

MORAY WEST OFFSHORE WINDFARM



Onshore Transmission Infrastructure Environmental Impact Assessment (EIA)

Moray Offshore Windfarm (West) Limited

Technical Appendix 12.2

Socio-economics Methodology



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Acronyms	
Acronym	Expanded Term
EIA	Environmental Impact Assessment
FTE	Full Time Equivalent
GVA	Gross Value Added
Moray West	Moray Offshore Windfarm (West) Limited
OnTI	Onshore Transmission Infrastructure
SIC	Standard Industrial Classification

1 Socio-economics Methodology

1.1 Introduction

1.1.1.1 This section summarises the approach to assessing the socio-economic impact of the Moray West Onshore Transmission Infrastructure (OnTI), focusing on:

- Impact scenarios and sourcing assumptions; and
- The method of calculating economic impacts.

1.1.1.2 The impacts are assessed at two spatial levels:

- Scotland; and
- The Local Study Area, comprising the local authorities of Aberdeenshire and Moray.

1.1.1.3 The capital expenditure associated with the OnTI is the main driver of socio-economic impact. The cost estimates have been provided by the developer and form the main basis for input into the economic impact model.

1.2 Impact Assessment Method

1.2.1.1 The financial data on project expenditure have been provided by Moray Offshore Windfarm (West) Limited (Moray West). The figures take into account the cost reduction which is likely to take place by the time the project is being constructed in 2022/23. The figures are commercially sensitive and confidential, therefore cannot be stated in this report.

1.2.1.2 The potential socio-economic effects are estimated using project expenditure figures and the sourcing scenarios in the two study areas. Each type of expenditure category has been matched to Regeneris Consulting's Input-Output Model product categories based on Standard Industrial Classification (SIC). This enables the estimation of impact patterns (and associated employment and GVA) that reflect the specific value creation and supply chains for relevant sectors.

1.2.2 Direct Impact Calculation

1.2.2.1 The estimates for first round expenditure in each area and by spend category form the basis for direct employment and GVA calculations. The expenditure in each of the impact areas is converted to employment and GVA using employment coefficients (i.e. employment per £1m of spend in the sector) and GVA coefficients (i.e. percentage of output in the product category that is GVA).

Table 1.1: Direct Impact and Employment Coefficients by SIC Code

Phase	Category	SIC	GVA Coefficient	Employment Coefficient
OnTI Construction	Onshore Export Cable	27	36%	5.6
	Onshore Substation(s)	43	41%	9.0

1.2.3 Indirect and Induced Impact Calculation

1.2.3.1 Indirect and Induced impacts relate to the economic activity supported in the chain of suppliers of goods and services to the direct activities and the personal expenditure impacts respectively. Regeneris Consulting's Scottish Input Output tables are used to estimate the scale and sectoral distribution of subsequent rounds of output in the lower tiers of the development's supply chain. The calculation of indirect and induced impacts is carried out firstly for Scotland. The steps taken in the model are as follows:

- Aggregate the sum of direct output by product code;
- Use indirect and induced multipliers to model how direct expenditure on goods and services will be distributed amongst supply chain sectors (i.e. the total value and sectoral distribution of subsequent rounds of output) and the direct and indirect expenditure of the employees will be distributed across product categories; and
- Convert the subsequent rounds of indirect and induced output to employment and GVA respective multipliers for each product code in which subsequent rounds of expenditure are expected.

1.2.3.2 To estimate the impact for the Local Study Area, the indirect and induced multipliers need to be adjusted to reflect the smaller economic scale at a local level (and therefore impact) compared to Scotland. This is done based on the share of FTE employment in the Local Study Area relative to Scotland. The indirect and induced impacts are then adjusted accordingly.

1.2.4 Definition of Impact Magnitude

1.2.4.1 There are four important points to note in relation to the criteria used to determine the magnitude of socio-economic impacts:

- In line with the requirements of the EIA methodology, the change in baseline conditions which would occur as a result of socio-economic impacts is the basis of the assessment. For some receptors multiple measures could be used as part of the baseline. Indeed, for the employment and GVA receptors, different baseline measures are needed for direct, indirect and induced economic impacts; static employment and GVA indicators as well as average change;
- The level at which quantitative criteria are set reflects the nature of the measures. For some receptors, the appropriate measure is very tightly defined (e.g. employment in a single sector) whilst for other receptors the baseline indicators used are broader (e.g. employment across the full economy). To reflect this, different criteria are used to define the magnitude of impact for each receptor;
- The impact magnitude is considered in the context of historic growth to establish how much the impact of OnTI would contribute to the annual changes in employment and GVA. The magnitude of impact in the context of average historic growth is judged qualitatively; and
- Therefore, it is not always possible to undertake the assessment of magnitude in a wholly quantitative way. An element of professional judgement is required to bring together quantitative and qualitative elements of the assessment. To reflect this, the criteria for assessment of magnitude set out in the EIA Report are provided in qualitative terms.

1.2.4.2 In addition to the qualitative magnitude criteria set out in the main chapter, the following quantitative criteria have been used.

1.2.5 Employment and GVA in the Construction Supply Chain

- 1.2.5.1 The magnitude of impact for direct employment is assessed in the relevant supply chain sectors. Definitions for these chapters are provided in the main chapter. The magnitude of impact of indirect and induced employment is assessed in the context of employment in the whole economy, as indirect impact is dispersed across more industries. The magnitude is assessed for direct, indirect and induced employment separately, and then combined.
- 1.2.5.2 Similarly to employment effects, GVA effects are assessed for magnitude in the context of GVA in the local study area and Scotland. The effects are assessed in the context of the whole economy – this is because GVA data is not available for the defined supply chain sectors. To reflect the broader baseline measure, lower thresholds have been used to measure change against.

Table 1.2: Criteria for Assessment of Magnitude: Employment and GVA Impacts						
Phase	Baseline measure	No change	Negligible	Low	Medium	High
Employment	Direct = relevant sectors Indirect = whole economy Indirect = whole economy (Local Study Area and Scotland)	0%	Up to 0.5%	0.5 - 1%	1 - 2%	2% +
GVA	Whole economy GVA (Local Study Area and Scotland)	0%	Up to 0.1%	0.1 - 0.5%	0.5 - 1%	1% +

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