



# Chapter 13

Socio-economics, Tourism and  
Recreation

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# Chapter 13

## Socio-economics, Tourism and Recreation

### 13.1 Introduction

#### 13.1.1 Introduction

1. This chapter of the Environmental Impact Assessment (EIA) evaluates the effects of Clauchrie Windfarm (“the proposed Development”) on socio-economics, tourism and recreation and was prepared by BiGGAR Economics.
2. The assessment has been undertaken on the basis of the proposed Development consisting of up to 18 turbines, each of which having a capacity of around 5.6 MW, and therefore having a potential total installed capacity in the region of 100 MW.
3. The chapter is structured as follows:
  - section 13.2 Legislation Policy and Guidelines considers existing guidance on how to conduct the analysis;
  - section 13.3 Consultation considers the comments received as a response to the scoping opinion and shows where they were addressed;
  - section 13.4 Assessment Methodology and Significance Criteria sets out the methodology followed;
  - section 13.5 Baseline Conditions outlines key features of the local economy;
  - section 13.6 Potential Effects assesses the impact of the Development;
  - section 13.7 Mitigation considers what could be done to reduce any adverse impacts;
  - section 13.8 Residual Effects considers the effects left after mitigation measures;
  - section 13.9 Cumulative Assessment describes additional impacts from existing developments; and
  - section 13.10 Summary of Socio-Economic, Tourism and Recreation Impacts summarises the chapter’s findings.

### 13.2 Legislation, Policy and Guidelines

#### 13.2.1 Assessment of Socio-Economic Effects

4. 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 windfarm development. The proposed method has however been based on established best practice, including that used in UK Government and industry reports on the sector.
5. In particular this assessment draws on two studies by BiGGAR Economics on the UK onshore wind energy sector, a report published by RenewableUK and the then Department for Energy and Climate Change (DECC) in 2012 on the direct and wider economic benefits of the onshore wind sector to the UK economy (Department of Energy and Climate Change, RenewableUK, 2012) and a subsequent update to this report published by RenewableUK in 2015 (RenewableUK, 2015).
6. Similarly, there is no formal guidance on the methods that should be used to assess the effects that windfarm developments may have on tourism and leisure interests.

### 13.3 Consultation

#### 13.3.1 Consultees and Scoping Responses

7. This section sets out the responses received to the scoping opinion and shows where they were addressed in the chapter. The consultee, their response and the action taken are listed in **Table 13.3.1**.

Table 13.3.1 Consultations

Consultee	Summary of Response	Comment/Action Taken
Cree Valley Community Council	‘The delivery of a Community Benefit Package or a Shared Ownership Scheme consistent with the current guidelines must be a ‘condition’ within any consent which is granted’; and It is necessary to consider the impact that a loss in wilderness may have on the economy of the Cree Valley	The provision of community benefit funding is not a material consideration in the planning process. Community benefit funding and community investment are discussed in Section 13.6.2.1; and the effect on the local tourism economy is assessed in Section 13.6.5.
Mountaineering Scotland	Consideration of hill routes and summits as ‘notable points of focus for visitor attraction’.	The effect on the local tourism economy is assessed in Section 13.6.5.
VisitScotland	Consideration of the Scottish Government 2008 research on the impact of windfarms on tourism	The Scottish Government research was considered in the literature review on the relationship between windfarms and tourism in Section 13.6.3.1
British Horse Society	The sensitivities of horses and their riders should be considered in the design of any onshore wind development and the provision of parking areas with sufficient areas for horse boxes and trailers would be appreciated	The effect of a proposed recreational car park as part of the Development with sufficient areas for horse boxes and trailers is assessed in Section 13.6.5.5.
Scotways	The rights of way and current recreational use of the forestry paths within the site should be considered in this assessment. There is an opportunity to promote recreational activity as part of this development	The effect of a proposed recreational car park as part of the Development is assessed in Section 13.6.5.5.
The Galloway & Southern Ayrshire Biosphere (Post-Scoping Meeting)	Noted location of the Proposed Development within the buffer area of the Biosphere. Concerns raised regarding the potential for impact on the ‘Sense of Place’ and landscape value of the core and buffer of The Biosphere particularly in relation to the Merrick Wild Land Area. Concerns noted on potential for impact on rural economy/tourism in the area.	The Galloway & Southern Ayrshire Biosphere is a non-statutory designation. The core and buffer areas of the Biosphere are illustrated on Fig 3.2. The potential for impact on the core and buffer of the Biosphere is considered within Chapter 6 Landscape & Visual Impact and elsewhere within the EIA. The tourism and economy, that is a key feature of the biosphere, is considered within this chapter.

## 13.4 Assessment Methodology and Significance Criteria

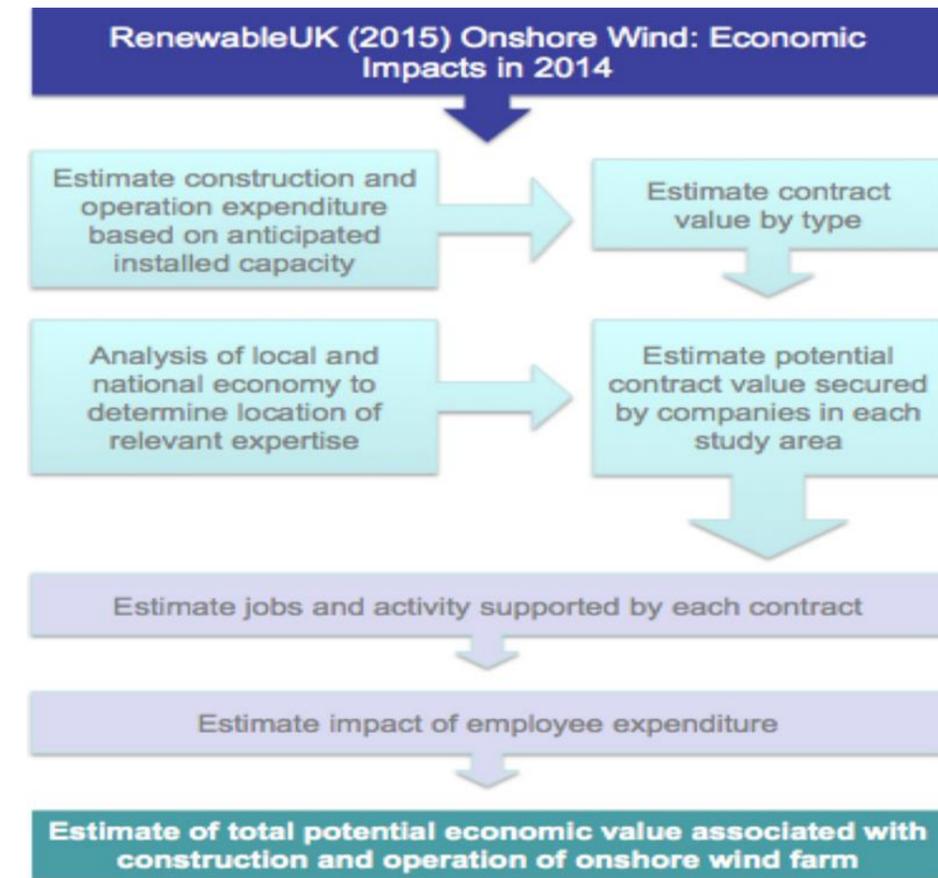
### 13.4.1 Assessment of Socio-Economic Effects

8. 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 windfarm developments. This model was also the basis of an assessment of the UK onshore wind sector for the then Department of Energy and Climate Change (DECC) and RenewableUK in 2012 (Department of Energy and Climate Change, RenewableUK, 2012), which was subsequently updated in 2015 (RenewableUK, 2015). These assessments were based on case studies of the local, regional and national socio-economic effects of windfarms that have been developed in the UK in recent years.
9. In 2017, BVG Associates (BVG Associates, 2017) conducted an evaluation of the benefits from onshore wind based on data from eight windfarms in south west of Scotland (Dumfries and Galloway, East Ayrshire, North Lanarkshire and South Ayrshire). The approach used in that analysis is similar to the approach used in this assessment, in that both approaches focus on expenditure in the supply chain and assess where the activity occurs.
10. This approach is considered industry best practice in the assessment of the socio-economic effects of the onshore wind sector. This model has been used by BiGGAR Economics to assess the socio-economic effects of numerous windfarms across the UK, with the results being accepted as robust at several public inquiries.
11. The assumptions made have been based on two main sources:
  - the analysis undertaken in the 2015 report on behalf of RenewableUK, which uses evidence from previous windfarms around the UK. This report examined the size and location of contracts for their development, construction, and operation and maintenance phases; and
  - assessment of the economies of the relevant study areas undertaken, based on analysis of local, regional and national statistics.

### 13.4.2 Stages in Socio-Economic Analysis

12. To begin estimating the economic activity supported by the proposed Development, it is first necessary to calculate the expenditure during the construction and development, and operational and maintenance phases. The total expenditure figure is 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 contract that can be secured by companies in the local area, Dumfries and Galloway and South Ayrshire, and Scotland.
13. There are the 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 (induced effect).
14. There are four key stages of this model, which are illustrated in **Figure 13.4.1**:
  - estimation of total capital 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 complete component contracts; and
  - estimation of economic impact from resultant figures.

Figure 13.4.1 Approach to Economic Impact Assessment



### 13.4.3 Tourism and Recreation Assessment

15. The potential effects of windfarm developments on the tourism and recreation sector is well-researched, and as such, key studies have been included for reference, including:
  - The Economic Impacts of Wind Farms on Scottish Tourism (Glasgow Caledonian University/Moffat Centre, 2008);
  - A Report on the Achievability of the Scottish Government's Renewable Energy Targets (Scottish Parliament Economy, Energy and Tourism Committee, 2012); and
  - Wind Farms and Tourism Trends (BiGGAR Economics, 2017).
16. Tourist attractions and accommodation are identified within the vicinity of the proposed Development. Tourist attractions include permanent fixtures (e.g. museums, castles and trails) as well as temporary events (e.g. music or arts festivals).
17. Important attractions attributed to Dumfries and Galloway and South Ayrshire are also identified due to their importance, even if they are not within the vicinity of the proposed Development.

### 13.4.4 Effects Evaluation Methodology

18. The significance of the effect of the proposed Development on each tourism and recreation asset and the economy for each study area is considered by determining the type and magnitude of change on each.
19. The impact magnitude is assessed using the economic model and professional judgement, considering socio-economic effects from the proposed Development on the two study areas of
  - Dumfries and Galloway and South Ayrshire; and

- Scotland.
20. This assessment considered the direct, indirect and induced economic impacts of the proposed Development. These are defined as:
- Direct impacts - those impacts that arise from the initial organisation of spend;
  - Indirect impacts - those impacts that arise from the supply chain that supports the initial organisation of spend; and
  - induced impacts - those impacts that arise from the spending of the salaries of the directly employed staff.
21. The significance of effects from the proposed Development on tourism and recreation assets are assessed with reference to evidence from research and comparable windfarm developments.
22. The significance of effect on each economic, tourism and recreational asset is determined on the basis of the criteria provided below, in **Table 13.4.1**.
23. Major and moderate effects are considered significant in relation to Environmental Impact Assessment Regulations (2017).

Table 13.4.1 Significance Criteria

Significance	Description
Major	Major loss/improvement to key elements/features of the baseline 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
Moderate	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
Minor	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

#### 13.4.5 Limitations of Assessment

24. The assessment is based on the experience of comparable developments elsewhere and a review of the local socio-economic context. In order to maximise the economic effects associated with the proposed Development, it will be necessary for local contractors to engage with the opportunities that arise and increase awareness of these opportunities. This can be aided by the Applicant.

## 13.5 Baseline Conditions

25. The section sets out the baseline conditions of the local area, the local authorities of Dumfries and Galloway and South Ayrshire and Scotland. The local area was defined to include the two Intermediate Zones that surround the site, namely Carrick South, Machars North and Newton Stewart, shown in **Figure 13.1**. Not all data is available for this geography and so it has been included where possible.

#### 13.5.1 Scotland's Economic Action Plan 2018-20

26. The Scottish Government's Economic Action Plan (Scottish Government, 2018) sets out how it plans to make Scotland a leader in technological and social innovations. It aims to deliver higher productivity and greater competitiveness, while transitioning to a carbon neutral economy through measures that support business, and encouraging investment, innovation and upskilling.
27. At the heart of this strategy is inclusive growth, combining increased prosperity with greater equity, which requires getting the fundamentals right. These include:
- investment: boosting private and public investment and delivering world-class infrastructure;
  - enterprise: ensuring a competitive business environment;
  - international: growing exports and attracting international investment;
  - innovation: supporting world-leading innovation;
  - skills: providing a highly skilled workforce;
  - place: supporting thriving places;
  - people: ensuring a sustainable working population where everyone can participate in and benefit from increased prosperity; and
  - sustainability: seizing the economic opportunities in the low carbon transition.

#### 13.5.2 Scottish Energy Strategy

28. In December 2017, the Scottish Government published the Scottish Energy Strategy (Scottish Government, 2017), which sets out the Government's vision for Scotland's energy future.
29. In 2016, 54.4% of all electricity in Scotland was generated renewably, with a target of producing 100% from renewable sources by 2020. This increased to 73.9% in 2018. The overall share of energy consumption, which includes heat and transport, produced by renewables was 19.8% (Scottish Government, 2019). By 2030, the Scottish Government wants the proportion of all energy, including heat and transport, supplied from renewable sources to increase to 50%.
30. The Scottish Government has also highlighted that renewables present an economic opportunity as an expanding market which will continue to support Scottish economic growth. The Scottish Government will continue to support businesses in this sector.
31. Additionally, the Scottish Government has emphasised the importance of communities benefitting from renewable energy generation, including through community benefit funds and shared ownership/community investment.

#### 13.5.3 Climate Change (Emissions Reduction Targets) (Scotland) Bill

32. In September 2019, the Scottish Parliament unanimously passed the Climate Change (Emissions Reduction Targets) (Scotland) Bill (Scottish Parliament, 2019), which sets a legally binding target of achieving "net-zero" carbon emissions by 2045. This is five years earlier than the previous target. Within this legislation, interim targets were set for the reduction of emissions by 75% of the baseline by 2030.

#### 13.5.4 South Ayrshire Economic Development Strategy 2013-2023

33. The draft South Ayrshire Economic Development Strategy 2013-2023 (South Ayrshire Community Planning Partnership, 2013) identifies seven future goals for South Ayrshire, one of which is a more diversified economy.
34. The strategy acknowledges that South Ayrshire has a lower proportion of employment (22%) in the Scottish Government's six priority industries compared to the rest of Scotland (31%). Diversification into these industries (one of which is energy) will help to create a more resilient economy.

#### 13.5.5 Dumfries & Galloway Regional Economic Strategy 2016-2020

35. The Dumfries and Galloway Regional Economic Strategy (Dumfries and Galloway Council, 2016) identifies a number of key challenges in the local authority area, including:
- a high proportion of jobs are part-time and there is a high youth unemployment rate;
  - a large percentage of the population is in areas defined as 'access deprived';

- mobile phone coverage is poor or non-existent; and
- the population is decreasing and ageing.

36. A number of strategic actions were also outlined to address Dumfries and Galloway's challenges:

- supporting growing and higher value businesses, as well as improving supply chains;
- invest in effective transport links and better ICT infrastructure; and
- maximise the potential of available employment land and property.

### 13.5.6 Galloway and Southern Ayrshire Biosphere Strategic Plan 2017 - 2022

37. The proposed development is located within the Buffer Zone of the Galloway and Southern Ayrshire Biosphere. The strategic plan for this area (Galloway and Southern Ayrshire Biosphere, 2016) highlights the need to live in a way that is beneficial for both people and the environment. The strategy adopts the strategic objectives of the Man and the Biosphere Programme (MAB) which is run by UNESCO and awards the Biosphere designation. These themes are:

- conserve biodiversity, restore and enhance ecosystem services and foster the sustainable use of natural resources;
- contribute to building sustainable, health and equitable societies, equitable societies, economics and thriving human settlements;
- facilitate sustainability science and education for sustainable development; and
- support mitigation and adaptation to climate change and other aspects of global environmental change

### 13.5.7 Baseline Economic Context

#### 13.5.7.1 Population

38. The population of the local area is 30,473. The local area has a higher proportion of the population aged 65 and over (27.3%) than both Dumfries and Galloway (25.1%), South Ayrshire (24.7%) and Scotland (18.7%) (National Records of Scotland, 2018). In addition, it has a relatively smaller working age population (58.1%) compared to regional (59.2% and 59.6% respectively) and national averages (64.4%). The demographic breakdown of each study area is shown in **Table 13.5.1**.

Table 13.5.1 Population and Demography (2017)

	Local Area	South Ayrshire	Dumfries & Galloway	Scotland
Total	13,355	112,680	149,200	5,424,800
0-15	14.6%	15.7%	15.7%	16.9%
16-64	58.1%	59.6%	59.2%	64.4%
65 and over	27.3%	24.7%	25.1%	18.7%

Source: National Records of Scotland (2018), Population

39. By 2041 the populations of Dumfries and Galloway, and South Ayrshire are expected to decrease by 5.2% and 4.9% respectively compared to 2016. In contrast, Scotland's population is expected to grow by 5.3% (National Records of Scotland, 2018). Data is not available at the local area level.

40. It is projected that by 2041 over one third of the population will be over 65 in both Dumfries and Galloway and South Ayrshire. This is significantly higher than the projected level of 25.3% in Scotland. The working age population is also expected to fall from 59.5% to 51.5% in Dumfries and Galloway and from 60.0% to 50.9% in South Ayrshire, compared to 58.9% in Scotland. Given the existing population structure of the local area in comparison to the local authority areas it is likely that the population structure will continue to age. The projected population change by age category for these study areas is shown in **Table 13.5.2**.

Table 13.5.2 Population Change (2016-2041)

	South Ayrshire		Dumfries & Galloway		Scotland	
	2016	2041	2016	2041	2016	2041
Total	112,470	106,974	149,520	141,818	5,404,700	5,693,201
0-15	15.8%	14.6%	15.8%	14.7%	16.9%	15.8%
16-64	60.0%	50.9%	59.5%	51.5%	64.6%	58.9%
65 and over	24.2%	34.5%	24.7%	33.8%	18.5%	25.3%

Source: National Records of Scotland (2017), Sub-national Population projections 2016-2041

#### 13.5.7.2 Economic Activity

41. The rate of economic activity, which represents the proportion of working age people in the labour force, is lower in Dumfries and Galloway (73.7%) and South Ayrshire (72.4%) than in Scotland (77.4%), although the unemployment rate (2.3% and 3.4% respectively) is lower than in Scotland (4.3%) (Office for National Statistics, 2018). The median annual wage in Dumfries and Galloway (£24,100) is 17.7% lower, compared to £29,200 in Scotland and £30,900 in South Ayrshire (Office for National Statistics, 2019). The details of employment indicators for these study areas is shown in **Table 13.5.3**.

Table 13.5.3 Economic Indicators, 2018

	South Ayrshire	Dumfries & Galloway	Scotland
Economic Activity Rate (16-64)	72.4%	73.7%	77.4%
Unemployment Rate (16-64)	3.4%	2.3%	4.3%
Median Annual Wage	£30,900	£24,100	£29,200

Source: ONS (2018), Annual Population Survey 2018. ONS (2019), Annual Survey of Hours and Earnings 2018.

#### 13.5.7.3 Industrial Structure

42. There are 5,050 people employed in the local area, with the main employment centres in Newton Stewart, Carrick South and Girvan, representing 4.4% of employment in Dumfries and Galloway and South Ayrshire (Office for National Statistics, 2019). It should be noted that the figures for the local area exclude farm agriculture and this may represent a higher share of employment than indicated.

43. The main industry of employment in the local area is accommodation and food services (23.1% of employment), which is higher than Dumfries and Galloway (8.1%), South Ayrshire (11.5%) and Scotland (7.6%) and is a sector that is typically associated with tourism. Wholesale and retail trade, which is also associated with the tourism industry, accounts for 11.5%, which is lower than other areas considered (15.6%, 17.7% and 14.1% for Dumfries and Galloway, South Ayrshire and Scotland respectively).

44. Manufacturing is an important regional sector, accounting for 14.6% of local employment, higher than the regional (9.6% and 10.4% for each of the local authorities), and national average (7.1%). In the local area, employment in construction is also relatively high (8.0%) compared to the Scottish average (5.7%), although the proportion is smaller in Dumfries and Galloway and South Ayrshire (5.2% in each).

45. The local area and local authorities also have a lower proportion of employment in professional services than the national average of 6.9%, with 3.1% in the local area, 4.8% in Dumfries and Galloway and 4.2% in South Ayrshire.

46. The industrial structures of the study areas are shown in **Table 13.5.4**.

Table 13.5.4 Industrial Structure, 2018

	Local Area	South Ayrshire	Dumfries & Galloway	Scotland
Agriculture, forestry and fishing	4.5%	3.1%	11.9%	3.2%
Mining and quarrying	0.5%	0.2%	0.3%	1.2%
Manufacturing	14.6%	10.4%	9.6%	7.1%
Electricity, gas, steam, air conditioning	0.3%	0.1%	0.4%	0.7%
Water supply, sewerage etc.	0.5%	0.3%	1.1%	0.7%
Construction	8.0%	5.2%	5.2%	5.7%
Wholesale and retail trade	11.5%	17.7%	15.6%	14.1%
Transportation and storage	2.7%	5.7%	4.4%	4.2%
Accommodation and food services	23.1%	11.5%	8.1%	7.6%
Information and communication	1.0%	0.8%	0.7%	2.7%
Financial and insurance activities	0.4%	1.0%	0.7%	3.2%
Real estate activities	0.9%	1.1%	1.4%	1.3%
Professional, scientific and technical activities	3.1%	4.2%	4.8%	6.9%
Administrative and support service activities	3.1%	2.9%	4.1%	7.5%
Public administration and defence	2.6%	4.9%	4.4%	6.1%
Education	6.8%	6.8%	7.4%	7.5%
Human health and social work activities	10.8%	18.8%	15.6%	15.6%
Arts, entertainment and recreation	4.3%	3.1%	2.2%	2.7%
Other service activities	1.5%	2.9%	1.7%	1.9%
Total	5,050	48,000	67,500	2,589,500

Source: ONS (2019), Business Register and Employment Survey 2018. \* Does not include farm agriculture

### 13.5.7.4 Baseline Economic Context Summary

47. The population of the local area is relatively older than the regional and national averages and is likely to decrease in the future, which may reflect fewer economic opportunities than elsewhere, encouraging working age people to move away. Similarly, the economic activity rate is relatively lower in South Ayrshire and Dumfries and Galloway, which has a low median annual wage. The largest sector of employment in the local area is accommodation and food services, and there is also significant employment in construction and manufacturing, although higher value sectors such as professional, scientific and technical activities are under-represented.

### 13.5.8 Strategic Tourism Context

#### 13.5.8.1 Tourism Scotland 2020

48. Tourism Scotland 2020 (Scottish Tourism Alliance, 2012), created and maintained by the Scottish Tourism Alliance, is the national tourism strategy for Scotland. It was created in 2012 with the goal of increasing visitor-spend by one billion pounds, from £4.5 billion to £5.5 billion, by 2020. Key performance indicators associated with this goal to measure progress include:

- grow visitor-spend by £1 billion from £4.5 billion to £5.5 billion by 2020;
- increase the advocacy score for Scotland from 25%;
- increase the average visitor-spend from £358.56;

- increase the total tourism employment figures from 185,100; and
- increase total tourism turnover from £6.2 billion.

49. The strategy was reviewed in 2016 (Scottish Tourism Alliance, 2016) at the mid-term point of the policy with further priorities being identified to achieve the targets for 2020 set in 2012, including:

- strengthen digital capabilities;
- strengthen industry leadership;
- enhance the quality of the visitor experience; and
- influence investment, specifically flight access & transport connectivity, built infrastructure, digital connectivity and business growth finance.

#### 13.5.8.2 Ayrshire and Arran Tourism Strategy 2012/2017

50. Tourism policy in South Ayrshire is guided by the Ayrshire & Arran Tourism Strategy 2012/17 (Ayrshire Economic Partnership, 2011). The main objectives of the strategy are to increase visitor numbers in the area by 10% and to increase annual visitor spend by 20%.

51. The strategy identifies eight attributes of Ayrshire and Arran that attract tourists and have the potential to develop and grow: culture and heritage (including Burns activities and natural environment), golf, sailing, Arran, food and drink, islands, weddings and civil partnerships, business tourism, and events and festivals.

52. The Ayrshire & Arran Tourism Strategy was succeeded by the Ayrshire Tourism Action Plan (Ayrshire and Arran Tourism Industry Group, 2018) known as the Ayrshire Rocket. This aims to grow the value of tourism in the area by 5% between 2015 and 2020.

#### 13.5.8.3 Dumfries and Galloway Regional Tourism Strategy 2016-2020

53. The Dumfries & Galloway Regional Tourism Strategy (Dumfries and Galloway Council, 2016) is a plan created by the Dumfries and Galloway Council for growing the value of the tourism sector in the local authority by £30 million, from £300 million to £330 million, by 2020.

54. Three target areas have been identified in this plan, which include:

- 'Creating Authentic Experiences' - developing marine and coastal areas, creating more festivals and events as well as the quality of food & drink;
- 'Improving the Customer Journey' - creating tourism packages, providing improved tourism-related digital information and developing more tourism assets; and
- 'Building our Capabilities' - training more individuals with tourism-relatable skills, improving infrastructure such as broadband and mobile network access and road quality.

### 13.5.9 Baseline Tourism Context

#### 13.5.9.1 Tourism Economy

55. The sustainable tourism sector in Dumfries and Galloway accounts for £168.2 million Gross Value Added (GVA) and 6,000 jobs, accounting for 8.9% of total employment. In South Ayrshire the sector contributes £126.4 million GVA and 6,000 jobs, which represents 12.2% of total employment in the area.

56. Given that there are 207,000 sustainable tourism jobs in Scotland each local authority area represents 2.9% of Scottish employment in the sector (Scottish Government, 2019). The level of employment and GVA supported by Sustainable Tourism in these areas is given in **Table 13.5.5**.

Table 13.5.5 Sustainable Tourism Employment and Gross Value Added, 2016

	Dumfries & Galloway	South Ayrshire	Scotland
Employment	6,000	6,000	207,000
GVA (£m)	168.2	126.4	3,879.8

Source: Scottish Government (2019), Scottish Growth Sector Database

### 13.5.9.2 Visitors

57. The GB Tourist Survey provides the number of domestic overnight visitors by local authority area. It shows that on average there are 700,000 domestic overnight visitors to Dumfries and Galloway each year, spending £142 million, and 300,000 domestic overnight visitors to South Ayrshire, spending £74 million. This represents 5.8% and 2.5% of the million domestic overnight visits to Scotland each year (Kantar TNS, 2018). The number of domestic overnight trips and their associated spend in these study areas is given in **Table 13.5.6**.

Table 13.5.6 GB Overnight Trips

	Dumfries & Galloway	South Ayrshire	Scotland
Trips	700,000	300,000	12,000,000
Spend (£m)	142	74	3,079

Source: Kantar TNS (2018), The GB Tourist 2017 Annual Report. \*This represents the three-year average between 2015-2017

58. The GB Day Visitor Survey provides the number of day visitors by local authority area. This shows that on average there are 7,000,000 day visitors to Dumfries and Galloway, spending £229 million each year, and there are 8,900,000 day visitors to South Ayrshire, spending £347 million (Kantar TNS, 2018). The number of day visitor trips and their associated spend in these study areas is given in **Table 13.5.7**.

Table 13.5.7 Day Visitor Trips

	Dumfries & Galloway	South Ayrshire	Scotland
Trips	7,000,000	8,900,000	151,000,000
Spend (£m)	229	347	5,995

Source: Kantar TNS (2018), The GB Day Visitor 2017 Annual Report. \*This represents the three-year average between 2015-2017

59. Data on overseas trips are provided by the International Passenger Survey (Office for National Statistics, 2019). There were an estimated 39,000 overseas trips to Dumfries and Galloway in 2018, representing 1.1% of all Scottish overseas trips with a total spend of £12 million. There were 103,000 overseas trips to Ayrshire and Arran (figures for South Ayrshire alone are not provided), representing 2.9% of all Scottish overseas trips, with total spend of £73 million. The number of overseas trips and their associated spend is given in **Table 13.5.8**.

Table 13.5.8 Overseas Trips, 2018

	Dumfries & Galloway	Ayrshire and Arran	Scotland
Trips	39,000	103,000	3,540,000
Spend (£m)	12	73	2,210

Source: ONS (2019), International Passenger Survey 2018

### 13.5.9.3 Tourism Attractions

60. The most popular visitor attractions in Dumfries and Galloway (VisitScotland, 2018) and South Ayrshire (VisitScotland, 2018) are listed in **Table 13.5.9** and shown on **Figure 13.1**. As can be seen each of the main visitor attractions are at least 20 km from the proposed Development, except for the Galloway Forest Park. The site is partially located on the Forest Park, although it covers an area of 770 km<sup>2</sup>.

Table 13.5.9 Regional Visitor Attractions

	Visitor number	Distance to site (km)	Region
Gretna Green Famous Blacksmith's Shop	812,177	101	Dumfries and Galloway
Galloway Forest Park	424,016	-	Dumfries and Galloway
Culzean Castle and Country Park	244,920	20	South Ayrshire
Heads of Ayr Farm park	165,528	27	South Ayrshire
Robert Burns Birthplace Museum	164,316	27	South Ayrshire
Threave Garden	94,951	51	Dumfries and Galloway
Mabie Forest	74,460	62	Dumfries and Galloway
Cream o' Galloway	60,500	45	Dumfries and Galloway

Source: VisitScotland (2018), Visitors to Dumfries and Galloway/Visitors to Ayrshire and Arran

61. There are a small number of local tourism attractions, which have been identified using VisitScotland's database of visitor attractions. These are presented in **Table 13.5.10**, and as can be seen each of the attractions is over 10 km from the proposed Development.

Table 13.5.10 Local Visitor Attractions

	Description	Distance to site (km)
Glentool Visitor Centre	The visitor centre for Glentool, which includes trails, lochs and 7stanes mountain biking to its east	11
Girvan Municipal Golf Course	A local golf course in Girvan	12
Adventure Carrick	An activity centre, which is located in Girvan	12

### 13.5.9.4 Tourism Accommodation

62. There are a number of accommodation providers located within 15 km of the proposed Development (refer to **Figure 13.2**). These include those in **Table 13.5.11**, which were identified through VisitScotland's accommodation database and web-based searches:

- there are four accommodation providers in and around Barrhill, approximately 6-7 km south west of the proposed Development, including Blair Farm B&B, the Lodge, Barrhill Holiday Park and Queensland Holiday Park;
- approximately 6-7 km to the west of the proposed Development are two providers, Bridge Cottage and Auld Creamery B&B;
- at Colmonell and Lendalfoot, 11-14 km west of the proposed Development, there are two providers, Braemar and Boghouse B&B;
- there are two providers along the B734 and near Barr, 4-6 km to the north west/north of the proposed Development. These include Pinclanty Cottage and Alton Albany Farm B&B;
- to the north-west, 11-13 km from the proposed Development is Girvan. There are seven accommodation providers in or near Girvan (Ardmillan Castle Holiday Park, Woodland Bay Hotel, the Southfield Hotel, the Royal Hotel, Merchant House B&B, Thistleuk B&B, Westcliffe Hotel, Queens Hotel, Burnside Farm B&B, and Trochrague Guest House);
- Old Dailly and Dailly are 10-12 km north of the proposed Development. Four accommodation providers were identified, including the Coach House, Garryloop (self-catered), Maxwellston Farmhouse B&B and Brunston Castle;
- at Bargrennan, 8-12 km south of the proposed Development, six accommodation providers were identified, including House O'Hill Hotel, Corrafeckloch Forest Cottages, Glentool Self-catering, Glentool Camping and Caravan Park, Garlies Lodge and the Orangerie; and

- there are two accommodation providers (Creese Escape Shepherd's Hut and Old School House and Annexe) near Eldrick, 6 km south of the proposed Development.

Table 13.5.11 Local Accommodation Providers

Location	Number of Providers	Distance to site (km)
Barrhill	4	6-7
Pinwherry	2	6-7
Colmonell and Lendalfoot	2	11-14
B734/Barr	2	4-6
Girvan/Near Girvan	9	11-14
Dailly/Old Dailly	4	10-12
Bargrennan	6	8-12
Eldrick	2	6-7

Source: BiGGAR Economics

### 13.5.9.5 Recreational Trails

63. There are a series of core paths close to the proposed Development (refer to **Figure 13.2**), which include:
- SA1, around 2 km to the north-east of the proposed Development;
  - SA51 around 5 km to the north-west of the proposed Development;
  - SA52 around 3 km north of the proposed Development; and
  - SA54 around 2 km from the proposed Development.
64. In addition to the designated core paths, the site also contains paths associated with the forestry activity in the area, and rights of way that can be accessed by recreational users. The forestry activity in the area has affected historic rights of way within the site and the network of forest tracks has superseded many of these paths.

### 13.5.9.6 Baseline Tourism Context

65. The tourism sector in South Ayrshire and Dumfries and Galloway is relatively important compared to the Scottish average. However, there are a relatively small number of accommodation providers and tourist attractions nearby, with the main regional tourist attractions located over 20 km away, which suggests that the area surrounding the proposed Development does not have a significant tourism presence.

## 13.6 Potential Effects

### 13.6.1 Construction and Development

#### 13.6.1.1 Socio-Economics

66. This application is for 18 turbines with a combined generating capacity in the region of 100 MW. The construction and development costs for this proposed development were estimated using research undertaken by BiGGAR Economics on behalf of RenewableUK in 2015 (RenewableUK, 2015) and BiGGAR Economics previous experience of the cost implications of subsidy free onshore wind. On the basis of this methodology the total construction and development cost was estimated to be up to £122.4 million.
67. This expenditure is split into four main categories of contract:
- development and planning;
  - balance of plant;
  - turbines; and
  - grid connection.

68. The proportion of construction and development spending that is spent on each of the main categories was also informed by BiGGAR Economics' research into windfarms that are currently in operation in the UK. The analysis in 2015 found that approximately 10% of Capex was on development and planning, and less than 60% was on the turbines. The developments in the sector, and the transition towards larger turbines, has changed the breakdown of Capex. BiGGAR Economics analysed the current Capex components and estimated that turbine related contracts accounted for the majority of Capex (70.0%), followed by balance of plant (20.5%), development and planning (4.4%) and grid connection (5.1%). The estimated split of total Capex used in the analysis is shown in **Table 13.6.1**.

Table 13.6.1 Construction and Development Expenditure by Contract Type

	% Capex	Value (£m)
Development and Planning	4.4%	5.4
Turbines	70.0%	85.6
Balance of Plant	20.5%	25.0
Grid Connection	5.1%	6.3
Total	100%	122.4

Source: BiGGAR Economics Analysis of RenewableUK (2015), Onshore Wind: Economic Impacts 2014. \*Totals may not add up due to rounding.

69. The economic impact of the construction and development phase was estimated for Dumfries and Galloway and South Ayrshire, and Scotland as a whole. In order to do this, it was necessary to estimate the proportion of each type of contract that might be secured in each of the study areas. The assumptions were based on the average from the RenewableUK research, analysis of the industries and professions in each study area, and BiGGAR Economics' previous experience. To estimate the expenditure for each contract in each of the study areas these percentages were applied to the estimated size of each component contract.
70. On this basis, it was estimated that Dumfries and Galloway and South Ayrshire could secure contracts worth up to £11.7 million, equivalent to 10% of the total capital expenditure. The largest opportunity for Dumfries and Galloway and South Ayrshire would be with the balance of plant contracts as companies in the area could secure 23% of contracts, worth up to £5.8 million.
71. Scotland was estimated to be able to receive contracts worth up to £43.0 million, equivalent to 35% of the total capital expenditure. The largest opportunities would be the contracts related to the balance of plant and elements of the turbine contract, namely the supply of towers. The estimated value of contract type by study area are shown in **Table 13.6.2**.

Table 13.6.2 Development and Construction Expenditure by Study Area and Contract Type

	Dumfries and Galloway and South Ayrshire		Scotland	
	%	£m	%	£m
Development and Planning	10%	0.5	63%	3.4
Turbine	4%	3.2	19%	16.4
Balance of Plant	23%	5.8	68%	16.9
Grid Connection	35%	2.2	100%	6.3
Total	10%	11.7	35%	43.0

\*Totals may not add up due to rounding

72. The contract values potentially awarded in each area would represent an increase in turnover of businesses in these areas. Using industry-specific data from the Annual Business Survey (Office for National Statistics, 2018) which gives the turnover/ GVA ratio for each of the industries involved, the GVA impact from any increase in turnover can be estimated.

73. On this basis it was estimated that the development and construction contracts would generate up to £5.7 million GVA in Dumfries and Galloway and South Ayrshire, and £20.5 million GVA in Scotland. The estimated GVA generated during the development and construction phase is shown for each study area in **Table 13.6.3**.

Table 13.6.3 Development and Construction GVA by Study Area and Contract Type

	Dumfries and Galloway and South Ayrshire	Scotland
Development and Planning	0.4	2.3
Turbine	1.5	7.5
Balance of Plant	3.0	8.2
Grid Connection	0.9	2.5
Total	5.7	20.5

74. Similarly, the contract values potentially awarded in each area would support employment. Turnover per employee for each of the industries involved is also given by the Annual Business Survey, which allows the employment from any increase in turnover to be estimated.
75. The employment impacts during the construction and development phase are reported in job years as the contracts would be short-term. Job years measures the number of years of full-time employment generated by a project. For example, an individual working on this project for 18 months would be reported as 1.5 job years.
76. In this way, the construction and development impacts were estimated to support up to 87 job years in Dumfries and Galloway and South Ayrshire, with 43 job years being related to the balance of plant contracts. In Scotland, up to 324 job years are estimated to be supported, of which 121 job years are related both to balance of plant contracts and 133 job years related to turbine contracts. The estimated employment supported during the construction and development phase is shown for each study area in **Table 13.6.4**.

Table 13.6.4 Construction and Development Employment in Job Years

	Dumfries and Galloway and South Ayrshire	Scotland
Development and Planning	5	32
Turbine	26	133
Balance of Plant	43	121
Grid Connection	13	38
Total	87	324

77. There would also be knock on effects in the supply chain and from spending by employees in the local economy. This impact would cover a wide range of sectors including accommodation and food service providers, retail outlets and transport companies. These effects are estimated by applying Type I (indirect) and Type II (indirect and induced) GVA and employment multipliers, which are sourced from the Scottish Government (Scottish Government, 2018), to the direct GVA and employment impacts.
78. In order to adjust these multipliers, which consider the national economy, for the economy of Dumfries and Galloway and South Ayrshire it was assumed that indirect multiplier effects would be 33% of the national impact, and induced multiplier effects, which consider the effect of local spending, would be 70% of the national impact.
79. In this way it was estimated the indirect impact in Dumfries and Galloway and South Ayrshire would be up to £0.8 million GVA and 13 job years in Dumfries and Galloway and South Ayrshire and £8.3 million GVA and 133 jobs

years in Scotland. The estimated indirect GVA and employment impacts for each study area are shown in **Table 13.6.5**.

Table 13.6.5 Construction and Development Indirect Impact (£m)

	Dumfries and Galloway and South Ayrshire	Scotland
Indirect Impact (£m)	0.8	8.3
Indirect Impact (job years)	13	133

80. It was estimated that the induced impact during the development and construction phase would be up to £1.2 million GVA and 16 job years in Dumfries and Galloway and South Ayrshire, and £6.4 million GVA and 85 job years in Scotland. The estimated induced GVA and employment impacts for each study area are shown in **Table 13.6.6**.

Table 13.6.6 Construction and Development Induced Impact (£m)

	Dumfries and Galloway and South Ayrshire	Scotland
Induced Impact (£m)	1.2	6.4
Induced Impact (job years)	16	85

81. The total impact during the construction and development phase is the sum of the direct impacts, the indirect and the induced impacts. The total combined impact was estimated to be up to £7.7 million GVA and 116 job years in Dumfries and Galloway and South Ayrshire, and £35.1 million GVA and 542 job years in Scotland. This is shown in **Table 13.6.7**.

Table 13.6.7 Economic Impact During Construction and Development

	Dumfries and Galloway and South Ayrshire	Scotland
Economic Impact (£m)	7.7	35.1
Employment (job years)	116	542

82. It is expected that during the construction and development phase, the effect of the proposed Development would be **Minor (Positive)** in Dumfries and Galloway and South Ayrshire, and **Negligible (Positive)** in Scotland.

### 13.6.1.2 Operation and Maintenance

83. The operation and maintenance impact of the proposed Development was estimated as the impact that would persist throughout the lifespan of the proposed Development. The application for the proposed Development does not specify a timeline for decommissioning (application is in perpetuity consent). The long-term assessments of the operations and maintenance impacts have been assessed in this study over the first 40-year period.
84. Annual expenditure on operations and maintenance was estimated based on analysis undertaken in the 2015 RenewableUK report. It was estimated that the annual operations and maintenance expenditure associated with the proposed Development could be up to £2.7 million (which excludes community benefit funding and non-domestic rates). Over the first 40 years of operational life of the proposed Development this could amount to approximately £109.2 million.
85. In order to estimate the economic impact of the operation and maintenance expenditure in each of 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 the contract proportions reported in the RenewableUK report and the analysis of the industries present in each of the study areas.

86. On this basis it was estimated that Dumfries and Galloway and South Ayrshire could secure 34% of operation and maintenance contracts, worth up to £0.9 million each year, and that Scotland could secure 48% of contracts, worth up to £1.3 million.

Table 13.6.8 Annual Operation and Maintenance Expenditure by Study Area

	Dumfries and Galloway and South Ayrshire		Scotland	
	%	£m	%	£m
Operation and Maintenance	34	0.9	48	1.3

87. As with the construction phase, the contract values awarded in each of the study areas represent an increase in turnover in those areas. The economic impact of the increase in turnover on GVA and employment was estimated in the same way as the construction expenditure, using the Annual Business Survey (Office for National Statistics, 2018).
88. In this way, it was estimated that turnover generated by the operation and maintenance of the proposed Development could support up to £0.5 million GVA and 8 jobs in Dumfries and Galloway and South Ayrshire, and £0.7 million GVA and 10 jobs in Scotland.

Table 13.6.9 Annual Operation and Maintenance Direct Impact

	Dumfries and Galloway and South Ayrshire	Scotland
GVA (£m)	0.5	0.7
Employment (jobs)	8	10

89. There would also be indirect and induced impacts during the operation and maintenance of the proposed Development, which were estimated using the same method as for the development and construction phase.
90. Adding together the direct, indirect and induced impacts, it was estimated that the total annual economic impact would be up to £0.7 million GVA and 9 jobs in Dumfries and Galloway and South Ayrshire, and £1.1 million and 15 jobs in Scotland.

Table 13.6.10 Annual Economic Impact During Operation and Maintenance

	Dumfries and Galloway and South Ayrshire	Scotland
Economic Impact (£m)	0.7	1.1
Employment (jobs)	9	15

91. It is expected that the effect on the economy of Dumfries and Galloway and South Ayrshire would be **Negligible (Positive)**, due to the scale of the regional economy as a whole. In Scotland, it is expected that the effect would also be **Negligible (Positive)**.

### 13.6.2 Wider Effects

#### 13.6.2.1 Community Benefit Funding and Community Investment

92. The Applicant is committed to sharing the benefits from our operational windfarms with local communities. This may include benefits in-kind, a community benefit fund and an opportunity to invest in the operational windfarm.
93. The criteria to determine which communities should be included in this investment offer is outlined in the community right to buy under Land Reform legislation. The Applicant has agreed with Forestry and Land Scotland which communities are appropriate to engage with about the opportunity to participate in this investment offer, should they choose to do so.
94. The Applicant has shared initial information with local communities about this opportunity to invest and has provided an introductory leaflet which outlines a potential investment structure. See **Technical Appendix 13.1** for further details.
95. Interested community organisations would combine to form a single community vehicle. The community vehicle could administer the community benefit fund and under the proposed investment structure would also have the opportunity to invest in the operational windfarm, on behalf of all the interested community organisations.
96. The Applicant is committed to keeping local communities informed as the project progresses and, in line with Scottish Government guidance, will provide information in a timely manner so the communities are able to fully assess the opportunity.
97. It is expected that any proposed income streams could provide a long term revenue which could be used to support community projects within South Ayrshire and Dumfries & Galloway. A range of options would be available to local communities who would have the flexibility to choose how the money is spent and prioritise it on the things which matter most to them.
98. The Barrhill Community Action Plan 2017-2025 gives an indication as to the type of initiatives that might be considered important within the Barrhill Community Council area, including the following:
- energy efficiency measures for residential properties;
  - improve broadband and mobile phone services;
  - IT, social media and communications training;
  - more health education and activities; and
  - improved visitor information and services.
99. To date, SPR has voluntarily contributed over £6.3 million in community benefit funding to South Ayrshire communities and nearly £7 million to communities in Dumfries and Galloway bringing the total figure contributed to communities across South Ayrshire and Dumfries and Galloway to over £13 million. A wide range of local projects and community initiatives have been supported by the funds including:
- 386 community facilities and services projects totalling £3,109,404.52
  - 133 community or local event projects totalling £342,801.57
  - 32 environmental projects totalling £240,424.21
  - 31 heritage projects totalling £174,310.05
  - 37 skills and employment projects totalling £226,447.73
  - 199 sport and recreation projects totalling £769,297.43
  - 193 youth and education projects totalling £825,244.06
100. Examples of jobs and training opportunities that have been funded by SPR community benefit packages include:
- 2014 Ailsa Horizons Ltd – Extend Carrick Rural Opportunities Project – to tackle local unemployment and underemployment;
  - 2017 Newton Stewart initiative – Project Officer – to improve the appearance and facilities in the town;

- 2018 Girvan Community Sport Hub – to fund a six-month employability pilot project seeking to identify, recruit, train and support six young people into employment in the South Carrick area; and
  - 2018 Barrhill Community Interest Company – employment of village handyman.
101. Benefits would accrue from the scale and nature of the proposed income streams and, depending on the choices made, could have a positive effect on the provision and quality of local facilities, the general quality of life of local residents as well as other economic benefits. The long-term nature of the income could allow the community to plan ahead; to draw in other sources of match funding to maximise the benefits; and to assist in the delivery of local initiatives that are deemed to be of the greatest value by the community.
102. Whilst these effects cannot be quantified at this stage due to uncertainty as to the quantum of funding that would be available to local communities and their choice of investment priorities, it is clear that the proposed community benefit fund and investment measures could offer real socio-economic benefits to the local community.

### 13.6.2.2 Non-Domestic Rates

103. The proposed Development would be liable for non-domestic rates, the payment of which would contribute directly to public sector finances. Analysis of the rateable values of nearby windfarms suggests that the average rateable value per MW is £23,100, and that the total rateable value would be £2.3 million.
104. Given a poundage rate of £0.516 per £1 of rateable value it is estimated that the proposed Development could contribute up to £1.2 million annually to public finances, and contribute £48.1 million over the first 40 years of its operational lifetime. However, the actual contribution would depend on variables such as the actual load factor, and the potential for any relief from non-domestic rates.
105. These non-domestic rates, by providing an additional revenue stream, would support the delivery of local authority services across Scotland.

### 13.6.3 Effects on Tourism and Recreation

#### 13.6.3.1 Windfarms and Tourism Evidence

106. The most comprehensive study of the potential effects of windfarms on tourism was undertaken by the Moffat Centre at Glasgow Caledonian University in 2008 (Glasgow Caledonian University/Moffat Centre, 2008). The study found that, although there may be minor effects on tourism providers and a small number of visitors may not visit Scotland in the future, the overall effect on tourism expenditure and employment would be very limited. This study is now about 10 years old, although a Scottish Government report confirmed the findings (ClimateXchange, 2012), and in that time windfarms have become a more common feature in Scotland. As such, it would be expected that any negative effects on the tourism economy would now be apparent.
107. However, the Moffat Centre study was based on what could happen, rather than what has happened. In 2017 BIGGAR Economics undertook a study into the effects of already constructed windfarms on tourism at the national, regional and local level (BiGGAR Economics, 2017).
108. Tourism employment was considered over the period 2009 to 2015, a six-year period over which Scotland and almost all local authority areas increased the number of windfarms, while employment in sustainable tourism also grew significantly. The analysis found no correlation between tourism employment and the number of turbines at the national or local authority level.
109. The study also considered the impact on employment at a much smaller, more granular level, in data zones up to 15 kilometres from developments. The sites considered were constructed between 2009 and 2015. As these sites did not exist in 2009, comparing employment in 2009 and 2015 was considered an effective measure of the effect of windfarms on local employment, while excluding construction impacts, such as windfarm related employees staying in local accommodation.
110. At the local authority level in these smaller areas, no link was found between the development of a windfarm and tourism related employment. In 21 out of the 28 areas considered employment in this sector grew. In 22 of the areas, employment either grew faster or decreased less than the rate for the relevant local authority area as a whole.

111. Overall, the conclusion of this study was that published national statistics on employment in sustainable tourism demonstrate that there is no relationship between the development of onshore windfarms and tourism employment at the level of the Scottish economy, at the local authority level, nor in the areas immediately surrounding windfarm development.
112. The findings of this research are in accordance with those of the Scottish Parliament's Economy, Energy and Tourism Committee in 2012 (Scottish Parliament Economy, Energy and Tourism Committee, 2012), when they concluded that there is no robust, empirical evidence of a negative link between windfarm development and tourism.
113. Overall, there is no research evidence that shows that fears of negative effects on the tourism economy in Scotland as a result of windfarms have been realised.
114. Within that overall context, the following assessment nevertheless considers whether there might be any specific effects on individual tourism assets. This assessment considers whether the proposed Development could result in changes in the behaviour of tourists that might lead to effects on the tourism economy.

### 13.6.4 Basis of Assessment

115. This section assesses whether there would be an effect on the tourism economy, as a result of the proposed Development leading to a change in behaviour, for example, a change in visitor numbers or tourism income. Therefore, the assessment is made on whether the proposed Development could lead to a change in behaviour that would lead to effects on the tourism economy.

### 13.6.5 Tourism/Recreation Assets

116. This section considered whether the proposed Development would have any effect on tourism assets, including regional visitor attractions, local visitor attractions and local accommodation providers, as identified in Section 13.5.

#### 13.6.5.1 Regional Visitor Attractions

117. The impact on the most visited attractions in South Ayrshire and Dumfries and Galloway was considered.
118. Galloway Forest Park is on the boundary of the proposed Development and contains the UK's first Dark Sky Park. The park offers a series of walks and trails to its visitors and gives them a chance to immerse themselves in nature. Given the proposed Development's proximity to this attraction, its effect is considered as **Minor (Negative)**.
119. Three other regional visitor attractions are located at less than 30 km from the proposed Development – Robert Burns Birthplace Museum, Culzean Castle and Country Park and Heads of Ayr Farm Park. Their attractiveness to potential visitors and their main features are unlikely to be affected. For this reason, the effect of the proposed Development on these tourist attractions is considered as **Negligible**.
120. The remaining six visitor attractions included in the baseline are not expected to be affected by the proposed Development, since they are distant more than 30 km from it. As a result, the effect was assessed as **Negligible**.

#### 13.6.5.2 Local Visitor Attractions

121. There are three local visitor attractions located 10-15 km from the proposed Development: Girvan Municipal Golf Course, Adventure Carrick and Glentrool Visitor Centre.
122. Girvan Municipal Golf Course is one of eight golf courses on the Ayrshire coastline. It is characterised by its views over the seacoast and Ailsa Craig, which are not going to be affected by the proposed Development. As a result, the effect was assessed as **Negligible**.
123. Adventure Carrick is part of the charity Adventure Centre for Education and provides a series of adventure activities for individuals, groups and families. These benefit from the location and unspoilt nature of the area. The effect was considered as **Negligible**, since it is unlikely that the proposed Development would affect the activities on offer or influence visitors' behaviour.
124. Glentrool Visitor Centre serves the outdoor market and provides information on trails, lochs and 7stanes mountain biking to the east. Activities associated with these assets would not be affected by the construction or operation of

the proposed Development, which is over 11 km from the visitor centre. Therefore, the effect was assessed as **Negligible**.

#### 13.6.5.3 Local Accommodation Providers

125. Four accommodation providers are located in Barrhill and are 6-7 km from the proposed Development. The two holiday parks - Barrhill Holiday Park and Queensland Holiday Park - market themselves as being surrounded by farmland and in a favourable location allowing easy access to attractions in the south west of Scotland. The effect of the proposed Development on these providers was assessed as **Negligible**. The other accommodation providers, Blair Farm and the Lodge, market themselves based on their rurality and tranquillity. The effect of the proposed Development was assessed as **Negligible**.
126. Around 6-7 km to the west of the proposed Development, there are two accommodation providers, Bridge Cottage and Auld Creamery, which market themselves for their location and calm environment. The resulting effect of the proposed Development on the two providers was assessed as **Negligible**.
127. Braemar and Boghouse B&B are located at Colmonell and Lendalfoot, at around 11-14 km from the proposed Development. The former is close to the coast and features views of the sea, whereas the latter markets itself for its location and the rich offer of activities in the area. The effect on both accommodation providers was assessed **Negligible**.
128. There are two accommodation providers located 4-6 km to the north and west of the proposed Development. Pinclanty Mill Cottage markets itself for its views, though these are unlikely to be affected by the proposed Development and for having easy access to a series of recreational activities, including golfing and hill walking. Alton Albany, on the edge of Galloway Park presents itself as ideal places where to unwind, while surrounded by nature. The effect on these providers was assessed as **Negligible**.
129. In and around Girvan, at 11-13 km from the proposed Development, there are seven accommodation providers. Ardmillan Castle Holiday Park, Woodland Bay Hotel, Westcliffe Hotel and Royal Hotel are located on the seaside and feature views of the coast. The other are based in the countryside and market themselves for their location and access to activities in the area. Burnside Farm B&B is located more inland and surrounded by the countryside. Given their distance from the proposed Development and their closeness to the coast, the effect was assessed as **Negligible**.
130. Four accommodation providers were identified in Old Dailly and Dailly, around 10-12 km north of the proposed Development. Coach House, Garryloop Guest House Accommodation and Brunston Castle market themselves as ideal locations to visit the surroundings. Maxwellston Farmhouse sees itself as well-placed for walkers, cyclists and golfers. It is considered unlikely that these features would be affected, and the effects were assessed as **Negligible**.
131. At Bargrennan, 8-12 km from the proposed Development, there are six accommodation providers. Garlies Lodge, House o' Hill Forest Park, Corrafeckloch Forest Cottages market themselves as places where to relax and unwind. Glentool Camping and Caravan Site is close to the Galloway Forest Park, Southern Upland and walks including Merrick making it a good location for walkers. The Orangerie is immersed in the countryside, and the self-catering at Glentool is situated in Galloway Forest Park. The accommodation providers are unlikely to be affected by the proposed Development and the effect was assessed as **Negligible**.
132. Two providers are located around 6 km from the proposed Development, close to Eldrick. Escape Shepherd's Hut and the Old School House Annexe, which advertise based on their cosiness, facilities and surroundings. On this basis, they are considered unlikely to be affected by the proposed Development. As a result, the effect was considered as **Negligible**.

#### 13.6.5.4 Core Paths

133. There are small number of core paths near the proposed Development, which are expected to be used predominantly by local residents. It is not expected that the proposed Development would impact on enjoyment of these paths. Therefore, the effect has been assessed as **Negligible**.

#### 13.6.5.5 Recreation Access

134. The construction of the proposed Development will result in the provision of a permanent recreational car park. This will be constructed in an area of the temporary construction compound near to the entrance of the site, and which is shown on **Figure 4.4**. Creation of this car park could improve access to this area of the countryside and nearby paths for recreational users, including walkers, cyclist and equestrians. The use of the car park by equestrians could be enhanced by designing the car park to meet the criteria described by the British Horse Society (in their scoping response). The details of the car park will be agreed with Forestry and Land Scotland and should consent be received, the Applicant will develop an access plan in consultation with South Ayrshire Council and Dumfries & Galloway Council's Access officers. The effect of this car park on the setting of the scheduled monument is considered in **Chapter 11: Archaeology and Cultural Heritage**.
135. It is also proposed that some archaeological interpretation is presented at the car park. That provision would be to specifically highlight the cultural heritage significance of Cairnderry Cairn, to inform visitors of its function, date and social context. The information would also provide background relating to the finds from excavations carried out on the cairn.
136. The improved access would be available to all recreational users and its effect is considered as **Minor (Positive)**.

## 13.7 Mitigation

#### 13.7.1 Socio-Economics Mitigation (Enhancement)

137. The scale of the investment required to develop, build and operate a windfarm means that it represents a significant investment in the local area. Developers can maximise the associated impacts through a range of measures, which can have the benefit of increasing local support for a windfarm. It could also improve the delivery of the proposed Development through having a more conveniently located supply chain and having scope to cut costs.

#### 13.7.2 Best Practice in Supply Chain Development

138. Best practice is set out in a 2014 report by RenewableUK (RenewableUK, 2014), which considered how developers can increase economic impacts in the local area. There are six main recommendations:
- maximise your local presence and begin early – identify potential suppliers and increase your visibility in the local area;
  - partnerships work – work with local authorities and business groups to gain information on local expertise and spread the message to local businesses;
  - leverage primary contractors – ensure that primary contractors also consider the impact that they can make in the local area;
  - provide the right information – give information in plenty of time and in the right format so that local businesses are able to prepare;
  - communicate technical requirements early – provide opportunities for local companies to upskill and form local consortia; and
  - demonstrate local content in planning – insert local-content commitments in the planning application where applicable and undertake post-construction auditing.

#### 13.7.2.1 Maximising the Local Impact of the proposed Development

139. The Applicant has a strong track record of developing onshore windfarms in Scotland, and experience from previous windfarm construction projects is that expenditure in local goods and services is widely spread and makes a difference to existing businesses.
140. The Applicant works with a variety of Tier 1 / Tier 2 contractors who are actively encouraged to develop local supply chains throughout the local area, and work with subcontractors to invest in training and skills development. The Applicant runs 'Meet the Developer / Contractor Days' and local companies (especially Small and Medium Enterprises (SMEs)) are invited to attend these days, which are held locally, to meet with representatives across the Applicant's development, construction and operational teams, as well as Principal Contractors. This provides

the Applicant and contractors with the opportunity to brief local businesses on the types of contracts being let during the lifetime of the proposed Development.

141. The Applicant would seek to secure positive benefits for the local economy by encouraging the use of local labour, manufacturers and suppliers where possible during the operational phase. The majority of jobs during the operational phase are related to turbine maintenance and civils maintenance works. ScottishPower runs a graduate trainee scheme which lasts for two years and involves on the job training and placements in various parts of the ScottishPower business including Renewables.

## 13.8 Residual Effects

142. The residual effects identified in the assessment include:

- a temporary, Minor beneficial effect on the regional economy as a result of construction related expenditure;
- a temporary, Negligible beneficial effect on the national economy as a result of construction related expenditure;
- a permanent, Negligible beneficial effect on the regional and national economy due to operations and maintenance expenditure; and
- a permanent, Negligible effect on local tourism assets and accommodation providers from the operation of the proposed Development.

## 13.9 Cumulative Assessment

143. The Applicant has built a number of windfarms in the area, including Mark Hill Windfarm which is near to the proposed Development, Kilgallioch Windfarm, which is around 11 km to the south west of the proposed Development and Arecleoch Windfarm, which is 15 km to the west of the proposed Development. In addition, the proposed Kilgallioch Windfarm Extension is 16 km from the proposed Development and is also being developed by the Applicant. The construction of these windfarms may have assisted the development of the local supply chain's capacity, increasing opportunities for local businesses, which may result in a higher volume of contracts being awarded locally. Overall, the effect on the local economy was assessed as **Negligible**.
144. A review of existing evidence on the relationship between windfarms has found little evidence of a negative impact and an assessment of effects on local tourism assets and recreational routes indicates that there are likely to be no significant adverse effects on local tourism. On this basis, it seems unlikely that there would be cumulative effects on the local tourism economy. Therefore, the cumulative effect on the tourism economy was assessed as **Negligible**.

## 13.10 Summary

145. The socio-economic baseline suggests that the local area has a relatively older population than Dumfries and Galloway, South Ayrshire and Scotland and that this trend is set to continue into the future. This suggests there is a relative lack of opportunities in the local area as compared to Dumfries and Galloway and South Ayrshire. Employment is relatively high in accommodation and food services, as well as manufacturing and construction.
146. On the basis of an installed capacity in the region of 100 MW, it found that during the construction and development phase the proposed Development could generate up to:
- £7.7 million GVA and 116 job-years in Dumfries and Galloway and South Ayrshire; and
  - £35.1 million GVA and 542 job-years in Scotland.
147. These GVA values are summarised in **Table 13.6.7**.

148. During the operations and maintenance period, the proposed Development could annually generate up to:

- £0.7 million GVA and 9 jobs in Dumfries and Galloway and South Ayrshire; and
- £1.1 million GVA and 15 jobs in Scotland.

149. There would also be benefits associated to the payment of community benefit and the opportunity for community investment which would support the development of local communities.

150. In addition, there would be benefit from the proposed Development to the public sector in the form of non-domestic rates. Given the rates paid by similar developments, the annual contribution resulting from the proposed development was estimated to be up to £1.2 million.

151. A review of existing evidence on the relationship between windfarm developments and the tourism economy found no evidence that negative effects should be expected. A specific assessment of the potential of the proposed Development on local tourism assets and accommodation providers also found that there were not expected to be any adverse impacts.

152. Overall, there were no significant adverse effects associated with the proposed Development, while there would be some positive impacts linked to construction and operational expenditure, though they would also not be significant, in EIA terms.

Table 13.10.1 Summary Table

Description of Effect	Significance of Potential Effect		Mitigation Measure	Significance of Residual Effect	
	Significance	Beneficial / Adverse		Significance	Beneficial / Adverse
<i>During Construction</i>					
Economic Impact of up to £7.7 million GVA and 116 job years in Dumfries and Galloway and South Ayrshire	Minor	Beneficial	n/a	Minor	Beneficial
Economic impact of up to £35.1million GVA and 542 job years in Scotland	Negligible	Beneficial	n/a	Negligible	Beneficial
<i>During Operation</i>					
Annual economic impact of up to £0.7 million GVA and 9 jobs in Dumfries and Galloway and South Ayrshire	Negligible	Beneficial	n/a	Negligible	Beneficial
Annual economic impact of up to £1.1 million GVA and 15 jobs in Scotland	Negligible	Beneficial	n/a	Negligible	Beneficial
Annual payment of an estimated up to £1.2 million in Non-Domestic rates	Negligible	Beneficial	n/a	Negligible	Beneficial
Effect on tourism assets	Negligible	n/a	n/a	Negligible	n/a
Effect on accommodation providers	Negligible	n/a	n/a	Negligible	n/a
Effect on core paths and recreational access	Negligible	Beneficial	n/a	Negligible	Beneficial
<i>Cumulative Effects</i>					
Economic impact on economies of Dumfries and Galloway and South Ayrshire	Negligible	Beneficial	n/a	Negligible	Beneficial
Effect on tourism economy	Negligible	n/a	n/a	Negligible	n/a

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