Chapter 13 Socio-economics, Recreation and Tourism

Contents

13 Socio-economics, Recreation and Tourism

13.1 Executive Summary

13.1.1 The population of Midlothian of working age is projected to grow and so job creation will be a priority for the local economy.

13.1.2 The assessment of the economic impacts associated with Torfichen Wind Farm (the Proposed Development) estimated that the expenditure associated with development and construction activity could generate:

- £10.2 million Gross Value Added (GVA) and 135 jobs in Midlothian; and
- £37.2 million GVA and 543 jobs in Scotland.

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

- £1.1 million GVA and nine jobs in Midlothian; and
- £2.3 million GVA and 25 jobs across Scotland.

13.1.4 The Applicant has committed to prioritise local companies in the provision of contracts associated with the Proposed Development.

13.1.5 The Proposed Development is expected to support the provision of local public services and the investment priorities of local communities. During its operations, it is expected to generate £1.3 million in non-domestic rates each year and result in an annual contribution of £0.5 million in community benefits. The community benefit package may also include a Local Electricity Discount Scheme (LEDS) that would help to reduce energy bills for Midlothian residents.

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

13.2 Introduction

13.2.1 This chapter considers the potential socio-economic, tourism and recreation effects associated with the construction and operation of the Proposed Development. The specific objectives of this chapter are to:

- describe the current baseline;

- describe the assessment methodology and significance criteria used in completing the impact assessment;
- describe the potential effects, including indirect and cumulative effects; and
- assess the residual effects.

13.2.2 The assessment has been undertaken on the basis of an 18 turbine development, each with an indicative installed capacity of around 6 megawatts (MW), so an indicative installed capacity of around 108 MW, and a 50 MW battery energy storage system.

13.2.3 A standalone report entitled Socio-Economic Impact Assessment of Torfichen Wind Farm has been prepared to accompany this chapter which discusses the wider benefits associated with the Proposed Development. This is submitted with the Planning Statement to accompany the application for consent.

13.2.4 This chapter has been prepared by BiGGAR Economics Ltd. Detailed professional qualifications and any relevant code of practice have been followed, as set out where relevant within this chapter.

13.3 Legislation, Policy and Guidance

13.3.1 Policy 11 of the Scottish Government's National Planning Framework 4 (NPF4)[1] is relevant to the socio-economic impact of the Proposed Development. Paragraph (c) states that *"development proposals will only be supported where they maximise net economic impact, including local and community socio-economic benefits such as employment, associated business and supply chain opportunities"*. This assessment includes a conclusion on whether the project maximises the net economic impact on the context of NPF4 Policy 11(c).

13.3.2 There is no specific legislation, policy or guidance available on the methods that should be used to assess the socio-economic impacts of a proposed onshore wind farm development. Nor is there any specific guidance on maximising net economic impact in the context of NPF4.

13.3.3 However, the Onshore Wind Policy Statement 2022[2] identifies a number of potential benefits to communities and to Scotland, including community benefit, shared ownership and opportunities for the Scottish supply chain. These potential benefits are considered in this chapter and are supported

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

[2] Scottish Government (2022). Onshore Wind Policy Statement 2022.

by the recent Onshore Wind Sector Deal for Scotland[3] which states that the onshore wind sector is dedicated to providing long-term benefits for Scotland, communities, people and the economy.

13.4 Assessment of Socio-Economic Effects

13.4.1 Given that no specific legislation or guidance is available on the methods which should be used when assessing the socio-economic effects of a proposed wind farm development for an Environmental Impact Assessment (EIA), to identify and assess the significance of predicted socio-economic effects, the assessment has been based on professional judgement for the degree of change resulting from proposals using methods commonly used in EIAs for proposed renewable energy developments.

13.4.2 The assessment of economic effects was undertaken using a model that has been developed by BiGGAR Economics specifically to estimate the socio-economic effects of onshore wind farm developments in the UK, including Scotland. The assessment draws on two studies by BiGGAR Economics on the UK onshore wind energy sector, a report published by RenewableUK and the Department for Energy and Climate Change (DECC) in 2012 on the direct and wider economic benefits of the onshore wind sector to the UK economy[4] and a subsequent update to this report published by RenewableUK in 2015[5].

13.4.3 The evidence collected in those studies is frequently reviewed and updated by BiGGAR Economics, based on its most recent experience working with wind farm developers. Evaluations of costs and the extent to which contracts are carried out in Scotland and within local authority areas, as well as experience working with developers elsewhere is Scotland, have all contributed to this assessment.

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

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

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

[4] Department of Energy and Climate Change (2012). Onshore Wind: Direct and Wider Economic Impacts.

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

- Jobs: this is a measure of employment which considers the headcount employment in an organisation or industry.

13.5 Tourism and Recreation Assessment

13.5.1 The potential effect of wind farm development on tourism and recreation sector has been the subject of several research studies. A review of the latest available research evidence has been undertaken.

13.5.2 Tourist attractions and accommodation were identified within the vicinity of the Proposed Development, and the potential effect of the Proposed Development has been considered with reference to the research evidence. Important visitor attractions for the wider Midlothian region were also identified and considered, even if they are not within the vicinity of the Proposed Development.

13.6 Consultation

13.6.1 The study team is familiar with the study area and the socio-economic conditions within Midlothian and Scotland. For this reason, it was deemed not necessary to carry out consultations.

13.7 Methodology

Scope of Assessment

13.7.1 The assessment considers the interaction between the Proposed Development and the following receptors:

- the local and national economy;
- local tourism attractions;
- local accommodation providers; and
- local recreational activities, including recreational paths.

Baseline Characterisation

Study Area

13.7.2 The study areas that were used in this assessment were based on pre-defined administrative geographies. The Proposed Development Area boundary lies exclusively within the Midlothian South ward in the Midlothian Council area.

13.7.3 The baseline description considers Midlothian South (the electoral ward), Midlothian (the local authority area) and Scotland.

13.7.4 Economic impacts have been assessed for the study areas of Midlothian and Scotland.

13.7.5 For the tourism and recreation assessment, the focus was the area within a 15 km radius of the Proposed Development, consistent with the study areas used in research studies that have considered the relationship between wind farm development and tourism.

Desk Research / Field Survey

13.7.6 To assess the effect of the Proposed Development on socio-economics, tourism and recreation, the following study approach was taken to identify the baseline conditions:

- a review of economic strategies for Midlothian and Scotland;
- an analysis of socio-economic statistics for Midlothian South, Midlothian and Scotland;
- an analysis of tourism statistics for Midlothian and Scotland; and
- identification of local tourism and recreation assets, including local attractions, accommodation providers and recreational trails.

Stages in Socio-Economic Analysis

13.7.7 To begin estimating the economic activity supported by the Proposed Development, it was first necessary to calculate the expenditure during the development and construction, and operation and maintenance phases. The total expenditure figure was then divided into its main components using calculated assumptions regarding the share that could be expected by main and sub-contractors. This provides an estimate for each main component that could be secured in Midlothian and Scotland.

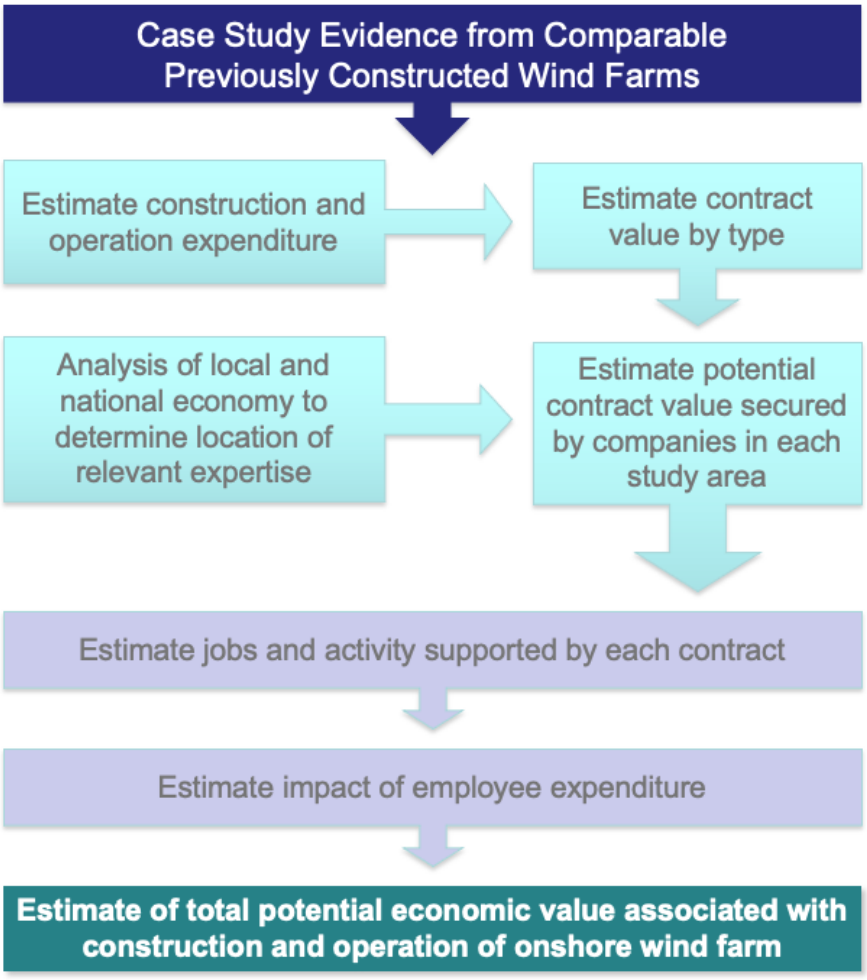
13.7.8 There are three sources of economic activity:

- component contracts and the jobs they support;
- wider spending in the supply chain (indirect effect); and
- spending of people employed in these contracts.

13.7.9 There are four key stages of this model, which are illustrated in **Figure 13.1**:

- estimation of capital and operational expenditure;
- estimation of the value of component contracts that make up total expenditure;
- assessment of the capacity of businesses in the study area to perform and compete component contracts; and
- estimation of economic impact from resultant figures.

Figure 13.1 - Approach Economic Impact Assessment



Effects Evaluation Methodology

13.7.10 The significance of the effect of the Proposed Development on the economy and on tourism and recreation assets has been considered by determining the sensitivity of the receptor in question and the magnitude of change.

Sensitivity Criteria

13.7.11 The sensitivity of receptors has been assessed based on professional judgement and previous experience of comparable developments elsewhere. The criteria used to do this are provided in **Table 13.1**.

Table 13.1 - Sensitivity Criteria

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

Magnitude of Effect

13.7.12 The magnitude of economic effects on the Scottish and Midlothian economies has been assessed using BiGGAR Economics' economic impact model and professional judgement. The magnitude of change on tourism and recreation assets has been assessed with reference to published research evidence and experience of comparable wind farm developments elsewhere. The criteria used to do this are provided in **Table 13.2**.

Table 13.2 - Magnitude Criteria

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

Significance Criteria

13.7.13 The sensitivity of the asset and the magnitude of the predicted effects have been used as a guide, in addition to professional judgement to predict the significance of the likely effects. Moderate and major effects are assessed as significant in EIA terms (as shown in bold). The significance criteria are outlined in **Table 13.3**.

Table 13.3 - Significance Matrix

Sensitivity					
Magnitude of Change	**Very High**	**High**	**Medium**	**Low**	**Negligible**
High	Major	Major	Moderate	Moderate	Minor
Medium	Major	Moderate	Moderate	Minor	Negligible
Low	Moderate	Moderate	Minor	Negligible	Negligible
Negligible	Negligible	Negligible	Negligible	Negligible	Negligible

13.8 Baseline Description

Current Baseline

13.8.1 A summary of the current baseline is provided below. More information relating to the Socio-Economic baseline can be found in the Socio-Economic Impact Assessment of Torfichen Wind Farm standalone report which accompanies this chapter.

Socio-Economic Strategic Context

13.8.2 The Proposed Development is aligned with local and national economic strategies. The Proposed Development will contribute to the target outlined in the Onshore Wind Sector Deal[6], committing the Scottish Government to deliver 20 GW of onshore wind by 2030, and to meet the wider goal of transitioning to a Net Zero economy by 2045. The construction and operation phases of the Proposed Development also support the creation of sustainable and inclusive growth, one of the aims in Scotland's National Performance Framework[7].

13.8.3 Similarly, it delivers on Scotland's National Strategy for Economic Transformation[8] (NSET) and the Local Energy Policy Statement[9]. As set out

[6] Scottish Government (2023). Onshore Wind Sector Deal.
[7] Scottish Government (2018). Scotland's National Performance Framework.
[8] Scottish Government (2022). Scotland's National Strategy for Economic Transformation.
[9] Scottish Government (2021). Local Energy Policy Statement.

in NSET, Scotland has substantial energy potential, and it has developed a growing green industrial base. By providing renewable energy, the Proposed Development will support the transition of the economy towards net zero, with potential benefits from securing new market opportunities.

13.8.4 The Proposed Development also aligns with Scotland's Fourth National Planning Framework (NPF4)[10], a national spatial strategy which ensures that the transition to Net Zero is fair and inclusive, as is rural revitalisation, supporting sustainable development in rural areas and maximising net economic impact. The Proposed Development will deliver on this strategy by supporting employment and creating opportunities for local businesses.

13.8.5 The Proposed Development also supports local and regional strategies, including the Midlothian Economic Development Strategy for Growth[11] and the Single Midlothian Plan[12], which identify the opportunities which renewable energy projects present for the area. The Proposed Development will contribute to the generation of these opportunities and the wider aim of the region to establish a more sustainable economy, as well as generating high-quality, sustainable jobs in the region.

Socio-Economic Baseline Conditions

Population

13.8.6 The National Records of Scotland provides information of the population and demographic structure of areas across Scotland[13]. In 2021 the population of Midlothian South was 94,700, accounting for 1.7% of the total population of Scotland. The population of Midlothian South was 14,48,15.3% of the total population of Midlothian.

13.8.7 Over the period between 2021 and 2043[14], the population of Midlothian is projected to increase from 94,700 to 119,637, a 26.3% increase. This trend is much greater than Scotland as a whole, where the population is expected to increase by 0.4% over the same period.

13.8.8 Although the proportion of Midlothian residents aged 16-64 years old is expected to decrease over time, with the share of working age population declining to 61% by 2043, the region is projected to experience an absolute

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

[11] Midlothian Council (2020). Midlothian Economic Development Strategy for Growth 2020 – 2025.

[12] Midlothian Council (2023). The Single Midlothian Plan

[13] National Records of Scotland (2022). Mid-2021 Population Estimates and National Records of Scotland (2021), Electoral Ward Population Estimates by Sex and Single Year of Age 2001-2020.

[14] National Records of Scotland (2022). Population Projections 2021 – 2043.

increase in the number of those of working age, by over 14,000. This change differs from Scotland, where a decline of almost 95,000 is projected.

13.8.9 As a result of Midlothian's increase in the working age population and its proximity to Edinburgh City, it will be important to balance job opportunities in the region to retain workers in the area and to reverse the current trend of residents out-commuting. The economic opportunities created by the Proposed Development will contribute towards this.

Industrial Structure

13.8.10 Construction is the largest employer in Midlothian South, where it employs 21.2% of those in work, compared to 10.4% in Midlothian and 6.0% in Scotland[15]. The large percentage of workers within this sector will be at an advantage during the construction phase of the Proposed Development as there will be numerous local contractors.

Economic Activity

13.8.11 In 2021, the unemployment rate in Midlothian (1.7%) was below the Scottish average (3.4%). Midlothian also has a greater share of its working age population that was economically active (80.9%) compared to Scotland as a whole (77.1%)[16].

Summary of Socio-Economic Context

13.8.12 The working age population of Midlothian is projected to increase over the next two decades, in contrast to a projected decline for Scotland as a whole. The local economy has a relatively large construction sector and so will have the opportunity to benefit from contracts for the construction of the Proposed Development. The expansion of the onshore wind sector in the area could provide an opportunity for a further diversification of its economic base. In addition, the sector could contribute to the retention of young people in the area through providing high skilled and high paying jobs.

Tourism and Recreation Baseline

13.8.13 In 2019, there were 1.3 million annual day visitors to Midlothian, spending £29.2 million in total, an average of £23 per trip[17]. There were 46,000 annual domestic overnight visitors to Midlothian, with a total spend of £5.3 million[18]. There were 29,038 international overnight visitors to Midlothian,

[15] Office for National Statistics (2022). Business Register and Employment Survey (BRES) 2021.

[16] ONS (2023), Annual Population Survey Jan 2022-Dec 2022 and Annual Survey of Hours and Earnings – resident analysis 2022.

[17] *VisitScotland, from Great Britain Day Visitor Survey (2019).*

[18] *VisitScotland, from Great Britain Tourism Survey (2019).*

contributing £8.6 million in spending (0.3% of total international overnight spending in Scotland[19]).

13.8.14 In 2019, the sector generated £28.6 million GVA in Midlothian, equivalent to 0.6% of the total £4,503.7 million GVA generated by the sector across Scotland that year. The sector also employed c.2,000 people in Midlothian, accounting for 0.9% of the total employment of c.229,000 in the sustainable tourism sector in Scotland, despite the region accounting for 1.7% of the total population of Scotland[20]. These proportions indicate that tourism is less important for Midlothian than Scotland as a whole.

13.8.15 A series of visitor attractions located within 15 km from the Proposed Development were identified through an online search and the VisitScotland portal.

13.8.16 A series of accommodation providers were identified in the area surrounding the Proposed Development by conducting online research on the VisitScotland portal, Booking.com, and Google Maps. Of the 107 providers identified within 15 km, only nine were located within 5 km of the site, all of which are self-catering.

13.8.17 Within 15 km of the Proposed Development, 13 recreational trails have been identified based on a web search of Walkhighlands[21]. Three recreational walks are located within 5 km of the Proposed Development. Most recreational trails (10 out of 13) are located between 9 km and 15 km from the Proposed Development.

13.8.18 Using Midlothian Council's database of core paths, 148 core paths were identified[22] within 15 km of the Proposed Development.

13.8.19 Public Rights of Way (PRoW) LM173 and BE1 are close to the site of the Proposed Development. Scottish Hill Tracks' route 39 Leadburn to Heriot (HT43) crosses the south-western boundary of the site, approximately 250 m from the closest proposed turbine location.

13.9 Assessment of Potential Effects

Construction Effects

13.9.1 Based on the scale of the Proposed Development and typical industry development and construction costs, the total development and

[19] *VisitScotland, from International Passenger Survey (2019).*

[20] Scottish Government (2022). Growth Sector Database.

[21] https://www.walkhighlands.co.uk/

[22] https://www.midlothian.gov.uk/info/200226/walking_and_cycling/395/midlothian_core_paths

construction cost for the Proposed Development was estimated to be £128.5 million.

13.9.2 The proportion of that spending that might be expected to occur in Midlothian and in Scotland was based on research into other wind farm developments and the baseline analysis of the economic structure. On this basis, it was estimated that around 33% of the Proposed Development's contracts could be carried out by Scottish businesses, with a value of £43.0 million. It was estimated that spending on businesses based in Midlothian would be around £14.9 million, equivalent to 12% of total development and construction expenditure.

13.9.3 The largest opportunity for Scottish businesses could be in contracts associated with balance of plant, which could be worth £22.7 million. Balance of plant would also be the largest opportunity for businesses in Midlothian, worth up to £8.2 million.

Table 13.4 - Development and Construction Expenditure by Study Area

	Midlothian		Scotland	
	%	£m	%	£m
Development and Planning	33%	3.0	62%	5.8
Turbines	2%	1.0	8%	4.6
Balance of Plant	31%	8.2	86%	22.7
Grid Connections	26%	2.2	71%	6.0
Battery Storage	2%	0.5	16%	4.0
Total	12%	14.9	33%	43.0

13.9.4 These contracts will generate economic impacts in the businesses which secure the contracts (direct), in their suppliers (indirect) and as a result of employees spending wages in the Midlothian and Scottish economies (induced). Including the direct, indirect and induced impacts, it was estimated that the Proposed Development could generate a total of £10.2 million GVA and support 135 jobs in Midlothian and £37.2 million GVA and 543 jobs across Scotland.

13.9.5 The effect of the activity associated with the Proposed Development and construction of the Proposed Development on the Midlothian economy was assessed as not significant (**minor beneficial**). Across Scotland, the effect is expected to be not significant (**negligible**).

13.9.6 The Applicant has historically sought to maximise local spend on their projects and will seek to prioritise local companies in the provision of contracts associated with the Proposed Development. This will include the promotion of opportunities for local suppliers through "meet the buyer" events and will encourage principal contractors to hire locally where possible.

Operational Effects

13.9.7 The operation and maintenance impact of the Proposed Development was estimated as the annual impact that would persist throughout the lifespan of the Proposed Development. It was estimated that annual operations and maintenance expenditure associated with the Proposed Development could total up to £3.3 million.

13.9.8 In order to estimate the economic impact of the operation and maintenance expenditure in the study areas, it was first necessary to estimate the proportion of contracts that could be secured in each of these areas. These assumptions were based on research into other wind farm developments and the baseline analysis of the economic structure. It was estimated that Midlothian could benefit from £1.6 million in operations and maintenance contracts (48%), with Scottish businesses potentially benefitting from £2.7 million (83%).

13.9.9 Including the direct, indirect and induced impacts, it was estimated that each year the spending required for the operation and maintenance of the Proposed Development could support up to £1.1 million GVA and nine jobs in Midlothian and £2.3 million GVA and 25 jobs in Scotland.

13.9.10 The magnitude of these impacts was assessed as negligible with respect to the economies of Midlothian and Scotland.

13.9.11 The significance of the effect has therefore been assessed as not significant (**negligible**) in each of the study areas.

Wider Economic Benefits

Community Benefits

13.9.12 In line with Scottish Government recommendations[23], the Applicant has committed to offering £5,000 per MW per year in community benefits for the local area. This is equal to around £540,000 annually, which is

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

equivalent to £27 million over the 50-year operational lifetime of the Proposed Development.

13.9.13 As part of the community benefit offering, the Applicant is committed to providing funding to reduce energy bills of households proximate to the Proposed Development. As well as reducing financial pressure, the Local Energy Discount Scheme (LEDS) could increase the amount of disposable income that each household has leading to increased spending in other areas. The details of the LEDS will be finalised at a later date.

13.9.14 The magnitude of these effects has been assessed as low for each of the study areas. The significance of the effect has been assessed as not significant (**negligible**) in the Midlothian economy and not significant (**negligible**) across Scotland.

Non-Domestic Rates

13.9.15 The Proposed Development would be liable for non-domestic rates, the payment of which contribute directly to public sector finances. Applying guidance developed by Scottish Assessors Association[24], the Proposed Development would contribute £1.3 million annually through the payment of non-domestic rates. Over a 50-year lifespan, the Proposed Development would contribute £64.8 million.

13.9.16 The significance of this effect has been assessed as not significant (**negligible**) on the Midlothian economy.

Tourism Assessment

13.9.17 In 2008, the Moffat Centre at Glasgow Caledonian University studied the potential effects of wind farms on tourism[25]. The study analysed the possible effects of wind farm development and concluded that, while tourism may be affected in small numbers, the overall impact on tourism expenditure and employment would be limited. This study is now dated and, since 2008, wind farms have become increasingly common across Scotland. It would be expected that, with the growth in onshore wind since the completion of the Moffat Centre study, any negative effects wind farms have on tourism would now be apparent in tourism employment statistics.

13.9.18 BiGGAR Economics produced a study on the effect that onshore wind has on tourism employment in 2021[26]. Based on case study evidence from 44 onshore wind farms constructed between 2009 and 2019 in Scotland, the

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

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

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

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

13.9.19 Although tourism is not a key driver of the local economy in the Local Area, a tourism assessment was undertaken to consider whether there could be any impact on specific tourism-related businesses. This included visitor attractions, accommodation providers and recreational trails. The assessment is included in the Socio-Economic Impact Assessment of Torfichen Wind Farm standalone report.

13.9.20 The tourism baseline shows that the tourism sector within Midlothian is not as important as it is to wider Scotland, with a relatively small proportion of visitor spending within the region and the sector being underrepresented in terms of employment.

13.9.21 The closest of the ten most visited tourist attractions in Edinburgh and the Lothians is 19 km away, and therefore will not be affected by the Proposed Development.

13.9.22 Scottish Hill Tracks' route 39 Leadburn to Heriot (HT43) crosses the south-western boundary of the site however, this section is relatively short and outwith all proposed infrastructure. PRoW BE1 is also located immediately adjacent to the south-western boundary, providing a link to LM173. Thus, there would be no expected impact on access to this route as a result of the Proposed Development and any adverse effects are not considered likely to be significant enough to damage walkers' recreational experience.

13.9.23 Therefore, the overall impact of the Proposed Development on local visitor attractions, recreational trails, core paths and accommodation within 15 km, was also found to be **negligible**.

13.10 Mitigation

13.10.1 No significant adverse socio-economic, tourism and recreation effects during the construction or operation phases of the Proposed Development have been identified. Therefore, no mitigation measures are necessary.

13.11 Assessment of Residual Effects

Residual Construction Effects

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

- a temporary minor beneficial effect on the Midlothian economy; and
- a temporary negligible beneficial effect on the Scottish economy.

Residual Operational Effects

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

- a **negligible beneficial** effect on Midlothian economy; and
- a **negligible beneficial** effect on the Scottish economy;
- a **negligible beneficial** effect on the Midlothian economy through community benefit payments;
- a **negligible beneficial** effect on Midlothian as a result of the payment of non-domestic rates; and
- a **negligible** effect on local tourism and recreation.

13.12 Assessment of Cumulative Effects

13.12.1 The assessment of cumulative effects during the construction and operation was based on developments either operational, consented or in the application stage, including:

- eight operational developments (Bowbeat Hill, Carcant, Dun Law, Dun Law Extension, Keith Hill, Longpark, Pogbie, Toddleburn);
- two consented (Cloich Forest Wind Farm and Gilston Hill Wind Farm); and
- two applications pending decision (Greystone Knowe Wind Farm and Wull Muir Wind Farm).

Cumulative Effects during Construction

13.12.2 There may be cumulative beneficial effects on socio-economics if the Proposed Development supports the development of a local supply chain, which other wind farm developments in the area may benefit from. This would benefit local businesses and increase the economic impact in Midlothian and Scotland. The cumulative projects represent a cluster of onshore wind projects, and the pipeline of activities will encourage the diversification of local businesses to support the onshore wind sector and the investment of existing onshore wind supply companies into the area. The development of a strong local supply chain for the Proposed Development and similar projects would help to increase the magnitude of beneficial economic effects considered in the chapter.

Cumulative Effects during Operation

13.12.3 As with the construction effects the presence of an onshore wind cluster around the Proposed Development will create an opportunity for diversification and investment within local companies to support the operational phase of onshore wind projects. This would have the potential to increase the magnitude of beneficial economic effects considered in this chapter, including community benefit funding to support economic development and the investment priorities of local communities.

13.12.4 There are not expected to be any significant effects on tourism and recreation assets, and it is therefore not expected that there would be any significant cumulative effects on tourism and recreation.

13.13 Summary

13.13.1 This chapter assesses the potential socio-economic, recreation and tourism effects of the Proposed Development.

13.13.2 The socio-economic structure of Midlothian South and Midlothian and future demographic pressures highlight the need for the creation of job opportunities.

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

- £10.2 million GVA and 135 jobs in Midlothian; and
- £37.2 million GVA and 543 jobs in Scotland.

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

- a **temporary minor beneficial** effect on the Midlothian economy; and
- a **temporary negligible** effect on the Scottish economy.

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

- £1.1 million GVA and nine jobs in Midlothian; and
- £2.3 million GVA and 25 jobs in Scotland.

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

- a **negligible** effect on the Midlothian economy;
- a **negligible** effect on the Scottish economy;

13.13.7 The Proposed Development would also provide community benefit funding for the local area of up to £540,000 annually. This effect has been assessed

as **negligible** on the Midlothian economy. The community benefit package will also include a Local Electricity Discount Scheme (LEDS) that would help to reduce energy bills for Midlothian residents.

13.13.8 It is estimated that the Proposed Development would pay £1.3 million each year in non-domestic rates, helping to support local government services. The effect on local public finances was assessed as **negligible**.

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

13.13.10 Overall, there were no significant effects identified. While the beneficial construction and operation socio-economic effects are not significant in EIA terms, they would be important to the local and national economies, contributing to sustainable economic growth. On this basis, it can be concluded that the Proposed Development maximises net economic impact supporting the requirements for renewable energy proposals set out in Policy 11(c) of NPF4.

Table 13.5 - Summary of Residual Effects

Description of Effect	Significance of Potential Effect		Mitigation Measure	Significance of Residual Effect	
	Significance	Beneficial/ Adverse		Significance	Beneficial/ Adverse
Construction					
£10.2 million GVA and 135 jobs in Midlothian	Minor and not significant	Beneficial	N/A	Minor and not significant	Beneficial
£37.2 million GVA and 543 jobs in Scotland	Negligible and not significant	Beneficial	N/A	Negligible and not significant	Beneficial
Operation					
£1.1 million GVA and nine jobs in Midlothian	Negligible and not significant	Beneficial	N/A	Negligible and not significant	Beneficial
£2.3 million GVA and 25 jobs in Scotland	Negligible and not significant	Beneficial	N/A	Negligible and not significant	Beneficial
£540,000 annual community benefit payments	Negligible and not significant	Beneficial	N/A	Negligible and not significant	Beneficial
Payment of non-domestic rates	Negligible and not significant	Beneficial	N/A	Negligible and not significant	Beneficial
Effect on local tourism economy	Negligible and not significant	None	N/A	Negligible and not significant	N/A

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