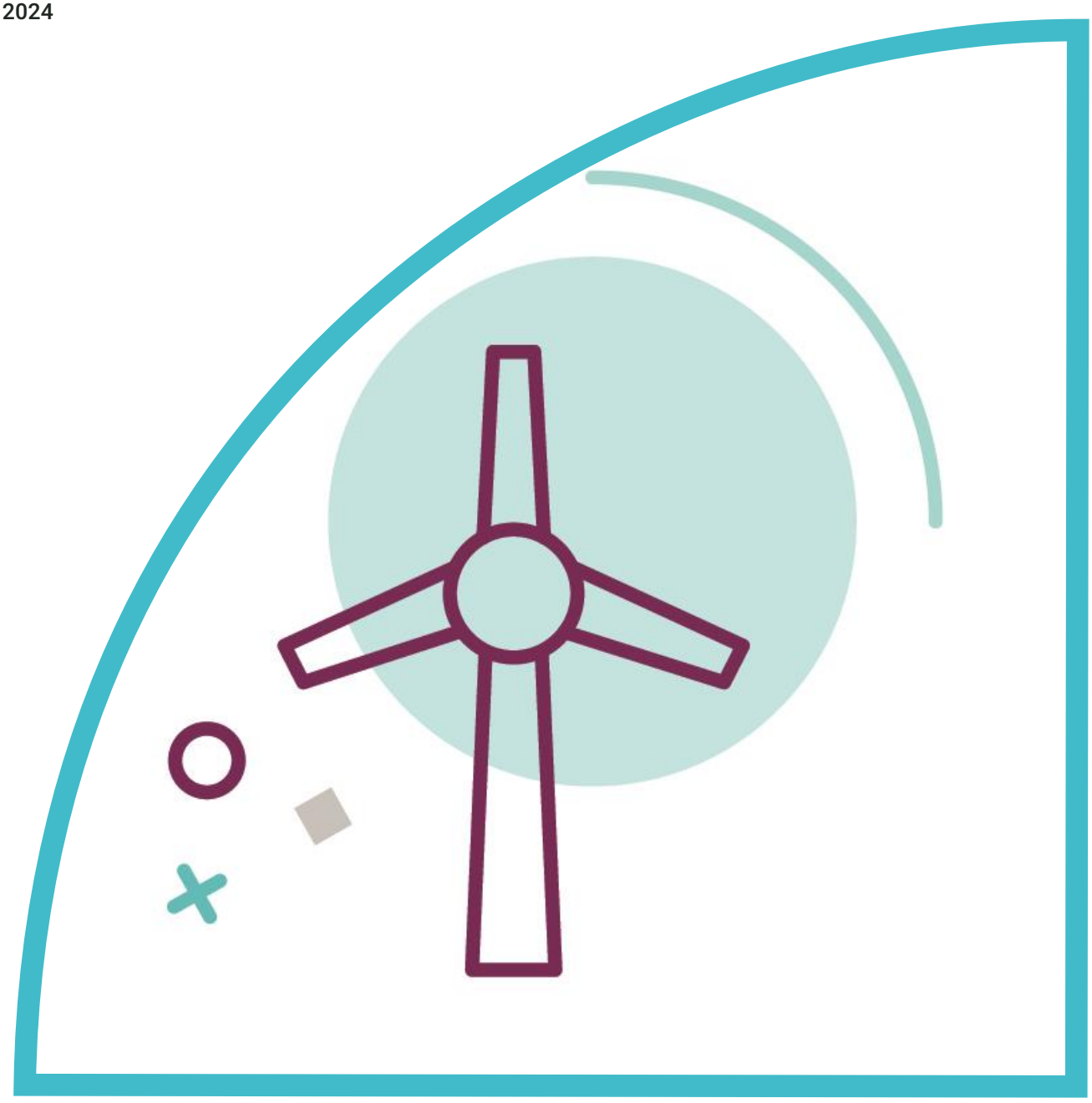
BiGGAR Economics

Developing a new model to maximise local economic benefits from development in Moray and Highland

A report to Moray Council and Highland Council
January 2024



BiGGAR Economics

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Executive Summary

A new collaborative approach built around the pillars of Community Wealth Building could help maximise the future benefits of onshore renewables for the north of Scotland.

BiGGAR Economics was commissioned to investigate the benefits which have arisen during the construction and operation of energy developments in Moray and Highland, and to consider how benefits might be maximised in the future.

The analysis shows the onshore wind sector is hugely important for the economy of the north of Scotland. Since 1998, an estimated £4.5 billion has been spent on the development and construction of 2.6 GW of wind energy projects in the region while ongoing operations and maintenance expenditure is estimated to amount to around £128 million/year. The social and economic impacts of this investment are huge. It is estimated that:

- the capital expenditure undertaken to develop these sites has generated a cumulative economic impact of £0.9 billion and supported around 17,670 years of employment in Moray and Highland; and
- each year the ongoing operations of these wind farms generates a further £34 million GVA for the region and supports more than 400 jobs.

The sector is also an important source of support for local communities. In 2023 between 80% to 90% of wind farms in the region were providing direct funding to host communities through a community benefit fund. In addition, many developers were also providing wider benefits through mechanisms such as shared ownership and electricity discount schemes or support for community led housing projects or recreational infrastructure.

The total value of community benefit funding generated for the region in 2023 was estimated to amount to around £8.7 million.

Over the next few years there is potential to significantly increase this impact.

The Scottish Government is committed to achieving 20GW of installed energy capacity by 2030. Achieving this will require a significant uplift in investment. This is a major opportunity for the north of Scotland. By 2030 it could:

- increase the annual economic benefit of the sector to £61 million GVA/year;
- support up to 760 jobs; and
- generate almost £22 million/year in community benefit funding.

These estimates are however based on how the sector currently operates and the proportion of local content secured. This could go up or down in the future but there are strategic interventions that could be taken to increase it. These interventions are likely to centre on encouraging wider adoption of good practice by all stakeholders.

On the whole adherence to good practice is high and stakeholder attitudes to maximising economic benefits are well aligned.

The average value of planned community benefit funds is expected to increase to around £4,800/MW over the next few years, very close to the £5,000/MW recommended by Government. This provides a powerful endorsement of Scotland's voluntary, guidance-based approach to community benefit.

However, while there is some evidence that the impacts of onshore renewable energy projects are being maximised *within the constraints of the current system*, the analysis suggests there is considerable scope to improve how the system operates, which could increase the scale of future impacts.

This study recommendations this could be achieved by adopting a new progressive approach to delivering socio-economic and community benefits that builds on the existing strengths of the current system: namely innovation in developing bespoke solutions for communities and the voluntary nature of collaboration between key stakeholders. Such an approach offers the best route to realising the potential of the sector over the coming years and maximising social and economic benefits for local communities and the wider region.

1. Introduction

Renewable energy generation will play a crucial role in Scotland's energy transition and its journey toward achieving net zero emissions by 2045. This shift holds the potential to drive significant social and economic change, particularly for the communities that host energy infrastructure.

Over the past 20 years Moray and Highland have witnessed substantial growth in renewable energy projects, particularly in the development of onshore wind. In 2023, the two areas collectively accounted for 29% of Scotland's onshore wind capacity, with a combined total installed capacity of 2.6 Gigawatts (GW).

A 2022 policy statement[1] by the Scottish Government set a new ambition for Scotland to achieve a minimum of 20 GW of installed onshore wind generating capacity by 2030 to support the rapid decarbonisation of Scotland's energy systems. If the pattern of future deployment reflects historic trends this would equate to approximately 5.8 GW in Moray and Highland, more than double the current level. Achieving this level of deployment will substantial investment, not only in energy generating assets but also in grid and storage infrastructure.

This presents a significant opportunity for the north of Scotland to realise social, economic, and industrial development ambitions. By working together, the renewables sectors, public sector agencies and communities could deliver significant social and economic benefits to Highland and Moray.

The objective of this study is to help realise this potential by providing the evidence needed to develop a new model to maximise local economic benefits from development in Moray and Highland

1.1 Policy Context

The current policy context, commitments from the Scottish Government and the onshore wind sector, and the desire to address key economic challenges in Moray

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

and Highland were key drivers for commissioning this project. Whilst carrying out this study, and in developing the recommendations, it was recognised that any new approach to maximising benefits must reflect this context.

In 2023, the Scottish Government published Scotland's fourth National Planning Framework (NPF4)[2]. This is a long-term plan designed to guide Scotland's spatial development to 2045. It sets out national planning policies, designates national developments and highlights regional spatial priorities. Policies 11 and 25 are particularly relevant to this study.

Policy 11 states that all renewable development proposals should maximise net economic impact, including local and community socio-economic benefits. With the intention of creating productive places, Policy 25 specifies that development proposals should align with local or regional community wealth building strategies and the economic priorities of the area.

The Scottish Government is also committed to bringing forward new legislation to embed community wealth building in the economic strategies of public bodies. Community Wealth Building is a people-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. Moray has developed a draft community wealth building strategy[3] and Highland's is nearing publication.

The Scottish Government's Onshore Wind Policy Statement (2022) and the Sector Deal (2023)[4] also provide important context for this study as they set out commitments from the Scottish Government and the onshore wind industry to deliver on the collective ambition of 20GW of onshore wind in Scotland by 2030 whilst maximising benefit to Scotland. The sector deal encapsulates the collective vision to use the development of the onshore wind sector to drive economic growth, create high-quality jobs, reduce carbon emissions and ultimately benefit the communities of Scotland.

1.2 Scope and Approach

This study uses the strong evidence base of the onshore wind sector to assess the nature and scale of benefits that have been generated by developments across the Highland and Moray region. There are two main sources of impact - the first is the

[2] Scottish Government (2023), National Planning Framework 4
[3] Moray Community Wealth Building Strategy 2023 Draft
[4] Scottish Government (2023) Onshore Wind Sector Deal

activity required to deliver renewable energy projects and the second is activity undertaken with the explicit intention of delivering benefits for host communities.

A bespoke economic impact model, which draws on BiGGAR Economics' extensive experience of working in the onshore renewables industry, was developed to assess the level of economic activity stimulated by the construction and operation of wind farms over the past two decades across the region. Community benefits were assessed by researching community benefit funds provided to host communities.

Having quantified the current impact this report moves on to qualitatively assess current practice and delivery of benefits against the region's strategic priorities.

To provide an indication of the scale of opportunity arising from development in Moray and Highland, the potential economic impact and community benefits that could be generated by future onshore sector activities is assessed based on future pipeline projects.

Finally this report summarises opportunities that can help to ensure that these future benefits are realised locally and proposes a new approach to maximising local economic benefits.

1.2.1 Report Structure

The remainder of this report is structured as follows:

- section 2 quantifies the economic benefits arising from the construction and operation of onshore wind developments;
- section 3 quantifies the scale of community benefit funding currently available to communities in Moray and Highland;
- section 4 evaluates the current model of delivering community benefit and reviews adherence to best practice;
- section 5 evaluates the scale of potential future benefits; and
- section 6 describes some of the opportunities that exist to increase the economic impacts from onshore renewables in the north of Scotland and identifies some steps that could be taken to realise them; and
- Section 7 provides recommendations for a new approach to maximise local economics benefits from onshore wind development in Moray and Highland

2. Economic Benefits

In 2023 the onshore wind sector supported more than 500 jobs in Moray and Highland and generated an annual operational impact of £34 million GVA.

Since 1998, the onshore wind sector has invested around £4.5 billion in the development and construction of 2.6 GW of wind energy projects across Highland and Moray. It is also estimated the sector spent around £125 million on operating and maintaining these turbines in 2023. This investment supports employment and generates economic value, across the region. This chapter quantifies the economic impact of this activity.

2.1 Approach

BiGGAR Economics has been assessing the economic impacts of onshore wind farms for 20 years. The approach used to quantify the economic impacts of the sector in Highland and Moray builds on this experience. This includes supply chain analysis BiGGAR Economics has undertaken for some of the major onshore wind developers in Scotland and sector wide studies completed for RenewableUK[5] and BEIS[6]. The methodology developed by BiGGAR Economics is the most widely used in the UK and has become accepted best practice across the industry.

The approach to estimating the economic impacts of onshore wind is driven by the level of expenditure on projects during the construction and operational phases. The analysis considers what the money is spent on and where the economic activity occurs. This analysis considers each onshore wind project individually, enabling characteristics that may affect expenditure to be considered, for example if the project is an extension or a repowering of an existing site.

In this report economic impacts are quantified in terms of:

- **Gross Value Added (GVA) –** a measure of economic activity; and
- **Jobs.**

[5] RenewableUK (2015) Economic Impacts of Onshore Wind in 2014, BiGGAR Economics
[6] Department of Business, Energy and Industrial Strategy (2012) Onshore Wind: Direct & Wider Economic Impacts

The BiGGAR Economics approach considers three levels of economic activity:

- **direct impact** – the impact directly supported by a project including the staff employed and profits generated;
- **indirect impact** – associated with spending further down the supply chain; and
- **induced impact** – this is the impact associated with staff spending their wages in the wider economy.

Direct GVA and jobs supported by expenditure were estimated using appropriate industrial ratios[7] for the sector and year of expenditure. The impact of subsequent spending rounds was captured by applying appropriate economic multipliers[8].

2.2 Development and Construction

The development and construction of onshore wind farms requires a wide range of skills, goods and services. The main areas of activity are described below.

- **Development** - all activity up to the breaking of ground, development activity accounts for around 5-10% of total capital expenditure. This is often contracted to businesses in Scotland, with businesses in Moray and Highland providing some input - for example in environmental services and planning.
- **Turbine** – the manufacture, transportation and assembly of the wind turbines accounts for most capital expenditure, typically between 50% and 60%. Most of this economic activity occurs outside the UK, where the main manufacturers are based but there are opportunities for local ports and specialist haulage services.
- **Balance of Plant** – balance of plant includes all the additional engineering works required to prepare a site for the arrival of the turbines. Most of this work is completed by general civil engineering contractors. This is the largest area of economic opportunity for Highland, Moray and the wider Scottish economy; and
- **Grid Connection and electrical balance of plant** - this includes the construction of substations and the installation of specialist electrical equipment. This is a potential opportunity for the north of Scotland economy.

Economic activity during the development and construction phase is driven by the contracts awarded in each area, which vary between projects. Contracts are awarded based the capacity of companies to meet the technical demands of the developer at a commercially viable cost.

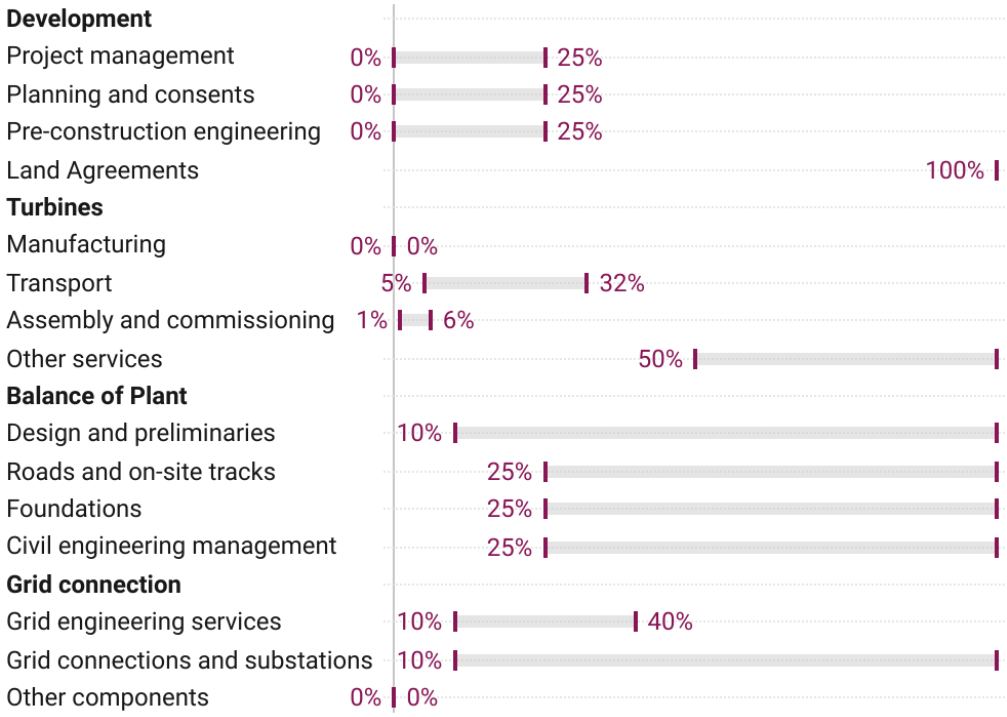
[7] Scottish Government (2023) Scottish Annual Business Statistics (2008 – 2021)
[8] Scottish Government (2023) Scottish Input Output Tables (1998 – 2022)

Figure 2-1shows the proportion of each type of contract secured by Highland companies during the development and construction of onshore wind projects.

The largest opportunities for Highland are in contracts related to balance of plant which offers a range of opportunities with local firms such as RJ McLeod and Morrison Construction well-placed to take advantage. As a result, a relatively high share of contracts in balance of plant can be secured by local firms, including those related to roads, foundations and other civil engineering contracts.

Highland firms can also undertake some grid connection-related contracts, such as substation construction. However, these contracts include a high share of spend on equipment, which typically comes from Europe.

Figure 2-1 Share of Contracts in Highland

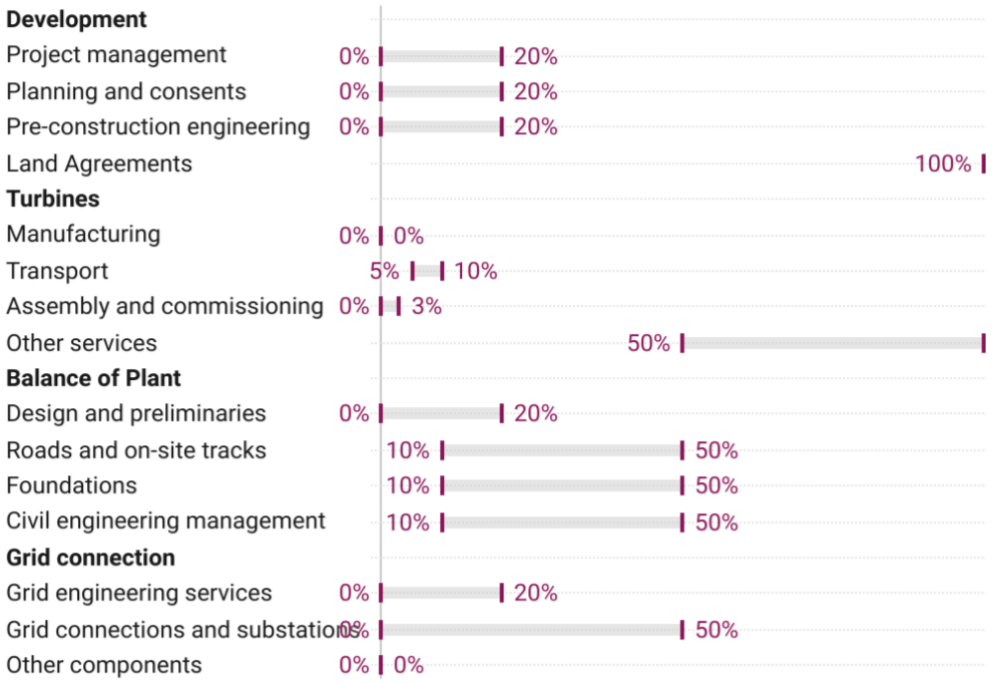


Source: BiGGAR Economics Assumptions

Figure 2-2 shows the proportion of contracts that could be secured by companies in Moray during the development and construction of onshore wind projects. The largest opportunities are in contracts related to balance of plant. Although it is likely the principal contractor for these contracts will be based in Highland or elsewhere in Scotland, local firms and workers may be sub-contracted to work on them.

As with Highland, some grid-related contracts are likely to be secured locally. These are likely to mainly be related to substation construction, but most will be secured by companies based outside Moray.

Figure 2-2 Share of Contracts in Moray



Source: BiGGAR Economics Assumptions

It was estimated that the development and construction of onshore wind projects has resulted in £1.3 billion being spent across the two local authorities. Around two thirds of this is believed to have been linked to balance of plant contracts, in particular those relating to civil engineering and other general construction activities.

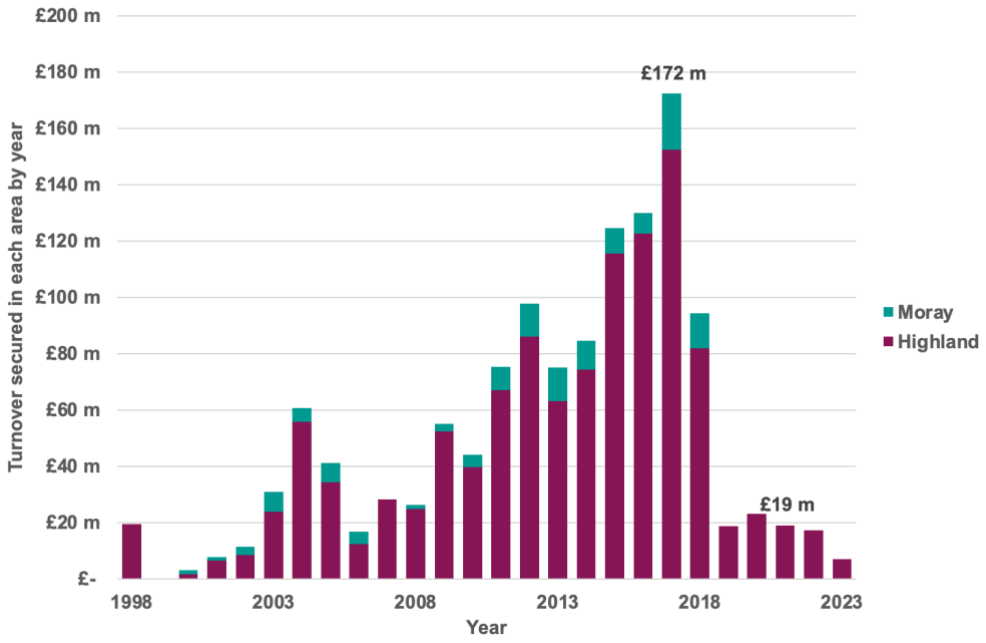
Table 2-1 Cumulative Spend (1998 – 2023)

	Highland	Moray	Combined Area
Development	£170 m	£39 m	£209 m
Turbine	£87 m	£12 m	£99 m
Balance of Plant	£757 m	£65 m	£822 m
Grid Connection	£142 m	£12 m	£154 m
Total Spend	£1,157 m	£128 m	£1,285 m

Source: BiGGAR Economics Analysis

This economic activity has not been steady across the period (see Figure 2-3). Changes to energy policy and support mechanisms for onshore wind have resulted in a decrease in the number of onshore wind farms constructed since 2017.

Figure 2-3 Turnover from onshore wind secured in each local authority by year



Source: BiGGAR Economics Analysis

Throughout the period, it is estimated that this expenditure supported £916 million GVA across Highland and Moray and 17,670 years of employment. Most of this economic impact was in Highland, which accounts for a higher share of installed capacity and a better developed supply chain to service the sector.

Table 2-2 Cumulative Development and Construction Impact, 2023

	Highland	Moray	Combined
GVA (£m)			
Direct GVA	623	67	690
Indirect GVA	86	10	96
Induced GVA	121	9	130
Total GVA	**830**	**86**	**916**
Employment (Years of Employment)			
Direct Employment	11,440	1,420	12,860
Indirect Employment	1,370	160	1,530
Induced Employment	3,030	250	3,280
Total Employment	**15,840**	**1,830**	**17,670**

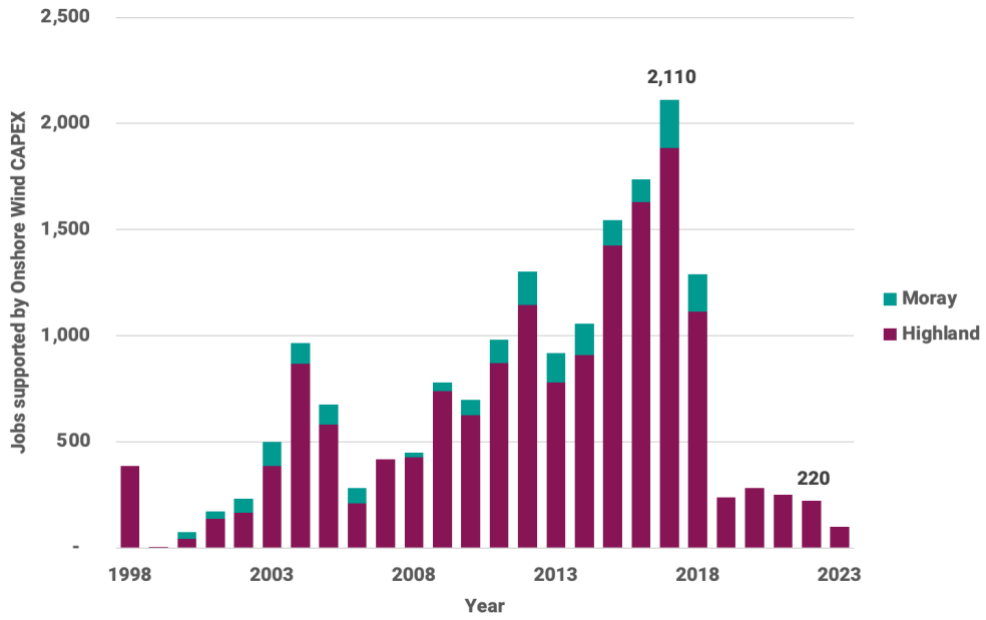
Source: BiGGAR Economics Analysis. Totals may not sum due to rounding.

The jobs and GVA supported by the onshore wind sector are driven by the expenditure profile shown in Figure 2-3. As a result, the employment supported by the sector has varied significantly over time. In 2017, the employment supported peaked at around 2,110 jobs and has since fallen. The total employment supported in each year is shown in Figure 2-4.

The significant fluctuations in employment supported during the development and construction of onshore wind projects will have an impact on the companies that provide development and construction services. However, because many of the goods and services that are provided by companies in Highland and Moray are general construction services, these companies and workers can usually also work in other sectors. As a result, the significant decline in demand from onshore wind has not resulted in proportionate decreases in employment in these companies.

Companies that provide specialist services to the onshore wind sector during the construction phase will have struggled during this period. This will include the companies involved in the turbine assembly. However, most of these companies are based outside Highland and Moray.

Figure 2-4 Jobs supported by Development and Construction (1998 - 2023)



Source: BiGGAR Economics Analysis

High Quality, Secure Jobs

Although the demand for labour created during the construction of a wind farm is temporary because each project is part of an ongoing pipeline the jobs supported are often high quality and long lasting. This is particularly important in rural communities where alternatives can be scarce and often poorly paid and insecure.

Data from the Annual Survey of Hours and Earnings for example shows that in 2022 on average those working in civil engineering were paid more than twice as much as those working in hospitality (an important sector in many parts of rural Scotland).

Consultation with industry suggests these jobs also tend to be relatively secure.

Information published by RJ McLeod for example, shows that the average length of staff service is 14.5 years and 57% of staff have been employed for at least 10 years.

Sources: ONS (2022), Annual Survey of Hours and Earnings and RJ MCLeod's modern slavery and human trafficking statement accessed December 2023

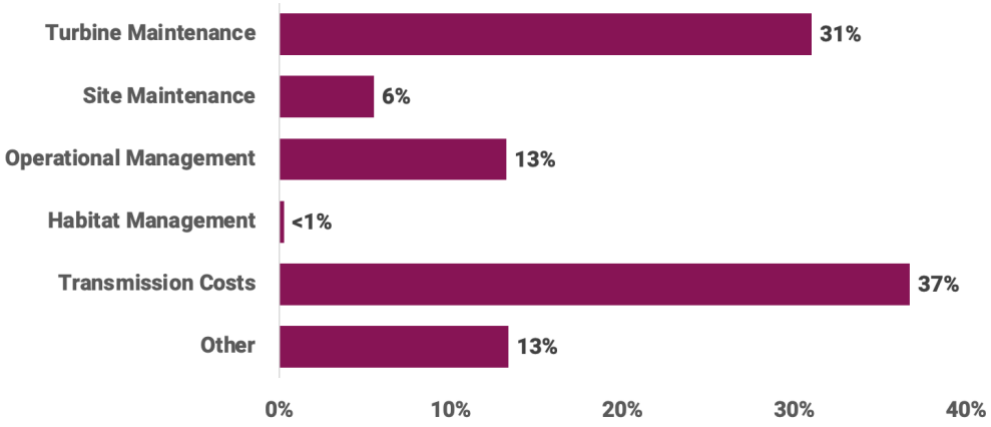
2.3 Operations and Maintenance Impact

As well as generating economic impact during development and construction, onshore wind farms continue to support impacts throughout their operational lives.

Based on the analysis undertaken as part of BiGGAR Economics' work for RenewableUK[9], it was estimated that in 2023, the operations and maintenance expenditure associated with onshore wind farms was equal to £101 million for wind farms in Highland and £25 million for wind farms in Moray.

Of this, the biggest areas of expenditure (excluding rents to landowners) were transmission costs and turbine maintenance, followed by operational management and other expenses. Transmission costs are paid to the network operator and used to support the capital investment in the electricity grid, such as the construction of the SSEN pathway to 2030 programme.

Figure 2-5 Operations and Maintenance Expenditure by Category



Source: BiGGAR Economics Analysis

As with development and construction contracts, the ability to procure goods and services locally during the operations and maintenance phase depends on the capacity of companies in the area to supply these goods and services and the procurement strategies of operators. Figure 2-6 shows the share of operations and maintenance contracts that could be secured in each local authority for developments built in that area.

[9] RenewableUK (2015) Economic Impacts of Onshore Wind in 2014, BiGGAR Economics

Figure 2-6 Operations and Maintenance Expenditure by Study Area

Source: BiGGAR Economics Analysis

Sustaining Rural Communities

Payments to landowners are an important component of the ongoing operational expenditure of wind farms but the impact of these payments is often undervalued.

Privately owned rural estates are often marginal businesses so payments made to private landowners can play an important role in underpinning their viability. Rural estates form the backbone of many rural economies, so this is extremely important for some communities.

Research undertaken by BiGGAR Economics[10] showed that rural estates directly or indirectly support 1 in 10 rural jobs, generate an annual economic impact of around £2.4 billion/year, provide homes for around 13,000 rural families and lease land to around 14,000 businesses. Income received from wind farms helps them to do this.

But not all rental income generated by onshore wind farms is received by private estates. In 2021 Forestry and Land Scotland (the National Forest Estate) received around £12.4 million in rental income from wind farms. This income was reinvested in projects and activities that generate social, economic and environmental benefits not just for the local community but for Scotland as a whole.

[10] BiGGAR Economics (2023), The Contribution of Rural Estates to Scotland's Wellbeing Economy.

The largest area of employment in the operations and maintenance phase is turbine maintenance. This is an area of specialist and skilled employment. Within the sector there is a preference to recruit locally because drive times add to cost and mean slower responses, longer down times and less income. Therefore operators, either the turbine manufacturers or independent companies, usually try to have a regional base for operations covering multiple wind farms. This is likely to include a base in either Highland or Moray to cover a portfolio of projects in the North of Scotland. Similarly, site and habitat management also benefits from staff being nearby.

The level of spend is linked to the number of operational turbines and the capacity of these turbines. It was estimated that in 2023 the total expenditure secured in Highland was around £40 million (including some contracts from Moray wind farms) and that the share secured in Moray was around £5 million. The economic impact associated with this spending was estimated at around £31 million GVA and 370 jobs in Highland, and £4 million GVA and 40 jobs in Moray (see Table 2-3).

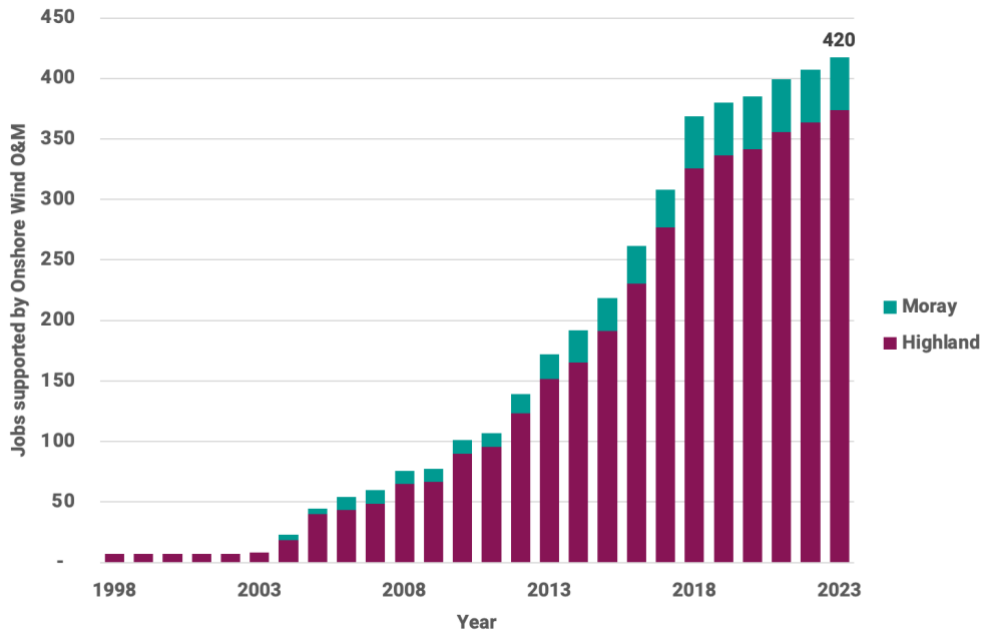
Table 2-3 Annual Operational Impact, 2023

	Highland	Moray	Combined*
GVA (£m)			
Direct GVA	21	3	23
Indirect GVA	3	<1	4
Induced GVA	7	1	8
Total GVA	**31**	**4**	**34**
Employment			
Direct Employment	240	30	280
Indirect Employment	40	<10	40
Induced Employment	90	10	100
Total Employment	**370**	**40**	**420**

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

The jobs and GVA supported during operations and maintenance is linked to the number of turbines operational across the area. This has increased over time and so the level of impact has also increased. This increase has been focused on the provision of specialist services to the onshore wind sector.

Figure 2-7 Jobs Supported by Operations and Maintenance (1998 – 2023)



Source: BiGGAR Economics Analysis

Supporting Public Services

Like most businesses, wind farms are subject to non-domestic rates (NDR) so contributions to NDR are part of the ongoing operational costs of a development. While often overlooked these contributions provide an important income stream for Moray and Highland Councils, helping to support the delivery of public services and benefiting communities across the region.

The value of this income was estimated using data from the Scottish Assessors Association[11] on the rateable value of each site. By applying an appropriate poundage rate[12], it was estimated that existing onshore wind developments in Moray and Highland generate around £30 million per year in NDRs.

Source: BiGGAR Economics analysis based on data from the Scottish Assessors Association.

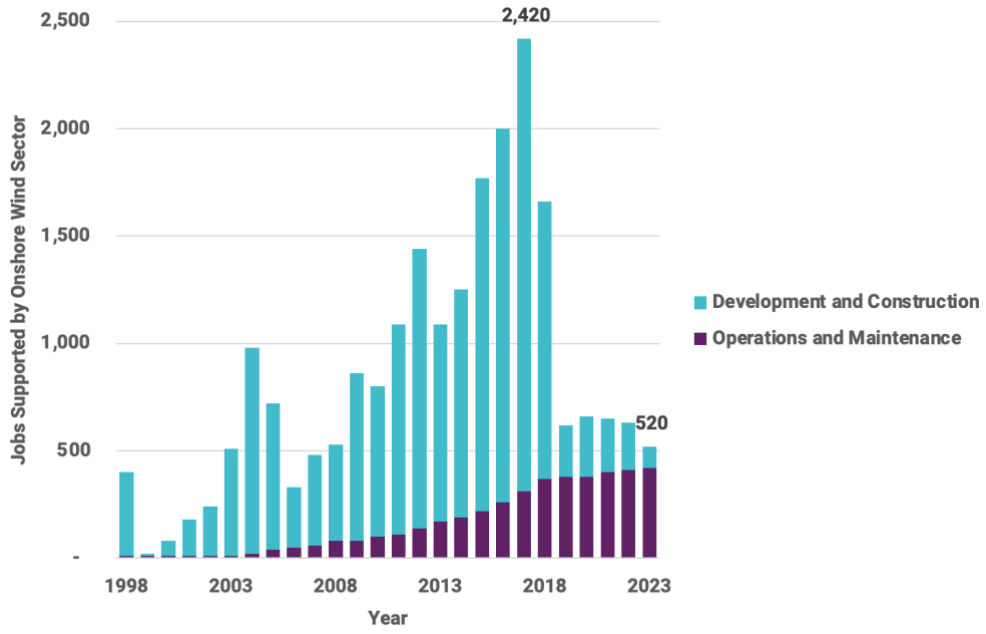
[11] Scottish Assessors Association (2023). Practice Note 2: Valuation of Onshore Wind Turbines.
[12] Scottish Government (2023). How your rateable value and rates are calculated.

2.4 Economic Benefits Summary

It was estimated that in 2023 the onshore wind sector supported around 500 jobs across Moray and Highland. Since the late 1990s most of the impact of the sector has been associated with the development and construction of wind farms. These opportunities have been realised by general construction companies and their supply chains, which have been able to react to fluctuations in demand by working in other sectors.

Since 2019 this has started to change with most jobs now supported by operations and maintenance activity. This has primarily been driven by increases in specialist services to the onshore wind sector, such as turbine maintenance.

Figure 2-8 Jobs Supported by Onshore Wind Sector by Phase (1998 – 2023)



Source: BIGGAR Economics Analysis

3. Community benefit

In 2023 wind farms in Moray and Highland provided around £8.7 million in community benefit funding for communities across the north of Scotland. While primarily intended to deliver societal outcomes this funding also has a significant economic impact.

Over the past 20 years it has become standard practice for developers to make a voluntary contribution to communities in the vicinity of a project to help ensure the community receives tangible benefits from hosting wind energy infrastructure.

These community benefits aim to create a positive relationship between wind farm developers and local communities, fostering support for renewable energy projects and contributing to sustainable and inclusive development. The onshore sector is committed to working closely with local communities engaging them in decision-making processes and delivering tangible benefits that improve lives and livelihoods.

Practice around community benefit continues to evolve and although community benefit funds are still the main type of benefit offered, it is increasingly common for developers to offer a package of benefits.

This chapter quantifies the value of these community benefit funds and highlights some of the other types of benefit that are emerging.

3.1 Method

The analysis utilised two main datasets: the Renewable Energy Planning Database (REPD) and a database from Local Energy Scotland (LES). The REPD tracks large-scale UK renewable electricity projects, offering detailed information on projects within Moray and Highland. The LES database, related to the Scottish Government's Community and Renewable Energy Scheme (CARES), complements this by providing information about community benefit arrangements pertaining to individual projects.

The analysis was supplemented by a desk-based research exercise to verify project details and bridge data gaps. This involved cross-referencing data from the LES database with the REPD and publicly accessible information on individual projects.

3.2 Value of Community Benefit Funds

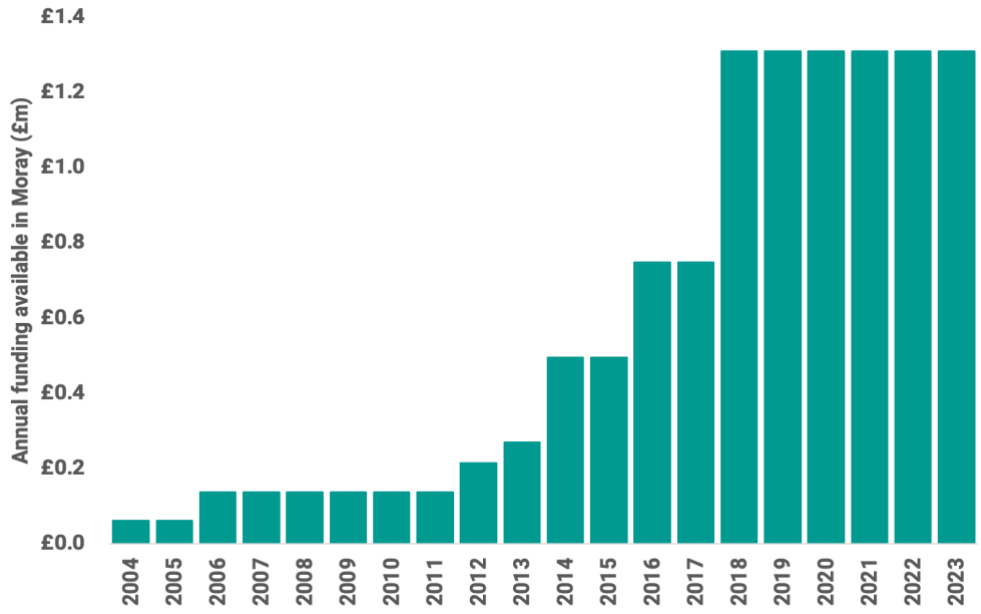
Community benefit funds are discretionary agreements reached between the developers of renewable energy projects and the communities located near by. These funds usually consist of a predetermined amount based on the size of the wind farm, paid as a set amount per megawatt per year.

This section estimates the financial value[13] of community benefit funds linked with the 60 operational wind farms in Highland and 10 in Moray. It finds that the total value of these funds across the north of Scotland in 2023 was around £8.7 million.

3.2.1 Value of Community Benefit Funding in Moray

In 2023 the total value of community benefit funds connected to wind farms in Moray was estimated to be around £1.3 million/year. There has been a marked increase in the value of community benefit funding in Moray since 2015, when the annual contribution amounted to less than £0.5 million (Figure 3-1).

Figure 3-1 Annual Funding Available in Moray



Source: BiGGAR Economics analysis

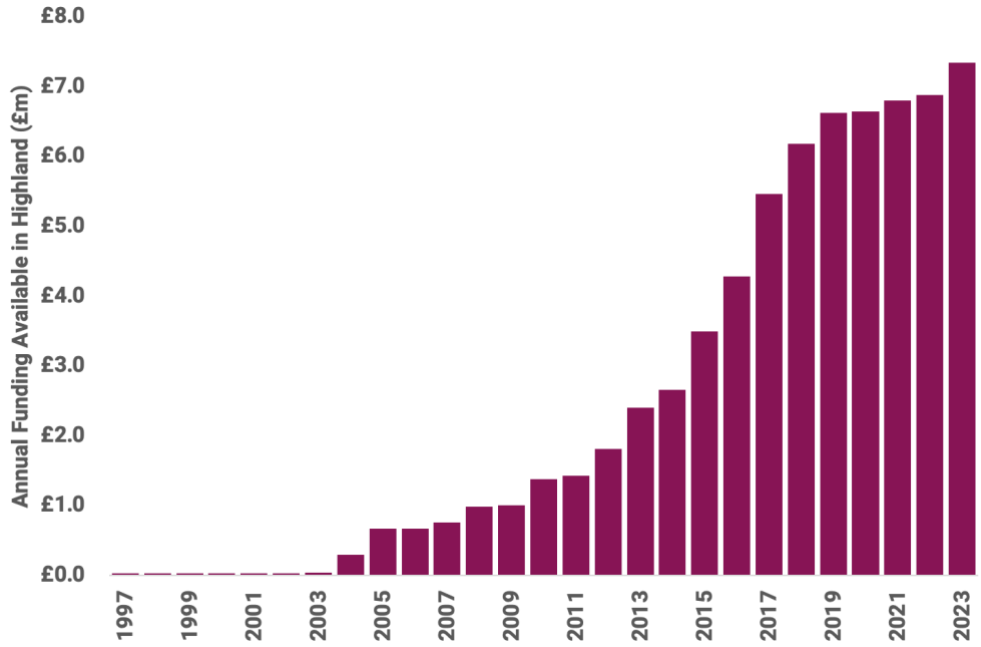
[13] Valued in 2023 prices

3.2.2 Value of Community Benefit Funding in Highland

In Highland, the total value of community benefit funds was estimated to be around £7.3 million. Figure 4-2 illustrates that the scale of community benefits in the Highland region has been on a steady an upward trajectory.

In addition to this there is also a substantial community benefit fund associated with the Glendoe hydro power scheme on the shores of Loch Ness. This scheme commenced operations in 2009 and provides an annual community benefit fund of £215,000 (in 2023 prices).

Figure 3-2 Annual Funding Available in Highland



Source: BiGGAR Economics analysis

The figures presented in this chapter relate only to large scale onshore wind farms, however community benefit funding is also available to some communities that host small wind farms. The size of these developments is typically less than 1MW so the amount of funding associated with these schemes would not significantly change the annual value of benefits presented above.

3.3 Distribution of Community Benefit Funding

Analysis of eligibility criteria suggests that 45 of the 156 community council areas In Highland are eligible to apply for community benefit funding from one or more

onshore wind farms. The number of funds residents of each community council area are eligible to apply for is summarised Table 3-1. It should be emphasised that eligibility does not necessarily correspond to the actual funding received by communities, which will depend on the number, relevance and quality of project proposals coming forward from each area.

Table 3-1 Eligible Community Councils - Highland

Funds	Eligible Community Councils – Highland
5	Tannach and District; Stratherrick and Foyers.
4	Halkirk; Ardgay and District; Creich and; Strathnairn.
3	Latheron, Lybster and Clyth; Lairg; Watten; Dunnet and Canisbay; Ardross.
2	Contin; Marybank, Scatwell and Strathconon; Bettyhill, Strathnaver and Altnaharra; Glenurquhart; Dunvegan; Brora; Edderton; Golspie; Rogart; Alness; Kiltearn; Glengarry; Fort Augustus and Glenmoriston; Caithness West; Strathdearn and; Beauly.
1	East Nairnshire; Garve and District; Lochbroom; Tain; Melvich; Strathy and Armadale; Cawdor and West Nairnshire; Struan; Dornoch; Helmsdale; Muir of Ord; Invergordon; Spean Bridge, Roy Bridge and Achnacarry; Cromarty; Carrbridge; Dulnain Bridge; Laggan; Kilmuir and Logie Easter and; Strathglass.

Source: BiGGAR Economics analysis. This table is based on the most up to date information at the time of writing. It allocates funds to community council areas using information published in fund documents. Some funds could not be allocated in this way. Notably, contributions to Sutherland and Edinbane are excluded and funds allocated to Soirbheas and Boulfruich are recorded under the Beauly CC Area.

In Moray, community benefit funding is available to nine out of 20 community council areas. Table 3-2 provides a breakdown of this. As already stated however, eligibility will not necessarily equate to the level of funding received.

Table 3-2 Eligible Community Councils - Moray

Funds	Eligible Community Councils – Moray
2	Finderne; Keith and; Strathisla
1	Forres; Findhorn & Kinloss; Dyke Landward; Speyside and; Dufftown & District and Glenlivet.

Source: BiGGAR Economics analysis. This table is based on the most up to date information at the time of writing. Funds that could not be matched to community council areas included those from Rothes Wind (Cairn Uish), and some from Berry Burn, Dorenell and Hill of Towie wind farms, whiche have been excluded

3.4 Impact of Community Benefit Funds

The monetary value of community benefit funds provides an indication of the potential scale of benefits they can generate but is not in itself a measure of impact. The impact of these funds is primarily a function of how they are used.

Community benefit funds are used to support a wide range of local priorities and are typically focused on generating societal rather than economic benefits. A detailed analysis of the social value created by these funds is outwith the scope of this research but evidence from the charities sector can be used to provide an indication of the economic value they generate[14].

3.4.1 Economic Impact of Community Benefit Funds

Statistics from the Office of the Scottish Charity Regulator show that from a combined income of £14.8 billion charities in Scotland support 209,601 paid staff[15]. Pro Bono Economics estimate that from a combined income of £77 billion UK based charities contribute between £17 and £200 billion[16] to the UK economy.

Applying these ratios to the annual value of community benefit funding estimated above suggests community benefit funds generate a GVA equivalent to between £1.9 million/year and £22.5 million million/year support around 125 jobs.

It is not possible within the scope of this research to estimate exactly where in this range this impact may lie, however, there is good reason to believe it may be toward the higher end. This is because many communities use community benefit funds to leverage additional income from other sources so the amount spent by communities on projects, and the economic benefits arising, will be higher than estimated above.

The leverage ratio for the funds described in this section is not known but the average leverage ratio of wind farm projects supported by SSE Renewables in the Highlands[17] is 3.9 while one experienced community organisation consulted for this exercise is achieving a ratio of £10/£1.

The second reason why the economic benefits arising from community benefit arrangements may be toward the higher end of the spectrum is that the value of

[14]Although community benefit funding is not charitable it is analogous to charitable income because it is used to achieve societal objectives.

[15] Office of the Scottish Charity Regulator (2023), Sector Overview Report.

[16] Pro Bono Economics (2020), Undervalued and overlooked? The need for better understanding civil society's contribution to the UK economy.

[17] BiGGAR Economics analysis based on SSE Renewables Community Investment Review 2021/22

community benefit funds only reflects a proportion of the total value of community benefit packages. A description of some of the wider community benefits often associated with wind farms is provided in section 3.4.

3.5 Other benefits

Community benefit funds are an important part of the overall benefit onshore renewable developments generate for communities – but they are not the whole story. Over the last 20 years as experience of delivering projects and understanding of community priorities has grown a plethora of different mechanisms for delivering community benefit have evolved. These types of projects benefit rural communities by providing bespoke local solutions to important social challenges. These approaches include (but are not limited to):

- provisions for shared equity arrangements;
- support provided for housing and social infrastructure;
- local electricity discounts and other direct financial benefits for residents; and
- the provision of recreational infrastructure during the construction period.

It is important that all these benefits are taken into account in any discussion about the overall contribution of the sector to host communities.

3.5.1 Community Ownership

Community ownership offers are usually made in addition to any community benefit funding offer, with communities typically offered a small share at no cost and (often) the opportunity to acquire a larger stake at a discounted rate.

The main advantage of this approach for communities is that it can provide a secure source of income and greater financial independence. This can be beneficial for communities in terms of enhanced financial resilience, and for individuals who may experience an increased sense of agency over decisions that affect them.

3.5.2 Recreational Infrastructure

The development of any new wind farm will involve the creation of access tracks and potentially other access infrastructure (e.g. parking spaces). In many projects this infrastructure has been used to enable local access to the site for recreational purposes. This can generate health and wellbeing benefits for individuals who access the site and economic benefits for local businesses if steps are taken to promote the site as part of the local tourism offer.

3.5.3 Local Electricity Discounts

As the rollout of renewables has progressed and infrastructure has become increasingly visible, questions about the extent to which local communities benefit have inevitably increased. Feedback from some developers and community groups suggests that this has resulted in an increasing expectation that those living near wind farms should directly benefit from electricity generation.

One way this has been achieved is through the creation of local energy discount schemes, which provide discounted electricity to people living within a specified distance of a development.

3.5.4 Affordable Housing and Social Infrastructure

Scotland's shortage of affordable housing and the challenges facing health and social care services have been well documented. In some places community benefit funds from wind farms have been used to help deliver the capital investment needed to address these challenges. This has been achieved in a variety of ways some examples of which are provided in Section 5.

3.6 Summary

The practice of wind farms providing community benefit funds for host communities is now widely established. Increasingly many developers are also starting to over other benefits alongside or instead of traditional community benefit funds. In 2023 it was estimated that the total value of community benefit funds amounted to around £8.7 million across the north of Scotland.

The primary purpose of these funds is to help communities address important societal priorities affecting their area. However, this chapter has shown that in doing so they also generate significant economic impact. It is therefore important community benefits are considered alongside the other benefits from onshore renewables when thinking about how net economic impacts can be maximised.

4. Current Practice

The impact of onshore renewable energy projects in the North of Scotland is being maximised *within the constraints of the current system* but there is scope to improve how this system operates, which would increase future impacts.

This chapter draws on evidence from the consultation programme undertaken to support this research and the results of the analysis presented in Sections 3 and 4. Current practice was reviewed against good practice principles and some insight is provided into the ambition to address broader regional development challenges.

4.1 Good Practice Principles

Scottish Government guidance[18] on good practice in relation to community benefits from onshore wind projects encourages wind farm developers to provide community benefit funding equivalent to £5,000 per installed MW per year (index linked). It also outlines six principles to help guide the negotiation, administration, and use of funds.

While this guidance is and has always been voluntary, it is widely recognised across industry and amongst community groups as the accepted standard of good practice.

[18] Scottish Government (May 2019), Community Benefits from Onshore Renewable Energy Developments

4.1.1 Fund Value

In mid-2023, 80% of operational wind farms in Moray had an associated community benefit fund and the average value of funding provided was £2,380/ MW/year. In the Highlands 88% of sites were associated with a fund, but at nearly £2,940 per MW, the average value was significantly higher.

Although these figures fall short of the £5,000/MW recommended in the good practice guidance, many of the developments to which they relate were constructed before 2014 when this figure became established good practice. There is good evidence that average values have increased since then.

At the time of writing there were six new wind farms being planned in Moray. All of these projects were associated with a community development fund and commitments to four of these funds amounted to £5,000/MW. In the highlands the developers of 90% of planned wind farms have expressed an intention to establish a community benefit fund worth at least £5,000 per MW per year.

Overall the average value of planned community benefit funds across both areas is expected to be around £4,800/MW, very close to the £5,000/MW recommended in the good practice guidance.

Table 4-1 Analysis of Current and Expected Community Benefit Funds

Profile of Funds	Moray	Highland
Average value of operational community benefit funds	£2,380	£2,940
% operational sites providing £5,000/MW+	20%	20%
Average value of planned community benefit funds	£4,800	£4,800
% of planned sites proposing £5,000/MW+	67%	90%

Source: BiGGAR Economics analysis

The Government's good practice guidance also specifies six principles it expects to underpin community benefit arrangements. These are subjective but it is possible to obtain a general sense of current practice based on the experience of those involved.

4.1.2 General Principals: Flexibility

Those consulted believed that flexibility is important for securing effective and appropriate arrangements. There was also some evidence to suggest that there has been a gradual move toward greater flexibility over time as developers and communities have learned from experience and developed new approaches.

According to input from community stakeholders, developers typically take a flexible approach with local communities to collaboratively shape community benefit funds. This enables funds to be tailored to meet specific community needs. Noteworthy adaptations involve the direct funding of projects identified by the community. This approach adds a dynamic element to the nature and extent of benefits offered, making it easier to develop a community benefit package suitable to their needs.

Developers also noted there has been a general shift away from standardised approaches in favour of more bespoke solutions. This trend is reflected in BiGGAR Economics' wider project experience, in which bespoke benefit packages tailored to the individual needs of communities are becoming more common.

4.1.3 General Principals: Transparency

The good practice guidance places a joint onus on developers and communities to register information about community benefit arrangements19 in the Register of Community benefits. Consultations undertaken to support this study suggest that transparency and the opportunity to learn from experience elsewhere are regarded as extremely important.

Despite this, the Register only currently contains information on 53 of the 70 operational wind farms in Moray and Highland, suggesting there may be room for improvement in this area. The development of the Community Benefit Register envisaged as part of the onshore wind sector deal could help to address this.

4.1.4 General Principals: Fairness and Trust

An important factor influencing how developers are perceived by communities appears to be the approach to and timing of community engagement. Community stakeholders expressed a clear preference for open and early engagement and suggested that good relationships are built early in a project. It was suggested that a commitment to an agreement of a memorandum of understanding between developers and communities before a planning application is lodged is particularly useful in building relationships. This is consistent with research[20], which shows that early engagement in land-use planning decisions can bring multiple benefits to all involved, including building trust.

Consultation with community representatives suggests there is a high degree of variation in the approach taken to engagement by different developers. While some

[19] Scottish Government (2019), Good Practice Principles for Community benefits from Onshore Renewable Energy Developments, page 11

[20] Wright N and Tolson N (2020), The Value of Early Engagement in Planning, commissioned research by the Scottish Land Commission.

are highly regarded and trusted by communities, others are regarded as less trustworthy and/or more reluctant to engage. To some extent this is likely to reflect an understandable caution from developers about investing time and money in building relationships to support projects that may ultimately not proceed.

A high-quality relationship is however never one sided. Both developers and community representatives recognised the important role communities can play in securing successful outcomes by engaging proactively with developers to help them understand local aspirations. This kind of engagement can be extremely important for helping build developer confidence that contributions will be well used.

This suggests there is scope for improvement in this area and a clear rationale for focusing on building community and developer capacity for early engagement. One of the ways this could be achieved is by encouraging communities to work together to share knowledge and experience of engagement strategies and best practices.

4.1.5 General Principals: Community Action Plans

A planned approach appears to be crucial for maximising impact. It enables purposeful investment in projects that address immediate needs and contribute to long-term sustainability. A planned approach requires foresight, collaboration, and a clear understanding of short-term requirements and long-term aspirations.

Community development plans, notably Local Place Plans, represent a practical realisation of a strategic approach in action. These plans serve as comprehensive roadmaps that outline specific goals, priorities, and actionable steps to enhance community wellbeing. They can provide a structured framework for implementing purposeful investment in various aspects of community life, such as infrastructure, education, and healthcare.

Several communities are now embarking on a planned approach with some stakeholders, including community representatives, suggested that allocating a proportion of funds for the joint use of groups of community councils would increase community capacity for planning and help to align strategic and local priorities.

Live Life Morvern demonstrates what is possible and provides an exemplary planning process which other communities could learn from.

Live Life Morvern

Shared priorities and a clear action plan are vital for effective delivery.

Morvern Community Trust (MCT) was founded in 2009 and is responsible for distribution of community benefit funding in the Morvern Community Council area. In collaboration with the council and MCT, Morvern Community Development Company (MCDC) shares a commitment to advancing community development through renewable initiatives. MCDC manages a community-owned hydropower scheme through their subsidiary, MorVolts, ensuring profits are reinvested in the community.

In 2020, MCT, MCDC and the council created the Live Life Morvern: Community Vision and Action Plan. Designed to guide the investment decisions and priorities of MCT, the plan outlines the long-term vision of the community for the next decade.

The plan has helped bring together multiple community interests and is now being actively used to guide investment decisions from community benefit funding. The plan has also been instrumental in helping build developer confidence that funding will be well used, helping to cement a productive and effective working relationship.

4.1.6 General Principals: Local Decision Making

Of all the good practice principles considered in this Section, local decision making was the one that appears to be most widely adhered to. While governance structures and decision-making processes varied between funds, the principle that these should be determined by residents appeared to be universal. This sentiment was shared by both community bodies and developers.

The establishment of local governance structures plays a crucial role in facilitating local decision making. Through these structures, community members can identify key areas of priority where community benefit funding would yield the most benefit driving development in the unique context and aspirations of the community.

While there are several examples of national bodies supporting communities to set up and administer funds, the research found no evidence of funding decisions being unduly influenced by external partners.

4.1.7 General Principals: A Lasting Legacy

The final principle in the Government's good practice guidance is that projects should generate a lasting legacy. The voluntary-led nature of community benefit arrangements introduces inconsistencies in the governance of community funds, directly influencing the funding's effectiveness. Some areas struggle with a shortage of community capacity, skills, knowledge, and resources. As a result, some communities have not yet been able to generate significant and long-lasting benefits from the funding.

While some areas have struggled to develop projects that will deliver a legacy for their area, there are communities that have effectively navigated these issues. Feedback from stakeholders suggests communities that have a dedicated project development officer role and/or are well connected with external organisations tend to develop more ambitious projects such as improved infrastructure, housing, and upgraded cultural venues. The examples highlighted by stakeholders include:

- In Dufftown, community benefit funds were used to pay for a local housing need and demand assessment, which has provided the justification needed to stimulate public investment in a major affordable housing development.
- In Forres, community benefit funding has been instrumental in leveraging in the additional funding needed to finance the acquisition of the former Leanchoil Hospital site.
- Strathdearn Community Developments capitalised future community benefit funding by drawing down agreed contributions early and combining them to help fund a large-scale capital investment.
- Tomintoul, although outwith the specified area of community benefit, is benefitting from a 10 year interest free loan for an affordable housing project.

Recognising and replicating these success stories can serve as a blueprint for enhancing the overall impact of community benefit funding in the future.

One innovative model that is being used to achieve a lasting legacy in Moray is the community benefit cooperative model Community Energy Moray (CEM). It was formed in response to EDF Renewables offering, through Force9 Energy, the opportunity for the community to invest in the Clash Gour wind farm. It is hoped similar agreements can be negotiated with other developers in due course.

Negotiations are still underway, but it is expected that CEM will open a share offer in 2024 for individuals and groups both within and outwith the local areas to invest.

Through share offers they hope to generate both a return for the investors and a surplus that can then be used for various forms of community benefit in Moray plus three community councils in Nairnshire.

4.2 Regional Priorities

Maintaining the link between community benefit and local host communities is important but there is a growing sense of unease in some quarters about the extent to which the wider region benefits. Aspirations for community benefit funding revolve around adopting a strategic approach that balances immediate local needs with broader regional development.

One way of addressing this is identifying models capable of generating both local and regional benefit simultaneously. One example provided by Strathdearn Community Developments is using community benefit funding from Tom na Clach Windfarm to provide membership of a local leisure provider for the community. In this example everyone in the local community receives a direct benefit with clear financial value, residents of the wider area benefit from enhanced financial sustainability of local leisure assets and the local authority benefits because of the reduced level of subsidy required to keep local leisure assets open.

Trusted third sector organisations are also well placed to deliver strategic projects that are beyond the capacity of most community organisations. They can provide technical knowledge and governance capacity to support communities to deliver otherwise ambitions projects, thereby enhancing the overall effectiveness of funds and contributing to strategic services and infrastructure.

The Highland Hospice is a good example of how this has worked in practice (see case study overleaf).

Highland Hospice

Using community benefit funding to improve service delivery and help meet regional strategic priorities.

Highland Hospice is a third sector organisation committed to improving the quality of end-of-life care in the Highlands through a range of health services, including inpatient, community services, and education. With a team of 200 staff and 600 volunteers, the organisation has a significant presence in the region.

As part of their service delivery, Highland Hospice collaborates with various community-based organisations. Through these partnerships, the organisation has successfully accessed community benefit funding from nearby wind farms. This funding has enabled the organisation to work in partnership with communities to provide staff with electric cars for delivering home care services in remote areas.

By supplying electric cars, Highland Hospice has enhanced the efficiency of service delivery and the alleviated the burden on staff who previously had to use their own vehicles and cover travels costs. It has also addressed a problem common throughout the Highlands in recruiting and retaining care at home staff, by making the job more attractive and demonstrating the value of the service.

This case highlights the potential impact of anchor organisations, such as Highland Hospice, in supporting communities to deliver services.

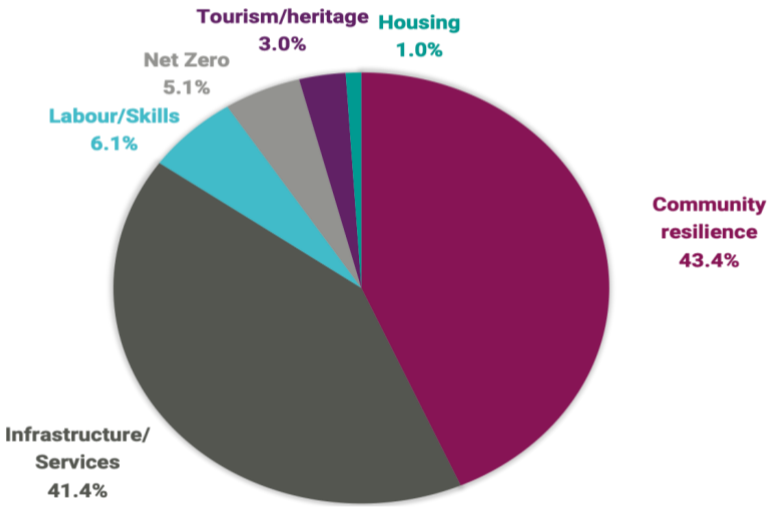
A comprehensive evaluation of all the projects supported by community benefit funds in Moray and Highland over the past 20 years is outwith the scope of this project. However, a useful sample was obtained from the annual impact statements published by SSE renewables. While these projects only relate to one developer, they provide a helpful snapshot of practice across the region.

In 2022/23 SSE Renewables reported[21] on 228 projects from 12 funds (11 in Highland) accounting for just over £5 million investment. The impact of these projects was analysed in relation to the following important regional priorities[22]:

- **Labour market improvements** – talent attraction, job matching, business diversification, skills and supply chain development;
- **Housing** – improving the supply of affordable housing;
- **Community resilience** – improving connectivity and knowledge exchange and developing projects to provide sustainable income streams;
- **Tourism** - Investment in strategic tourism infrastructure, including long distance cycling and walking network, visitor facilities, path development;
- **Infrastructure and connectivity** – improvements to transport infrastructure, social and elderly care, broadband and town centre regeneration; and
- **Transition to net-zero** – improving energy efficiency and tackling fuel poverty.

Figure 4-1 shows that 85% of projects related to community resilience or infrastructure and services. Renovation of community halls or contributions to the cost of local services or activities were categorised as Infrastructure/Services, development officers or support for delivering community plans were categorised as Community Resilience and heritage projects were categorised as Tourism.

Figure 4-1 Spend on Projects by Strategic Theme



Source: BiGGAR Economics analysis of SSE Renewables projects

[21] SSE Renewables, Community Investment Review 2022/23

[22] Priorities identified from analysis of various local and regional economic development plans/strategies.

Although this analysis only provides a snapshot of project delivery it shows many communities have chosen to prioritise supporting local activities and improving the fabric of community facilities over supporting housing projects or projects to develop the labour force or support net zero ambitions. This tends to support the suggestion that strategic/legacy projects are not the top priority for most communities. This is unlikely to be simply a function of community choice and capacity, but also the result of factors such project eligibility criteria.

4.3 Good practice from the developer's perspective

Whilst this Section has focussed on good practice around the negotiation, governance and impact of community benefit packages developed between developers and communities, it is important to remember that most benefits from wind farms come from the construction, maintenance and operation of projects. Developers' commitment to local economic development is detailed in the 2023 Sector Deal and their future behaviour can be gauged against these commitments.

For the reasons discussed in Section 3, making best use of local labour and supplies is in the interests of developers, not simply because they have signed up to the Sector Deal but, because it is often both cheaper and more convenient.

Consultation with industry undertaken as part of this research confirms that wind farm developers and companies engaged in operations and maintenance of assets do generally prefer to make use of local suppliers and to employ local people where possible. While this commitment is not always formalised in corporate policy, it is often deeply embedded in company culture. As a consultee from one important supplier commented *"it's just the way we work"*.

5. Future Benefits

By 2030 onshore wind farms in the north of Scotland could be providing almost £22 million/year in community benefit, generating £61 million GVA/year from operations and supporting up to 760 jobs.

Onshore renewable developments already make a substantial economic contribution to the north of Scotland, but this is not static. Achieving Scotland's target of 20 GW of installed onshore wind capacity by 2030[23] will require a significant acceleration in deployment. This chapter considers the future economic benefits of this increase.

5.1 Approach

The future contribution onshore renewables will make to the region's economy will include: the impact of operational sites over their remaining operational life and the impact of new, expanded and repowered sites. This chapter considers both.

To estimate the potential impact of future sites (and existing sites after the completion of their current operational life) it was first necessary to identify how much new capacity will be needed in the region to achieve the 2030 target.

In mid-2023 Highland and Moray accounted for 24% and 6% of existing capacity respectively. Assuming these proportions remain constant then total installed capacity across the region will need to increase by 3.3 GW (2.6 GW in Highland and 0.6 MW in Moray) to meet the 2030 target.

This capacity could be delivered by developing new sites or by extending or repowering existing ones. Given the time required to take new developments through the consenting process it is likely that any new capacity that could realistically be expected to be operational by 2030 would already be being planned in 2023/24. This analysis therefore only includes proposed sites that were in the planning system in 2023.

[23] Onshore wind: policy statement 2022.

5.2 Community Benefit

The future value of community benefit funding available in the north of Scotland will consist of future funding from operational, planned and repowered sites.

5.2.1 Future Value of Benefits from Operational Sites

In 2023 there were 70 operational wind farms in the north of Scotland (10 in Moray and 60 in Highland). These sites were generating £8.7 million/year in community benefit funding for local communities (£1.3 million in Moray and £7.3 million in Highland). It was assumed that wind farms typically have a 30 year lifespan.

In Moray the peak of community benefit contributions from these sites was reached in 2018, with a gradual decrease anticipated from around 2035 as the earliest wind farms approach the end of their operational life. By the time the wind farms active in 2023 have all ceased operations, the total contribution to Moray communities is expected to exceed £40.7 million.

The peak of community benefit funding from existing sites in the Highlands is believed to have been reached in 2023, with a decline expected to begin in 2028. By the time the wind farms active in 2023 have all ceased operations, the total contribution to Highland communities is expected to be £230.2 million.

5.2.2 Planned Capacity

At the time of writing 71 new onshore wind projects were at various stages of the planning process in the north of Scotland. Not all these sites will proceed as some permissions will have been secured before 2020 and pertain to turbines that are no longer commercially viable or available on the market. After excluding these sites, it was estimated that 46 new sites might progress to operations between 2023 and 2030 (six in Moray and 40 in Highland).

It was possible to identify an explicit commitment to provide a community benefit fund for all the Moray sites and 36 of the sites in Highland, giving an average value of £4,800/MW for both areas.

If these sites are brought forward as planned then by 2030 the total installed capacity across the region is expected to amount to 5.5 GW (1.2 GW in Moray and 4.3 GW in Highland). This would be slightly higher than the level required to maintain Moray's current share of national capacity of 6% and a little less than required to maintain Highland's 24% share.

Based on publicly available information about the timescales and expected operational life of these developments, it was estimated that at the peak of operations these sites will be generating a total of £12.6 million per year for communities in the north of Scotland (£2.9 million per year in Moray and £9.8 million in Highland). Over the course of their operational life the cumulative value of funding generated by these sites is expected to amount to £373.8 million across the region (£84.8 million in Moray and £289 million in Highland).

5.2.3 Repowered Sites

The operational life span of a typical wind farm is around 30 years. After this time sites can be repowered. Sites that are repowered will continue to generate economic impact and may also continue to contribute to community benefit arrangements.

To estimate the scale of this opportunity it was assumed that.

- operational sites will be repowered once they complete their 30-year lifespan;
- all repowered sites will offer at least £5,000/MW per year (index linked); and
- repowered sites will consist of a smaller number of larger turbines, consistent with recent practice.

Using these assumptions, it was estimated that by 2050 additional community benefit funding of more than £12 million/year could be available across the region, with £2.2 million in Moray and £9.8 million in Highland (Figure **5-1**).

5.2.4 Total Future Potential Community Benefit Funding

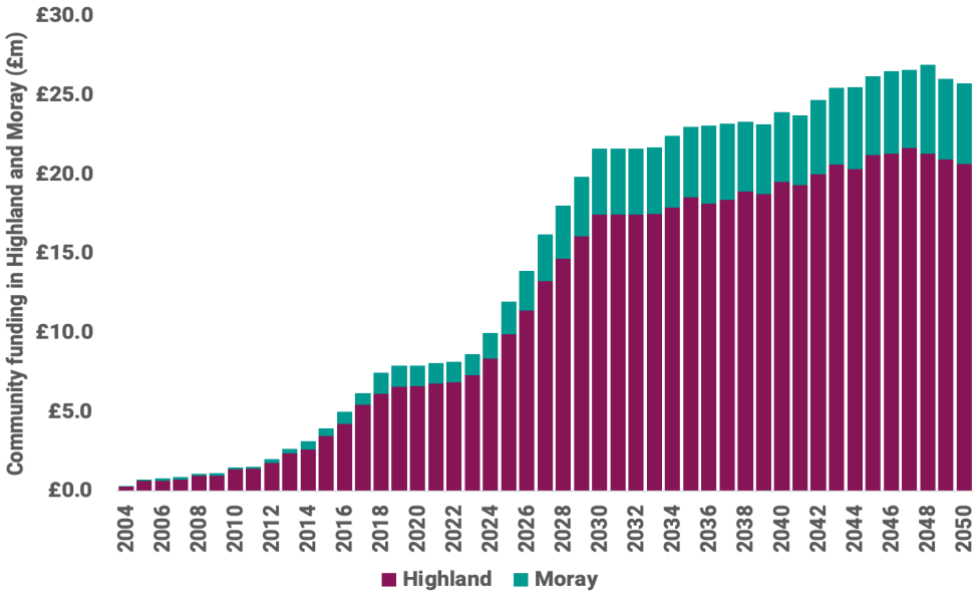
Across the north of Scotland the total community benefit funding that could be available from operational, planned, and repowered wind farm sites could be:

- £21.7 million per year in 2030, with a cumulative value of nearly £191.1 million by 2030. This is expected to include £4.2 million/year in Moray and £17.5 million in Highland with a cumulative value of £32.2 million in Moray and £158.9 million in Highland; and
- £25.8 million per year in 2050, with a cumulative value of up to £676.2 million by 2050. This is expected to include £5.1 million/year in Moray and 20.7 million in Highland with a cumulative value of £126.7 million in Moray and £549.4 million in Highland.

To help put this in context, the combined value of the Moray Growth Deal and the Inverness and Highland City-Region Deal amounts to around £415 over 10 years.

A profile of this expenditure is provided in Figure **5-1**

Figure 5-1 Profile of Potential Future Community Benefit Available



Source: BiGGAR Economics analysis

5.2.5 Distribution of Funding

Given the large area covered by the Highland Council Table 5-1 provides a breakdown of the proportion of funding that could be available in each of Council's 11 area committees. This provides a picture of the geographic distribution of future funding and shows a significant concentration in the north and east of the area.

Table 5-1 Distribution of Funding - Planned Wind Farms in Highland

Area Committee	Distribution	Area Committee	Distribution
City of Inverness	27.5%	Isle of Skye and Raasay	3.2%
Sutherland County	25.5%	Badenoch and Strathspey	2.1%
Caithness	18.1%	Nairnshire	2.1%
Lochaber	8.3%	Black Isle	0.0%
Easter Ross	7.2%	Dingwall and Seaforth	0.0%
Wester Ross, Strathpeffer and Lochalsh	6.0%		

Source: BiGGAR Economics Analysis.

5.3 Future Economic Benefits

The future economic impact of wind farms in the north of Scotland will include the construction impact of any new or repowered sites, the operational impact of these sites once complete and the ongoing operational impacts of existing sites. All these impacts are estimated below. The impact of planned and repowered sites is based on the assumptions about future capacity described elsewhere in this chapter.

It is important to note that this analysis is based on the percentages of current local content and this could go up or down in the future. Strategic interventions have the potential to influence the amount of local content and hence the economic impact. Interventions might, for example, include supporting local businesses and skills development, this is discussed further in Section 6.

5.3.1 Construction and Development of New Sites

It was estimated that the total expenditure associated with developing and building the new wind farms planned for the region will be around £3 billion, of which £2.4 billion will be in Highland and £662 million in Moray. Based on the share of contracts discussed in Sections 2.2 it was estimated that Highland could secure £669 million worth of contracts (£89 million per year) and Moray could secure £85 million (£11 million per year), with the greatest opportunities in balance of plant.

Using the method described in chapter 2 it was estimated that this could support £468 million GVA and 9,040 years of employment in Highland, with an average annual economic impact of £63 million GVA and 1,200 jobs.

In Moray, it was estimated the impact could be £56 million GVA and 1,110 years of employment, with an average annual impact of £7 million GVA and 140 jobs.

5.3.2 Operations and Maintenance of New Sites

These wind farms would also generate an economic impact once operational.

It was estimated that average annual expenditure would be £114 million. By applying the assumptions about share of spend in Section 2.3, it was estimated that £33 million could be secured in Highland and £4 million could be secured in Moray.

Using the method described in chapter 2, it was estimated this could support £24 million GVA and 300 jobs in Highland and £3 million GVA and 40 jobs in Moray.

When combined with the operational spend of existing wind farms, it was estimated that this impact could increase to £54 million GVA and 670 jobs in Highland, and £7 million GVA and 80 jobs in Moray.

Similarly, the payment of rents to landlords associated with these wind farms is expected to be around £15 million in Highland and £4 million in Moray. Combined with existing wind farms, rents paid in Highland would amount to £43 million and in Moray would be £11 million.

5.3.3 Impact of Repowered Sites

In addition to the proposed new wind farms up to 2030, a number of older wind farms are expected to be repowered with new, higher capacity turbines. This represents an additional opportunity for Moray and Highland.

Though any repowering will be subject to design decisions and go through the normal planning process, high level modelling suggests that replacing existing wind farms with 6MW turbines could result in 4.5GW of capacity in Highland and 1.2GW of capacity in Moray.

These would be expected to generate additional investment of around £43.3 billion in Highland and £0.9 billion in Moray. This would represent around £0.8 billion of balance of contracts, which these areas are well-placed to secure.

It was estimated that this could support £489 million GVA and 9,650 years of employment in Highland, and £56 million GVA and 1,140 years of employment in Moray.

5.3.4 Summary

There is significant opportunity for onshore wind to generate additional economic impacts in the future.

When these impacts are considered up to 2050, it is estimated that onshore wind could support an additional £1.7 billion GVA by 2050, with an annual average impact over this period of £62 million GVA and 1,050 jobs, based on sites that are likely to receive planning permission or be repowered. This does not include additional capacity that may be delivered beyond 2030.

This suggests that there is significant additional scope for onshore wind to continue making an economic contribution to Highland and Moray.

Table 5-2 Future Economic Impact, up to 2050

	Annual Average	Cumulative
GVA (£m)		
Development and Construction of New Sites*	70	524
Operation of New Sites	24	644
Repowering Sites	19	545
Annual Average	**62**	**1,713**
Employment		
Development and Construction of New Sites*	1,340	10,150
Operation of New Sites	300	8,080
Repowering Sites	390	10,790
Annual Average	**1,050**	**29,010**

Source: BiGGAR Economics Analysis. *Up to 2030 – note that for the total figure this has been averaged to 2050. Therefore, the total average annual impact does not sum.

5.4 Other Developments

This report has focused on onshore wind development, however various other energy developments that are proposed in the North of Scotland, which are expected to generate significant economic benefits and have the potential to contribute to community benefit funds. It is outwith the scope of this research to consider these developments in full, but they are described briefly below for completeness.

5.4.1 Pumped Storage Hydro

A number of proposals exist to develop pumped storage hydro schemes in Highland. These have the potential to generate significant economic impacts.

A report by BiGGAR Economics [24], considered the potential economic impact associated with these projects. It considered two schemes proposed for the Highlands: Coire Glas, near Loch Lochy and Red John, to the east of Loch Ness.

[24] BiGGAR Economics (2023), The Economic Impact of Pumped Storage Hydro

The report estimated that these projects could have a combined economic impact of between £293 and £407 million GVA and support an average of between 700 and 1,000 jobs.

Both of these developments would require regulatory changes to proceed but should these changes happen the economic impact for the region could be substantial.

5.4.2 Offshore Wind

As well as the growing onshore wind sector in the Highland and Moray, there is a growing offshore wind industry in the North of Scotland.

There have already been a small number of offshore wind farms built off the coast of Highland and Moray, including Beatrice Offshore Wind Farm, Moray East and Moray West Offshore Wind Farm. These projects have created economic impacts in Moray and Highland, particularly for port infrastructure, with the £2.5 billion Beatrice Offshore Wind Farm representing the largest single investment in Scottish history.

As well as development and construction impacts there are expected to be operational impacts centred on ports. For example, Beatrice Offshore Wind Farm created around 90 jobs in Wick, the nearest harbour, which are expected to endure for its 25 year operational lifespan. Similarly, Moray West is expected to support around 60 staff members in Buckie.

Over the coming decades significant increase in offshore wind capacity is expected to be developed as a result of the ScotWind leasing round where parts of Scottish waters are rented to developers. This is expected to add up to 28GW of offshore wind capacity.

The main ScotWind opportunities in the North of Scotland are likely to relate to the manufacturing of offshore wind turbine floating bases, which are expected to be concentrated around Inverness and Cromarty Firth Green Freeport. This is expected to result in billions of pounds worth of contracts and create hundreds or thousands of jobs.

In addition, there will be opportunities for ports to act as operations and maintenance bases, creating long-term employment in Moray and Highland.

5.4.3 Transmission Infrastructure

The increasing generation capacity in the north of Scotland and the surrounding coast line, will require increased transmission infrastructure to transport electricity to consumers. SSEN has published details of the new infrastructure required have been published as part of its Pathway to 2030.

This is expected to generate investment of £9.4 billion (of which Scottish firms could secure around £3.7 billion), generate economic impact of £2.6 billion GVA and support 40,410 years of employment[25].

Scottish companies, including those located in Highland and Moray, are expected to secure contracts related to construction and installation of overhead lines, including pylon foundations, underground cabling and substations.

5.4.4 Community Benefits from Transmission Infrastructure

At present there is no guidance in place on the provision of community benefit relating to transmission infrastructure, however in 2023 the UK Government published the findings of a consultation on this. The government has indicated it is minded to support a combination of electricity bill discounts and wider community benefits in a mandatory scheme. Although this scheme is still at the design stage, the government noted that they currently aim to consider the following package:

- an **electricity discount** for properties located close to the transmission network infrastructure: up to £10,000 per property (£1,000 annually for 10 years); and
- a **wider benefit** for the local community of around £200,000 per km for overhead lines, £40,000 per km for underground cables, and £200,000 per substation.

Figure 5-2 Pathway to 2030 Projects

Source: Scottish and Southern Electricity Networks (2023), Pathway to 2030.

[25] BiGGAR Economics (2023), Economic Impact of the SSENT Pathway 2030 Investment Programme

By applying the indicative funding levels to information published about the nature and extent of infrastructure required in the Highlands the Highland Council estimated that the total community benefit funding that could be available from these projects could be in the range of £45.7 and £73.1 million. Applying the same approach to developments in Moray suggests additional community benefit funding of at least £18.2 million could become available.

The above are estimates based on the recent policy discussions. The actual amount of funding available will depend on requirements outlined by the UK Government. However, these estimates shed light on the large scale of opportunity for community benefit funding from energy developments other than the onshore wind farms.

6. Maximising Impact

Maximising the impact of renewables requires rapid deployment, high supply chain content, bespoke support for skills development, fair community investment and a holistic and innovative approach.

Analysis in Sections 4 and 5 shows that onshore wind development in Moray and Highland provides significant opportunities for maximising local economic benefits. Whether this is realised will depend on the actions of communities, developers and the public sector. This study indicates the aspirations of developers, communities and local authorities are generally well-aligned when it comes to maximising local benefits. To achieve this, it is important that maximising economic benefits from developments and community benefit packages are not considered in isolation.

Consultation with industry, public sector and community stakeholders suggests that maximising impact will require:

- **rapid deployment** of the projects needed to deliver Scotland's 20MW target of 20MW installed capacity by 2030;
- **high local content of the supply chain**;
- **bespoke opportunities for local employment and skills development** that reflect the characteristics of the local labour market;
- **fair contributions to the cost of 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 improvement.

6.1 Rapid Deployment

The growing threat of catastrophic climate change means transitioning the economy to renewable energy has become an economic imperative. If this imperative is not met there will be no economy, and questions about how to maximise economic impact will become irrelevant.

The Scottish Government expects onshore renewables to play an important role in Scotland's transition to net-zero and has established a target[26] of deploying 20GW of onshore wind by 2030. Taking all reasonable steps to achieve this target is an essential pre-condition for maximising the economic impact of deployment.

Renewable energy projects only start generating economic impact once they exist in the real world. Until then, benefits are purely theoretical. Ensuring the projects required to deliver Scotland's target of 20MW installed capacity proceed as rapidly as possible is therefore the single most important priority in any discussion about how to maximise economic impacts. Any action that impedes this would be inconsistent with the objective of maximising economic impact.

This has important implications for local government decision making, particularly in relation to planning and economic development.

6.1.1 The Need for a Collaborative Approach

Achieving the pace and scale of deployment needed to achieve the 20MW target will require collaborative action. This was explicitly acknowledged by the Scottish Government with the establishment of a strategic industry leadership group in 2022, tasked with identifying the action needed to deliver the target. The work of the group reached an important milestone in September 2023 with the publication of the onshore wind sector deal[27], which sets out the joint commitment of the Government and industry to achieving the target.

In effect the Deal is a statement of the collective view of Government and Industry on the steps that will be required to maximise the benefits of onshore development. It identifies multiple actions relating to supply chain development, training opportunities, community benefits and shared ownership arrangements and contains explicit commitments from government and the sector on delivery.

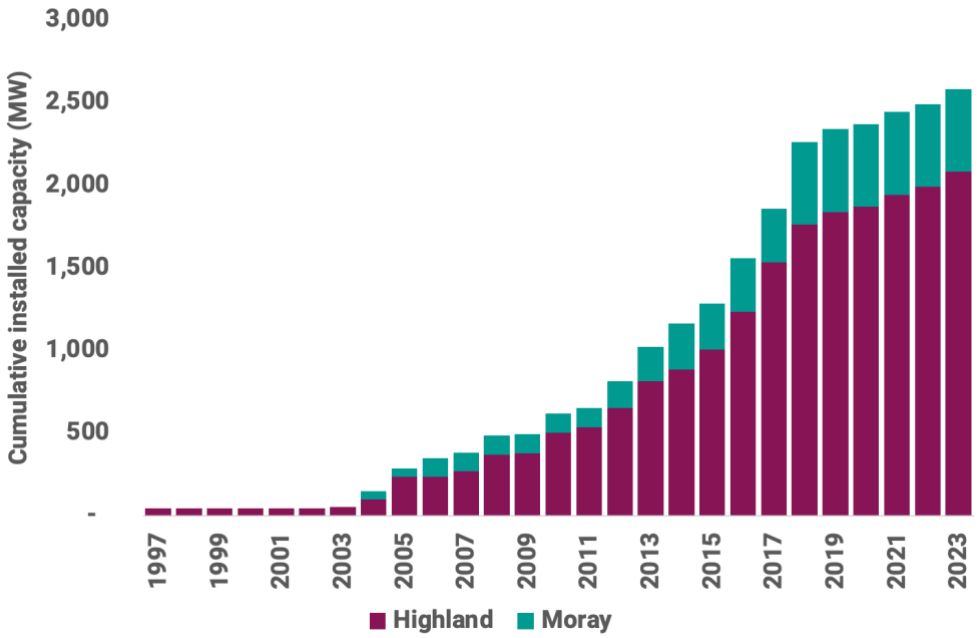
These commitments provide a useful framework for identifying the kinds of actions that might be reasonably be expected in relation to individual projects at a local level and have been used to inform the remainder of this chapter.

6.1.2 Opportunities to Increase Impact

Since around 2016 the sector has been growing rapidly, with installed capacity increasing by 63% between 2016 and 2023. However, realising the 20MW target will require a further acceleration in the growth rate if this position is to be maintained.

[26] Scottish Government (December 2022), Onshore Wind Policy Statement 2022
[27] Scottish Government (September 2023), Onshore Wind Sector Deal

Figure 6-1 Cumulative Installed Capacity (MW)



Source: Renewable Energy Planning Database – 2023

One of the factors influencing the speed of deployment at a national level has been a supportive planning environment. One of the most important ways local authorities can contribute to rapid deployment is therefore by translating this national intent into local planning policy.

Another important enabler of rapid deployment is enabling infrastructure such as the roads, ports and bridges used for transporting wind farm components or the supply of housing needed to enable necessary growth in the labour force needed to accelerate deployment. Local authorities have an important role to play in delivering this infrastructure, but they can only play this role if adequate funding is available.

Where improvements to infrastructure are related directly to a specific development funding can be secured directly from the developer involved via planning conditions. However more general infrastructure investment must be funded in some other way.

One way of doing this is through general taxation (non-domestic rates). Another option would be to seek voluntary contributions from developers toward specific infrastructure investment with sector wide benefits (see discussion at 6.4.2).

6.1.3 Non-Domestic Rates

Like most businesses, wind farms are subject to non-domestic rates (NDR). In principle this provides a stream of revenue to the public sector through that can be used to fund public services and investment in infrastructure.

In Scotland NDR payments are collected locally but pooled and distributed back to the local authorities by the Scottish Government[28]. There is therefore no direct, proportional relationship between NDRs collected from wind farm operators and the amount the local authorities receive.

Changing this could help local authorities play a more proactive role in investing in the infrastructure needed to grow the sector. This could be achieved by enabling local authorities to retain NDR contributions received from wind farm developments (as already happens in England). Achieving this would require the support of the Scottish Government and may be an objective worthy of a collaborative lobbying effort between the sector and local authorities.

6.2 High Local Supply Chain Content

The main driver of the economic activity (GVA) associated with renewable energy projects is the amount of money invested. As discussed in chapter 2, the more of this expenditure that can be secured by local businesses, the greater the economic impact will be. Maximising the value of local expenditure is therefore an important priority if the economic impact from these projects is to be maximised.

However, the maximum potential local content will vary from project to project, depending on site-specific factors such as location, topography, technical specifications and the capacity of local businesses to supply the goods and services required. Uncertainties around procurement, development timescales and detailed project specifications also make it impossible to accurately predict exactly how much local content a project will contain before development commences.

For these reasons it is not possible to provide a precise threshold above which local content could be judged to have been maximised. Even if this was possible, it would not be helpful because it could act as a constraint on future supply chain development. It would also be unnecessary because developers generally prefer to use local suppliers if possible as this is often cheaper and more convenient.

[28] Scottish Government (2023). Local government revenue.

There are steps developers can take during the procurement process to make it easier for local businesses to bid for and secure work on a project. Projects that maximise local economic benefits are likely to adhere to best practice in this regard.

The scale of local content will however ultimately depend on the capacity of the local supply chain to exploit opportunities. There are steps the public sector can take to support local supply chain development and taking these can help maximise the impact of the sector. Current levels of sector maturity mean such activity is likely to be most successful if focused on operations and maintenance capacity.

6.2.1 Opportunities to Increase Impact

Ambitions for 2030 mean that there will be increasing activity around onshore wind developments, both in construction and subsequently operations and maintenance. However, the scale of this opportunity is likely to be dwarfed by opportunities associated with the emerging offshore wind sector.

These opportunities are likely to be complementary so taking steps now to take advantage of known opportunities in the onshore sector could help to position the region well to maximise future opportunities in the offshore sector.

The consultation process undertaken to support this research identified several specific opportunities facing the region including:

- the amount of renewable development expected across Scotland over the coming decade is expected to require new **operation and maintenance hubs** to service installations. Consultation with industry suggests there may be an appetite for developing a hub in the north of Scotland.
- There are also likely to be opportunities to attract manufacturers to establish **local control bases** in the region to support the management of assets.
- Some turbine contractors have expressed a desire to expand the number of companies offering **assembly and testing services**, by helping new entrants build the experience required for larger contracts.
- Some operations and maintenance specialists are keen to shift to **smaller independent servicing contractors.** In time there may also be scope to expand asset management capability to battery storage and hydrogen generation.
- the increasing size of wind farm components will create new opportunities in **transportation and logistics**. This is expected to include demand at and around local ports for handling the delivery of components and opportunities to support onward transportation (e.g. support vehicles for road convoys).
- **highlighting the opportunities** and works required will help local companies (e.g. construction firms) identify opportunities and diversify in time.

The impact from future renewable development can only be maximised if local businesses have the capacity and capability to undertake the type of work required. While industry is best placed to advise on the nature and scale of requirements, the development of the local supply chain and skills base is not something over which it has any direct control. The extent to which this capacity is developed will therefore depend largely on how the public sector responds to these opportunities.

6.3 Bespoke Skills Development

As with supply chain expenditure, the more jobs that can be secured by local people the higher the local economic impact will be. Using local labour is also in the interests of the sector because local staff incur fewer out of pocket expenses, which helps reduce operating expenses. There is also increasing recognition that employee wellbeing and health and safety is higher when staff can sleep in their own beds.

However, the extent to which it is possible to make use of local labour depends entirely on the capacity of the local labour market. There must be enough people in the local area interested in doing the jobs required and they must either have the skills needed to perform the work or the capacity to develop them.

In many parts of the north of Scotland this can be a real challenge. In many areas (particularly the more remote, rural places favoured by wind farm developers) unemployment is very low and the working age population is small and often declining as young people leave to secure work elsewhere. Such circumstances can seriously constrain local recruitment efforts.

Support for skills development is an important weapon against this but can take many forms and the optimal mix of activity is likely to vary from project to project. In some areas apprenticeships will be a practical option, in others retraining for those with transferable skills or early engagement with schools may be more appropriate. What is important is that any support provided for local skills development reflects the distinct characteristics of the local labour market and has been developed in collaboration with local schools, colleges and training providers.

6.3.1 Opportunities to Increase Impact

The consultation programme undertaken to support this study identified several steps that could be taken to increase this impact including:

- communities could include a **local skills plan** within their community action plans/local place plans to enable developers to consider how they could support this (e.g. by including direct funding for local apprenticeships).

- local skills providers and economic development agencies could act as **supply chain facilitators** by 1) supporting small businesses in the region to address challenges around bureaucracy 2) promote supply chain opportunities and 3) support the formation of supply chain cooperatives.
- as lead educators Moray and Highland Councils along with UHI could create a **regional skills action plan** to ensure the local population has access to sector specific. This would require collaboration with investors in the on and offshore sectors. Skills academies could be a model for this.
- Support for operations and maintenance needs to be about building up skills, new skills, and bringing in people from other sectors. **Ex-services personnel** from Moray air bases have many of the skills required for these roles and specific retraining programmes may be an efficient way of harnessing them.

6.4 Fair Community Benefit Packages

The impact of community benefit packages is a function of both their financial value and how any funding is used. The most important factor when assessing financial value is that it is seen as fair by both parties.

As discussed in chapter 3, community benefit packages typically include a community benefit fund but may also include additional components such as a community ownership model or electricity discount scheme. It is important that all these elements are considered when calculating financial value.

To be regarded as fair by developers' community benefit packages must be affordable. For communities what is seen as "fair" will likely reflect local perceptions on whether the package of benefits offered will provide reasonable compensation for any inconvenience associated with the development.

What is affordable will depend on the operating profit of the development, which varies considerably between projects. What constitutes reasonable compensation will depend on the nature and extent of any adverse effects associated with the development. Both are project specific, making it necessary to determine what is "fair" on a project-by-project basis.

The most effective way of achieving this is through direct negotiation between the developer and host communities. Together these parties possess the necessary information to determine what is fair. Providing both parties are well informed about the potential options available and well matched in terms of negotiating skills, agreeing a package that maximises potential benefit should be achievable.

For this to work it is important both sides trust each other. This is likely to require a commitment to openness and transparency and a flexible approach from both sides.

Trust and transparency are identified as principles within Scottish Government's good practice guidance for the sector. The extent to which these principles have guided negotiations is therefore likely to be a good indicator of whether the value of a community benefit package has been maximised.

6.4.1 Opportunities to Increase Impact

The maximum potential value of a community benefit package will always be determined by site specific characteristics, however the consultation programme undertaken to support this exercise identified several steps that could be taken to increase the effectiveness with which these resources are used.

One of the most important of these steps is the provision of systemic support and guidance for communities. This would most usefully include support for negotiations with developers and opportunities for sharing good practice, networking and collaboration between communities. This type of support is available through Local Energy Scotland, but if benefits are to be maximised in the future it will be important that this is scaled up to accommodate the expected increase in deployment.

Other actions that could be taken to maximise the future impact of community benefit packages relate steps that could be taken to enable broader based collaboration in project development and delivery and facilitate more strategic/transformational projects by:

- providing location specific support for developing local place plans;
- encouraging new community benefit funds to include provision for core funding for a development officer role to support project development;
- encouraging new community benefit funds to allocate a proportion of funds for the joint use of groups of community councils to increase community capacity and better align strategic and local priorities;
- encourage early engagement and the agreement of a memorandum of understanding between developers and communities before planning application is lodged;
- remove restrictions to enable public bodies and local businesses to bid for project funding; and
- enable trusted third sector organisations to deliver specialist/larger projects.

6.4.2 Voluntary Contributions

Many operational wind farms in the north of Scotland were constructed before 2014, when the recommendation of £5,000/MW community benefit contribution came into effect. Some will now be generating strong profits but may not be contributing to a community benefit fund.

While such sites are under no obligation to contribute, those that are in a financial position to do so may be willing to consider doing so if it was clear that contributions would be used to deliver specific infrastructure investments that would have demonstrable benefits for the sector. Examples could include improvements to port related infrastructure or investment in accommodation for temporary workers.

There is some precedent for this. During Covid19 developers were quick to respond with a variety of funding programmes designed to provide direct support to those in need. To be effective however it would be vital that any contributions were sought on a strictly voluntary basis and tied directly to relevant infrastructure projects.

6.5 Evidence of Innovation

When the onshore wind sector started to emerge in the late 1990s community benefit arrangements were a novelty. More than two decades later the industry has acquired extensive experience and a deep understanding of how to go about creating community wealth and developed a plethora of models for doing this, including:

- **community ownership** arrangements that enable communities to acquire an equity stake in new developments either for free or at a reduced cost;
- arrangements to enable site infrastructure such as **access tracks** to be used for recreational purposes by residents and visitors;
- using community benefit funds as seed funding to enable **community-led housing** or other social infrastructure projects;
- providing **discounted electricity** or support for energy efficiency measures;
- providing non-cash benefits such as **health and fitness membership**; and
- providing funding to support **training and development** for residents.

For the most part these models have been driven by industry in response to feedback from communities. Some are now widespread, others designed to address specific local circumstances, all are manifestations of a deep commitment to innovation.

This innovation has been enabled by a relatively permissive regulatory regime. As with other types of innovation, advances could not have been planned for. Indeed, it is likely that attempts to do so would have stifled the creativity needed to drive them.

If the benefits of the sector are to be maximised in the future it is essential this process of continuing improvement continues. The price of this will be continuation of a flexible and light touch approach to regulation.

6.5.1 Opportunities to Increase Impact

To date uptake of **community ownership** offers has been limited, which may suggest the impact of this approach is not yet be being maximised. Feedback from developers and communities suggests an important reason for this is the challenge communities face in securing funding to acquire an initial equity stake.

Another important factor are the risks associated with such arrangements. For communities risks are mainly associated with the uncertainty of future returns while risks for developers are mainly associated with regulatory compliance. Addressing these challenges will be important if these benefits are to be maximised in future. One innovative model that could be used to achieve this is the BenCom model established by Community Energy Moray (see section 4.1.7).

Records about the number of sites where steps have been taken to encourage **recreational use of site infrastructure** are not readily available. BiGGAR Economics experience suggests the approach is not uncommon and is sometimes done well but is not yet widespread. The potential for recreational value will vary depending on site location so maximising these impacts will not necessarily require universal adoption of this approach, but there is likely to be scope for wider use.

Using community benefit funding to support **community-led housing development** is a relatively recent phenomenon so it is likely that there is scope for the approach to be more widely applied. To date no single model of best practice has emerged and it is likely that bespoke local solutions will continue to be important in the future.

Developers may be well placed to assist in this process both by providing funding to support projects but also by leveraging existing relationships with landowners to facilitate negotiations for sites and/or by providing expertise in site assembly to support project development.

The availability of **electricity discount schemes** is a relatively new phenomenon and details of the number of people benefiting are not readily available. However, consultation with industry suggests that a small number of developers are now offering this as a standard part of their community benefit offer. Some operators are also starting to collaborate to make this benefit more widely available, which suggests the impact of this approach is likely to increase in the future.

Providing **health and fitness memberships** for residents as part of a community benefit package is an innovative approach that has been used in at least once in the Highlands. As well as providing a direct benefit with clear financial value for residents, this approach also benefits residents of the wider area by supporting the financial sustainability of local leisure assets. Encouraging wider adoption of this type of approach could therefore be a good way of spreading the benefits from onshore renewables more widely.

6.6 Summary

This section has identified six criteria that would need to be met to maximise the benefits from onshore wind development:

- **rapid deployment** of the projects needed to deliver Scotland's 20MW target of 20MW installed capacity by 2030;
- **high local content of the supply chain**;
- **bespoke opportunities for local employment and skills development** that reflect the characteristics of the local labour market;
- **fair contributions to the cost of 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 improvement.

The first four of these criteria relate primarily to steps relating to project operations while the last two relate to steps relating to community benefit packages. In practice however both elements are complimentary with each having the potential to enhance the other. It is therefore important that they are not considered in isolation.

7. A New Approach

A holistic approach designed to meet the needs of all stakeholders and delivered through collaborative effort will ensure the future benefits from renewables are maximised. Community Wealth Building principles can provide a basis for this.

This study suggests that the aspirations of developers, communities and local authorities are aligned when it comes to maximising economic benefits. All stakeholders would like to see local businesses grow and new jobs brought to the area. Development supports public sector ambitions to grow the economy, communities benefit from the increased activity, and developers want to keep their costs down by using local suppliers and local labour as much as they can.

Developers also want their projects to progress easily, it therefore benefits them if they can work with the community and local authority to secure mutually beneficial outcomes. Communities are looking for projects that sustain them in the long term, the public sector would like to see more strategic projects, and developers want to see their contribution to community benefit packages help communities thrive and to be assured that their investment is making a difference.

Any new approach should therefore enable communities, developers and the public sector to work together for individual and collective benefit.

7.1 Voluntary Vs Compulsory Approaches

A defining feature of Scotland's approach to community benefit to date is that contributions made by developers are voluntary. While guidance suggests benefits should be provided at a rate of at least £5,000/MW, this is a recommendation and has no statutory force. In theory developers could choose to ignore it.

In practice developers generally do not behave this way. The evidence presented in this report suggests the voluntary approach is working. This conclusion appears to be consistent with the view of the Scottish Government, which has so far shown no inclination to introduce a compulsory approach.

However (putting aside questions of legality, which are outwith the remit of this report) it would be possible to design a compulsory approach to community benefit. Such an approach does have some superficial appeal so is worth exploring.

7.1.1 The Effect of Compulsion

A compulsory approach to maximising the net economic benefits from renewable projects would involve specifying explicit criteria that project developers would be expected to meet. These criteria could relate to the execution of a project (e.g. specifying a minimum threshold for local supply chain expenditure) or to the design of community benefit packages (e.g. requiring package worth at least £5,000/MW).

The introduction of such an approach would affect projects in different ways.

It is likely that some projects, particularly those with high expected returns, could accommodate the requirements. Providing expected returns could absorb a community benefit package of £5,000/MW and local companies could deliver the goods and services needed, meeting the criteria may not be onerous.

However, the fact that the average value of community benefit funds associated with planned wind farms is already very close to £5,000/MW and the fact that developers generally prefer local procurement anyway, suggests that similar contributions would have been forthcoming even under a voluntary system. A compulsory approach would do nothing to increase the impact of these projects.

A compulsory approach would not increase the social or economic impacts and would almost certainly reduce the benefits of some projects.

What a compulsory approach would do is make developers more circumspect about what they offer communities. Under the current scheme developers have an incentive to make generous offers, safe in the knowledge that if circumstances change unexpectedly (e.g. because of a change in energy prices) and the offer becomes unaffordable it can be easily amended.

Under a compulsory system this would not be the case and offers (often made years in advance of projects becoming operational) would become enforceable. The consequence of this would almost certainly be that developers would become more cautious and curtail offers to protect themselves against future market fluctuations.

Where a compulsory approach could make an even bigger difference is to more marginal projects, to those with more specialist technical requirements or those located in areas with limited supply chain capacity. For these projects, meeting rigid, pre-defined criteria could be challenging and may even undermine project viability. This could result in some projects not proceeding or developers looking for sites elsewhere. Either outcome would reduce the net economic benefits of development.

This discussion shows that, while a compulsory approach may be superficially appealing, it would do nothing to increase the impact from wind farm developments and in many cases would almost certainly reduce benefits to communities. However, this does not imply that the content and format of community benefit schemes should be entirely a matter of developer discretion.

7.1.2 The Importance of Negotiation

The value of community investment should not be confused with the benefits it generates. Investment is an input to a process, not the outcome. Outcomes depend on how the investment is used (including whether it helps to leverage further funding) and how closely these uses align with community needs.

The wide range of mechanisms used by developers to deliver community benefit also means the same objective can often be achieved in different ways. The choice between mechanisms will depend on local circumstances and the capacity of the local community to make use of them. This can mean that the same package of benefits could generate different levels of benefit in different places.

No two communities are identical. Determining the precise composition of an investment package that will enable impacts to be maximised in any given situation will necessarily require the active involvement of those who are intended to benefit.

The most effective community benefit packages are bespoke and negotiated directly with those who are expected to benefit.

By avoiding a prescriptive approach NPF4 provides the flexibility needed to support bespoke solutions. However the range of mechanisms available can make it difficult for communities or developers to know where to start. An appropriate framework could provide the structure needed to overcome this.

7.2 A Community Wealth Building Approach

Community Wealth Building is a people-centred approach to local economic development focused on redirecting wealth back into local economies and placing power and control in the hands of local people. It could help provide the structure needed to ensure the net-economic benefits from wind farm developments are maximised. The approach[29] has 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
- and socially productive use of land and property.

These five pillars could be used to create a community wealth building framework that would explain what is expected of developers, public bodies and communities to meet the common aim of maximising net economic benefit. To do this it would be necessary to develop guidance for each of the five pillars setting out expectations for all stakeholders.

The intention of this guidance would not be to provide a comprehensive list of what should be done but rather to highlight the range of options that could be included as part of a community benefit package. While it is not envisaged that any scheme would deliver all the options identified, it is expected that they should be considered as part of the negotiation process. It is also suggested that as a matter of good practice the reasons for deciding for or against different options should be recorded to help enhance transparency and support learning.

It is envisaged that the findings of this report could be a useful source of inspiration for the kind of actions that might be considered under each pillar. However, the approach is likely to be most successful if developed in close collaboration with communities and developers, and designed to echo the collective approach adopted in the onshore sector deal by identifying actions that could be taken by all parties.

An example of what this could look like for the first CWB pillar relating to spending is provided overleaf.

[29] See Centre for Local Economic Strategies

Pillar One: Spending - maximising community benefits through procurement and commissioning, developing good enterprises, fair work and shorter supply chains.

Developer Checklist	Local Authority Checklist	Community Checklist
Has the developer…	**Has the local authority…**	**Has the community…**
✓ Taken reasonable steps to proactively engage with the local community and understand local priorities and aspirations? ✓ Taking steps to promote supply chain opportunities to local businesses (such as delivering supplier engagement events)? ✓ Considered offering preferential terms to local suppliers? ✓ Adopted good practice approaches to make it easier for small businesses to bid for contracts? ✓ Developed a bespoke training and employment opportunities tailored to the characteristics of the local market?	✓ Provided appropriate support to help small businesses in the region engage with supply chain opportunities? ✓ Supported the development of local plans (including skills plans) to help identify local spending and development priorities? ✓ Ensured appropriate support is made available to communities help them in their negotiations with developers? ✓ Supported region wide initiatives to increase supply chain and labour market capacity and attract inward investment?	✓ Taken reasonable steps to engage proactively with the developer and support the development of a mutually acceptable community benefit package? ✓ Clearly identified local supply chain and training development priorities in a local plan?

7.3 Assessing Impacts

Community Wealth Building is primarily a method for driving local economic development and as such can provide an appropriate structure for designing optimal community benefit packages. However, wind farms (and other renewable developments) can also contribute to a variety of wider societal priorities. It is important that these wider contributions are taken into account when assessing the impact of projects. Scotland's National Performance Framework (NPF) can provide a useful structure for doing this.

The NPF is a multidimensional wellbeing framework consisting of 11 national outcomes that is consistent with the Scottish Government's vision for Scotland to become a wellbeing economy. It consists of 11 national outcomes relating to: children and young people, communities, culture, economy, education, environment, fair work and business, health, human rights, international, and poverty. The relationship between the two approaches is illustrated in Table 7-1.

Table 7-1 - Contributions to National Outcomes and Community Wealth

National Outcomes	Operational Impacts	Community Benefit Impacts	CWB Pillars
Children and young people		**Potential**	
Communities	**Potential**	✓	✓
Culture		**Potential**	
Economy	✓		✓
Education	**Potential**	**Potential**	
Environment	✓		
Fair work and business	**Potential**		✓
Health		**Potential**	
Human rights		✓	**Potential**
International			
Poverty		**Potential**	✓

Source: BiGGAR Economics

7.4 Conclusions

Since 1998, the onshore wind sector has invested around £4.5 billion in the development and construction of 2.6 GW of wind energy projects across Highland and Moray. The benefits from this investment and the ongoing operation of the projects it has enabled have been substantial. They include both the economic activity supported by projects and the socio-economic benefits supported by associated investment in host communities.

Over this period a huge amount of learning has taken place. Communities and developers have learned through trial and error what works and what doesn't. In the process a plethora of approaches to meeting local needs and aspirations have been developed and the innovation that has driven technical progress within the sector has become an established hallmark of the sector's approach to community benefit.

This is an approach that should be nurtured.

Meeting Scotland's 2030 renewable deployment target will require a major increase in renewable investment over the coming years. This is a major opportunity for the north of Scotland that has the potential to significantly increase the (already substantial) socio-economic benefits of the sector.

Realising these opportunities and maximising the benefits they will generate for local communities and the wider region will require collaborative effort. Developers, communities and the public sector all have a role to play.

Community wealth building can provide the structure needed to guide this collaborative effort. This report sets out how community wealth building principles could be used to ensure long-term benefits are maximised.

Although this approach has been developed in relation to the onshore wind sector, the underlying principles it is based on have broader relevance so it could readily be applied to other types of development.

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