | 50% | 19% |
| 3 | 40% | 35% |
| 4 | 5% | 31% |
| 5 (least deprived quintile) | 5% | 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.

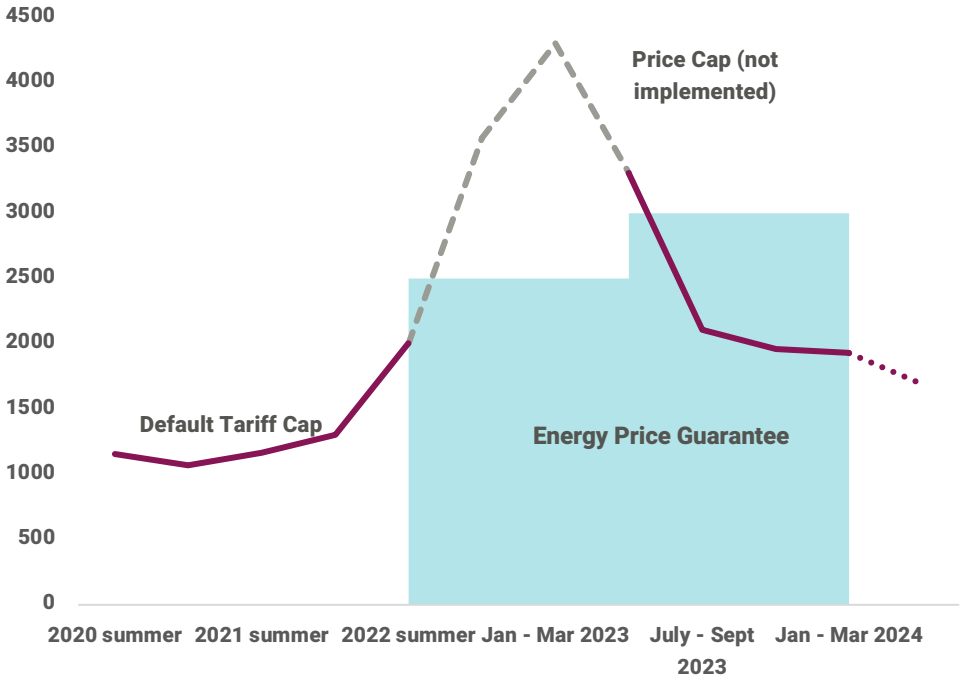
The proportion of households in extreme fuel poverty, where at least 20% of income is spent on energy, is also higher in Dumfries and Galloway than in the rest of Scotland. In Dumfries and Galloway, 15% of households (11,000) live in extreme fuel poverty, compared to 12% across Scotland.

**Table 4-7: Fuel Poverty, 2019**

| | 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.

**Figure 4-2: Annual Energy Price Cap (£), 2019/20-2024**




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

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 4-2 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.

The Scottish Government published scenario modelling[8] of national fuel poverty rates under each Energy Price Guarantee. It was estimated that from October 2022 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). This is expected to increase to 39% (980,000 households) after the rise in the Energy Price Guarantee to £3,000 in April 2023.

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

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

## 4.8 Community Wealth Building

Community Wealth Building (CWB) model offers a way of understanding whether any wealth created from a project is likely to remain local. It is formed of 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; and
- Socially productive use of land and property.

As shown in Table 4-8, Dumfries & Galloway has a relatively high number of social enterprises, at 16 per 10,000 of the population, compared with 11 per 10,000 Scotland-wide. This shows that there a fair amount of locally owned business with a social purpose and this may help to keep wealth in the community. However, with respect to land ownership, only 0.03%[9] is owned by the community in Dumfries and Galloway. Whilst this is comparable to many other local authorities, this is low for a rural area and could limit the potential for wealth to be retained in the community.

Further, although there is a low gender pay gap at 1%, 19.6% of all individuals earn below the living wage, which is high for Scotland where it averages 12.2%. This illustrates that there are limited opportunities for people to gain fair employment in the area. Additionally, only 14% of people feel they have an influence over local decisions, which is the lowest across local authorities in Scotland, where on average 24% feel this way.[10]

Whilst this data doesn't fully cover the CWB pillars, it does suggest that the local community may struggle to get the full benefit of a local economic development. Nevertheless, it may also present an opportunity to develop CWB in conjunction with local anchors institutions. In their latest Local Outcomes Improvement Plan[11], Dumfries and Galloway council set out their role as an Anchor Organisation and their desire to work with their communities to develop an approach to Community Wealth Building.

[9] Community Ownership in Scotland 2022, Scottish Government (2022) - https://www.gov.scot/publications/community-ownership-in-scotland-2022/documents/
[10] Wellbeing Economy Monitor: Excel Tool – Updated July 2023 - https://www.gov.scot/publications/wellbeing-economy-toolkit-supporting-place-based-economic-strategy-policy-development/documents/
[11] Local Outcomes Improvement Plan – 2023-2033, Dumfries and Galloway Council, 2023.

**Table 4-8: Community Wealth Budling in Dumfries and Galloway**

| | Dumfries and Galloway | Scotland |
|---|---|---|
| Social enterprises per 10,000 of the population (2021) | 16 | 11 |
| Community land ownership (2022) | 0.03% | 2.73% (0.13% excl. Outer Hebrides) |
| Gender pay gap (2022) | 1% | 12.2% |
| Employees earning below the real living wage % (2021) | 19.6% | 12.2% |
| Influence over local decisions (2021) | 14% | 24% |

Source: Community Ownership in Scotland 2022, Scottish Government (2022); Wellbeing Economy Monitor: Excel Tool

## 4.9 Wellbeing

One way of gauging the social welfare of a local area is through calculating the Wellbeing-Adjusted Life Years, known as WELLBYs. WELLBYs are calculated by multiplying life expectancy of an area by its average self-reported life satisfaction on a 0 to 10 scale. WELLBYs can be compared and contrasted across Scotland and the UK[12].

Underpinning this approach is the 2021 World Happiness Report, Layard and Oparina[13], which makes the case that people want to experience lives that are both long and happy. With that in mind, they advocate that a society should aim to maximise the number of WELLBYs across their population both now and in the future. That is, maximising a combination of both life expectancy and self-reported wellbeing.

As shown in Table 4-9, Dumfries & Galloway has a higher life expectancy (79.8) than the Scottish average (78.0). The region also experiences a greater level of life satisfaction than Scotland as a whole (7.8 versus 7.5). This gives Dumfries & Galloway an overall WELLBY score of 618, which is higher than both the Scottish (601) and UK averages (614).

[12] BiGGAR Economics (2023). Toward a Wellbeing Economy: The Distribution of Wellbeing in the UK.
[13] Layard, R. and Oparina, E (March 2021)., Living Long and Living Well: The WELLBY Approach, Chapter 8 of World Happiness Report 2021 (Sustainable Development Solutions Network).

### Table 4-9: WELLBYs in Dumfries and Galloway

| | Dumfries & Galloway | Scotland |
|---|---|---|
| Life expectancy (years) | 79.8 | 78.0 |
| Life satisfaction | 7.8 | 7.5 |
| WELLBYs | 618 | 601 |

Source: BiGGAR Economics (2023). Toward a Wellbeing Economy: The Distribution of Wellbeing in the UK.

Self-reported life satisfaction, and consequently WELLBY scores, are dependent upon a variety of factors, including local economic conditions, health, community vitality and involvement, as well as culture and the natural environment.

Although the WELLBY score demonstrates a better quality of life in Dumfries & Galloway than in Scotland as a whole, it is also important to consider other indicators of wellbeing in the area to understand the WELLBY and where there might be room for improvement.

In line with the WELLBY score, people are relatively mentally healthy in Dumfries & Galloway (49.0 on the Warwick-Edinburgh Mental Wellbeing Scale), suicide rates per 100,000 are lower compared to Scotland as a whole (11.8 versus 13.9)[14], and 69% of adults consider themselves to have good or very good health, which is slightly lower than the Scottish average of 72%.[15] 74% of the population are within a 5 minute walk of a green or blue space which is slightly better than the average for Scotland of 70%.

Nevertheless, there are areas of concern when it comes to wellbeing. For example, 23.7% of children live in low-income families against an average of 20.8% in Scotland. Also, in addition to the high proportion of individuals earning the living wage (19.6%) identified in the previous Community Wealth Building section, there are a high number of people with low or no qualifications (9.7% versus 9.1%).

Further, a higher than national average proportion of the population have very low physical activity (22% versus 20%), a high proportion of people report feeling lonely (21.1%) some, most, almost all or all of the time, and a very low number of people feel they have influence over local decisions (14%). Greenhouse gas emissions are high relative to the rest of Scotland (16.4 versus 7.4 tonnes of CO2 per capita), as is the percentage of people living in fuel poverty (28.8% versus 24.4%). This helps to highlight areas where there might be space to raise wellbeing levels in the area.

With respect to the National Performance Framework, Scotland's wellbeing framework, the Dumfries & Galloway exhibits a mixed overall wellbeing performance. Whilst performance is average across many aspects, the area lags behind other local

[14] https://publichealthscotland.scot/
[15] Scottish Health Survey - https://scotland.shinyapps.io/sg-scottish-health-survey/

authorities in Scotland with regard to poverty, fair work and business, human rights, and the economy/environment.

**Table 4-10: Wellbeing in Dumfries and Galloway**

| | Dumfries & Galloway | Scotland |
|---|---|---|
| Mental health (WEMWBS, 2018-2022) | 49.0 | 48.9 |
| Suicide rates per 100,000 (2022) | 11.8 | 13.9 |
| Good or very good health (2018-2022) | 69% | 72% |
| Within a 5 minute walk of a green or blue space (2021) | 74% | 70% |
| Children living in low income families (2022) | 23.7% | 20.8% |
| Employees earning below the real living wage % (2021) | 19.6% | 12.2% |
| Low or no qualifications (2021) | 9.7% | 9.1% |
| Very low physical activity levels (2018-2022) | 22% | 20% |
| Influence over local decisions (2021) | 14% | 24% |
| Greenhouse gas emissions (tonnes of CO2 per capita, 2021) | 16.4 | 7.4 |
| People living in fuel poverty (2017-2019) | 28.8% | 24.4% |

Source: Community Ownership in Scotland 2022, Scottish Government (2022); Wellbeing Economy Monitor: Excel Tool, Public Health Scotland, Scottish Health Survey.

## 4.10 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 levels, 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[16], 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.

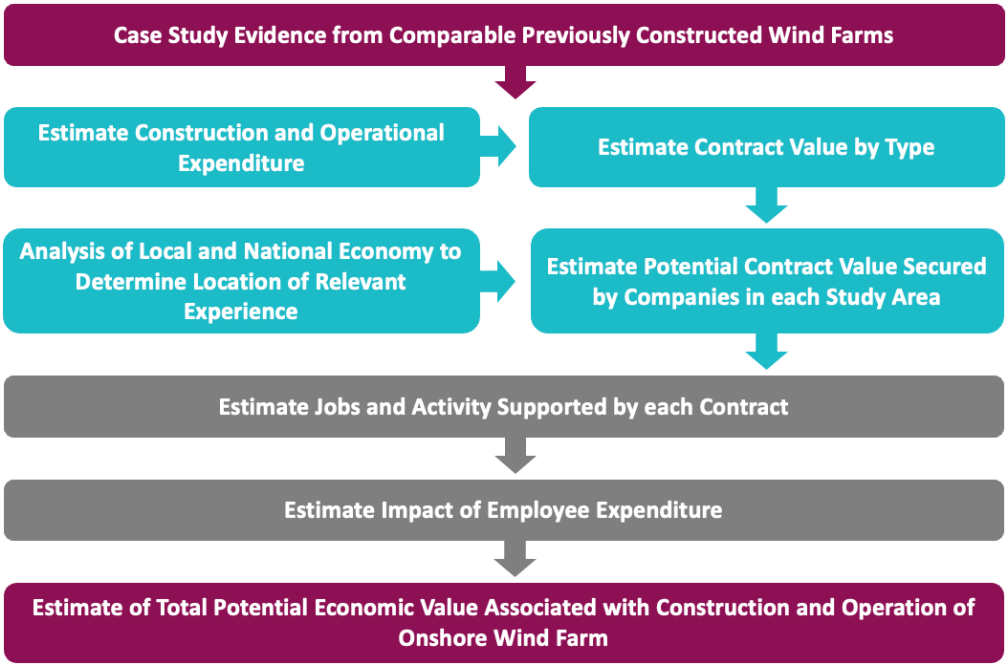
The methodology has now been used to assess the economic impact associated with numerous onshore wind developments across Scotland, and the UK. The economic modelling methodology comprises the following four stages:

- 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.

[16] 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: 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 (see Section 1.1.3).

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.

# 6. Economic Impact

This section estimates the economic impact of the construction and operation of the Proposed Development.

## 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 wind farm developments carried out in 2015 by BiGGAR Economics on behalf of RenewableUK. The analysis has been updated over time drawing on evaluations of individual wind farm developments and on experience with developers working across Scotland. This body of research and experience provides evidence to estimate costs per MW based on a development's number of wind turbines and its capacity.

The Proposed Development is expected to have 14 wind turbines with a total generating capacity of up to 92 MW. It was estimated that the total development and construction expenditure would be approximately £140 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 wind turbines, equivalent to £92 million, or 67% of total development and construction spend. The following largest expenditure was associated with the balance of plant contracts, amounting to £28 million (20% of total expenditure). It was estimated that development and planning would account for 6% of spending, and that grid connection would account for 7% of total expenditure.

### Table 6-1: Development and Construction by Contract Type

| | % CAPEX | Value (£m) |
|---|---|---|
| Development and Planning | 6% | 9 |
| Wind Turbines | 67% | 92 |
| Balance of Plant | 20% | 28 |
| Grid Connection | 7% | 10 |
| **Total** | **100%** | **139** |

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 Applicant's established work with contractors, it was estimated that approximately 29% of the Proposed Development's contracts will be carried out by Scottish businesses, with a value of £40 million. It was estimated that spending on businesses based in Dumfries and Galloway would be approximately £17 million equivalent to 12% of total development and construction expenditure.

The greatest opportunity for Scottish businesses is expected to be in contracts associated with the balance of plant, which would be worth up to £25 million. Balance of plant contracts are also likely to be the largest opportunity for businesses in Dumfries and Galloway, worth up to £9 million.

### Table 6-2: Development and Construction Expenditure by Study Area

| | Dumfries and Galloway | | Scotland | |
|---|---|---|---|---|
| | % | £m | % | £m |
| Development and Planning | 40% | 4 | 75% | 7 |
| Wind Turbines | 2% | 2 | 6% | 5 |
| Balance of Plant | 34% | 9 | 89% | 25 |
| Grid Connection | 18% | 2 | 36% | 4 |
| **Total** | **16%** | **17** | **29%** | **40** |

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)[17] code. Direct GVA was then estimated by applying the relevant turnover per GVA from the UK Annual Business Survey (ABS)[18].

It was estimated that the development and construction of the Proposed Development is likely to generate £10 million direct GVA in Dumfries and Galloway and £21 million direct GVA in Scotland.

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

| | Dumfries and Galloway | Scotland |
|---|---|---|
| Development and Planning | 3 | 4 |
| Turbines | 1 | 3 |
| Balance of Plant | 5 | 12 |
| Grid Connection | 1 | 2 |
| **Total** | **10** | **21** |

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 108 direct years of employment in Dumfries and Galloway and 242 direct years of employment in Scotland.

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

| | Dumfries and Galloway | Scotland |
|---|---|---|
| Development and Planning | 9 | 31 |
| Wind Turbines | 18 | 41 |
| Balance of Plant | 68 | 144 |
| Grid Connection | 13 | 26 |
| **Total** | **108** | **242** |

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

[17] Office for National Statistics (2009), Standard Industrial Classification of industrial Activities (SIC 2007).

[18] Office for National Statistics (2020), Annual Business Survey 2018 - Revised.

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[19] 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.

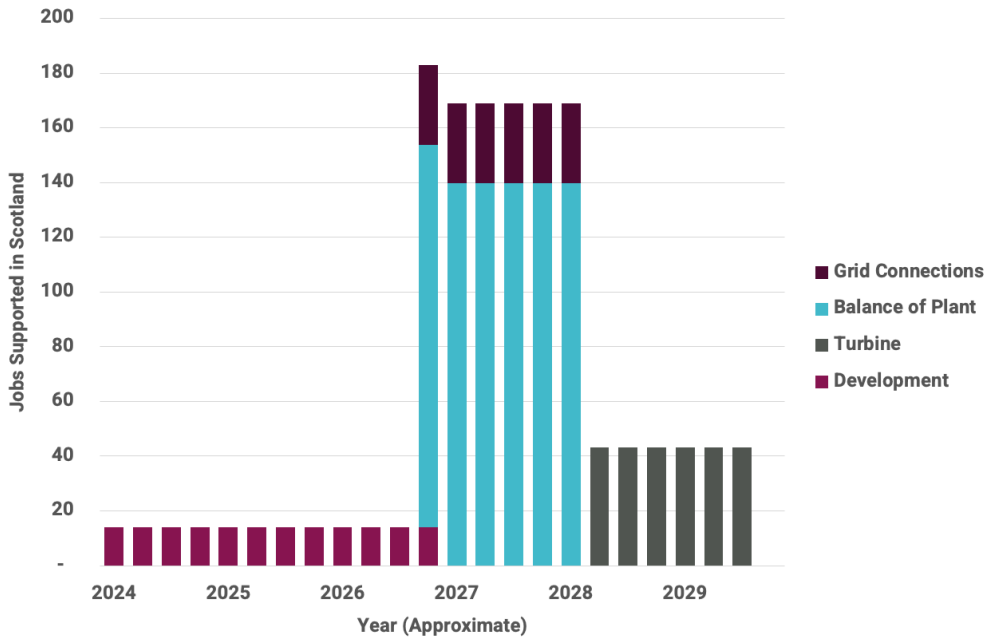
By combining the direct, indirect, and induced impacts it was estimated that the development and construction of the Proposed Development will generate:

- £12 million GVA and 128 years of employment in Dumfries and Galloway; and
- £33 million GVA and 360 years of employment in Scotland.

The estimated figures show that the Proposed Development would contribute to the provision of high-quality local employment opportunities during the Development and Construction phase and help maximise the value of local expenditure. These are in line with the requirements of the NPF4 Policy 11(c).

The employment impacts in Scotland will peak during the construction phase, in particular, during the initial balance of plant works. It is estimated that during this phase up to 183 jobs will be supported across the Scottish economy.

**Figure 6-1 Employment impacts in Scotland over Time**




Source: BiGGAR Economics Analysis.

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

## 6.2 Operations and Maintenance

The initial stage in determining 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 wind 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 £3.6 million.

It was further assumed that businesses in Dumfries and Galloway could benefit from a total £1.5 million in operations and maintenance contracts (43% of OPEX) annually, and that annual expenditure in Scottish contractors could be up to £3.0 million (83% of OPEX).

**Table 6-5: Operations and Maintenance Expenditure by Study Area**

| | Dumfries and Galloway | | Scotland | |
|---|---|---|---|---|
| | % | £m | % | £m |
| Operations and Maintenance | 42% | 1.5 | 83% | 3.0 |

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 £0.9 direct GVA and 5 direct jobs in Dumfries and Galloway, and £1.6 million direct GVA and 12 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:

- £1.1 million GVA and 6 jobs in Dumfries and Galloway; and
- £2.4 million GVA and 19 jobs in Scotland.

Similarly to the Development and Construction phase, the estimated figures show that the Proposed Development would contribute to the provision of high-quality local employment opportunities and help maximise the value of local expenditure throughout its operational lifetime. These are in line with the requirements of the NPF4 Policy 11(c).

## 6.3 Non-Domestic Rates

The Proposed Development is expected to generate a stream of revenue to Dumfries and Galloway through the annual payment of non-domestic rates. The Proposed Development would be liable for non-domestic rates, the payment of which would contribute directly to public sector finances and infrastructure investments supporting the requirements of the NPF4 Policy 11(c).

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[20] 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 £1.1 million to public finances. Across its 50-year operational lifespan, this contribution towards non-domestic rates is anticipated to accumulate to around £55.4 million.

For the period of 2023/24, Dumfries and Galloway Council has a budget of £311.2 million.[21] 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 the Council since the distribution of non-domestic rate revenues are determined nationally.

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

[21] Dumfries and Galloway Council (2023), Draft Financial Plan 2023/24

# 7. Tourism and Recreation

This section sets out the tourism context, including the size of the tourism economy and a baseline of attractions in the area, and considers the impact of the Proposed Development on tourism and recreation.

## 7.1 Local Tourism Context

### 7.1.1 Sustainable Tourism GVA and Employment

In its 2015 economic strategy[22] 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.

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

**Table 7-2: Visits and Visitor Spending, 2019**

| | 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.

### 7.1.3 Regional Attractions

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

Of these attractions, Gray Mare's Tail and Galloway Forest Park which attract 45,945 and 385,437 visitors each year respectively lay between 0-6km of the Proposed Development. **Galloway Forest Park** is Britain's largest forest park home to dramatic ancient woodland, local wildlife and scenery. It suitable for a range of recreational activities including walking, cycling, fishing and driving. **Grey Mare's Tail Nature Reserve** is famous for one of UK's highest waterfalls and well-known for hiking and walking routes with rare upland plants and wildlife.

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

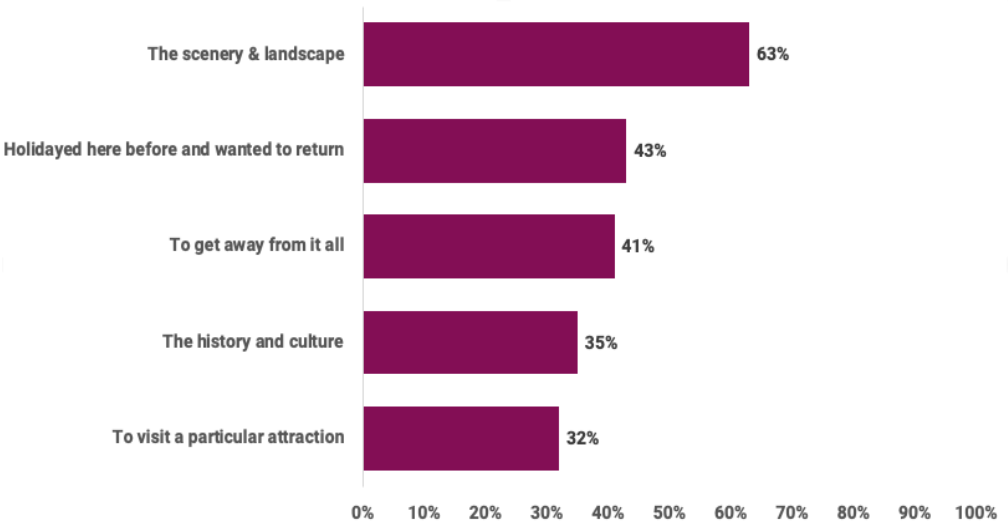
| Attraction | Annual Visitors | Distance to Site (km) |
|---|---|---|
| Gretna Green Famous Blacksmiths Shop | 772,448 | 90 km |
| **Galloway Forest Park** | 385,437 | 0 km |
| Threave Garden | 120,840 | 34 km |
| Mabie Forest | 63,291 | 49 km |
| Dalbeattie Forest | 55,042 | 42 km |
| **Grey Mare's Tail** | 45,945 | 6 km |
| Forest of Ae | 41,793 | 57 km |
| Caerlaverock Castle | 39,143 | 60 km |
| Logan Botanic Garden | 28,761 | 42 km |
| Devil's Porridge Museum | 20,001 | 81 km |

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

### 7.1.4 Motivations to Visit

In 2017, Visit Scotland[23] 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.

### 7.1.5 Local Visitor Attractions

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

Using VisitScotland and Google Maps, local visitor attractions are set out in Appendix A, alongside a short description of them and their distance from the Proposed Development. These include outdoor activities, such as mountain biking, museums, walking trails and country sports, which are relatively popular in the area.

There are a proportion of local attractions located near the Proposed Development. These are mainly located in Newton Stewart town (4-5 km from the site) with others further away located in the Galloway Forest and Creetown (12-15km).

### 7.1.6 Local Accommodation Providers

Through online research on the VisitScotland portal and Google Maps, several accommodation providers were identified in the area surrounding the Proposed Development. There are 83 accommodation providers within 15 km from the Proposed Development. Most of them are in Newton Stewart town centre and some around Wigtown and Penninghame areas.

**Table 7-4: Local Accommodation Providers**

| | 0-5km | 5-10km | 10-15km | Total |
|---|---|---|---|---|
| Self-Catering Providers | 19 | 20 | 26 | 65 |
| B&Bs | 1 | 0 | 3 | 4 |
| Campsites or Caravan Parks | 0 | 1 | 4 | 5 |
| Hotels | 3 | 2 | 4 | 9 |
| Total | 23 | 23 | 37 | **83** |

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

### 7.1.7 Recreational Trails and Core Paths

There are several core paths[24] [25] within 15 km of the site of the Proposed Development, including:

- Path 363: Knockman Woods, Cree Valley
- Barclye Bird Reserve Walk
- Path 4021: Boreland Walk, Cree Valley
- Path 391: Wood of Cree
- Path 390: Wild Wood & Torwhinnoch Hill
- Path 424: Penninghame Ponds
- Path 397: Minigaff Suspension Bridge
- Path 367: Kirroughtree Walks
- Path 368: Kirroughtree Hotel
- Path 427: Riverside Walk Newton Stewart
- Path 377: Blairmount Park Newton Stewart
- Southern Upland Way

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

[25] Scottish Government SpatialData (2024), Core Paths – Scotland.

- Path 543: Route 7 Cycleway Newton Stewart to Graddoch Bridge
- Path 402: Newton Stewart Cycle Path South
- Path 475: Lochtrool Circular
- Path 396: Glentrool Walk
- Path 400: Murrays Monument
- Path 369: Bardroch Wood, Cairnsmore
- Path 431: The Merrick
- Path 369: Bardroch Wood Newton Stewart
- Path 396: Glentrool to Stroan Bridge
- Path 387: White Cairn Glentrool
- Path 374: Cairnsmore of Fleet
- Path 503: Route 7 Cycleway Graddoch Bridge to Creetown
- Path 344: Craigencallie Cree Valley
- Path 209: Loch Dee to Loch Doon
- Path 339: Falbae Creetown
- Path 187: Clatteringshaws to Gatehouse Station
- Path 143: Raiders Road to Mossdale
- Path 351: Kirkcowan Village Walk
- Path 172: Benniguinea
- Path 191: Craigshinnie Bridge to SUW
- Path 348: Creetown to Bagbie & Kirkmabreck
- Path 370: Balloch Wood
- Path 172: Benniguinea
- Path 348: Creetown to Bagbie & Kirkmabreck
- Lovers' Walk, Wigtown
- Path 379: Mindork Moss Kirkcowan
- Path 335: Gass Moor
- Path 373: Dromore In-bye Walk
- Path 389: Wigtown Harbour
- Path 485: Mossdale to Gatehouse Station Railway Walk
- Path 190: Corserine
- Path 432: Three Lochs Kirkcowan
- Path 15: Forrest Lodge to Loch Dungeon

Hillwalking and cycling play a relatively important role in outdoor tourism in the area. As such 20 recreational trails were identified within 15 km from the wind farm through the portal Walkhighlands.

## 7.2 Evidence on Wind Farms and Tourism

Over time, a series of works have considered the relationship between wind farm 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[26]. The study was based on what

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

could happen and found that, although there may be minor effects on 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, wind farms 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 wind farms and tourism employment at the national, regional and local level[27]. Nationally, the report found that, while Scotland had experienced a significant increase in onshore wind energy (with the number of wind 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 on 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 wind farms constructed between 2009 and 2019. This included an updated analysis of 28 wind farms included in a previous report[28] constructed prior to 2015, and 16 additional wind farms constructed between 2015 and 2019. The study reported on changes in tourism-related employment in the small areas within 15km of each wind farm. 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 wind farms, 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 wind farms 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 of the country as a whole, local authority areas or the immediate areas surrounding wind farms.

These conclusions are not a surprising finding given that:

- there are high levels of public support for renewable energy; [29]
- as wind farms are well-established in Scotland, tourists might already expect to see wind farms 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 wind farm; and

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

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

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

- 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 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 wind farm 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 has, in turn, to 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 wind farm development may impact on a tourism asset is expected to depend on factors, including:

- distance from the wind farm, 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. Wind farms are well established within Scotland and there are no significant impacts on the tourism economy apparent. This is not a surprising finding given the evidence in Section 7.2.

### 7.3.1 Local Visitor and Tourist Attractions

In assessing the potential impact of the Proposed Development on the drivers of tourism, the key features of individual attractions in Section 7.1.5 have been considered and examples of relevant attractions are provided below.

The Proposed Development is located at the border of the Galloway Forest Park, which is one of the most popular attractions in the region due it being Britain's largest forest park. The Galloway International Dark Sky Park is based in Galloway Forest and attracts visitors annually for its for its breath-taking and rare stargazing conditions.

For mountain biking enthusiasts, 7Stanes Kirroughtree provides a variety of trails catering to different skill levels, known for its thrilling jumps and drops. The Merrick Circle a mountain biking route between Witches Bridge and the forest is popular and draws enthusiasts to the area. Despite its proximity, the Proposed Development occupies only a small part of the Galloway Forest. It is expected that the forest would continue to attract visitors seeking outdoor adventure and nature experiences.

Tourists seeking outdoor and physical activity are also drawn to golf clubs like Newton Stewart Golf Club, offering a picturesque parkland course on the edge of Galloway Forest Park with views towards Cairnsmore and Wigtown Bay. Adventure seekers explore the countryside with Kirkcowan Cycles in Newton Stewart town centre and The Breakpad Ltd. Which is the largest bike shop and hire centre in Dumfries & Galloway. Based at the Kirroughtree 7stanes trail head supplying bicycle equipment with art cycle workshop and technicians on hand. In addition, families looking for fun-filled activities can utilise Freelance Ranger who can provide bespoke family oriented outdoor environmental activities for groups like pond dipping or rock pooling. 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 The Vaults Arts Centre a family friendly live music and performing arts events venue which hosts a variety of dance and music festivals throughout the year. History enthusiasts can visit sites such as the Newton Stewart Museum which is housed in the former St. John's Church, currently a natural and social history museum of Galloway, Creetown Heritage Museum, Bruce's Stone a historic site at the top of the hill on the north side of Loch Trool commemorating Robert Bruce's first victory over an English army in 1307 during the Scottish Wars of Independence and Murray's Monument. There is also the Torhouse Stone Circle which is a Bronze Age structure also called the Standing Stones of Torhouse. The ruins consist of 19 large granite boulders which are unusual for this area and draws visitors due to its historical significance. 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.

For locals, the Glentrool Hive a multipurpose community centre for the village of Glentrool and Merrick Leisure Centre based in the town of Newton Stewart with 25m

swimming pool, spa, sauna, fitness suite and sports hall provide leisure and recreational activities and are unlikely to be affected by the Proposed Development.

There are various outdoor activities for families and tourists like the Cairnsmore of Fleet National Nature Reserve which has accessible routes for walking, wildlife and birdwatching with an information centre, public toilets and parking. The Galloway Red Deer Range and the Galloway Wild Goat Park provide access to wildlife with parking and accessibility and the Kilsture Forest Walks with marked trails ideal throughout the year. These motivations would not be affected by the Proposed Development and therefore, no adverse effect is expected.

### 7.3.2 Galloway Dark Sky Locations

Galloway Forest Park was established as a Dark Sky Park by the Forestry Commission Scotland in 2009, this means that the area has minimal light pollution, which makes it ideal for stargazing. Galloway Forest Dark Sky Park covers most of Galloway Forest Park. There is a core area in the centre of the park with no external lights at all and a buffer area covering the rest of the park.

## The Landscape and Visual Impact Assessment found effects on the Dark Sky Park were Not Significant.

The nighttime visibility of the lighting from the Proposed Development is expected to be limited within the park. As identified in the LVIA Chapter 6, isolated high points will have potential visibility of all the turbine lights. In contrast, most areas within the park will only see up to two of the proposed turbines. Therefore, there may be localised impacts on dark sky locations affecting a limited area of the Park. Due to the numerous dark sky locations nearby, it is unlikely that the presence of the Proposed Development would affect dark sky tourism as a whole in the area.

### 7.3.3 Local Accommodation Providers

The baseline identified 83 accommodation providers located within 15km of the Proposed Development. There are 23 providers located within 5km of the Proposed Development, 23 located between 5-10km away and 37 providers located between 10-15km from the Proposed Development.

Most providers are **self-catering accommodation** (65), of which 19 are located within 5km, 20 are between 5-10km away, and 26 are located between 10-15km away from the Proposed Development.

Self-catering providers in the area marketed the amenities they provide, such as private gardens, patios, BBQ areas, games rooms and contemporary and high-standard facilities for family-oriented holidays and couples looking to enjoy the surrounding countryside. Many accommodation providers also emphasised their proximity to areas suitable for outdoor activities such as mountain biking and horse

riding, salmon fishing in the nearby River Cree, castles, lochs and tourist attractions such as the Scottish Southern Uplands and the RSPB reserve at Wood of Cree on the Machars peninsula for exploring picturesque harbours and sampling the local catch as well as the famous Galloway Forest Park and gardens at Castle Kennedy in the area.

The area is particularly rich in wildlife and there are plenty from guided ranger walks to get close to red deer and wild goats to red squirrels and bird watching. The Site is located at the foot of the Galloway Forest which is the site of Scotland's first 'Dark Sky Park' and advertised as one of the best places in the country for seeing the stars at night. The nearby coast draws visitors for its sandy beaches nearby at Cardoness and Mossyard. The area hosts book, music, food and walking festivals of national repute. 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.

There is one **B&B** located within 15km of the town of Newton Stewart 5kms from the Proposed Development. There are no B&Bs located within 10km of the Proposed Development with 3 located between 10-15km away. These providers highlight access to additional amenities such as gardens, outdoor seating area and parking spaces. The B&B's are in historic villas and former Manse and elegant Victorian country houses which adds to the charm. As with self-catering providers, B&Bs in the area market their proximity to recreational trails, cycle routes, areas for wildlife watching, local villages and chocolate making. The B&B's provide breakfasts with local produce hearty 'home-cooked' evening meals. Providers also emphasised their location near Wigtown – the National Book Town of Scotland looking out over the bay and the Solway Firth. As these benefits to staying with these providers would not be impacted by the presence of a wind farm, it is not expected that the Proposed Development would have an impact on activity.

There are 5 **campsites and caravan parks** within 15km of the Proposed Development. Of these providers, none are located within 5km of the Proposed Development, one is located between 5-10km away and four are located between 10-15km 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 nine accommodation providers are **hotels**, of which three are located within 5km of the Proposed Development and two 5-10km away. Four are located between 10-15km away and accommodation providers highlighted their location and proximity by walking routes, local towns and main roads, tourist attractions like

Laggan Outdoor Activity Centre, Kirroughtree Visitors Centre (7 Stanes bike trail), Cocoa Bean Chocolate Factory, Cream 'O' Galloway, Gem Rock Museum, Creetown Heritage Museum, Glen Trool, Clatteringshaws, Galloway Dark Skies, Wigtown - Scotland's National Book Town and Moss Yard Beach. 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.

### 7.3.4 Recreational Trails and Core Paths

Walking and exploring the countryside are key activities of visitors to the area.

The baseline identified 20 recreational trails within 15km of the Proposed Development. This includes four routes located within 5km of the Proposed Development at the closest point, nine located between 5-10km away, and the rest located between 10-15km 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:**

- Wood of Cree, near Newton Stewart, 2km from the Proposed Development
- Riverside Walk, Newton Stewart, 2km from the Proposed Development
- Water of Minnoch circuit, Glen Trool , 5km from the Proposed Development
- Water of Trool, Glen Trool, 5km from the Proposed Development
- Murray's Monument, near Newton Stewart, 5km from the Proposed Development
- Balloch Wood, Creetown, 12km from the Proposed Development
- Corserine and the Rhinns of Kells, Forrest Lodge, 12km from the Proposed Development
- Wigtown explorer, 13km from the Proposed Development
- Clatteringshaws Loch and Benniguinea, 13km from the Proposed Development

**Nature Trails and Hikes with Varied Terrain and Panoramic Views:**

- Curleywee and Lamachan Hill, Glen Trool, 3km from the Proposed Development
- Southern Upland Way 3: Bargrennan to St John's Town of Dalry, 4km from the Proposed Development
- Loch Trool trail, Glen Trool, 5km from the Proposed Development
- Kirroughtree Forest walks, near Newton Stewart, 5km from the Proposed Development
- The Merrick via Loch Valley, from Glen Trool, 6km from the Proposed Development
- The Merrick, from Loch Trool, 6km from the Proposed Development
- Southern Upland Way 2: Castle Kennedy to Bargrennan, 7km from the Proposed Development
- Cairnsmore of Fleet, near Newton Stewart, 8km from the Proposed Development

- Mountain End trail, Clints of Dromore, Fleet Valley, 13km from the Proposed Development
- Clints of Dromore In-Bye, Fleet Valley, 14km from the Proposed Development
- Shalloch on Minnoch via the north ridge, 15km from the Proposed Development

The historic and cultural motivations to take the above routes are unlikely to be affected by the Proposed Development. The combination of physical challenge and opportunities for adventure and connection with nature makes these trails a popular activity for tourists.

The LVIA Assessment has identified several significant, adverse and localised effects across the Galloway Hills Regional Scenic Area, Galloway Hills Local Landscape Area and the Upland Fringe and Rugged Uplands landscape receptors. There are various viewpoints along them including Curleywee and Lamachan Hills, River Cree, the Merrick and Cairnsmore of Fleet for which impacts are expected to be significant and localised. For instance, LVIA Chapter 6 identified that the Proposed Development's impacts at the Merrick and Cairnsmore of Fleet are expected to be minimal overall. While tourists can enjoy panoramic views, the Proposed Development will be largely hidden by lower hills, making it mostly invisible from the Merrick viewpoint and visible on the foothills to the north from Cairnsmore of Fleet.

Visitors to the majority of routes will experience only small effects due to the distance and natural screening. While there is evidence that some walkers prefer to not see onshore wind farms when they are walking[30], the proportion of walkers who report avoiding a particular route to avoid seeing wind farms is less than 25%. The guidance from NatureScot[31] requests that the scale of any impact on recreational routes consider:

- The magnitude of impacts;
- The nature, intensity and frequency of occurrence;
- The potential for effects to increase over time;
- The scarcity of options for recreation in the area; and recognition of the recreation opportunity spectrum.

There is no scarcity of recreational trails and outdoor opportunities for visitors to the area. Therefore those visitors who would choose an alternative route to avoid seeing wind farms are able to do so. This experience is reflected elsewhere in Scotland, where locations with some wind farm visibility have seen visitor numbers grow despite the presence of onshore wind farms. Therefore, in line with the NatureScot guidance and experiences from elsewhere in Scotland, it is not anticipated that these views along recreational trails will act as a deterrent to visitors.

Overall, the development is unlikely to significantly detract from the visitor experience at these viewpoints, though some localised visual impacts may occur.

[30] Mountaineering Council of Scotland (2016) Wind Farms and mountaineering in Scotland
[31] NatureScot (2018) Environmental Impact Assessment Handbook Version 4

# Community Benefits and Opportunities

This section considers how the Applicant aims to maximise the local economic benefits generated by the Proposed Development.

## 7.4 Maximising Economic Benefits

Developers can play a transformational role within the communities where they operate and can make an important contribution to their economic development. This fosters a collaborative relationship with the local community and ensures that a lasting legacy of economic development can be created.

The Applicant proposes various commitments which aim to maximise economic benefits to the local area. This section sets out a series of initiatives that the developer would undertake to maximise its local economic impact. Interventions provide a series of overlapping benefits, including:

- providing funding to support local ambitions and needs;
- increasing local resilience;
- strengthening the local business base; and
- delivering skills.

All these benefits can contribute to local strategic goals to attract people to live and work in Dumfries and Galloway and providing sustainable jobs.

## 7.5 Community Benefit Package

Community benefits, an annual payment that is made by the Applicant to those communities in the proximity of a wind farm, 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 2019 the Scottish Government released its 'Good Practice Principles for Community Benefits from Onshore Renewable Energy Developments'[32], which updated previous guidance issued in 2015. The Scottish Government recommends onshore wind developers to

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

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 and according to the current layout design and installed capacity of about 92MW, this could equate to a community benefit funding for the local area worth £462,000 annually, which is equivalent to £23.1 million over the project's lifetime. This could support local aspirations 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.

This could be linked to the Dumfries and Galloway Council's Community Benefits Wishlist scheme[33] which encourages local community groups to submit up to 3 requests, connecting them with suppliers willing to address these requirements through their community benefits initiatives. For instance, there are currently requests recorded from Newton Stewart Initiative organisation, including funding required for Youth Work, Children's Group and Heritage Trail project. This Wishlist could be taken into account when tailoring the community benefit package associated with the Proposed Development to base on local needs and priorities.

The provision of the community benefit fund and the corresponding local employment opportunities created are in line with the requirements of the NPF4 Policy 11(c) for the maximisation of the net economic impact.

## 7.6 Local Electricity Discount Scheme (LEDS)

As part of the community benefit offering, the Applicant is proposing funding to reduce the electricity bills of those living and working closest to the Proposed Development. The details of the LEDS will be finalised if consent is granted to the Proposed Development.

The practical effect of these discounts will be to enable participating households to spend more on other goods and services such as food, clothing, transport, and leisure. The value of the electricity discounts therefore represents additional turnover for the sectors that benefit from household expenditure, the money spent by households to meet their everyday needs. Household spending patterns[34] show that those with higher incomes spend a greater proportion of their total expenditure on recreation and hospitality. By enabling residents to spend more on leisure, the provision of support with electricity y bills for the local community is therefore likely to generate economic benefits and support jobs in the local hospitality and leisure sectors.

[33] Dumfries and Galloway (2023), Community Benefits Wishlist. Available at: https://www.dumgal.gov.uk/article/26277/Community-Benefits-Wishlist
[34] ONS (2023), Family spending in the UK: April 2021 to March 2022.

The scheme would also be offered to everyone that has an electricity meter including education institutions, village halls and places of worship in the area.

## 7.7 Commitment to Local Suppliers

### 7.7.1 Renewable UK Guidance

In 2014, RenewableUK published the "Local Supply Chain in Onshore Wind, Good Practice Guide"[35], 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;
- **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 these suggestions, the Applicant has committed to prioritising local companies in the provision of contracts during the development and construction and operational phases and hosting meet-the-buyer events. The Applicant has previously worked with local contractors such as Luce Bay to complete civils works and is committed to continue promoting such collaborations.

In recent years, the Applicant has typically invested about £279,000 per wind turbine in the local community, including stakeholders, suppliers, and service providers, throughout all phases of the development. This would be equivalent to £3.9 million of inward investment. The Proposed Development is anticipated to bring economic benefits to the area, including job opportunities, employment and the utilisation of local services. The increased concentration of activity in the construction sector in Dumfries and Galloway will be of particular importance.

## 7.8 Skills Development and Fostering Ambition

Whereas engagement with local suppliers ensures that they can make the most of the opportunities from the wind farm's contracts, developing skills is key to ensure that in the future there will be local businesses with the expertise to deliver onshore

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

wind contracts. Reinforcing the skills profile of an area is particularly important for several reasons, as it:

- ensures the area will be able to benefit from similar projects in the future;
- provides trainings in relatively high-skilled, high-paying jobs; and
- increases the area's ability to retain young people.

As part of its commitment to fostering local skills, the Applicant is committed to work in collaboration with the University of Glasgow and University of West Scotland, which are part of the remote campus Crichton Institute.

Particularly, archaeology in the region is of importance and there is a high demand of archaeologists in the wider South of Scotland as a result of the increased number of onshore wind projects and associated grid connection works. Labour supply in this sector may be limited and therefore, the Applicant would support the provision of field courses for university students. Archaeology field schools offer high quality training in a range of essential archaeological field techniques and are an important part of the completion of archaeology degrees. The Applicant is proposing to fund a work experience/ apprenticeship placement within the contractor fieldwork team for a local person to gain experience in the archaeology sector in the context of an onshore wind farm. For example, the erosion survey proposed at Garlies Castle could be carried out with assistance from local community archaeology groups or as part of the field school courses being offered. This would inform potential enhancement works funded by the Applicant to Garlies Castle to ensure visitors can safety access and appreciate the monument.

These initiatives would support pathways into archaeology as a career and contribute the strengthening of the renewables sector in the local economy. They would also contribute to the broader strategic goals of attract people to live and work in Dumfries and Galloway and providing sustainable jobs

In addition, the developer could collaborate with the local college, Dumfries and Galloway College. The College currently offers a series of courses on renewable energy and onshore wind, including: "Renewable Energy Practical Skills" and "Natural Power Wind Turbine Technician Trainee", which focuses on the maintenance of wind farms. It also organises Basic Technical Training accredited by the Global Wind Organisation. The collaboration between the developer and Dumfries and Galloway College consist in the provision of apprenticeships and internships for students to put in practice the skills learnt at college.

Skills interventions could also be undertaken at an earlier stage, by engaging with local schools. The purpose of this earlier type of activity is to raise ambitions and showcase the benefits of a career in the onshore wind sector. Advocacy activity could also focus specifically on girls, who tend to be under-represented in STEM professions.

## 7.9 Local Cultural Initiatives

In addition to considering any potential implications on tourism and recreation from the Proposed Development, the Applicant is committed to enhance existing conditions. The Applicant is committed to promoting the areas of archaeologist interest on the site and feedback from the public exhibitions indicated this was an important aspect for the local community.

As part of the planning submission, the Applicant has included a Cultural Heritage Enhancement Strategy Proposal. The document considers that the land within the Proposed Development is of rich archaeological background however, due to the location and condition of the Site at present it is not accessible for the public. Therefore, amongst others, it takes into account ideas for the enhancement of recreational paths and their accessibility on site that could be used by visitors and local people as well as the provision of parking and rest areas, interpretation boards for tourism and recreational assets, site open days during archaeological works, and guided tours.

In particular, a signposted heritage trail throughout the Site is being proposed based on feedback from the public exhibitions. These improvements would include making assets wheelchair accessible where possible and installing interpretation boards along the trail.

# 8. Contribution to Wellbeing

This section overviews how the Proposed Development is likely to contribute to national and local wellbeing.

## 1.1 Measuring What Matters

As outlined in previous sections, the proposed wind farm is expected to make a clear local and national economic contribution. However, economic contribution is only one factor in ensuring that a modern society thrives. Whilst it can be challenging to consider wider contributions, owing to measures that are less refined than traditional economic metrics and potential conflicts between contributions, it is important to consider how organisations can contribute meaningfully to society.

### 1.1.1 Wellbeing as a Societal Objective

In recent years, wellbeing has become increasingly important as a societal objective. How people feel – as individuals, communities, and as a nation – and whether that is sustainable into the future, have become important criteria by which the success of a society can be evaluated.

While many activities across society offer a strong contribution to economic growth, they can often be at odds with other important contributors to wellbeing, such as community cohesion, the environment, and strong governance. An economy that is defined by high economic growth does not always go hand-in-hand with improvements to overall wellbeing[36]. Therefore, it is important to take a broader approach to understanding progress, and to measure what really matters.

**"If we don't measure something, it becomes neglected."**

Source: Joseph Stiglitz, ex Chief Economist at the World Bank

Measuring what matters is the purpose of Scotland's National Performance Framework (NPF). The framework maps out what is important to the people of Scotland and underpins Scotland's ambitions as a wellbeing economy. As such, it is useful to think about the impacts of the Proposed Development on the NPF.

[36] Whilst Gross Domestic Product per capita (average income per person) has increased throughout most countries, other indices of societal progress, such as the Genuine Progress Indicator, the Sustainable Development Index, or self-reported wellbeing, have either stagnated or declined.

Further, since Community Wealth Building (CWB) has been identified as one of the key strategies for realising the wellbeing economy, and that contributing to local or regional CWB strategies has become an important part of the planning process via the NPF4, the impact on CWB also needs to be considered.

## 1.2 Contribution to Local and National Wellbeing

### 1.2.1 The National Performance Framework

The Scottish Government has set out eleven national outcomes that represent key areas for Scotland's progress, including children and young people, communities, culture, economy, education, environment, fair work and business, health, human rights, international, and poverty.

These national outcomes are tracked with 81 distinct indicators ranging from subjective responses to perceptions of loneliness and mental wellbeing to crime rates and the economic participation rate. The national outcomes found in the NPF mirror several national and international frameworks that have become more visible in recent years, including the UN's Sustainable Development Goals (SDGs) and the OECD's Better Life Index. Many of the SDGs can be directly linked to the NPF.

Whilst no single domain is the most important, these frameworks imply that performing well on just a few of the dimensions, yet poorly on others, would not represent a well-balanced society. Humans need conditions that enable them to flourish in all areas of life.

The most relevant dimensions for the Proposed Development are the 'environment' and the 'economy' with important direct impacts on both. However, as is clear from the NPF, this is not all that matters for a society to thrive. There will be other direct impacts including across fair work and business, and also indirect impacts likely across education, health, and communities. There is also the possibility of having wider impacts owing to specific aspects of the development. This is important because, as outlined in section 4.9, Dumfries & Galloway lags behind other local authorities in Scotland with regard to national outcomes poverty, fair work and business, human rights, and the economy/environment.

### 1.2.2 Direct Impacts: Environment, Economy, and Fair Work and Business

Of the 81 indicators in the NPF, there will are likely be direct positive impacts on nine.

Five of these will be related to the environment and economy outcomes and these impacts will likely be the clearest and most substantial of all the local and national impacts:

- energy from renewable sources (adding up to 92MW of onshore wind energy to the national grid);
- greenhouse gas emissions (reduced owing to lower use of fossil fuels);
- carbon footprint (reduced owing to lower use of fossil fuels);

- natural capital (use of an energy source that doesn't draw down on natural resources); and
- economic growth (increases in goods and services).

The remaining four indicators likely to be directly influenced relate to fair work and business and will have a positive impact primarily on the local area. These include:

- the number of businesses;
- high growth businesses;
- innovative businesses; and
- economic participation rate.

Since a new wind farm would bring employment and training opportunities there will also be impacts on:

- skills profile of the population;
- Scotland's population (through economic opportunities that attract/retain people in the area);
- productivity;
- spend on research and development;
- Scotland's reputation (through contributing to carbon emissions targets).

### 1.2.3 Further Fair Work and Business and Education Impacts

However, there will also be areas where although impacts are likely, the true impact will depend on business choices as to how employees are paid and supported in their roles, as well as the extent to which skills are developed within communities. This might include:

- employees on the living wage;
- pay gap;
- contractually secure work;
- employee voice;
- gender balance in organisations;
- work related ill-health;
- workplace learning;
- skill shortage vacancies; and
- skills under-utilisation.

Given the type of work and Renewable Energy Systems track record it is expected that there will be positive impacts across these indicators.

### 1.2.4 Mitigation and Enhancement

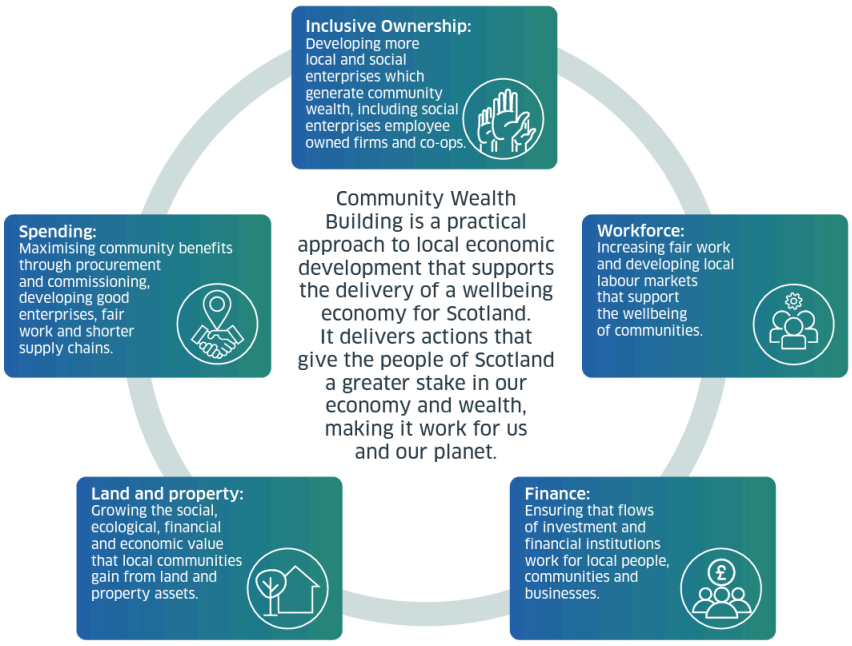
There are other aspects that, if care were not taken, could be detrimental to national outcomes. For example, the wind farm has the potential to affect the environment in adverse ways. Measures to mitigate these potential impacts should be identified as part of the Environmental Impact Assessment.

There is also the possibility of enhancing the local area. For example, through creating new recreational opportunities by adding new infrastructure, such as roads and trails, that could be used by the public. Ensuring engagement with the local community will help communities to feel like they have an influence over decisions that influence them. This would be important given residents of Dumfries & Galloway are less likely to feel they have influence over local decisions than the general population in Scotland (Table 4 – 10). Further, through a community benefit fund communities will be able to enhance their local area and meet important needs within the community that will otherwise go unmet. Since some of the community benefit fund is likely to be used for an energy discount scheme, this will help to relieve fuel poverty in the area, which has been identified as being high. Further, the developer's proposal of allowing the Site to be used for archaeological residencies would allow people to develop skills and this offer may draw people into community and have important cultural, educational, and community benefits.

Although there are potential risks to this development, the overall contribution to national wellbeing is expected to be positive and through actions of the developer higher than it otherwise would be.

## 1.3 Contribution to Community Wealth Building

The impact of Blair Hill Wind Farm on the local economy can be best understood from a Community Wealth Building (CWB) perspective. Community Wealth Building is a community centred approach to local economic development designed to redirect wealth back into local economies and place power and control in the hands of local people. It has been enthusiastically adopted by the Scottish Government, which is committed to bringing in new legislation to support its implementation and features heavily in the revised draft of the National Planning Framework published in November 2022 (policy 25).



Community Wealth Building consists of five pillars:

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

By addressing each of these pillars, it makes it more likely that any economic benefit coming to the area circulates around the local economy and have deeper and longer lasting effects.

As highlighted in section 4.8, owing to lack of plural ownership, unfair labour markets, and communities not feeling like they have much of an influence on local decisions, Dumfries and Galloway may struggle to fully realise the local economic benefits from the Blair Hill Wind Farm. Nevertheless, the developer will help enhance local economic benefits through decisions to around labour markets, ensuring their own employment conditions are fair and just. They have also made a commitment to local supply chains. In addition, the land is being used for a socially productive use and will bring financial benefits to the community, will also ensure local economic benefits.

## 1.4 Wellbeing Assessment Summary

Blair Hill Wind Farm will have clear local and national economic benefits, which can be maximised by engaging with local supply chains and the community to retain as much economic benefit as possible in the local area. However, the economy is just one element that is needed for a place to thrive; other factors are just as important and considering them can help ensure the community fully benefits.

Blair Hill Wind Farm has the potential to play an important role in contributing to local conditions that support a thriving community, particularly through its community benefit funding of which part will go towards an energy discount scheme. Dumfries & Galloway performs relatively poorly across some areas on wellbeing, including poverty, fair work and business, human rights, and the economy/environment, and Blair Hill Wind Farm has the potential to contribute substantially to many of these aspects.

# 9. Net Economic Benefits

The Proposed Development delivers a comprehensive package of economic and wider benefits and, in this way, maximises net economic benefits for the local community.

This report assesses the potential socio-economic, recreation and tourism effects of the Proposed Development in the context of the NPF4 Policy 11(c) requirements.

The socio-economic structure of the local area and Dumfries and Galloway highlights the need for the creation of job opportunities. This is reflected in the local demographic profile, with older population structures and worse labour market outcomes than Scotland, on average. Future demographic pressures are expected to exacerbate these trends making job creation a priority to retain the existing population and attract more working age people to the area.

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

- £12 million Gross Value Added (GVA) and support c.128 job years in Dumfries and Galloway (with peak employment of 68 jobs); and
- £33 million GVA and c.360 job years across Scotland (with peak employment of 183 jobs).

During the operations and maintenance phase, it is estimated that the Proposed Development will generate an annual impact of up to:

- £1.1 million GVA and support c.6 jobs in Dumfries and Galloway; and
- £2.4 million GVA and c.19 jobs across Scotland.

It is estimated that the Proposed Development would pay £1.1 million each year in non-domestic rates, helping to support local government services.

The Proposed Development would also provide community benefit funding for the local area of up to £462,000 annually.

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

Overall, there were no adverse effects identified. While the beneficial construction and operation socio-economic effects are negligible in EIA terms, they would be

important to the local and national economies, contributing to sustainable economic growth. Therefore, socio-economics effects are considered following the requirements outlined in NPF4 Policy 11(c) regarding the maximisation of the net economic impact.

The socio-economics assessment focuses on evaluating whether the Proposed Development meets these requirements and contributes to a rapid deployment to achieve 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 table below is mapping the benefits that the Proposed Development is expected to offer against these criteria for maximising net economic impacts in NPF4 Policy 11(c).

**Table 10-1: Contribution to the Maximisation of the Net Economic Impact**

| | High Local Content of the Supply Chain | Opportunities for local employment and skills development | Contributions to the cost of enabling infrastructure and other interventions | Community Benefit Package | Continued Innovation |
|---|---|---|---|---|---|
| **Construction and Operations Impacts** | | | | | |
| GVA and jobs generated in Dumfries and Galloway | ✓ | ✓ | | | |
| £1.2 million annual payment of non-domestic rates | | | ✓ | | |
| **Applicant Commitments** | | | | | |
| £495,000 annual community benefit fund | | ✓ | | ✓ | |
| Commission local contractors | ✓ | | | | |
| Provision of LEDS | | | | ✓ | ✓ |

| | | | | | |
|---|---|---|---|---|---|
| Engagement with local college, schools and universities | | ✓ | | | ✓ |
| Provision of archaeology field courses | | ✓ | | | ✓ |
| Cultural Heritage Enhancement Strategy | | | | | ✓ |

Source: BiGGAR Economics Analysis.

Based on these community and economic benefits expected, it can be concluded that the Proposed Development maximises net economic impact meeting the requirement for renewable energy proposals set out in Policy 11(c) of NPF4.

# 10. Appendix A – Lists of Recreational and Tourism Assets

**Table 7-5: Recreational Trails**

| | Description | Distance to Site (km) |
|---|---|---|
| Wood of Cree, near Newton Stewart | A 3.8 km walk through the largest area of ancient woodland in Southern Scotland and is an RSPB nature reserve. | 2 km |
| Curleywee and Lamachan Hill, Glen Trool | A 17 km route through the Galloway Hills, which is challenging, pathless and through tussocky terrain. | 3 km |
| Riverside Walk, Newton Stewart | A 2.6 km walk from Newton Stewart along the banks of the River Cree. | 4 km |
| Southern Upland Way 3: Bargrennan to St John's Town of Dalry | A 39.5 km the heart of the Galloway Hills with extensive forest plantations as well as loch and moorland scenery. | 4 km |
| Water of Minnoch circuit, Glen Trool | A 11.3 km walk following part of the Southern Upland Way which takes in riverside sections, mixed woodland as well as open areas with mountain views. | 5 km |
| Loch Trool trail, Glen Trool | A 9 km walk makes a complete circuit around Loch Trool. | 5 km |
| Kirroughtree Forest walks, near Newton Stewart | A 5.3 km walk through the Kirroughtree Forest which is one of the popular 7stanes Mountain Biking centres, the route also has 3 waymarked routes for walkers. | 5 km |
| Water of Trool, Glen Trool | A 7.5 km circuit through the forests, woods and beside the rivers of Glen Trool. | 5 km |
| Murray's Monument, near Newton Stewart | A 3 km walk in the heart of the Galloway Forest Park. It climbs up to the impressive obelisk of the Murray Monument - with good views - before returning through the woods and past an attractive waterfall. | 5 km |

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| The Merrick via Loch Valley, from Glen Trool | A 15 km circular walk which is an alternative route to the Merrick. The route up Loch Valley is very boggy. | 6 km |
| The Merrick, from Loch Trool | A 13.3 km walk to The Merrick which is the highest summit in Southern Scotland and lies at the heart of the Galloway ranges. This popular ascent from Loch Trool provides a panorama view that includes much of the Galloway Forest as well as across to Northern Ireland and the Isle of Man. | 6 km |
| Southern Upland Way 2: Castle Kennedy to Bargrennan | A 43 km route which crosses one of the least visited parts of Galloway, through remoter country with moorland and extensive forestry plantations. There are no facilities en route. | 7 km |
| Cairnsmore of Fleet, near Newton Stewart | A 12.3 km walk to the Cairnsmore of Fleet which is the most southerly 2000 foot hill in Scotland with a viewpoint for the Cree Estuary and the Solway. | 8 km |
| Balloch Wood, Creetown | A 5 km walk from Creetown climbs up through the community-owned Balloch Wood - home to red squirrels and roe deer - to reach the former curling pond, a local beauty spot. | 12 km |
| Corserine and the Rhinns of Kells, Forrest Lodge | A 9 km walk to the east of Merrick with vast areas of forestry plantations. The great Rhinns of Kells ridge, however, rises proudly above the treeline and offers an excellent rugged hillwalk. The high point is Corserine, a Corbett and an extensive viewpoint over much of Galloway. | 12 km |
| Wigtown explorer | A 8.5 km walk including the Martyrs' Stone and the bird-rich marshland around the head of Wigtown Bay. | 13 km |
| Clatteringshaws Loch and Benniguinea | A 8 km walk heads along the shores of Clatteringshaws Loch - an extensive reservoir - to visit the Bruce's Stone before climbing through forestry to a viewpoint high above the loch with views to Merrick and the surrounding hills. | 13 km |

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| Mountain End trail, Clints of Dromore, Fleet Valley | A 6.5 km walk This walk extends the easy In-Bye route by heading up over the top of the craggy Clints of Dromore. The route over the top is mostly waymarked but is rough and often very wet in places. The views are good, and it offers a chance to visit 'Hush' - a sculpture by Matt Baker. | 13 km |
| Clints of Dromore In-Bye, Fleet Valley | A 3 km Inbye walk runs below the broken crags of the Clints of Dromore. It is part of the National Nature Reserve. | 14 km |
| Shalloch on Minnoch via the north ridge | A 9.5 km walk to the Shalloch on Minnoch which is the most northerly major summit on the ridge that runs northwards from The Merrick. The route is rather boggy and featureless but provides the fastest approach. | 15 km |

**Table 7-6: Local Visitor Attractions**

| | Description | Distance to Site (km) |
|---|---|---|
| **Galloway Forest Park** | Britain's largest forest park established in 1947 with various walking routes, seashore views and mountain tops. | 0 km |
| The Vaults Arts Centre | Multi award nominated family friendly live music and performing arts events venue. The venue also hosts a variety of dance and music festivals throughout the year. | 4 km |
| Merrick Leisure Centre | Leisure facilities based in the town of Newton Stewart with 25m swimming pool, spa, sauna, fitness suite and sports hall. | 4 km |
| Newton Stewart Golf Club | 18-hole parkland golf course on the edge of Galloway Forest Park with views towards Cairnsmore and Wigtown Bay. | 4 km |
| Kirkcowan Cycles | Bike shop in the town of Newton Stewart. | 4 km |
| Galloway Heathers Garden Centre | Family-run business with a selection of plants, shrubs and heathers, located in the village of Minnigaff for gardeners. | 4 km |
| The Museum Newton Stewart | Housed in the former St. John's Church, currently a natural and social history museum of Galloway. | 4 km |

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|---|---|---|
| The Old Bakery Gallery | Arts and crafts gallery space in Wigtownshire | 5 km |
| Crafty Distillery | Award winning grain to glass distillery with panoramic views over the Galloway Hills. | 5 km |
| Bruce's Stone | Historic site at the top of the hill on the north side of Loch Trool commemorating Robert Bruce's first victory over an English army in 1307 during the Scottish Wars of Independence. | 6 km |
| Freelance Ranger | Bespoke family oriented outdoor environmental activities for groups like pond dipping or rock pooling. | 6 km |
| 7Stanes: Glentrool Mountain Bike Trails | 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 km |
| RSPB Scotland Wood of Cree Nature Reserve | Largest ancient wood in southern Scotland with various woodland walks and seasonal flowers, wildlife including birds, squirrels, otters, roe deer and bat species. | 6 km |
| 7stanes Kirroughtree | Mountain biking trails to suit all from beginners to advanced riders with a café. | 6 km |
| Kirroughtree | Restaurant and bike shop near the 7stanes Kirroughtree trials and known as the main Gateway to Galloway Forest Park. | 6 km |
| The Breakpad Ltd. | Largest bike shop and hire centre in Dumfries & Galloway. Based at the Kirroughtree 7stanes trail head supplying bicycle equipment with art cycle workshop and technicians on hand. | 6 km |
| Murray's Monument | Monument erected to the memory of Alexander Murray in 1835. | 6 km |
| Galloway Wild Goat Park | Forest and woodlands in the rolling hills of Galloway Forest Park. The site has parking facilities. | 7 km |
| The Glentrool Hive | Multipurpose community centre for the village of Glentrool. | 7 km |
| Galloway Red Deer Range | Adjacent to the Galloway Wild Goat Park on the A712 Queen's Way. | 9 km |
| Kilsture Forest Walks | Two marked trails – the Woodpecker and the Deer Trail within the Machars area ideal throughout the year. | 9 km |

| | | |
|---|---|---|
| The Merrick Circle – Part 3 | Mountain biking route between Witches Bridge and the forest entry the route is on the back road. | 11 km |
| Deer Manor Gourmet Mushrooms | Organic estate-based gourmet mushroom farm nestled in the wilds of Scotland's Southern Uplands. | 12 km |
| Creetown Heritage Museum | Museum exhibiting 150 years of history through photographs, artefacts, audio and video presentations and hands on activities about Creetown. The Balloch Wood Project has created footpaths through the local woodland that start 400 yards from the museum. | 13 km |
| Barholm Arts and Crafts | Arts and crafts collective in Creetown. | 13 km |
| Torhouse Stone Circle | Bronze Age structure also called the Standing Stones of Torhouse. The ruins consist of 19 large granite boulders which are unusual for this area. | 14 km |
| Cairnsmore of Fleet National Nature Reserve | Nature centre and reserve with accessible routes for walking, wildlife and birdwatching with an information centre, public toilets and parking. | 14 km |

Source: Visit Scotland (2024); Google Maps.

Text

BiGGAR Economics, Shandwick House,
67 Shandwick Place, Edinburgh, Scotland EH2 4SD

info@biggareconomics.co.uk

**biggareconomics.co.uk**