



**THE TOWN AND COUNTRY PLANNING (ENVIRONMENTAL
IMPACT ASSESSMENT) (SCOTLAND) REGULATIONS 2017**

SCOPING OPINION

Applicant:	Ackron Windfarm Ltd
Agent (contact details):	Arcus Consultancy Services Ltd
Project:	Ackron Wind Farm
Project Address:	Land 1575M NE Of Ackron Farm, Golval, Forsinard

This response is given without prejudice to the Planning Authority's right to request information in connection with any statement, whether Environmental Statement (ES) or not, submitted in support of any future application. These views are also given without prejudice to the future consideration of and decision on any planning application received by the Council.

The Highland Council request that any Environmental Statement (ES) submitted in support of an application for the above development take the comments highlighted below into account; many of which are already acknowledged within the Scoping Report submitted. In particular, the elements of this report as highlighted in parts 3, 4 and 5 should be presented as three distinct elements.

1.0 Description of the Development.

The description of development for an ES is often much more than would be set out in any planning application. An ES must include: -

- a description of the physical characteristics of the whole development and the full land-use requirements during the operational, construction and decommissioning phases. These might include requirements for borrow pits, local road improvements, infrastructural connections (i.e. connections to the grid), off site conservation measures, etc. A plan with eight figure OS Grid co-ordinates for all main elements of the proposal should be supplied.
- a description of the main characteristics of the production processes, for instance, nature and quantity of the materials used;
- the risk of accidents, having regard in particular to substances or technologies used;
- an estimate, by type and quantity, of expected residues and emissions (water, air and soil pollution, noise, vibration, light / flicker, heat, radiation, etc.) resulting from the operation of the development.
- The estimated cumulative impact of the project with other consented or operation development.

2.0 Alternatives.

A statement is required which outlines the main development alternatives studied by the applicant and an indication of the main reasons for the final project choice. This is expected to highlight some or all of the following: -

- the range of technologies that may have been considered
- locational criteria and economic parameters used in the initial site selection.
- the environmental effects of the different options examined

Such assessment should also highlight sustainable development attributes including for example assessment of carbon emissions / carbon savings.

3.0 Environmental Elements Affected

- 3.1 The ES must provide a description of the aspects of the environment likely to be significantly affected by the development. The following paragraphs highlight some principal considerations. There are a number of wind energy developments in the area and you are encouraged to use your understanding of these in assessing your development. The ES should fully utilise this understanding to ensure that information provided is relevant and robustly grounded.
- 3.2 **Land Use:** - The ES should recognise the existing land uses affected by the development having particular regard for The Highland Council's Development Plan and other supplementary planning policies. This is not instead of but in addition to the expectation of receiving a Planning Statement in support of the application itself which, in addition to exploring compliance with the Development Plan, should look at Scottish Planning Policy and Planning Advice Notes which identify the issues that should be taken into account when considering significant development. It is not considered necessary to cover the matter of energy policy within the ES or helpful to cover planning policy within each Chapter of the ES.
- 3.3 **Population:** - The ES should estimate who may be affected by the development, in all or in part, which may required individual households to be identified, local communities or a wider socio economic groupings such as tourists & tourist related businesses, recreational groups, economically active, etc. The application should include relevant economic information connected with the project, including the potential number of jobs, and economic activity associated with the procurement, construction, operation and decommissioning of the development. This should include a statement on local content required under The Highland Renewable Energy Strategy and Planning Guidelines (HRES).
- 3.4 **Community Assets:** - The ES needs to recognise community assets that are currently in operation for example TV, radio, tele-communication links, radar, MOD safeguards, etc. In this regard the applicant, when submitting a future application, will need to demonstrate what interests they have identified and the outcomes of any consultations with relevant authorities such as Ofcom, NATS, BAA, CAA, MOD, Highlands and Islands Airports Ltd, etc. through the provision of written evidence of concluded discussions / agreed outcomes.
- 3.5 **Nature Conservation Sites:** - The ES should address the likely impacts on the nature conservation interests of all the designated sites in the vicinity of the proposed development. It should provide proposals for any mitigation that is required to avoid these impacts or to reduce them to a level where they are not significant. SNH can also provide specific advice in respect of the designated site boundaries for SACs and SPAs and on protected species and habitats within those sites. The potential impact of the development proposals on other designated areas such as SSSI's should be carefully and thoroughly considered and, where possible, appropriate mitigation measures outlined in the ES. The key issues relevant to SNH's interests that should be addressed in the Environmental Impact Assessment (EIA) are as follows:

- Likely adverse impacts upon East Halladale Flows Wild Land Area (WLA)
- Potential impacts to the Caithness & Sutherland Peatlands Special Protection Area (SPA), Special Area of Conservation (SAC), East Halladale Site of Special Scientific Interest (SSSI) and the Caithness & Sutherland Peatlands Ramsar Site.
- Impacts to peatland and carbon rich soils
- Protected species and deer

Further advice can be found in SNH's consultation response.

- 3.6 **Habitats / Biodiversity:** - The ES should provide an account of the habitats present on the proposed development site. It should identify rare and threatened habitats, and those protected by European or UK legislation, or identified in national or local Biodiversity Action Plans. Habitat enhancement and mitigation measures should be detailed, particularly in respect to blanket bog, in the contexts of both biodiversity conservation and the inherent risk of peat slide (see later). Details of any habitat enhancement programme (such as native- tree planting, stock exclusion, etc) for the proposed site should be provided. It is expected that the ES will address whether or not the development could assist or impede delivery of elements of relevant Biodiversity Action Plans.
- 3.7 **Birds and Animals:** - The ES should provide a baseline survey of the bird and animals (mammals, reptiles, amphibians, etc) interest on site. It needs to be categorically established which species are present on the site, and where, before a future application is submitted. The presence of protected species such as Schedule 1 Birds or European Protected Species must be included and considered as part of the planning application process, not as an issue which can be considered at a later stage. Any consent given without due consideration to these species may breach European Directives with the possibility of consequential delays or the project being halted by the EC. Please refer to the comments of SNH in this respect.
- 3.8 **Plants / Trees / Forestry:** - The ES should provide a baseline survey of the plants (and fungi) and trees present on the site to determine the presence of any rare or threatened species albeit it is accepted that the likelihood is low given the present land use of the site. The ES should indicate all the areas of woodland / forestry plantation that will be felled to accommodate the development, including any off site works / mitigation. Compensatory woodland is a clear expectation of any proposals for felling, and thereby such mitigation needs to be considered within any assessment. If so minded, permission is only likely to be granted on the basis that compensatory planting proposals are identified in advance. Compensatory planting should be within the Highland area and not form part of an already approved forestry plan/proposal that has gained FC funding. Areas of retained forestry or tree groups should be clearly indicated and methods for their protection during construction and beyond clearly described. If timber is to be disposed of, details of the methodology for this should be submitted.
- 3.9 **Soil / Borrow Pits:** - The ES should fully describe the likely significant effects of the development on the local geology including aspects such as borrow pits, earthworks, site restoration and the soil generally including direct effects and any indirect. Proposals should demonstrate construction practices that help to minimise the use of raw materials and maximise the use of secondary aggregates and recycled or renewable materials. Where borrow pits are proposed the ES should include information regarding the location, size and nature of these borrow pits including information on the depth of the borrow pit floor and the borrow pit final reinstated profile. This can avoid the need for further applications.
- 3.10 **Peat:** - The ES must consider the risks of engineering instability relating to presence to 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 impact on areas of deep peat. The ES should include site-specific principles on which construction method statements

would be developed 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.

Consideration should be given to the disturbance and re-use of peat generally as highlighted by SEPA. Carbon balance calculations should also be undertaken.

- 3.11 **Water Environment:** - The ES needs to address the nature of the hydrology and hydrogeology of the site, and of the potential impacts on water courses, water supplies including private supplies, water quality, water quantity and on aquatic flora and fauna. Impacts on watercourses, lochs, groundwater, other water features and sensitive receptors, such as water supplies, need to be assessed. Measures to prevent erosion, sedimentation or discolouration will be required, along with monitoring 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. You are strongly advised at an early stage to consult Scottish Environment Protection Agency (SEPA) as the regulatory body responsible for the implementation of the Controlled Activities (Scotland) Regulations 2005 (CAR), to identify if a CAR license is necessary and the extent of the information required by SEPA to assess any license application.
- 3.12 If culverting should be proposed, either in relation to new or upgraded tracks, then it should be noted that SEPA has a general presumption against modification, diversion or culverting of watercourses. Schemes should be designed to avoid crossing watercourses, and to bridge watercourses where this cannot be avoided. The ES will be expected to identify all water crossings and include a systematic table of watercourse crossings or channelising, 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. It may be useful for the applicant to demonstrate choice of watercourse crossing by means of a decision tree, taking into account factors including catchment size (resultant flows), natural habitat and environmental concerns. Further guidance on the design and implementation of crossings can be found on SEPA's Construction of River Crossings Good Practice Guide.
- 3.13 **Fish and other Aquatic Interests:** - The ES needs to address the aquatic interests within local watercourses, including down stream interests 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) where relevant.
- 3.14 **Water Abstraction:** - The need for, and information on, abstractions of water supplies for concrete works or other operations should also be identified. The ES should identify whether a public or private source is to be utilised. If a private source is to be utilised, full details on the source and details of abstraction need to be provided.
- 3.15 **Air Quality** - The ES needs to address existing air quality and the general qualities of the local environment including background noise, sunlight, prevailing wind. From this base data information on the expected impacts of any development can then be founded recognising likely impacts for each phases of development including construction, operation and decommissioning. Issues such as dust, air borne pollution and / or vapours, noise, light, shadow-flicker can then be highlighted.
- 3.16 **Operational Noise** – You should submit a noise assessment with regard to the operational phase of the development. 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 target noise levels are either a simplified standard of 35dB LA90 at wind speeds up to 10m/s or a composite standard of 35dB LA90

(daytime) and 38dB LA90 (night time) or up to 5dB above background noise levels at up to 12m/s. The night time lower limit of 43dB LA90 as suggested in ETSU is not considered acceptable in many areas of the highlands due to very low background levels. These limits would apply to cumulative noise levels from more than one development.

Cumulative Noise - The noise assessment must take into account the potential cumulative effect from any other existing or consented or, in some cases, proposed wind turbine developments. Where applications run concurrently, developers and consultants are advised to consider adopting a joint approach with regard to noise assessments. The noise assessment must take into account predicted and consented levels from such developments. The good practice guide offers guidance on how to deal with cumulative issues. Where existing development has consented limits higher than suggested above, the applicant should agree appropriate limits with the Council's Environmental Health Officer. The assessment should include a map showing all wind farm developments which may have a cumulative impact and all noise sensitive properties including any for which a financial involvement relaxation is being claimed. The assessment should include a table of figures which includes the following: -

- The predicted levels from this development based at each noise sensitive location (NSL) at wind speeds up to 12m/s
- The maximum levels based on consented limits from each existing or consented wind farm development at each NSL. If any reduction is made for controlling property or another reason, this should be made clear.
- The predicted levels from each existing or consented wind farm development at each NSL.
- The cumulative levels based on consented and predicted levels at each NSL.

The assessment should also include an outline for a mitigation scheme to be implemented should noise levels from the development be subsequently found to exceed consented levels. In addition to quantifying cumulative noise levels, the assessment must also consider any increase in noise exposure, for example where there is an existing house with a wind farm to the east and a new wind farm is proposed to the west. If the householder is likely to be subjected to wind turbine noise in all wind conditions with little or no respite then the development may be inappropriate even if recommended noise limits are met.

Background Noise Measurements - If background noise surveys are required, these should be undertaken in accordance with ETSU-R-97 and the Good Practice Guide. It is recommended that monitoring locations be agreed with the Council's Environmental Health Officer. Where a monitoring locations is to be used as a proxy location for another property, particular care must be taken to ensure it is not affected by other noise sources such as boiler flues, wind chimes, etc. which are not present at that other property. Difficulties can arise where a location is already subject to noise from an existing wind turbine development. ETSU states that background noise must not include noise from an existing wind farm. The GPG offers advice on how to approach this problem and in some cases, it may be possible to utilise the results from historical background surveys. It is advised that the developer consults the Councils Environmental Health Officer at an early stage to discuss the proposed methodology.

Amplitude Modulation- Research has been carried out in recent years on the phenomenon of amplitude modulation arising from some wind turbine developments. However at this time, the Good Practice guide does not provide definitive Planning guidance on this subject. That being the case, any complaints linked to amplitude modulation would be investigated in terms of the Statutory Nuisance provisions of the Environmental Protection Act 1990.

Construction Noise - Planning conditions are not used to control the impact of construction noise as similar powers are available to the Local Authority under Section 60 of the Control of Pollution Act 1974. However, where there is potential for disturbance from construction noise the application will need to include a noise assessment. A construction noise assessment will be required in the following circumstances:-

- Where it is proposed to undertake work which is audible at the curtilage of any noise sensitive receptor, out with the hours Mon-Fri 8am to 7pm; Sat 8am to 1pm or;
- Where noise levels during the above periods are likely to exceed 75dB(A) for short term works or 55dB(A) for long term works. Both measurements to be taken as a 1hr LAeq at the curtilage of any noise sensitive receptor. (Generally, long term work is taken to be more than 6 months)

If an assessment is submitted it should be carried out in accordance with BS 5228-1:2009 “Code of practice for noise and vibration control on construction and open sites – Part 1: Noise”. Details of any mitigation measures should be provided including proposed hours of operation. Regardless of whether a construction noise assessment is required, it is expected that the developer/contractor will employ the best practicable means to reduce the impact of noise from construction activities. Attention should be given to construction traffic and the use of tonal reversing alarms.

Private Water Supplies – You should 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. Highland Council has some information on known supplies but it is not definitive. An on-site survey will be required.

Dust - Depending on the proximity of the working area to houses etc. the applicant may require to submit a scheme for the suppression of dust during construction. Particular attention should be paid to construction traffic movements.

- 3.17 **Climatic Factors:** - The ES needs to address all relevant climatic factors which can greatly influence the impact range of many of the preceding factors on account of seasonal changes affecting, rainfall, sunlight, prevailing wind direction, etc.
- 3.18 **Cultural Heritage:** - The ES needs to identify all designated sites which may be affected by the development either directly or indirectly. This will require you to identify: -
- the architectural heritage (Conservation Areas, Listed Buildings) and
 - the archaeological heritage (Scheduled Monuments),
 - the landscape (including designations such as National Parks, National Scenic Areas, Areas of Great Landscape Value, Gardens and Designed Landscapes and general setting of the development.
 - the inter-relationship between the above factors.

The following assets are in the vicinity of the development and have the potential to be impacted by it (this list is not considered to be exhaustive)

Scheduled monuments

- Halladale Bridge, hut circles 670m NE of, on banks of Giligill Burn (SM 3304)

This asset is in very close proximity to the proposed development and comprises the remains of a prehistoric farming landscape. A key element of the setting of this site is the relationship it has with topographic features such as hills and rivers that may have formed part of the landscape worked by the occupants. There is the potential for the proposals to have a significant impact on the setting of the monument and further assessment is required in the EIAR, which should include visualisations.

- Knock Stanger, cairn 730m E of Sandside House (SM 458)
- Reay, burial ground, old church and cross slab, 175m E of Parish Church (SM 615)
- Other scheduled monuments are located either on coastal fringes or clustered within the straths that run north-south through the wider area.

Category A listed buildings

- Bighouse, garden pavilion and walled garden (LB 7160)
- Sandside House, kiln barn and single storey range of former byres, cottage and dairy and implement shed (LB 14986)
- Reay Parish Church and enclosure wall (LB 14992)
- Sandside Harbour 1 and 2, Sandside and Fishing Store (LB 14988)

- 3.19 Historic Environment Scotland note that it would expect any assessment to contain a full appreciation of the setting of these historic environment assets and the likely impact on their settings. It would be helpful if, where the assessment finds that significant impacts are likely, appropriate visualisations such as photomontage and wireframe views of the development in relation to the sites and their settings could be provided. Visualisations illustrating views both from the asset towards the proposed development and views towards the asset with the development in the background would be helpful.
- 3.20 **LVIA:** - The Council expects the ES to consider the landscape and visual impact of the development. The Council makes a distinction between the two. While not mutually exclusive, these elements require separate assessment and therefore presentation of visual material in different ways. It is the Council's position that it is not possible to use panoramic images for the purposes of visual impact assessment. The Council, while not precluding the use of panoramic images, require single frame images with different focal lengths taken with a 35mm format full frame sensor camera – not an 'equivalent.' The preferred focal lengths are 50mm and 75mm. The former gives an indication of field of view and the latter best represents the scale and distance in the landscape i.e. a more realistic impression of what we see from the viewpoint. These images should form part of the ES and not be separate from it.
- 3.21 This assessment should include the expected impact of on-site borrow pits and access roads, despite the fact that the principal structures will be a primary concern. All elements of a development are important to consider within any ES, including the visual impact of factors such as the loss of woodland and the impact of compensatory planting.
- 3.22 Viewpoints (VP) for the assessment of effects of a proposed development must be agreed in advance of preparation of any visuals with The Highland Council. These should correspond with the viewpoints used for existing wind energy schemes within the area as well as those currently under consideration. The detailed location of viewpoints will be informed by site survey, mapping and predicted Zones of Theoretical Visibility. Failure to do this may result in abortive work, requests for additional visual material and delays in processing applications/consultation responses. It is noted that a range of viewpoints are proposed within the Scoping Report which are considered to be broadly acceptable however please note that Community Council's may request additional viewpoints and it would be recommended that any pre-application discussions with the local community takes this into account.
- 3.23 The purpose of the selected and agreed viewpoints shall be clearly identified and stated in the supporting information. For example, it should be clear that the VP has been chosen for landscape assessment, or visual impact assessment, or cumulative assessment, or sequential assessment, or to show a representative view or for assessment of impact on designated sites, communities or individual properties.
- 3.24 Viewpoints within 5 kilometres of a development shall be precisely identified on an A4 size Ordnance Survey extract at 1:25000 scale. The position of the development and the proposed field of view of photography shall be shown on the map. Viewpoints located more than 5km from a development shall be identified on an A4 size Ordnance Survey extract at 1:50,000 scale and the development and the proposed field of view of photography shall be shown on the map. The Council may also specify on a large scale plan an exact viewpoint position that they wish to be used and provide a reference photograph (see further Guidance).
- 3.25 **Photomontages/Illustrations:** - Photomontages should follow the Council's Visualisation

Standards: <http://www.highland.gov.uk/yourenvironment/planning/energyplanning/renewbleenergy>
 While it is recognised that SNH guidance has recently changed, and that this may result in an apparent duplication of effort, the Council shall only require visualisations to the Council Standards.

- 3.26 **Roads Infrastructure:** - Transport Planning interests will relate largely to the impact of development traffic on the Council maintained road network and its users during the construction phase of the project.

A Transport Assessment (TA), or section on traffic and transportation, within the Environmental Statement for the project will be required. The TA should identify all Council maintained roads likely to be affected by the various stages of the development and consider in detail the impact of development traffic, including abnormal load movements, on these roads. Where necessary, the TA should consider and propose measures necessary to mitigate the impact of the development on the road network. Prior to preparation of the TA the developer should first carry out a detailed scoping exercise in consultation with the Council, as local roads authority and, as required, Transport Scotland as trunk roads authority.

4.0 Significant Effects on the Environment

- 4.1 Leading from the assessment of the environmental elements the ES needs to describe the likely significant effects of the development on the environment, which should cover the direct effects and any indirect, secondary, cumulative, short, medium and long-term, permanent and temporary, positive and negative effects of the development, resulting from: -

- the existence of the development;
- the use of natural resources;
- the emission of pollutants, the creation of nuisances and the elimination of waste,

- 4.2 The potential significant effects of development must have regard to: -

- the extent of the impact (geographical area and size of the affected population);
- the trans-frontier nature of the impact;
- the magnitude and complexity of the impact;
- the probability of the impact;
- the duration, frequency and reversibility of the impact.

- 4.3 The effects of development upon baseline data should be provided in clear summary points.

- 4.4 The Council requests that when measuring the positive and negative effects of the development a four point scale is used advising any effect to be either strong positive, positive, negative or strong negative.

- 4.5 The applicant should provide a description of the forecasting methods used to assess the effects on the environment.

5.0 Mitigation

- 5.1 Consideration of the significance of any adverse impacts of a development will of course be balanced against the projected benefits of the proposal. Valid concerns can be overcome or minimised by mitigation by design, approach or the offer of additional features, both on and off site. A description of the measures envisaged to prevent, reduce and where possible offset any significant adverse effects on the environment must be set out within the ES statement and be followed through within the application for development.

- 5.2 The mitigation being tabled in respect of a single development proposal can be manifold.

Consequently the ES should present a clear summary table of all mitigation measures associated with the development proposal. This table should be entitled draft Schedule of Mitigation. As the development progresses to procurement and then implementation this carries forward to a requirement for a Construction Environmental Management Document (CEMD) and then Plan (CEMP) which in turn will set the framework for individual Construction Method Statements (CMS). Further guidance can be obtained at http://www.highland.gov.uk/NR/rdonlyres/485C70FB-98A7-4F77-8D6B-ED5ACC7409C0/0/construction_environmental_management_22122010.pdf This is currently under review by a working party led by SEPA working through Heads of Planning Scotland but for the time being remains relevant.

- 5.3 The implementation of mitigation can often involve a number of parties other than the developer. In particular local liaison groups involving the local community are often deployed to assist with phasing of construction works – abnormal load deliveries, construction works to the road network, borrow pit blasting. It should be made clear within the ES or supporting information accompanying a planning application exactly which groups are being involved in such liaison, the remit of the group and the management and resourcing of the required effort.