

**3.76** The factors that were taken into account in establishing this layout included:

- The distance between turbines and noise sensitive properties;
- The requirement to fell woodland and the extent of achievable restocking;
- The distance between turbines to optimise performance;
- Land ownership constraints;
- The presence of watercourses;
- The presence of peat;
- Ecology and ornithology factors;
- The proximity of cultural heritage features;
- The visual impact of turbines on nearby settlements, individual properties and key viewpoints; and
- Cumulative effects with other schemes.

**3.77** Following the fixing of the turbine positions, design work then took place on the internal track layout. A track layout was selected which sought to re-use the existing track within the development site as far as possible to minimise the requirement for new access tracks and associated disturbance.

**3.78** The final overall layout that was established following these iterations is shown in application drawing AEL007 Proposed Layout Plan.

## Chapter four

### SCOPING AND CONSULTATION

#### INTRODUCTION

**4.1** This Chapter of the ES describes the scoping exercise carried out by the applicant as part of the Environmental Impact Assessment (EIA). It refers to the pre-application consultation that has taken place and explains how the EIA and the design of the proposed development have been shaped by the scoping responses received.

**4.2** A summary table is included which sets out the issues raised in the scoping process by the various consultees, and then provides either a cross-reference to where the issue has been addressed in the ES, or an explanation of how the matter has been dealt with.

#### SCOPING

**4.3** The aims of EIA scoping are to:

- Identify the issues that should be assessed and could potentially influence the design of the scheme;
- Indicate the relative importance of the issues and where the assessment and design work should concentrate; and
- Agree the general approach to the assessment, and initiate discussion over the methodologies to be used.

#### Scoping report

**4.4** In October 2014 Savills on behalf of Airvolution Energy submitted a request for a formal 'scoping opinion' under the EIA Regulations to Highland Council. The request was accompanied by a scoping report (contained in Appendix 4.1). The scoping report took into account the baseline environment.

**4.5** The first three sections of the scoping report provided an introduction and brief description of the site, its surroundings, and the proposed development. The next section of the scoping report explained the intended overall approach to the EIA, and gave an outline of the proposed content of the ES.

**4.6** Section five of the scoping report listed the issues that were considered to require assessment during the EIA.

**4.7** The scoping report considered each issue in turn with sub sections on baseline conditions, potential impacts, potential mitigation, and assessment methodology.

**4.8** The concluding section of the scoping report also asked consultees to consider the following questions:

- Are there any potential impacts that have not been included?
- Is the intended method of assessment appropriate?
- Are there additional mitigation measures that should be considered?

**4.9** The formal scoping opinion was issued by Highland Council on 17<sup>th</sup> November 2014. The following scoping consultation responses were received after the Highland Council scoping opinion was issued on 17<sup>th</sup> November 2014. All scoping responses

are included in Appendix 4.2.

- Nairn District Salmon Fishery Board dated 19<sup>th</sup> November 2014;
- Response from SNH dated 20<sup>th</sup> November 2014;
- Response from Transport Scotland dated 24<sup>th</sup> November 2014; and
- Response from Historic Scotland dated 27<sup>th</sup> November 2014.

**4.10** The scoping opinion includes the statement that *'it is noted from your Scoping Report presented with your request for a Scoping Opinion that you have a good understanding of the proposed development and its likely impacts'*.

**4.11** The detailed technical issues and requirements included within Highland Council's formal scoping opinion, and those raised during the scoping exercise but not included within the formal scoping opinion, are set out in Table 4.1. For each issue the table provides either an explanation of how it has been dealt with or a cross reference to that part of the ES where it is addressed.

**4.12** It can be seen from Table 4.1 that all of the issues and requirements raised during the scoping exercise have been addressed in the EIA and the findings reported in this ES.

**Table 4.1: Issues arising from scoping consultation**

Issue	Assessment requirement	Requirement Document	Response
Ecology	ES should address all likely impacts on the nature conservation interests of all the designated sites in the vicinity of the proposed development. The ES should provide proposals for any mitigation that is required to avoid these impacts or reduce them to a level where they are not significant.	The Highland Council Scoping Opinion 17 November 2014.	See Chapter Seven: Ecology
	Address whether or not the development could assist or impede delivery of elements of relevant Biodiversity Action Plans.	The Highland Council Scoping Opinion 17 November 2014.	See Chapter Seven: Ecology
	A baseline survey of the bird and animals interest on the site should be provided including any presence of protected species.	The Highland Council Scoping Opinion 17 November 2014.	See Chapter Seven: Ecology and Chapter Eight Ornithology
	An account of the habitats present on the proposed development site and any habitat enhancement and mitigation measures should be detailed.	The Highland Council Scoping Opinion 17 November 2014.	See Chapter Seven: Ecology
	Where it is not possible for the development to avoid fragile and priority habitats and other sensitive areas, suitable restoration and/or compensation will need to be carried out. Draft details of how this is to be done should be presented in the ES.	Scottish Natural Heritage response dated 20 November 2014	See Chapter Seven: Ecology, and Chapter Fourteen: Hydrology and Ground Conditions
	Survey work should be undertaken to determine any presence of bats and otters on site.	Scottish Natural Heritage response dated 20 November 2014.	See Chapter Seven: Ecology
	Surveys to identify the presence of all species identified within the scoping report, and red squirrels, should be undertaken. Methods should be detailed along with the results and any proposed mitigation measures in the ES.	Scottish Natural Heritage response dated 20 November 2014.	See Chapter Seven: Ecology
	The ES should fully consider the potential natural heritage impacts of vehicle movements, track creation and modification along the length of the proposed routes, including those outside the development area.	Scottish Natural Heritage response dated 20 November	See Chapter Seven: Ecology and Chapter Twelve: Transport and

<b>Ornithology</b>	The ES should assess the impact of the proposal on the North of Scotland red kite species. Consideration should be given to the cumulative impacts of this scheme in addition to the impacts of other wind farms which impact upon the North of Scotland population.  Population modelling should be included in the ES if there is significant collision risk identified from the vantage point survey work.	2014. Scottish Natural Heritage response dated 20 November 2014	Access See Chapter Eight: Ornithology
	Assessment of the impacts and their significance on Slavonian grebe should be included as part of the ES. Contact with the RSPB is recommended to ascertain the active or historic Slavonian grebe sites in the vicinity of the proposed wind farm.	Scottish Natural Heritage response dated 20 November 2014	See Chapter Eight: Ornithology
<b>Landscape and visual</b>	The purpose of the selected and agreed viewpoints for assessing the landscape and visual impacts of the development shall be clearly identified and stated within supporting information.	The Highland Council Scoping Opinion 17 November 2014.	See Chapter Six: Landscape and Visual
	The potential impact of the development proposals on designated landscapes should be carefully and thoroughly considered and appropriate mitigation measures outlined in the ES.	The Highland Council Scoping Opinion 17 November 2014.	See Chapter Six: Landscape and Visual
	The applicant must adopt The Highland Council visualisation standards. It may be appropriate to submit the visualisations to The Highland Council standard.	The Highland Council Scoping Opinion 17 November 2014.	See Chapter Six: Landscape and Visual  Visualisations have been produced to both The Highland Council and SNH's standards.
	The ES should identify if there would be any visibility of the wind farm from within the Cairngorms National Park and an assessment of the impacts on the special qualities should be included in the EIA.  Consultation with the Cairngorms National Park is suggested regarding the proposal.	Scottish Natural Heritage response dated 20 November 2014	See Chapter Six: Landscape and Visual
	If the proposal is likely to create a significant impact on wild land area 20 (Monadhliath), a wild land assessment should be undertaken in accordance with SNH guidance.	Scottish Natural Heritage response dated 20 November 2014	See Chapter Six: Landscape and Visual
<b>Carbon balance</b>	The ES or planning submission should include: a) a summary demonstrating how the development has been designed with regards to layout and mitigation to minimise the release of CO <sub>2</sub> ; and b) preventative / mitigation measures to avoid significant drying or oxidation of peat through, for example, the construction of access tracks, drainage channels, cable trenches, or the storage and re-use of excavated peat.	Scottish Environment Protection Agency response 10 November 2014.	See Chapter Fourteen: Hydrology and Ground Conditions
	An assessment of the impacts of the proposal on carbon rich soils and peat should be made using a carbon calculator.	Scottish Natural Heritage response dated 20 November 2014	See Chapter Three: Scheme Description
<b>Hydrology and ground conditions</b>	The ES needs to address that nature of the hydrology and hydrogeology of the site, and of the potential impacts on water courses, water supplies including private water supplies, water quality, water quantity and on aquatic flora and fauna. Impacts on watercourses, lochs, groundwater, other water features, wetlands and sensitive receptors, such as water supplies, need to be assessed. Measures to prevent erosion, sedimentation or discolouration will be required, along with monitoring	The Highland Council Scoping Opinion 17 November 2014.	See Chapter Fourteen: Hydrology and Ground Conditions

	proposals and contingency plans. Assessment will need to recognise periods of high rainfall which will impact on any calculations of run-off, high flow in watercourses and hydrogeological matters.		
	The ES will be expected to identify all water crossings and include a <u>systematic table</u> of watercourse crossings or channelling, with detailed justification for any such elements and design to minimise impact. The table should be accompanied by photography of each watercourse affected and include dimensions of the watercourse.	The Highland Council Scoping Opinion 17 November 2014.	See Chapter Fourteen: Hydrology and Ground Conditions
	The ES needs to address the aquatic interests within local watercourses, including down streams that may be affected by the development, for example increases in silt and sediment loads resulting from construction works; pollution risk / incidents during construction; obstruction to upstream and downstream migration both during and after construction; disturbance of spawning beds / timing of works; and other drainage issues. The ES should evidence consultation input from the local fishery board(s).	The Highland Council Scoping Opinion 17 November 2014.	See Chapter Fourteen: Hydrology and Ground Conditions
	The applicant will require to carry out an investigation to identify any private water supplies, including pipework, which may be adversely affected by the development and to submit details of the measures proposed to prevent contamination or physical disruption.	The Highland Council Scoping Opinion 17 November 2014.	See Chapter Fourteen: Hydrology and Ground Conditions
	The ES must consider the risks of engineering stability relating to the presence of peat on the site. A comprehensive peat slide risk assessment in accordance with the Scottish Government Best Practice Guide for Developers will be expected. Assessment should also address pollution risk and environmental sensitivities of the water environment. It should include a detailed map of peat depth and evidence that the scheme minimises the impact on areas of deep peat.	The Highland Council Scoping Opinion 17 November 2014.	See Chapter Fourteen: Hydrology and Ground Conditions
	A peat depth survey and peat stability assessment to determine the location of infrastructure and the risk to habitats and species should be carried out and the information presented in the ES. Details of any mitigation measures which have been incorporated to ensure the protection of carbon rich soils and peat should be provided.	Scottish Natural Heritage response dated 20 November 2014	See Chapter Fourteen: Hydrology and Ground Conditions
	The ES should include outline construction method statements or the site-specific principles on which such construction method statements would be based for engineering works in peat land areas, including access roads, turbine bases and hard standing areas, and these should include particular reference to drainage impacts, dewatering and disposal of excavated peat.	The Highland Council Scoping Opinion 17 November 2014.	See Chapter Fourteen: Hydrology and Ground Conditions
	The River Nairn District Salmon Fishery Board requests that a water quality and fisheries monitoring plan is developed to ensure that no detrimental effects area evident in the fish populations downstream of the development. This plan should include the following elements, water quality monitoring, invertebrate monitoring and fish monitoring.  Close liaison with the Findhorn, Nairn and Lossie Fisheries Trust to develop a monitoring plan is encouraged	River Nairn District Salmon Fishery Board response 19 November 2014.	See Chapter Fourteen: Hydrology and Ground Conditions
<b>Cultural Heritage</b>	Cultural Heritage ES chapter should follow Highland Council Standards for Archaeological Work, specifically Sections 3 and 4.	The Highland Council Scoping Opinion 17	See Chapter Thirteen: Cultural Heritage

	The proposed development area will be subject to a targeted walkover assessment covering both the potential direct and indirect impacts of the development to cultural heritage assets. The assessment findings should be included in the ES.	November 2014. The Highland Council Scoping Opinion 17 November 2014.	See Chapter Thirteen: Cultural Heritage
	As well as the scheduled archaeology there are large concentrations of unscheduled features, including a large prehistoric settlement to the north of the proposed development. This (and other similar areas) is potentially of schedulable quality and should be considered as such in any forthcoming assessment.	The Highland Council Scoping Opinion 17 November 2014.	See Chapter Thirteen: Cultural Heritage
	The cultural heritage indirect impact assessment will include a study of cumulative impacts. Where indirect impacts are predicted, these will be illustrated using photomontages in line with Highland Council visualisations standards.	The Highland Council Scoping Opinion 17 November 2014.	See Chapter Thirteen: Cultural Heritage
	An assessment of the impact of the proposal on Gardens and Designed Landscapes should be contained within the Cultural Heritage assessment and any assessment in the Landscape and Visual Impact chapter should be cross-referenced appropriately.	Historic Scotland response dated 27 November 2014	See Chapter Thirteen: Cultural Heritage, and Chapter Six: Landscape and Visual
	A wider search of the surrounding area for potential impacts on heritage assets should be undertaken. The likely sensitivity of the setting of heritage assets should be used to determine which sites are assessed in more detail in the ES.	Historic Scotland response dated 27 November 2014	See Chapter Thirteen: Cultural Heritage
<b>Forestry</b>	The ES should provide a baseline survey of the plants (including fungi, lichens, and bryophytes) and trees present on the site to determine the presence of rare or threatened species.	The Highland Council Scoping Opinion 17 November 2014.	See Chapter Seven Ecology
	The ES should indicate areas of woodland / forestry plantation which may be felled to accommodate new development (including the access), including any off site works / mitigation.	The Highland Council Scoping Opinion 17 November 2014.	See Chapter Fifteen: Forestry
	The ES should provide detail on the location and scale of any compensatory planting.	Scottish Natural Heritage response dated 20 November 2014.	See Chapter Fifteen: Forestry
	The wind farm layout should be informed by an Arboricultural Impact Assessment and a Tree Protection Plan to BS:5837(2012) and this information should be submitted in support of any planning application.	The Highland Council Scoping Opinion 17 November 2014.	See Chapter Fifteen: Forestry
	Consideration must also be given to the full area required for the construction access road through the trees / woodlands and the impact on these identified.	The Highland Council Scoping Opinion 17 November 2014.	See Chapter Fifteen: Forestry
	If timber is to be disposed of on site, details of the methodology for this should be submitted.	The Highland Council Scoping Opinion 17 November 2014.	See Chapter Fifteen: Forestry
<b>Transport and Access</b>	A Transport Assessment should be submitted as part of the planning application detailing the proposed routes and volumes for all construction related traffic. This Transport Assessment should also identify potential impacts of this traffic on local transport infrastructure and measures to mitigate these impacts.	The Highland Council Scoping Opinion 17 November 2014.	See Chapter Twelve: Transport and Access
	When considering potential measures needed to gain access to the site and to mitigate impacts along the local	The Highland Council	See Chapter Twelve: Transport



	road network, reference should be made to the South Loch Ness Road Improvement Strategy.	Transport Planning Team response 12 November 2014.	and Access
	Acknowledge that there will be a minimal increase in traffic on the trunk road during the operation of the facility therefore the proposed development is not likely to have a significant impact on the operation of the trunk road. Consultation with BEAR Scotland is recommended regarding the feasibility of the transportation of construction loads to the site.	Transport Scotland response 24 November 2014	See Chapter Twelve: Transport and Access
<b>Aviation</b>	Use of NATS self-assessment is recommended to ascertain whether any potential impact upon NATS infrastructure and operations might exist. Any evidence of assessments to be included in ES documentation.	NATS Safeguarding Office response 22 October 2014	See Chapter Ten: Aviation and Telecommunications
	Requirement to assess impact on NATS and MoD infrastructure within the EIA.	Civil Aviation Authority response 22 October 2014	See Chapter Ten: Aviation and Telecommunications
	Recommended that the site of the turbines is checked to see if it falls within the range of any aerodromes using the distances recommended in CAP 764. It is recommended that Emergency Service Helicopter Support Units are consulted as they may operate in the area and be affected by the introduction of the proposed turbines.	Civil Aviation Authority response 22 October 2014	See Chapter Ten: Aviation and Telecommunications
	The proposed development is within the safeguarded area for Inverness Airport. A line of sight drawing from each of the proposed turbine locations to the airport radar should be provided.	Highlands and Islands Aviation Ltd response 30 October 2014	See Chapter Ten: Aviation and Telecommunications
<b>Noise</b>	A noise assessment with regard to the operational phase of the development is required to be submitted to demonstrate that noise levels will comply with acceptable standards. The assessment should be carried out in accordance with ETSU-R-97 'The Assessment and Rating of Noise from Wind Farms' and the associated Good Practice Guide published by the Institute of Acoustics.	The Highland Council Scoping Opinion 17 November 2014.	See Chapter Nine: Noise
	Background noise surveys should be undertaken in accordance with ETSU-R-97 and the Good Practice Guide. Monitoring locations should be agreed with the Council's Environmental Health department.	The Highland Council Scoping Opinion 17 November 2014.	See Chapter Nine: Noise
	The noise assessment should consider cumulative effects from other wind turbine developments. A map showing all wind turbine developments and noise sensitive properties should be submitted along with noise data showing the predicted levels for all developments, the consented levels and the calculated cumulative levels.	The Highland Council Scoping Opinion 17 November 2014.	See Chapter Nine: Noise
	Where construction noise has the potential to cause disturbance (where there is not a significant separation distance between the development and noise sensitive properties and if operation hours are out-with normal daytime working hours), a construction noise assessment should be submitted.	The Highland Council Scoping Opinion 17 November 2014.	See Chapter Nine: Noise
<b>Air Quality</b>	The ES should address existing air quality and the general qualities of the local environment as well as recognising likely impacts on air quality for each phase of the development including construction, operation and decommissioning.	The Highland Council Scoping Opinion 17 November 2014.	Chapter 3: Scheme Description describes the carbon balance assessment that has been undertaken for the proposed

			development to estimate the carbon dioxide emissions that will be avoided by generating electricity using wind turbines rather than non-renewable forms of electricity generation, offset against the estimated loss of carbon dioxide from the site due to peat disturbance, and the carbon cost of the manufacture and transport of the required infrastructure.
	Dependent on the proximity of the development site to houses, the submission of an assessment of potential dust nuisance may be required.	Highland Council Environmental Health response 13 November 2014	Chapter 3: Scheme Description outlines how potential dust mitigation during construction would be minimised through the use of good site practice and /or mitigation measures.
<b>Socio-Economics</b>	Estimations of who may be affected by the proposed development including local communities, individual households and wider socio-economic groups such as tourists, recreational groups, economically active should be included.	The Highland Council Scoping Opinion 17 November 2014.	See Chapter 16: Socio-Economic, Tourism and Recreation.
	Relevant economic information including the potential number of jobs, and economic activity associated with the procurement, construction, operation and decommissioning of the development should be included with the application. Impacts on the national, regional and local economy should be included.	The Highland Council Scoping Opinion 17 November 2014.	See Chapter 16: Socio-Economics, Tourism and Recreation.
	An outdoor access plan should be submitted as part of the ES.	The Highland Council Scoping Opinion 17 November 2014.	See Chapter 16: Socio-Economic, Tourism and Recreation

## OTHER CONSULTATION

### Consultation undertaken by specialists on the scope and method of assessment

**4.13** Additional pre-application consultation has been undertaken with relevant statutory and non-statutory organisations to establish the detailed assessment methodology employed for each environmental specialism as described in the individual topic chapters where relevant.

### Public consultation

**4.14** The proposed installed capacity of the proposed development is up to 23.8 MW.



The Town and Country Planning (Hierarchy of Developments) (Scotland) Regulations 2009 classify the proposed development as a 'major development' as the wind farm would have an installed capacity in excess of 20 MW. Classification of the proposal as a major development introduces the requirement for the applicant to follow formal pre-application consultation requirements. The Pre-Application Consultation Report which accompanies the planning application sets out the pre-application consultation that has been undertaken for the proposed development.

**4.15** The Carr Ban Wind Farm website was launched in October 2014. The project website provides up-to-date information about the proposal and provides the following options for making comments: to register to make comments via the website, to make comments by email, or by a telephone number which is free to use from landlines.

**4.16** The pre-application consultation activities included Airvolution Energy holding a public exhibition at Farr Community Hall, Inverarnie on Wednesday 12<sup>th</sup> November 2014 between 2pm and 8pm.

**4.17** The exhibition introduced the proposed development and the main issues which were considered. Members of Airvolution Energy's project team (including relevant consultants) were on hand to answer any questions.

#### **Post-submission consultation**

**4.18** In accordance with the requirements of the EIA Regulations and normal planning procedures the application and ES will be advertised and sent to a wide range of statutory consultees and will also be made available to members of the public.

**4.19** Airvolution Energy is committed to ongoing consultation with non-statutory consultees and the local community during the post submission stage.

### **CONCLUSION**

**4.20** The formal and informal scoping exercises were informed by consultation, baseline environmental work, a preliminary planning appraisal, site visits, and a review of impact identification checklists in EIA and wind farm development guidance documents.

**4.21** Airvolution Energy has undertaken a wide public consultation prior to the submission of the planning application and is committed to ongoing consultation with the local community during the post submission stage.

## Chapter five

### PLANNING POLICY CONTEXT

#### INTRODUCTION

5.1 This chapter of the Environmental Statement (ES) identifies the relevant planning policy considerations for the proposed development with an overview of relevant national and international energy policy considerations. It includes reference to national, regional and local planning policies as well as other material considerations, with particular focus on policy relating to renewable energy. Specific planning policies are also highlighted in the technical chapters of the ES where relevant.

5.2 Section 25 (1) of the Town and Country Planning (Scotland) Act 1997 as amended states that planning applications shall be determined in accordance with the development plan unless material considerations indicate otherwise:

*'Where, in making any determination under the planning Acts, regard is to be had to the development plan, the determination shall be made in accordance with the plan unless material considerations indicate otherwise'*

#### THE GLOBAL IMPERATIVE

5.3 The underlying concern of many of the policies reviewed in this chapter is the need to contain global climate change by reducing the emission of greenhouse gases, particularly carbon dioxide (CO<sub>2</sub>), that contribute to global warming. A major source of greenhouse gas emissions is the combustion of fossil fuels such as coal, oil and gas.

5.4 According to the UN Intergovernmental Panel on Climate Change's fifth assessment report, fossil fuel power generation should be phased out "almost entirely" by the end of the century to limit warming to 2°C above pre-industrial levels. The report states that low carbon energy supply will have to increase from 30% currently to more than 80% by 2050<sup>1</sup>.

5.5 The legally binding target for the UK in the first commitment period of the Kyoto Protocol was, to reduce emissions of greenhouse gases by 12.5% below 1990 levels in the period 2008-2012. Under the Kyoto Protocol's second commitment period (2013-2020), the UK government has a target to reduce emissions to 20% below 1990 levels by 2020. These international obligations are reinforced by European Union commitments such as the EU 2020 Strategy which reiterates the target of a 20% reduction in greenhouse gas emissions by 2020.

5.6 The EU Emissions Trading System (EU ETS) forms the cornerstone of UK action to reduce greenhouse gas emissions from the power sector. Since 2005, the EU ETS has set a cap on emissions from the large industrial sectors such as electricity generation. This reducing cap is expected to deliver reductions from these sectors of 21% on 2005 levels by 2020.

5.7 The 2009 Renewable Energy Directive sets a target for the UK to achieve 15% of its total energy consumption, including transport, from renewable resources by 2020.

<sup>1</sup> IPCC (2014) IPCC Fifth Assessment Synthesis Report: CLIMATE CHANGE 2014 SYNTHESIS REPORT Longer report, Adopted 1 November 2014. Available online at: [http://www.ipcc.ch/pdf/assessment-report/ar5/syr/SYR\\_AR5\\_LONGERREPORT.pdf](http://www.ipcc.ch/pdf/assessment-report/ar5/syr/SYR_AR5_LONGERREPORT.pdf) (Page SYR-51)