

12 Socio-economic, Recreation and Tourism

Contents

12.1	Executive Summary	12-1
12.2	Introduction	12-1
12.3	Legislation, Policy and Guidelines	12-2
12.4	Consultation	12-2
12.5	Assessment Methodology and Significance Criteria	12-3
12.6	Baseline Conditions	12-6
12.7	Receptors Brought Forward for Assessment	12-13
12.8	Standard Mitigation	12-13
12.9	Potential Effects	12-13
12.10	Additional Mitigation	12-21
12.11	Residual Effects	12-23
12.12	Cumulative Assessment	12-23
12.13	Summary	12-23
12.14	References	12-27

This page is intentionally blank.

12 Socio-economic, Recreation and Tourism

12.1 Executive Summary

12.1.1 It was estimated that during the construction and development phase the Proposed Development could support up to:

- £2.3 million GVA and 33 job years in North Ayrshire; and
- £15.8 million GVA and 242 job years in Scotland.

12.1.2 The operation of the Proposed Development each year is expected to generate up to:

- £0.3 million GVA and five jobs in North Ayrshire; and
- £0.6 million GVA and eight jobs in Scotland.

12.1.3 The socio-economic impact during construction was assessed as negligible beneficial for both the local and national economies. The annual impacts occurring during operation were also assessed as negligible beneficial. In addition, the economic impacts during the decommissioning phase of the Proposed Development was assessed and found to be negligible beneficial.

12.1.4 The tourism recreation and tourism assessment found that no significant effects would be expected. The tourism assessment was based on consultation with tourism stakeholders, a literature review of the relationship between wind farms and tourism activity in Scotland, as well as a desk-based study of tourism assets and accommodation providers located in the proximity of the Proposed Development.

12.1.5 The baseline assessment found that the population in North Ayrshire is relatively older than in Scotland as a whole, has declined over the last decade and is expected to decrease in the future. The local economy has a relatively larger share of its workforce employed in sectors linked to construction. The main source of tourism activity in the area is fishing.

12.1.6 This assessment found that there were no significant effects expected as a result of the Proposed Development.

12.2 Introduction

12.2.1 This chapter considers the likely socio-economic, recreation and tourism impacts associated with the Proposed Development. The assessment was based on the Proposed Development including ten turbines, each with a generating capacity of 4.2 MW, and having a total generating capacity of 42 MW¹.

12.2.2 The remainder of the chapter is structured as follows:

- Section 12.3 sets out the relevant legislation, policy and guidance followed in the assessment;
- Section 12.4 summarises the responses to consultations and refers to where they were addressed in the chapter;
- Section 12.5 sets out the assessment methodology and the significance criteria;
- Section 12.6 provides a baseline of the socio-economic and tourism conditions;
- Section 12.7 lists the receptors that were brought forward for assessment;
- Section 12.8 discusses the standard mitigation;

¹ 42 MW is target capacity. Actual installed capacity may be greater or less dependent on turbine model selection but will not be greater than 50 MW.

- Section 12.9 considers and assesses the potential effects of the Proposed Development;
- Section 12.10 identifies additional mitigation;
- Section 12.11 considers the residual effects;
- Section 12.12 assesses the cumulative assessment;
- Section 12.13 summarises the assessment; and
- Section 12.14 provides a list of references.

12.3 Legislation, Policy and Guidelines

- 12.3.1 There is no specific legislation, policy or guidance available on the methods that should be used to assess the socio-economic impacts of a proposed onshore wind farm development. The proposed method has however been based on established best practice, including that used in UK Government and industry reports on the sector.
- 12.3.2 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 (Department of Energy and Climate Change, RenewableUK, 2012) on the direct and wider economic benefits of the onshore wind sector to the UK economy and a subsequent update to this report published by RenewableUK in 2015 (RenewableUK, 2015).
- 12.3.3 Similarly, there is no formal guidance on the methods that should be used to assess the effects that wind farm developments may have on tourism and leisure interests.

12.4 Consultation

- 12.4.1 In addition to the desk-based analysis of secondary data, discussions with stakeholder groups were undertaken to gain a fuller understanding of the tourism baseline and the capacity of companies within North Ayrshire to take advantage of the potential contracts associated with the Proposed Development.
- 12.4.2 The details on the organisations consulted and the information provided are given in the table below.

Table 12.1 – Consultation

Organisation	Information Provided
Clyde Muirshiel Park Authority	Details on visitor numbers and tourism/recreational activities undertaken at the park, as laid out in their annual report.
VisitScotland	Overview of tourism trends and attractions in North Ayrshire (and wider Ayrshire context). An understanding of the relationship between the Ayrshire coast and islands in the Firth of Clyde.
Ayrshire Chamber of Commerce	Details on the approach taken to economic development in Ayrshire and an understanding of some of the key industrial strengths of North Ayrshire in relation to wind farm developments

12.5 Assessment Methodology and Significance Criteria

Assessment of Socio-Economic Benefits

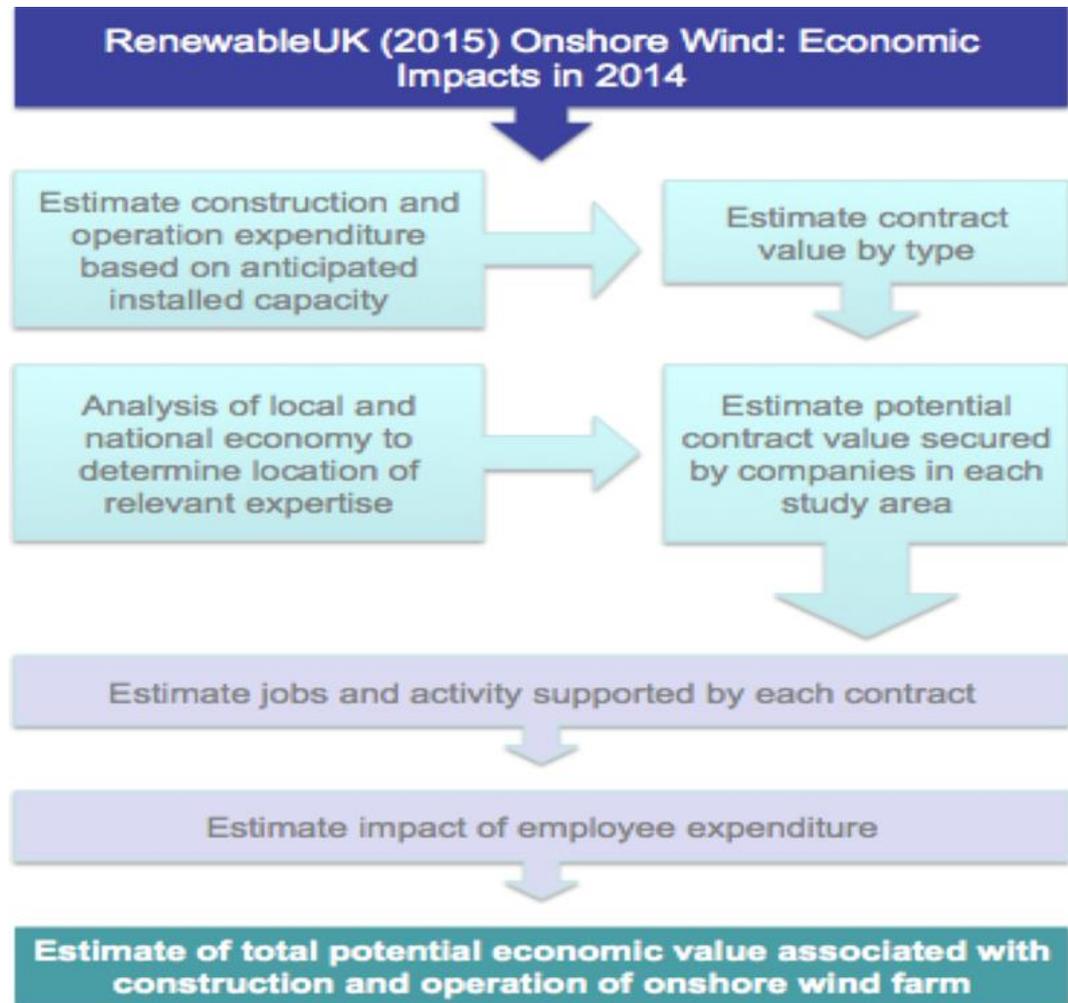
- 12.5.1 The assessment of economic effects was undertaken using a model that has been developed by BIGGAR Economics specifically to estimate the socio-economic effects of wind farm developments. This model was also the basis of an assessment of the UK onshore wind sector for the then Department of Energy 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 wind farms that have been developed in the UK and has been updated to reflect changes in the industry in recent years.
- 12.5.2 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 wind farms across the UK, with the results being accepted as robust at several public inquiries.
- 12.5.3 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 wind farms 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.
- 12.5.4 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 and is typically estimated by subtracting the non-staff operational costs from the revenues of an organisation;
 - Job years – this is a measure of employment which is equivalent to one person being employed for an entire year and is typically used when considering short term employment impacts, such as those associated with construction; and
 - Jobs – this is a measure of employment which considers the headcount employment in an organisation or industry.

Stages in Socio-Economic Analysis

- 12.5.5 To begin estimating the economic activity supported by the Proposed Development, it is first necessary to calculate the expenditure during the development, construction, operation and decommissioning 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 North Ayrshire and Scotland.
- 12.5.6 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).
- 12.5.7 There are four key stages of this model, which are illustrated in **Chart 12.1**:
- 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.

Chart 12.1 - Approach to Economic impact Assessment



Tourism and Recreation Methodology

12.5.8 The potential effects of wind farm 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).

12.5.9 Tourist attractions and accommodation within 10 km of the Proposed Development were identified, as well as a small number of regionally important tourism attractions located just outside of that area.

Effect Evaluation Methodology

- 12.5.10 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.
- 12.5.11 The impact magnitude is assessed using the economic model and professional judgement, considering socio-economic effects from the Proposed Development on North Ayrshire and Scotland. The significance of effects from the Proposed Development on tourism and recreation assets are assessed with reference to evidence from research and comparable wind farm developments. The cultural heritage and landscape and visual assessments have been reviewed, but this assessment specifically considers potential effects on tourism. A cultural heritage or landscape and visual effect does not necessarily imply a tourism effect; that would only be the case if such effects were likely to lead to changes in tourism behaviour.
- 12.5.12 The significance of effect on each economic, tourism and recreational asset is determined on the basis of the criteria provided below, in **Table 12.2**. Major and moderate effects are considered significant in relation to Environmental Impact Assessment Regulations (2017).

Table 12.2 - 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

Study Area

- 12.5.13 The geographical area considered as part of the assessment comprises:
- the local authority area of North Ayrshire; and
 - Scotland.

Desk Study

12.5.14 The assessment relied on a desk study analysis of the local socio-economic and tourism context. This was based on publicly available statistics and the knowledge acquired through consultations with local stakeholders.

Limitations to Assessment

12.5.15 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, which can be aided by the Applicant, increasing awareness of these opportunities.

12.6 Baseline Conditions

12.6.1 This section sets out the baseline conditions for the two study areas that are considered in this assessment.

Baseline Economic Context

12.6.2 As per the EIA Scoping Report (refer to Appendix 4.1), the baseline economic conditions shall consider:

- the demographic profile of the local area within the context of the regional and national demographic trends;
- employment and economic activity in the local area within the context of the regional and national economic trends;
- the industrial structure of the local area within the context of the regional and national economies;
- the role of the tourism and recreation sector in the local and regional economy; and
- wage levels within the local economy compared to regional and national levels.

Population

12.6.3 The population of North Ayrshire is 135,300 (ONS, 2019a). The share of the population in North Ayrshire that is of working age (60.9%) is lower than that for Scotland as a whole (64.2%). North Ayrshire has a greater concentration of people aged 65 or over (22.2%) than Scotland as a whole (18.9%).

12.6.4 The outline demographic breakdown of the two study areas is shown in Table 12.3.

Table 12.3 - Population and Demography (2018)

	North Ayrshire	Scotland
Total Population	135,300	5,438,100
Population aged 0 – 15	16.8%	16.9%
Population aged 16 – 64	60.9%	64.2%
Population aged 65 and over	22.2%	18.9%

12.6.5 Between 2008 and 2018, the population of North Ayrshire has decreased by 1.9% and over the same period of time, the population of Scotland has increased by 4.5%. In both areas, the population aged 65 and over has grown by approximately 20% in this time period and the number of people aged under 16 has decreased. This trend is expected to continue. Population projections for 2016 – 2026 anticipate that the population in Scotland will grow during this time period by 3.2% and will decrease

in North Ayrshire by 2.1%. Only eight local authority areas were expected to experience a population decline over this time period (National Records of Scotland, 2017).

- 12.6.6 The trends in population growth and the projected population change for each area is shown in Table 12.4.

Table 12.4 - Population Trends and Projections (2008 - 2026)

	North Ayrshire	Scotland
Population Change 2008 – 2018	-1.9%	+4.5%
Projected Change 2016 - 2026	-2.1%	+3.2%

Economic Activity

- 12.6.7 The residents of North Ayrshire have similar economic indicators to Scotland as a whole. The median full-time salary of people living in North Ayrshire is £30,370 (ONS, 2019b). This is slightly higher than across Scotland as a whole, in which median full-time salaries are £29,660. The residents of North Ayrshire earn more than those who work within the local authority which reflects the fact that those who commute to places such as Glasgow, tend to do so for higher salaries.
- 12.6.8 The working age population in North Ayrshire is less likely to be employed than the Scottish average (ONS, 2019c). The economic activity rate is 2% lower in North Ayrshire (75.9%) than it is in Scotland as a whole (77.9%). Similarly, the unemployment rate is almost 2% higher in North Ayrshire (5.9%) than that across Scotland (4.1%).
- 12.6.9 The key economic indicators of the residents of each study area are shown in Table 12.5.

Table 12.5 – Economic Indicators of Residents (2018)

	North Ayrshire	Scotland
Economic Activity Rate (16 – 64)	75.9%	77.9%
Unemployment Rate (16 – 64)	5.9%	4.1%
Median Annual FT Wage	£30,370	£29,660

Industrial Structure

- 12.6.10 The main sectors of employment in North Ayrshire are the retail and wholesale sectors (including garages), which employs 16.5% of the workforce and human health and social care, which employs 15.3% of the workforce (ONS, 2019d). These sectors are also the two largest employers across Scotland.
- 12.6.11 The sectors that are most relevant to the Proposed Development are manufacturing, construction and the professional, scientific and technical activities. Both manufacturing and construction employ a greater proportion of the North Ayrshire workforce than Scotland as a whole, with 10.6% and 7.1% of employment in these sectors respectively. The professional, scientific and technical activities employ a smaller share of the workforce in North Ayrshire (4.1%) than in Scotland as a whole (7.0%).
- 12.6.12 The public sector employs a greater share of the workforce in North Ayrshire (25.6%), than Scotland as a whole (22.2%).
- 12.6.13 The share of employment by industry for each area is shown in Table 12.6.

Table 12.6 - Employment by Industry (2018)

	North Ayrshire	Scotland
Agriculture, forestry and fishing	2.4%	3.2%
Mining and quarrying	0.2%	1.1%
Manufacturing	10.6%	6.9%
Electricity, gas, steam and air conditioning supply	1.2%	0.7%
Water supply; sewerage, waste management and remediation activities	1.2%	0.8%
Construction	7.1%	5.5%
Wholesale and retail trade; repair of motor vehicles and motorcycles	16.5%	13.6%
Transportation and storage	3.2%	4.2%
Accommodation and food service activities	8.8%	7.9%
Information and communication	0.7%	3.1%
Financial and insurance activities	0.9%	3.4%
Real estate activities	1.4%	1.5%
Professional, scientific and technical activities	4.1%	7.0%
Administrative and support service activities	7.1%	7.9%
Public administration and defence; compulsory social security	5.9%	6.0%
Education	8.2%	7.4%
Human health and social work activities	15.3%	15.1%
Arts, entertainment and recreation	3.2%	2.7%
Other service activities	2.1%	2.1%

Baseline Economic Context Summary

12.6.14 The population of North Ayrshire is relatively older than Scotland as a whole and is in the process of declining. The residents of North Ayrshire earn more than the Scottish average however this is driven by commuters, and residents are less likely to be employed than the average in Scotland. The industrial structure of North Ayrshire would suggest that it is relatively well placed to take advantage of some areas of onshore wind expenditure, particularly those related to civil engineering. However other areas of contract activity, such as the employment in professional, scientific and technical services, are lower than the Scottish average.

Baseline Strategic Economic Context

12.6.15 The political and economic context relevant to the Proposed Development is outlined in the following strategy documents:

- Scotland's Economic Action Plan 2018-2020;
- Scottish Energy Strategy;
- Climate Change (Emissions Reduction Targets) ((Scotland) Bill); and
- Economic Development & Regeneration Strategy Refresh North Ayrshire 2016 – 2025.

Scotland's Economic Action Plan 2018-2020

12.6.16 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.

12.6.17 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.

Scottish Energy Strategy

12.6.18 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.

12.6.19 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%.

12.6.20 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.

12.6.21 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.

Climate Change (Emissions Reduction Targets) (Scotland) Bill

12.6.22 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.

North Ayrshire Economic Development and Regeneration Strategy Refresh 2016 - 2025

- 12.6.23 The North Ayrshire Economic Development and Regeneration Strategy (EDR) (North Ayrshire Council, 2016) is an update from the previous EDR that was written in 2010. This update reflected the changes in the economy that occurred in that interim time period. The refreshed strategy is aligned with the four I's that are in the Scottish Government Economic Strategy, namely Investment, Innovation, Internationalisation and Inclusive Growth. There are no specific references to renewable energy opportunities within the strategy, however, it does highlight the strengths in manufacturing and engineering that are found within North Ayrshire and the desire to build on the natural assets in the area to develop the tourism sector further.

Baseline Tourism and Recreation Context

- 12.6.24 The baseline tourism context includes the strategies that support tourism in the study areas and the attractions, facilities and metrics associated with tourism and recreation facilities in these areas.

Tourism Scotland 2020 Strategy

- 12.6.25 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.

- 12.6.26 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.

Ayrshire and Arran Tourism Strategy 2012/2017

- 12.6.27 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%.

- 12.6.28 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.

- 12.6.29 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.

Making Waves in North Ayrshire

- 12.6.30 The Making Waves in North Ayrshire Tourism Action Plan covers the period of 2018 to 2022 (North Ayrshire Council, 2017). The focus and vision of the strategy is to capitalise on the tourism assets of the coast and island locations to make North Ayrshire a unique and memorable destination. The strategy highlights festivals and events as occasions that can be used to enhance the awareness of the area as a tourism destination to a wider audience and encourage collaboration across the sector.

Tourism Economy

- 12.6.31 Tourism and recreation have an economic impact as the spending of visitors will support jobs and generate GVA through their spending. The spending of visitors will impact on a wide range of sectors, Sustainable Tourism has been defined and this is one of the Growth Sectors that have been highlighted by the Scottish Government as of particular importance to the Scottish economy.
- 12.6.32 The employment and gross value added (GVA) of the Sustainable Tourism sector is given Table 12.7 for both North Ayrshire and Scotland. This shows that the sector supported 4,500 jobs and £80 million GVA in North Ayrshire in 2018. Across Scotland, the sector supported 218,000 jobs in 2018 and over £4.1 billion GVA (Scottish Government, 2019).

Table 12.7 - Sustainable Tourism GVA and Employment 2018

	North Ayrshire	Scotland
Employment (Jobs)	4,500	218,000
GVA	£80m	£4,127m

Visitors

- 12.6.33 The number of visitors to North Ayrshire is shown by type in Table 12.8 below.
- 12.6.34 Data on the number of overseas visitors to North Ayrshire is not provided in the International Passenger Survey. North Ayrshire is included as part of the Ayrshire and Arran geography and data is provided at that level. This shows that in 2018, there were 103,000 international visitors to Ayrshire and Arran who spent an estimated £73 million in the area (ONS, 2019e). North Ayrshire accounted for 37% of domestic overnight visitors in Ayrshire and Arran and therefore this proportion was applied to the number of international visitors and spend to estimate the international visitor market in North Ayrshire.
- 12.6.35 In total, there were approximately 3.5 million visitor trips to North Ayrshire and 154 million visitor trips to Scotland (Kantar TNS, 2019a) (Kantar TNS, 2019b).

Table 12.8 - Visitors by Type

	North Ayrshire	Scotland
Day Visitor Trips	3,250,000	138,910,000
GB Overnight Trips	246,000	11,660,000
Overseas Trips	40,000	3,538,000
Total Trips	3,536,000	154,108,000

- 12.6.36 The expenditure of visitors to North Ayrshire and Scotland is shown in Table 12.9 (Clyde Muirshiel Regional Park, 2018) by type of visitor. The visitors to North Ayrshire spent a total of £187 million during 2018. The majority of this expenditure, is associated with day visitors who spent £105 million. Domestic overnight visitors spent £55 million and Overseas visitors spent £27 million. The share of international expenditure in the North Ayrshire tourism sector is lower than the rate across Scotland. Across Scotland, visitors spent over £10 billion in the tourism economy.

Table 12.9 - Visitor Spend by Type

	North Ayrshire	Scotland
Day Visitor Spend	£105m	£5,474m
GB Overnight Visitor Spend	£55m	£2,888m
Overseas Visitor Spend	£27m	£2,206m
Total Visitor Spend	£187m	£10,568m

Tourism Attractions

12.6.37 The most popular visitor attractions in Ayrshire and Arran, are detailed in the regional profile of the tourism economy published by VisitScotland (VisitScotland, 2018). Of the five listed, only one is in North Ayrshire, namely the Scottish Maritime Museum that received 86,600 visitors in 2017. This is located in Irvine and is 28km south-west of the Proposed Development.

12.6.38 In addition to the attractions that are highlighted by VisitScotland, there are a small number of local tourism attractions that have been identified during the desk research. These include:

- Clyde Muirshiel Regional Park;
- Skelmorlie Secret Bunker;
- Ardgowan House; and
- Kelburn Castle and Country Centre.

12.6.39 The most popular of these is Clyde Muirshiel Regional Park which had just under 650,000 visitors in 2017/18 (Clyde Muirshiel Regional Park, 2018). These visitors were registered across the four site locations. The majority of these visitors were to Castle Semple, which is on the eastern edge of the park in Renfrewshire. In addition to recreational users, the park is also used for educational purposes, such as school trips, and as an asset for improving community health.

Visitor Accommodation

12.6.40 The visitor accommodation in the vicinity of the Proposed Development is concentrated around the coastal communities. In particular;

- Skelmorlie – the village of Skelmorlie has three caravan/camping parks and a small number of holiday lets within the village, these are located within 3km of the site of the Proposed Development;
- Largs – the town of Largs is a traditional seaside resort that has a large number of accommodation providers, including hotels, B&Bs and self-catering facilities. The town is located 5km to the south of the Proposed Development and the accommodation providers market their seaside location; and
- Inverkip – the village of Inverkip is located 5km to the north of the Proposed Development and hosts a small number of accommodation providers including multiple B&Bs and a hotel.

12.6.41 In addition to the accommodation provides within the seaside communities, there are some accommodation providers within the rural hinterland near the Proposed Development. This includes;

- Noddsdale Estate – three self-catering cottages located 3km to the south of the Proposed Development; and
- South Whittlieburn Farm – a farm and equestrian centre with facilities for camping and caravan visitors, which is located within 2km of the Proposed Development to the south.

Paths and Access

12.6.42 There are a series of core paths and recreational routes close to the Proposed Development. These include:

- NC10, a core path running along Craigmarnoch and Routeburn Roads adjacent to site entrance and NC11, a core path that runs along the Brisbane Mains. These core path forms part of the Ayrshire Coastal Path, and pass within 1km of the Proposed Development to the west (NC10) and 1.5km to the south (NC11);
- NC12, a core path that is within 1km of the Proposed Development to the east;
- NC91, a core path 2km south west of the Proposed Development;
- NC121 and Inverclyde Core Path 8, core paths that passes within 2km of the Proposed Development to the north west;
- Inverclyde Core Path 7, a core path that passes 1km of the Proposed Development, to the north;
- Inverclyde Core Path 2, a core path that passes within 2km of the Proposed Development to the north west;
- The Knock Hill Circular, which passes within 2km of the Proposed Development to the south west, and incorporates parts of NC10, NC11 and NC12.

Summary of Tourism Baseline

12.6.43 The tourism activity in the local area is focused on the seaside towns in North Ayrshire and Inverclyde. This reflects the maritime focus of the local tourism strategy and the historic roles that these towns have had as a holiday destination for tourists from the Central Belt of Scotland. The town of Largs, on the Ayrshire coast is 5km from the site of the Proposed Development and has a high concentration of tourism activity.

12.7 Receptors Brought Forward for Assessment

12.7.1 The receptors that have been brought forward for assessment are:

- the local community;
- the economy of North Ayrshire;
- the economy of Scotland; and
- the Sustainable Tourism sector in North Ayrshire.

12.8 Standard Mitigation

12.8.1 There are no Standard Mitigation practices for Socio-economic, Recreation and Tourism Impacts.

12.9 Potential Effects

Construction

12.9.1 In order to estimate the impact arising from spending in the construction and development of the Proposed Development, expenditure was attributed to:

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

12.9.2 The estimation of the share of costs that would arise for each of these contracts was based on the analysis that BiGGAR Economics carried out on behalf of Renewable UK (RenewableUK, 2015). This was complemented by a local analysis of the relative employment shares in the sectors involved in each stage of construction and development compared to Scotland, which was used to adjust the spending taking place in North Ayrshire.

12.9.3 It was estimated that during the construction and development phase a total of £52.8 million would be spent. The largest contract would be for turbines (67.6%) of total capex expenditure, followed by balance of plant (21.3%), development (5.7%) and grid connection (5.4%), as shown in **Table 12.10** below.

Table 12.10 - Development and Construction Expenditure by Contract Type

	% Capex	Value (£m)
Development and Planning	5.7%	3.0
Turbines	67.6%	35.7
Balance of Plant	21.3%	11.3
Grid Connection	5.4%	2.8
Total	100%	52.8

Note, totals may not sum due to rounding

12.9.4 Businesses in North Ayrshire could be to be awarded up to £3.5 million in construction and development contracts. The largest contract from which the local area is expected to benefit are balance of plant contracts, in particular those associated with civil engineering. Scotland could benefit from a total £19.2 million during the development and construction phase. The largest contract is expected to be balance of plant, which could benefit Scotland with up to £7.6 million of expenditure.

Table 12.11 - Development and Construction Expenditure by Study Area and Contract Type

	North Ayrshire		Scotland	
	%	£ million	%	£ million
Development and Planning	8%	0.3	63%	1.9
Turbines	2%	0.5	19%	6.8
Balance of Plant	16%	1.8	68%	7.6
Grid Connection	29%	0.8	100%	2.8
Total	7%	3.5	36%	19.2

Note, totals may not sum due to rounding

12.9.5 In order to estimate the impact from construction and development, each contract was split into its component contracts and assigned to a sector from the Standard Industrial Classification (SIC). The turnover in each study area was divided by the turnover/GVA ratio from the Annual Business Survey (ONS, 2019f). The total direct impact from construction and development phase in Scotland was estimated to be £9.2 million GVA and £1.7 million GVA in North Ayrshire.

Table 12.12 - GVA by Study Area and Contract Type

	North Ayrshire	Scotland
Development and Planning	0.2	1.3
Turbines	0.3	3.1
Balance of Plant	0.9	3.7
Grid Connection	0.3	1.1
Total	1.7	9.2

Note, totals may not sum due to rounding

- 12.9.6 To estimate the direct jobs that would be supported by the Proposed Development, the expenditure on each contract was divided by the turnover/job for the relevant industry. In this way, it was estimated that during the construction and development phase, the Proposed Development would support 25 job years in North Ayrshire and 145 job years in Scotland.

Table 12.13 - Development and Construction Direct Employment in Job Years

	North Ayrshire	Scotland
Development and Planning	3	18
Turbines	4	55
Balance of Plant	13	54
Grid Connection	5	17
Total	25	145

Note, totals may not sum due to rounding

- 12.9.7 In addition to having a direct impact on economic activity, the construction and development of the Proposed Development is expected to have knock-on impacts across the supply chain of the businesses that are going to carry out construction works. The businesses involved in construction and development would also have an economic impact through the salaries and wages they pay to their employees. Spending from these employees, in turn, is expected to benefit the economies of North Ayrshire and Scotland.
- 12.9.8 In order to estimate indirect and induced impacts, it was necessary to multiply the direct GVA and employment impacts by the Type I and Type II multipliers from the Scottish Government Input-Output Tables (Scottish Government, 2018). These were then discounted by the amount of supply spending that is expected to take place in North Ayrshire (33%) and the amount of household spending taking place in North Ayrshire (70%).
- 12.9.9 It was estimated that the indirect impact from the construction and development phase of the Proposed Development could result in £0.3 million GVA and support four job years in North Ayrshire and £3.7 million GVA and 59 job years across Scotland.

Table 12.14 - Development and Construction Indirect Impact

	North Ayrshire	Scotland
Indirect GVA (£ m)	0.3	3.7
Employment	4	59

- 12.9.10 It was estimated that the induced impact from the construction and development phase would amount to £0.4 million GVA and five job years in North Ayrshire and £2.9 million GVA and 38 job years across Scotland.

Table 12.15 - Development and Construction Induced Impact

	North Ayrshire	Scotland
Induced GVA (£ m)	0.4	2.9
Employment	5	38

- 12.9.11 Adding the direct, indirect and induced impacts, it was estimated that the construction and development of the Proposed Development could result in £2.3 million GVA and 33 job years in North Ayrshire and £15.8 million GVA and 242 job years in Scotland.

Table 12.16 - Economic Impact During Development and Construction

	North Ayrshire	Scotland
GVA (£ m)	2.3	15.8
Employment	33	242

The impact on the economy of North Ayrshire of the construction and development of the Proposed Development was assessed as **negligible** beneficial. The impact on the Scottish economy was assessed as **negligible** beneficial.

Operation

- 12.9.12 The Proposed Development is also expected to have a socio-economic impact throughout its operational lifetime. It was estimated that each year operations and maintenance expenditure will be around £1.3 million.
- 12.9.13 In order to estimate the economic impact from spending in operations and maintenance, it was necessary to estimate the share of the contracts related to operations and maintenance that could be obtained within each of the study areas.
- 12.9.14 In this way, it was estimated that around 34% of spending on operations and maintenance, equivalent to £0.4 million, would benefit North Ayrshire, whereas Scotland would benefit from 52% or £0.7 million from operations and maintenance contracts.

Table 12.17 - Annual Operation and maintenance Expenditure by Area

	North Ayrshire		Scotland	
	%	£m	%	£m
Operation and Maintenance	34%	0.4	52%	0.7

12.9.15 In order to estimate the direct GVA and employment contribution made each year by the Proposed Development's operations and maintenance, the value of the contracts carried out in each study area was divided by the relevant turnover/GVA and turnover/job ratios from the Annual Business Survey.

12.9.16 In this way, it was estimated that each year spending from operations and maintenance would generate £0.3 million GVA and support four jobs in North Ayrshire and £0.4 million GVA and five jobs across Scotland.

Table 12.18 - Annual Operations and Maintenance Direct Impact

	North Ayrshire	Scotland
GVA (£m)	0.3	0.4
Employment (jobs)	4	5

12.9.17 To these direct impacts, it was necessary to add indirect and induced impacts, which were calculated following the same approach as with the construction and development phase.

12.9.18 In total it was estimated that each year the Proposed Development could generate £0.4 million GVA and support five jobs in North Ayrshire and £0.6 million GVA and eight jobs in Scotland.

Table 12.19 - Annual economic Impact During Operation and Maintenance

	North Ayrshire	Scotland
Economic Impact (£m)	0.4	0.6
Employment (jobs)	5	8

12.9.19 The annual impact from operations and maintenance was assessed as being **negligible beneficial** with respect to both the local and national economy.

Decommissioning

12.9.20 To date there has been limited decommissioning of onshore wind installations in the UK. Therefore, the impact of decommissioning the Proposed Development is based on cost estimates provided in the 2012 Renewable UK report (Department of Energy and Climate Change, RenewableUK, 2012). This found that wind energy developers anticipated expenditure on decommissioning wind farms to be £34,555 per MW. It was therefore estimated that the cost of decommissioning of the Proposed Development would be £1.5 million.

12.9.21 It was assumed that North Ayrshire could secure 50% of decommissioning contracts by value £0.7 million) and that Scotland could secure 90% of the contracts (£1.3 million).

Table 12.20 – Decommissioning Expenditure by Study Area

	North Ayrshire		Scotland	
	%	£m	%	£m
Decommissioning	50%	0.7	90%	1.3

12.9.22 In order to estimate the direct GVA and employment contribution made by the Proposed Development's decommissioning, the value of the contracts carried out in each study area was divided by the relevant turnover/GVA and turnover/job ratios from the Annual Business Survey.

12.9.23 In this way, it was estimated that decommissioning would generate £0.2 million GVA and support 3 job years in North Ayrshire and £0.4 million GVA and 6 jobs across Scotland.

Table 12.21 – Decommissioning Direct Impact

	North Ayrshire	Scotland
GVA (£m)	0.2	0.4
Employment (job years)	3	6

12.9.24 To these direct impacts, it was necessary to add indirect and induced impacts, which were calculated following the same approach as with the construction and development phase.

12.9.25 In total it was estimated that the Proposed Development’s decommissioning could generate £0.3 million GVA and support 5 job years in North Ayrshire and £0.8 million GVA and 11 job years in Scotland.

Table 12.22 – Decommissioning Total Impact

	North Ayrshire	Scotland
GVA (£m)	0.3	0.8
Employment (job years)	5	11

12.9.26 The impact from decommissioning was assessed as being **negligible beneficial** with respect to both the local and national economy.

Wider Effects

Community Benefits

12.9.27 The Proposed Development is expected to contribute towards the fulfilment of the aspirations of local communities, through the payment of community benefits.

12.9.28 Guidance on the allocation of community benefits and on the legal structure of community benefit funds is discussed in:

- Scottish Government Good Practice Principles for Community Benefits from Onshore Renewable Energy Developments (Scottish Government, 2014); and
- Scottish Government Good Practice Principles for Community Benefits from Onshore Renewable Energy Developments (Scottish Government, 2019).

12.9.29 In particular, (Scottish Government, 2014) sets out the different types of governance structure that a community benefit fund could take. These include:

- community councils;
- a community body created specifically for the project;
- an existing body that is reorganised so as to take up the role; and
- a specialist third party organisation.

12.9.30 (Scottish Government, 2019) complemented existing guidance by providing additional advice to developers and communities on how to engage, define the scope and identify the beneficiaries of the fund.

12.9.31 The Scottish Government (Scottish Government, 2019) recommends that for similar projects the annual contribution to the community benefit fund would be £5,000 per MW. On the basis of 42MW of capacity, the community would receive £210,000 each year over the lifetime of the Proposed Development. This would support local projects and the aspirations of communities in the local area.

- 12.9.32 The magnitude of the economic impact associated with this funding will be dependent on the projects and activities that it supports. For example, projects and activities that improve skills, connectivity or infrastructure in the local area can stimulate greater economic activity and productivity.
- 12.9.33 As an illustration of the level of employment that could be supported, figures from the Scottish Council of Voluntary Organisations (SCVO) indicate that the average turnover per full-time equivalent staff member in the voluntary sector is £54,300 (SCVO, 2018). By applying this ratio to the annual funding it was estimated that almost 3 full-time equivalent jobs could be supported in the voluntary sector by a community fund of this scale.
- 12.9.34 The effect associated with the payment of community benefits was assessed as **minor (negligible)**.

Non-Domestic Rates

- 12.9.35 The Proposed Development is also expected to benefit the delivery of local services through the payment of non-domestic rates. On the basis of similar projects in Ayrshire, it was estimated that the Rateable Value for a similar project could be £24,448/MW.
- 12.9.36 Given a poundage rate of £0.516 per £1 of rateable value it is estimated that the Proposed Development could contribute up to £0.5 million annually to public finances. However, the actual contribution would depend on variables such as the actual load factor, and the potential for any relief from non-domestic rates.
- 12.9.37 These non-domestic rates, by providing an additional revenue stream, would support the delivery of local government services.
- 12.9.38 The impact from the payment of non-domestic rates was assessed as **negligible (beneficial)**.

Effects on Tourism and Recreation

Wind Farms and Tourism Evidence

- 12.9.39 The most comprehensive study of the potential effects of wind farms 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. The study is now about a decade old, although a Scottish Government report confirmed the findings (ClimateXchange, 2012), and in that time wind farms 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.
- 12.9.40 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 wind farms on tourism at the national, regional and local level (BiGGAR Economics, 2017).
- 12.9.41 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 wind farms, 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.
- 12.9.42 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 wind farms on local employment, while excluding construction impacts, such as wind farm related employees staying in local accommodation.
- 12.9.43 At the local authority level in these smaller areas, no link was found between the development of a wind farm 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.

- 12.9.44 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 wind farms and tourism employment at the level of the Scottish economy, at the local authority level, nor in the areas immediately surrounding wind farm development.
- 12.9.45 The findings of this research are in accordance with those of the Scottish Parliament’s Economy, Energy and Tourism Committee (Scottish Parliament Economy, Energy and Tourism Committee, 2012), when they concluded that there is no robust, empirical evidence of a negative link between wind farm development and tourism.
- 12.9.46 Overall, there is no research evidence that shows that fears of negative effects on the tourism economy in Scotland as a result of wind farms have been realised.
- 12.9.47 Within that overall context, the following assessment nevertheless considers whether the Proposed Development could result in changes in the behaviour of tourists that might lead to effects on the tourism economy.

Basis of Assessment

- 12.9.48 This section assesses whether there would be an effect on the tourism economy as a result of the Proposed Development leading to 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.

Tourism/Recreation Assets

- 12.9.49 This section considered whether the Proposed Development would have any effect on tourism assets, including local visitor attractions, trails, tourism routes and accommodation providers as identified in Section 12.6 **Error! Reference source not found.**

Visitor Attractions

- 12.9.50 Clyde Muirshiel Regional Park is a large park that is spread across North Ayrshire, Inverclyde and Renfrewshire. It has a small number of visitor and activity centres, including at Greenock Cut on the banks of Loch Thom, and Castle Semple Visitor Centre and Muirshiel Visitor Centre which are both relatively near Lochwinnoch in Renfrewshire and have no visibility of the Proposed Development. From each of these centres, visitors can go on walks and take part in other activities, such as walking, cycling and sailing. It is not expected that these activities would be affected by the Proposed Development and therefore the effect has been assessed as **negligible**.
- 12.9.51 The Skelmorlie Secret Bunker is an underground nuclear monitoring post, with an attached above ground museum. Visitors can access the bunker via a 15 feet vertical steel ladder. Its attraction to visitors is based on the uniqueness of the experience and its historical role in the Cold War. Therefore, the effect of the Proposed Development has been assessed as **negligible**.
- 12.9.52 Kelburn Castle and Country Gardens on the southern outskirts of Largs combines a 13th century castle, decorated with removable graffiti, with an estate that includes a picturesque woodland and glen and a number of attractions for children, including an adventure park. It is not expected that the attraction would be affected by the Proposed Development and the effect has been assessed as **negligible**.
- 12.9.53 Ardgowan House is an exclusive 18th century country house and estate, which is available for events such as weddings and can be booked for private tours. It markets itself based on the luxury experience it offers, its heritage, and its convenient location near Glasgow and Glasgow Airport. The effect of the Proposed Development is expected to be **negligible**.

Accommodation Providers

- 12.9.54 There are a small number of accommodation providers in Skelmorlie, including three caravan parks, and these providers generally advertise their businesses on the basis of their proximity to the beach, their views out towards the Firth of Clyde, and the short distance to the seaside town of Largs.
- 12.9.55 Largs is a seaside resort town, which has a number of accommodation providers, such as the Brisbane House Hotel and the Woodhouse Hotel. Important attractions for guests are the location in Largs, from which they can enjoy the town and explore the area, including by taking a ferry to Cumbrae.
- 12.9.56 Accommodation providers in Inverkip, including the Inverkip Hotel and the Ardgowan Hotel, market themselves based on their location within the historic town of Inverkip, on the setting amidst rolling hills by the Firth of Clyde and by their proximity to the Inverkip Marina.
- 12.9.57 Two other accommodation providers are located to the south of the Proposed Development. Noddsdale Estate is located within the Brisbane Glen and set within extensive and varied grounds, and marketed as a base for exploring Ayrshire and Arran. South Whittieburn Farm is a caravan and camping park in the Brisbane Glen near Largs. It is a working farm with sheep and other livestock, and also has an outdoor arena and 27 stables for horse riding. Given the features that make these providers attractive, such as the views over the Firth of Clyde and proximity to local towns such as Largs, it is expected that the effect of the Proposed Development would be **negligible**.

Recreation Trails

- 12.9.58 There a number of walks and core paths within the vicinity of the Proposed Development, including the Ayrshire Coastal Path, which incorporates parts of NC10 and NC11, as well as the Knock Hill Circular, and the NC12 through Brisbane Glen.
- 12.9.59 The works required on the Craigmarnloch and Routenburn Roads and the movement of abnormal loads along these roads have the potential to affect the recreation assets use of these roads. There will be an increase in traffic during the construction period and there may be temporary restrictions on access during the delivery of abnormal loads. In addition, there will be construction works on the roads themselves to ensure they are suitable for construction traffic. The potential effects during the construction period have therefore been assessed as **adverse minor**.
- 12.9.60 Due to construction traffic there is expected to be some disruption to NC10, though the road is not expected to be closed except during delivery of abnormal loads, which would only occur at night, and would mitigate disruption through imposing speed restrictions, which are discussed in more detail in Chapter 10. The effect on core path NC10 and the Ayrshire Coastal Path during construction is therefore assessed **negligible**. As part of this process, the road would be widened with the new road sections surfaced with different material that pedestrians can use, enhancing the experience. The Applicant is also considering adding further passing places to the existing road.
- 12.9.61 The predominant features of these walks are the views from the grassy slopes of the hills towards the Firth of Clyde, Argyll and Bute, as well as the wooded Brisbane Glen. It is not expected that the Proposed Development would have an effect on these features, nor on accessibility of any of the paths and therefore the effect has been assessed as **negligible**.

12.10 Additional Mitigation

Socio-Economics Mitigation (Enhancement)

- 12.10.1 The scale of the investment required to develop, build and operate a wind farm 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.

Best Practice in Supply Chain Development

12.10.2 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;
- demonstrate local content in planning – insert local-content commitments in the planning application where applicable and undertake post-construction auditing; and
- the Applicant has guaranteed that these best practice principles will be implemented for the Proposed Development.

Transport and Path Access Mitigation

12.10.3 The works required on the Craigmarloch and Routenburn Roads and the movement of abnormal loads along these roads have been assessed as having potential minor adverse effects on the recreation assets of the core paths. To mitigate against any adverse effects, the Applicant has agreed to adopt the following policies;

- all site traffic to travel at a self-imposed speed limit of 20mph and to be made aware of the Core Path status of both Craigmarloch Road and Routenburn Road;
- the Balance of Plant contract will include clauses to restrict speed on Craigmarloch Road and Routenburn Road and for all HGVs accessing the site to have identification numbers of the site telephone number clearly displayed on them, to allow the public to note and advise site of anti-social driving practices;
- the Balance of Plant contract will allow the removal of staff found speeding or undertaking anti-social driving on Craigmarloch Road and Routenburn Road;
- the Balance of Plant contractor will review the self-imposed speed limit using spot checks and anyone found breaking this will be removed from the site;
- the road widening required for the wind turbine abnormal loads on Craigmarloch Road and Routenburn Road should be surfaced in a different material to the rest of the road so that it can be used by pedestrians and users of the Core Path outwith abnormal load deliveries. This will provide a more suitable and safer walking / riding environment for users; and
- the Applicant will meet with North Ayrshire Council to consider further locations for passing places to be constructed within the existing adopted road boundary.

12.11 Residual Effects

Construction

- 12.11.1 The construction of the Proposed Development is expected to have temporary **negligible** beneficial effects on the local and national economy.
- 12.11.2 The policies proposed by the Applicant will mitigate against any potential adverse tourism and recreation effects. Therefore, the construction of the Proposed Development is expected to have temporary, **negligible** effects tourism and recreation, including on core path NC10 and the Ayrshire Coastal Path.

Operation

- 12.11.3 The operation and maintenance of the Proposed Development is expected to have **negligible** beneficial effects on the local and national economy.
- 12.11.4 The operation and maintenance of the Proposed Development is expected to have **negligible** effects on local tourism and recreation.

Decommissioning

- 12.11.5 The decommissioning of the Proposed Development is expected to have **negligible** beneficial effects on the local and national economy.

12.12 Cumulative Assessment

- 12.12.1 There are no onshore wind farms within the immediate vicinity of the Proposed Development and therefore there are no cumulative impacts associated with the local receptors, such as tourism and recreation assets.
- 12.12.2 The largest annual economic impacts are associated with the development and construction phase of the development of an onshore wind farm. There has been a significant decline in the number of onshore wind projects which have been constructed across the UK, and in Scotland. Between 2017 and 2018 the capacity of newly constructed wind farms that connected to the grid in the UK reduced from 2,666 MW to 598 MW (UK Government Department of Business, Energy and Industrial Strategy, 2019). This decrease continued in 2019, and in December 2019 there was only 99 MW of onshore wind under construction in Scotland. This decrease in activity has resulted in significantly less jobs being supported by the onshore wind sector.
- 12.12.3 Within the public sector and business support groups, the economic and supply chain opportunities are considered across the three Ayrshires (North Ayrshire, South Ayrshire and East Ayrshire) in line with the development of the Ayrshire Growth Deal. The ongoing activity in the onshore wind sector in South and East Ayrshire represents an opportunity for supply chain companies in North Ayrshire to gain additional income and experience, which can be applied to the Proposed Development. The economic assessment has considered this experience and therefore no additional cumulative assessment is required.

12.13 Summary

- 12.13.1 The local area has a relatively older population than the whole of Scotland and has experienced a decline in its population in the last ten years, with these trends are expected to continue in the future. The tourism activity in the local area is focused on the seaside towns in North Ayrshire and Inverclyde. This reflects the maritime focus of the local tourism strategy and the historic roles that these towns have had as a holiday destination for tourists from the Central Belt of Scotland.
- 12.13.2 It was estimated that during the construction and development phase the Proposed Development could support up to:
- £2.3 million GVA and 33 job years in North Ayrshire; and
 - £15.8 million GVA and 242 job years in Scotland.

- 12.13.3 The operation of the Proposed Development each year is expected to generate up to:
- £0.3 million GVA and five jobs in North Ayrshire; and
 - £0.6 million GVA and eight jobs in Scotland.
- 12.13.4 The Proposed Development would also contribute £210,000 annually in community benefit funding, which could support the local community's ambitions and support local employment.
- 12.13.5 The Proposed Development would also contribute towards the finance of public expenditure through the payment of £0.5 million in non-domestic rates each year.
- 12.13.6 Existing literature on the relationship between wind farm developments and tourism suggests that there is no evidence suggest that there is a negative relationship. An assessment of tourism attractions, accommodation providers and recreational trails found no significant adverse effects were expected.
- 12.13.7 Overall, there were no significant adverse effects associated with the Proposed Development, while there would some beneficial impacts linked to construction and operational expenditure, though they would not be significant in EIA terms.

Table 12.23 – Summary of Effects

Description of Effect	Significance of Potential Effect		Mitigation Measure	Significance of Residual Effect	
	Significance	Beneficial/ Adverse		Significance	Beneficial/ Adverse
Construction					
Economic Impact of £2.3 million GVA and 33 job years in North Ayrshire	Negligible	Beneficial	Not applicable	Negligible	Beneficial
Economic Impact of £15.8 million GVA and 242 job years in Scotland	Negligible	Beneficial	Not applicable	Negligible	Beneficial
Effect on core paths and recreational access	Minor	Adverse	Access Policies outlined in 12.10.3	Negligible	Adverse
Operation					
Annual economic impact of up to £0.3 million GVA and five jobs in North Ayrshire	Negligible	Beneficial	Not applicable	Negligible	Beneficial
Annual economic impact of up to £0.6 million GVA and eight jobs in Scotland	Negligible	Beneficial	Not applicable	Negligible	Beneficial
Effect of annual community benefit of £210,000	Minor	Beneficial	Not applicable	Minor	Beneficial
Annual payment of an estimated £0.5 million in non-domestic rates	Negligible	Beneficial	Not applicable	Negligible	Beneficial
Effect on tourism assets	Negligible	n/a	Not applicable	Negligible	n/a
Effect on accommodation providers	Negligible	n/a	Not applicable	Negligible	n/a

Description of Effect	Significance of Potential Effect		Mitigation Measure	Significance of Residual Effect	
	Significance	Beneficial/ Adverse		Significance	Beneficial/ Adverse
Effect on core paths and recreational access	Negligible	n/a	Not applicable	Negligible	n/a
Decommissioning					
Economic Impact of £0.3 million GVA and 5 job years in North Ayrshire	Negligible	Beneficial	Not applicable	Negligible	Beneficial
Economic Impact of £0.8 million GVA and 11 job years in Scotland	Negligible	Beneficial	Not applicable	Negligible	Beneficial

Table 12.24 – Summary of Cumulative Effects

Receptor	Effect	Cumulative Developments	Significance of Cumulative Effect	
			Significance	Beneficial/ Adverse
n/a	n/a	n/a	n/a	n/a

12.14 References

- Ayrshire and Arran Tourism Industry Group. (2018). *Ayrshire Tourism Action Plan*.
- Ayrshire Economic Partnership. (2011). *Ayrshire & Arran Tourism Strategy 2012-17*.
- BiGGAR Economics. (2017). *Wind Farms and Tourism Trends in Scotland*.
- ClimateXchange. (2012). *The Impact of Wind Farms on Scottish Tourism*.
- Clyde Muirshiel Regional Park. (2018). *Annual Report 2017/18 Clyde Muirshiel Regional Park*.
- Department of Energy and Climate Change, RenewableUK. (2012). *Onshore Wind: Direct and Wider Economic Impacts*.
- Glasgow Caledonian University/Moffat Centre. (2008). *The Economic Impacts of Wind Farms on Scottish Tourism*.
- Kantar TNS. (2019a). *The GB Day Visitor 2018 Annual Report*.
- Kantar TNS. (2019b). *The GB Tourist 2018 Annual Report*.
- National Records of Scotland. (2017). *2016-based Population Projections by Council Area in Scotland*.
- North Ayrshire Council. (2016). *North Ayrshire Economic Development and Regeneration Strategy 2016-2025*.
- North Ayrshire Council. (2017). *Making Waves in North Ayrshire Tourism Action Plan 2018-2022*.
- ONS. (2019a). *Population Estimates 2018*.
- ONS. (2019b). *Annual Survey of Hours and Earnings - resident analysis 2018*.
- ONS. (2019c). *Annual Population Survey (Jul 2018 - Jun 2019)*.
- ONS. (2019d). *Business Register and Employment Survey 2018*.
- ONS. (2019e). *International Passenger Survey 2018*.
- ONS. (2019f). *Annual Business Survey Provisional Results 2017*.
- RenewableUK. (2015). *Onshore Wind: Economic Impacts in 2014*.
- Scottish Government. (2014). *Scottish Government Good Practice Principles for Community Benefits from Onshore Renewable Energy Developments*.
- Scottish Government. (2017). *Scottish Energy Strategy: The Future of Energy in Scotland*.
- Scottish Government. (2018, 10 24). *Economic Action Plan 2018-20*. Retrieved from <https://economicactionplan.mygov.scot>
- Scottish Government. (2018). *Input-Output Tables 2015*.
- Scottish Government. (2019). *Energy Statistics Database Q1 2019*.
- Scottish Government. (2019). *Scottish Government Good Practice Principles for Community Benefits from Onshore Renewable Energy Developments*.
- Scottish Government. (2019). *Scottish Growth Sector Database 2018*.
- Scottish Parliament. (2019). *Climate Change (Emissions Reduction Targets) (Scotland) Act 2019*.
- Scottish Parliament Economy, Energy and Tourism Committee. (2012). *Report on the Achievability of Scottish Government's renewable energy targets*.

Scottish Tourism Alliance. (2012). *Tourism Scotland 2020*.

Scottish Tourism Alliance. (2016). *Mid Term Review 2016*.

SCVO. (2018). *State of the Sector 2018: Scottish third sector statistics*. Retrieved from Scottish Council of Voluntary Organisations.

VisitScotland. (2018). *Visitors to Ayrshire & Arran*.

ONS (2019a) *Population Estimates/Projections*. Available at www.nomisweb.co.uk Accessed on 30 October 2019

ONS (2019b) *Annual Survey of Hours and Earnings*. Available at www.nomisweb.co.uk Accessed on 30 October 2019

ONS (2019c) *Annual Population Survey*. Available at www.nomisweb.co.uk Accessed on 30 October 2019

ONS (2019d) *Business Register and Employment Survey*. Available at www.nomisweb.co.uk Accessed on 30 October 2019

Scottish Government (2018) *Scotland's Economic Action Plan 2018-2020*; Available at <https://economicactionplan.mygov.scot/> Accessed on 31 October 2019

Scottish Government (2019) *Local Authority Growth Sector Database* Available at: <https://www2.gov.scot/Topics/Statistics/Browse/Business/Publications/GrowthSectors/LADatabase> Accessed on 30th October 2019

Scottish Government (2017) *The future of energy in Scotland: Scottish energy strategy*; Available at <https://www.gov.scot/publications/scottish-energy-strategy-future-energy-scotland-9781788515276/> Accessed on 31 October 2019

Scottish Government (2019) *Climate Change (Emissions Reduction Targets) (Scotland) Bill*; Available at: <https://www.parliament.scot/parliamentarybusiness/Bills/108483.aspx> Accessed on 30th October 2019

North Ayrshire Council (2016) *Economic Development & Regeneration Strategy Refresh North Ayrshire 2016 – 2025* Available at: <https://www.north-ayrshire.gov.uk/Documents/CorporateServices/ChiefExecutive/EconomicDevelopment/edr-strategy-2016-25.pdf> Accessed on 30th October 2019

Scottish Tourism Alliance (2019) *Tourism Scotland 2020 A Strategy for Leadership and Growth* Available at: <https://scottishtourismalliance.co.uk/wp-content/uploads/2019/03/Tourism-Scotland-2020-final.pdf> Accessed on 31 October 2019

Ayrshire Economic Partnership (2011) *Ayrshire and Arran Tourism Strategy 2012-17*. Available at: https://www.south-ayrshire.gov.uk/documents/sac_tourism_strat.pdf Accessed on 30th October 2019

North Ayrshire Council (2018) *Making Waves in North Ayrshire*. Available at <https://www.north-ayrshire.gov.uk/Documents/Making-Waves-in-North-Ayrshire.pdf> Accessed on 30th October 2019

Visit Britain (2019) *The Great Britain Day Visitor 2018 Annual Report* Available at https://www.visitbritain.org/sites/default/files/vb-corporate/gbdvs_2018_annual_report.pdf Accessed on 31st October 2019

VisitScotland (2019) *International Passenger Survey Scotland Level Statistics*. Available at <https://www.visitscotland.org/research-insights/about-our-visitors/international> Accessed on 31st October 2019

Visit Britain (2019) *The GB Tourist*. Available at https://www.visitbritain.org/sites/default/files/vb-corporate/40413193-260c_gb_tourist_annual_report_2018_fv-v3.pdf. Accessed on 31 October 2019

This page is intentionally blank.