

12 Socio-Economic, Tourism and Recreation

Contents

12.1	Executive Summary	12-1
12.2	Socio-Economics	12-1
12.3	Tourism, Recreation & Land Use	12-7
12.4	Comparison of Effects	12-8
12.5	References	12-14

This page is intentionally blank.

12 Socio-Economic, Tourism and Recreation

12.1 Executive Summary

- 12.1.1 This Chapter considers socio-economic, tourism and recreation of the Proposed Development's 2020 Layout.
- 12.1.2 The economic analysis found that during the development and construction phase, the Proposed Development could contribute:
- £20.3 million and 178 job years in Shetland; and
 - £70.2 million and 635 job years in Scotland.
- 12.1.3 During each year the operation and maintenance of the Proposed Development could contribute:
- £0.5 million and 4 jobs; and
 - £1.2 million and 9 jobs.
- 12.1.4 The Proposed Development would also contribute £0.8 million per annum in community benefits, equating to £24.0 million over 30 years. In addition, the Proposed Development could contribute £2.2 million in Non-Domestic Rates, which would equate to £66.8 million¹ over 30 years.
- 12.1.5 The Proposed Development would also support the needs case for a proposed interconnector to the Scottish mainland by demonstrating the need for a market for renewable energy generated on Shetland. This interconnector would increase the security of supply in Shetland and Scotland, supporting economic activity during its construction and operation, and supporting the potential for additional renewable energy capacity in Shetland.
- 12.1.6 In addition, the Proposed Development supports the development of the proposed Maali interconnector between Shetland and Norway, which has the potential to increase security of supply and reduce costs to consumers in Shetland and the Scottish mainland, as well as providing a new market for Scotland's renewable energy generation, including Shetland.
- 12.1.7 For a number of effects, such as those on tourism and recreation, and land use, there is no reason to expect greater effects as a result of the 2020 Layout than those assessed in the 2019 EIA report.

12.2 Socio-Economics

Introduction

- 12.2.1 This chapter section considers the potential change in effects associated with socio-economics as a result of revisions to the Proposed Development and has been undertaken by BIGGAR Economics.
- 12.2.2 A previous assessment of the potential socio-economics effects associated with the Proposed Development was undertaken to inform the 2019 EIA report. This built on analysis undertaken by BiGGAR Economics, which considered the economic and tourism impact of the Proposed Development (BiGGAR Economics, 2019). There are expected to be significant beneficial socio-economic effects associated with construction, as well as non-significant beneficial effects associated with operation.

¹ The 30 year total is not a sum of the annual figure due to rounding to the nearest £0.1 million.

Significance Criteria

- 12.2.3 The assessment methodology adopted for this Chapter is unchanged from the 2019 EIA report and is set out again for ease of comparability.
- 12.2.4 The methodology relies on consideration of the sensitivity of an asset to change and the magnitude of change it would experience as a result of any impact from the Proposed Development. Taking this into account with professional judgement allows for a conclusion as to the level of effect and whether this constitutes a significant effect in accordance with the EIA Regulations.
- 12.2.5 The criteria used for defining sensitivity to change on socio-economic assets are as follows:
- Very High Sensitivity: Assets of international importance. The asset has little or no capacity to absorb change without fundamentally altering its present character, is of very high socio-economic value, or of national importance. For example, it is a destination in its own right (for recreation or tourism attractions), with a substantial proportion of visitors on a UK level and/or possesses priority or weight in UK policy;
 - High Sensitivity: Assets of national importance. The asset has low capacity to absorb change without fundamentally altering its present character, is of high socio-economic value, or of importance to Scotland;
 - Medium Sensitivity: Assets of regional importance. The asset has moderate capacity to absorb change without substantially altering its present character, has some socio-economic value, or is of regional importance. For example, it is a popular destination among current visitors (for attractions), with a significant contribution to the regional economy and/or possesses priority/weight in regional policy;
 - Low Sensitivity: Assets of local importance to the Northern Isles. The asset is tolerant to change without detriment to its character, has low socio-economic value, or is of local importance. For example, it is an incidental destination for current visitors (for attractions) and/or possesses priority/weight in local policy; and
 - Negligible Sensitivity: Assets with less than local importance. The asset is resistant to change and is of little socio-economic value. For example, an incidental destination for low numbers of current visitors (for attractions) and/or possesses no weight in authority policy.
- 12.2.6 The criteria used for assessing the impact magnitude associated with a change are as follows:
- High Magnitude: Major (beneficial or adverse) alteration of the socio-economic assets;
 - Medium Magnitude: Alteration (beneficial or adverse) to, one of more key elements of the socio-economic assets;
 - Low Magnitude: Slight alteration (beneficial or adverse) of the socio-economic asset; and
 - Negligible Magnitude: Barely perceptible alteration of the socio-economic asset.
- 12.2.7 The evaluation of significance presented in Table 12.1 provides a guide to decision making. Predicted 'major' or 'moderate' effects are considered to be significant in terms of the EIA Regulations for the purpose of the assessment of effects on socio-economics.

Table 12.1 - Framework for the Assessment of the Significance of Effects

Magnitude of Impact	Sensitivity of Asset				
	Very High	High	Medium	Low	Negligible
High	Major	Major	Moderate	Moderate	Minor
Medium	Major	Moderate	Moderate	Minor	Negligible
Low	Moderate	Moderate	Minor	Negligible	Negligible
Negligible	Minor	Minor	Negligible	Negligible	Negligible

Assessing Socio-Economic Effects

12.2.8 The potential economic impacts associated with the Proposed Development have been assessed using a model that has been applied to assess the economic impact of other wind farms, including in the Proposed Development’s 2019 EIA Report. This considered the local and national economic impacts that could be generated by an onshore wind farm development. The approach is considered standard practice in the industry and was used in sector wide studies that BiGGAR Economic undertook for the Department of Energy and Climate Change (DECC) and RenewableUK in 2012 (Department of Energy and Climate Change, RenewableUK, 2012) and 2015 (RenewableUK, 2015).

12.2.9 There are four key stages to estimating the economic impact of the development and construction phase of a wind farm:

- estimate of capital expenditure;
- breakdown of capital expenditure into component parts;
- assess the potential of each study area to carry out the contract; and
- use the resulting figure to estimate economic impact at the local and national level, including impacts associated with spending of workers.

12.2.10 A similar approach is used to estimate the economic impact of the operational and decommissioning stages.

Response to Consultation Responses

12.2.11 No consultation responses to the previous socio-economic assessment in the 2019 EIA Report were received.

Assessment of Residual Effects

12.2.12 The economic impacts of the construction, operation and decommissioning of the Proposed Development’s 2020 Layout have been estimated and assessed.

12.2.13 Using the methodology outlined for assessing sensitivity, the following were assessed:

- Shetland economy – this is a relatively small economy, with 16,000 jobs (ONS, 2019), equal to 0.6% of Scotland’s employment, which means that it is somewhat sensitive to change and has been assessed as **medium** sensitivity; and
- Scotland economy – this is a relatively large economy with 2.6 million jobs, which means that it is not very sensitive to change and has **negligible** sensitivity.

Construction

- 12.2.14 The Proposed Development (2020 Layout) is expected to comprise up to 23 turbines, each with a potential capacity of approximately 7 MW based on current expectations as to turbine technology, and so a total potential capacity of around 160 MW. The quantitative economic impact assessment has been based on 160 MW.
- 12.2.15 Using research undertaken by BiGGAR Economics on behalf of RenewableUK in 2015 (RenewableUK, 2015), the average expenditure on the construction and development of wind farms can be estimated based on the average spend per MW, the average spend per turbine, or a combination of the two, as appropriate. On the basis of a combination of these methods, the total development and construction cost was estimated to be £190.2 million.
- 12.2.16 On the basis of the 2015 RenewableUK study and a previously undertaken analysis of the local economy, in particular of the labour market and industrial structure (BiGGAR Economics, 2019), it was estimated that Shetland could secure contracts worth £19.5 million (10% of the total) and Scotland could secure contracts worth £65.5 million (34% of the total). It was estimated that this increase in turnover would support 163 job years of employment in Shetland and 540 job years in Scotland (Table 12.2).

Table 12.2 - Direct Economic Impact During Construction and Development

	Shetland	Scotland
Economic Impact (£m)	19.5	65.5
Employment (job years)	163	540

- 12.2.17 There would also be an impact associated with staff spending their wages in the local economy. Using data on average staff wages from the 2012 RenewableUK study, it was estimated that this would support £0.8 million Gross Value Added (GVA) and 16 job years in Shetland, and £4.7 million GVA and 95 job years in Scotland (Table 12.3).

Table 12.3 - Employee Spend During Construction and Development

	Shetland	Scotland
Economic Impact (£m)	0.8	4.7
Employment (job years)	16	95

- 12.2.18 The total impact is the sum of the direct impacts and impact of employee spending. As a result, it was estimated that the economic impact of the construction and development phase would be £20.3 million and 178 job years in Shetland and £70.2 million and 635 job years in Scotland as detailed in Table 12.4.

Table 12.4 - Economic Impact During Construction and Development

	Shetland	Scotland
Economic Impact (£m)	20.3	70.2
Employment (job years)	178	635

Note, totals may not sum due to rounding

- 12.2.19 The magnitude of the 2020 Layout's economic impact was assessed as **medium** in Shetland, resulting in a **moderate beneficial** effect, which is significant in EIA terms, and as **low** in Scotland, resulting in a **negligible beneficial** effect.

- 12.2.20 The magnitude of the 2020 Layout’s employment impact was assessed as **medium** in Shetland, resulting in a **moderate beneficial** effect, which is significant in EIA terms, and as **low** in Scotland, resulting in a **negligible beneficial** effect.

Operation

- 12.2.21 On the basis of the 2020 Layout and the 2015 RenewableUK study, it was estimated that annual expenditure in the operations and maintenance phase would be £3.2 million.
- 12.2.22 On the basis of the 2015 RenewableUK study and a previously undertaken analysis of the local economy (BiGGAR Economics, 2019), it was estimated that Shetland could secure contracts worth £0.5 million annually and Scotland could secure contracts worth £1.1 million annually. It was estimated that this increase in turnover would support 4 jobs in Shetland and 8 jobs in Scotland (Table 12.5).

Table 12.5 - Direct Economic Impact During Operations and Maintenance

	Shetland	Scotland
Economic Impact (£m)	0.5	1.1
Employment (jobs)	4	8

- 12.2.23 After estimating the effects associated with wider spending, these were added to the direct impact and it was the estimated that the total annual economic impact during the operations and maintenance phase would be £0.5 million and 4 jobs in Shetland and £1.2 million and 9 jobs in Scotland (Table 12.6).

Table 12.6 - Economic Impact During Operations and Maintenance

	Shetland	Scotland
Economic Impact (£m)	0.5	1.2
Employment (jobs)	4	9

- 12.2.24 The magnitude of the 2020 Layout’s economic impact was assessed as **low** in Shetland, resulting in a **minor beneficial** effect, and as **negligible** in Scotland, resulting in a **negligible beneficial** effect.
- 12.2.25 The magnitude of the 2020 Layout’s employment impact was assessed as **low** in Shetland, resulting in a **minor beneficial** effect, and as **negligible** in Scotland, resulting in a **negligible beneficial** effect.

Wider Impacts

Community Benefit Payments

- 12.2.26 As part of the operation the Applicant would contribute £5,000 per MW annually to a community benefit fund, that would support the Northern Isles, which include Yell, Unst and Fetlar. Given an installed capacity of 160MW, these annual community benefit payments are expected to be £0.8 million annually, which would equate to £24.0 million over the wind farm’s 30 year lifetime. This could support a number of the community’s aspirations, such as reducing fuel poverty, boosting tourism and strengthening social and human capital, for example through supporting community groups and skills development.

Non Domestic Rates

- 12.2.27 The Proposed Development would also support public finances through the payment of Non-Domestic Rates. An analysis of 16 Scottish wind farms with load factors of over 35%, with a combined capacity of 287MW, suggests that the rateable value per MW may be in the region £27,000. Based on an installed capacity of 160 MW, this suggests that the rateable value would be £4.3 million. This may be conservative, if load factors at the Proposed Development are higher than

the average load factor considered in this comparator analysis, as may be reasonable to expect in Shetland.

- 12.2.28 Applying a poundage rate of £0.516, the Proposed Development could contribute £2.2 million annually, contributing £66.8 million² over the wind farm’s 30 year lifetime.

Shared Ownership

- 12.2.29 In addition, the Applicant is committing to offering the local community the opportunity to invest in the Proposed Development through Shared Ownership. This investment opportunity has been discussed with the Energy Isles Community Liaison Group (CLG), and a Memorandum of Understanding has been sent to the local community trusts. The Applicant has been working closely with Local Energy Scotland throughout the process.

Decommissioning

- 12.2.30 Based on the 2015 Renewable UK study, it was estimated that decommissioning would cost £5.5 million, and that Shetland could secure 50% (£2.8 million) and Scotland could secure 90% (£5.0 million). This could directly support 13 job years of employment in Shetland and 23 job years in Scotland (Table 12.7).

Table 12.7 - Direct Economic Impact During Decommissioning

	Shetland	Scotland
Economic Impact (£m)	2.8	5.0
Employment (job years)	13	23

- 12.2.31 After estimating the effects associated with wider spending, it was the estimated that the total economic impact during the decommissioning phase would be £2.8 million and 14 job years in Shetland and £5.2 million and 27 job years in Scotland (Table 12.8).

Table 12.8 - Economic Impact During Decommissioning

	Shetland	Scotland
Economic Impact (£m)	2.8	5.2
Employment (job years)	14	27

- 12.2.32 The magnitude of the 2020 Layout’s economic impact was assessed as **low** in Shetland, resulting in a **minor beneficial** effect, and as **negligible** in Scotland, resulting in a **negligible beneficial** effect.

- 12.2.33 The magnitude of the 2020 Layout’s employment impact was assessed as **low** in Shetland, resulting in a **minor beneficial** effect, and as **negligible** in Scotland, resulting in a **negligible beneficial** effect.

Assessment of Cumulative Effects

- 12.2.34 An element of the 2019 EIA report was the potential of the Proposed Development to support the case for interconnectors linking Shetland’s grid to the UK mainland and Norway.

- 12.2.35 Using the methodology for assessing sensitivity the following were assessed:

- Shetland economy – the Shetland economy is sensitive to fluctuations in the energy market, as it has a limited number of potential suppliers, which has the potential to lead to high energy prices or insecurity of supply. Therefore, the sensitivity has been assessed as **high**; and

² The 30 year total is not a sum of the annual figure due to rounding to the nearest £0.1 million.

Response to Consultation Responses

12.3.2 The following responses were received to the 2019 EIA Report in relation to tourism and recreation.

Visit Scotland

12.3.3 Visit Scotland stated that they had no objection but requested that the impacts on tourism are assessed in full and consideration is given to the local tourism industry and the local economy.

12.3.4 The Applicant highlights that Chapter 12 and Appendix 12.1 of the 2019 EIA Report contains an assessment of the potential effects of the Proposed Development on socio-economic and tourism.

SIC Outdoor Access Officer

12.3.5 Shetlands Islands Council Outdoor Access Officer had no objection subject to the following requests:

- that impact of the development on activities of fishing, photography, art, nature studies and wild camping are addressed; and
- that the Applicant provides an assessment of the effects of the development's impact on access routes and recreation interests via an Outdoor Access Plan. Also, information should be provided regarding how the Applicant will optimise the use of new and existing infrastructure, and desire lines to provide safe and convenient recreational activities for users.

12.3.6 The Applicant will prior to commencement of construction, develop an Access Route Plan which will detail any diversions and management of access during and after construction. This will be agreed with SIC. Access to the land during operation will remain as the pre-development state and the land within the Proposed Development will be accessible to the public (via non-motorised transport) at all times of the year as per Section 1 and 2 of the Land Reform Act (Scotland) 2003.

12.3.7 The Applicant has undertaken multiple public consultation days during the application process and considered the views of local community groups. There is a lack of evidence of substantial use of the site for fishing, photography, art, nature studies or wild camping, therefore the Proposed Development is not expected to have a significant effect on these activities beyond the potential recreation effects that have been reported in the 2019 EIA Report.

Scot Ways

12.3.8 Scot Ways raised an objection due to the following:

- the lack of an access management plan in the 2019 EIA Report which raises Scot Ways concerns about public access to the site; and
- T29 and the potential borrow pit area are in close proximity to a nearby Walkhighland route.

12.3.9 The Applicant will prior to commencement of construction, develop an Access Route Plan which will detail any diversions and management of access during and after construction. This will be agreed with SIC. Access to the land will remain as the pre-development state and the land within the Proposed Development will be accessible to the public at all times of the year as per Section 1 and 2 of the Land Reform Act (Scotland) 2003.

12.3.10 T29 has been removed from the 2020 Layout and as such the potential impact on the identified Walkhighlands route has been alleviated.

12.4 Comparison of Effects

12.4.1 Due to the reduction in scale of the Proposed Development, the beneficial socio-economic impacts associated with construction and operation has decreased. However, the effect on the Shetland and Scottish economies has not changed.

- 12.4.2 The Proposed Development also continues to support the development and construction of the interconnector between Shetland and the UK mainland, as well as the Maali interconnector between Shetland and Norway.
- 12.4.3 A number of effects have not been fully re-assessed as part of the 2020 SEI and are not expected to change. These have been listed in Table 12.9. Those that have been assessed as part of the 2020 SEI are included in Table 12.10. Cumulative effects are considered in Table 12.11 and Table 12.12.
- 12.4.4 Effects that have been assessed as significant in EIA terms are:
- a **moderate beneficial** employment and economic effects on Shetland as a result of construction;
 - an indirect **moderate beneficial** effects on Shetland as a result of the HVDC interconnector, which would connect Shetland and mainland Scotland's electricity grids, increasing security of supply and supporting a market for Shetland's renewable energy generation;
 - an indirect **moderate beneficial** effects on Shetland as a result of the Maali interconnector which would connect Shetland and Norway's electricity grids, increasing security of supply and supporting a market for Shetland's renewable energy generation; and
 - an indirect **moderate beneficial** effects on Scotland as a result of the Maali interconnector, which would connect Scotland and Norway's electricity grids, increasing security of supply and supporting a market for Scotland's renewable energy generation.

Table 12.9 – Summary of Effects – As Assessed in 2019 EIA Report which have not altered

Description of Effect	2019 Effects	
	Significance	Beneficial/ Adverse
Wider Economic Benefits		
Increased construction opportunity in the wider supply chain	Minor	Beneficial
Tourism and Recreation – Construction		
Direct impact on Core Paths CPPY04	Negligible	N/A
Direct impact on National Route 1 (cycle route)	Negligible	N/A
Indirect impact on other Core Paths identified within the Study Area	Negligible	N/A
Indirect impact on accommodation receptors	Minor	Beneficial
Tourism and Recreation – Operation		
Direct impact on Core Paths CPPY04 and accessibility to the Site	Negligible	N/A
Indirect impact on other Core Paths and other recreation assets identified within the Study Area	Negligible	N/A
Indirect impact on Shetland Gallery	Negligible	N/A
Indirect impact on local core paths and other tourism receptors in Study Area	Negligible	N/A
Tourism and Recreation – Decommissioning		
Direct impact on Core Paths CPPY04	Negligible	N/A
Direct impact on National Route 1 (cycle route)	Negligible	N/A
Indirect impact on other Core Paths identified within the Study Area	Negligible	N/A
Indirect impact on accommodation receptors	Minor	Beneficial

Description of Effect	2019 Effects	
	Significance	Beneficial/ Adverse
Land-use – Construction		
The impact on the land-use within the site and immediate vicinity	Negligible	N/A
Land-use – Operation		
The impact on the land-use within the site and immediate vicinity	Negligible	N/A
Land-use – Decommissioning		
The impact on the land-use within the site and immediate vicinity	Negligible	N/A

Table 12.10 – Summary of Effects – Assessed in Supplementary Environmental Information

Description of Effect	2019 Effects		2020 Effects	
	Significance	Beneficial/ Adverse	Significance	Beneficial/ Adverse
Socio-Economics – Construction				
Employment impact on Shetland	Moderate	Beneficial	Moderate	Beneficial
Employment impact on Scotland	Moderate	Beneficial	Negligible	Beneficial
CAPEX in Shetland	Moderate	Beneficial	Moderate	Beneficial
CAPEX in Scotland	Minor	Beneficial	Negligible	Beneficial

Description of Effect	2019 Effects		2020 Effects	
	Significance	Beneficial/ Adverse	Significance	Beneficial/ Adverse
Socio-Economics – Operation				
Employment in Shetland	Minor	Beneficial	Minor	Beneficial
Employment in Scotland	Minor	Beneficial	Negligible	Beneficial
OPEX in Shetland	Minor	Beneficial	Minor	Beneficial
OPEX in Scotland	Minor	Beneficial	Negligible	Beneficial
Socio-Economics – Decommissioning				
Employment impact in Shetland	Minor	Beneficial	Minor	Beneficial
Employment impact in Scotland	Minor	Beneficial	Negligible	Beneficial
Decommissioning in Shetland	Minor	Beneficial	Minor	Beneficial
Decommissioning in Scotland	Minor	Beneficial	Negligible	Beneficial

Table 12.11 – Summary of Cumulative Effects – As Assessed in 2019 EIA Report

Effect	2019 Cumulative Effect	
	Significance	Beneficial/ Adverse
Socio-economic impact during construction and decommissioning in Shetland	Minor	Beneficial
OPEX in Shetland	Minor	Beneficial
Impact on tourism during construction, operation and decommissioning	Negligible	N/A
Impact on local footpath users during construction, operation and decommissioning	Negligible	N/A
Impact on land-use during construction, operation and decommissioning	Negligible	N/A

Table 12.12 – Summary of Cumulative Effects – Assessed in Supplementary Environmental Information

Effect	2020 Cumulative Effect	
	Significance	Beneficial/ Adverse
Indirect impact of HVDC Interconnector on Shetland	Moderate	Beneficial
Indirect impact of HVDC Interconnector on Scotland	Minor	Beneficial
Indirect impact of Maali Interconnector on Shetland	Moderate	Beneficial
Indirect impact of Maali Interconnector on Scotland	Moderate	Beneficial

12.5 References

BiGGAR Economics. (2019). The Economic Impact of Energy Isles Wind Farm.

Department of Energy and Climate Change, RenewableUK. (2012). Onshore Wind: Direct and Wider Economic Impacts.

Ofgem. (2020). Shetland transmission project: Consultation on proposed Final Needs Case and Delivery Model.

ONS. (2019). Business Register and Employment Survey 2018.

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