# Appendix

## **Conditions and Reasons (January 2005)**

### Timing

1 The consent is for a period of 25 years from the date of the commissioning of the development. The company is required to obtain by no later than the end of said 25 year period, written confirmation from the planning authority that all decommissioning works have been completed in accordance with the approved decommissioning scheme referred to in Conditions 55 and 56 of this consent. Written confirmation of the date of the commissioning of the development shall be provided to the planning authority within 1 month of the commissioning of the development, and the date of commissioning of the development shall be no later than 5 years from the date of this consent.

**Reason:** In accordance with the terms of Section 58 of the Town and Country planning (Scotland) Act 1997.

- All construction activities shall be completed within 36 months of the date of commencement of the development.
  *Reason:* To ensure an ordered progression of the development.
- 3 No section of the development hereby authorised shall be commenced until a strategy for the restoration of the site shall be submitted by the company and approved by the planning authority in consultation with such other parties the planning authority consider appropriate. The restoration strategy shall set out the means of reinstating the site following the removal of the components of the development as specified in Condition 55. In particular the restoration strategy shall detail the level of subsoil, topsoil and peat replacement required over each part of the site. No section of the development shall be commissioned until details of all seed mixes proposed to be used shall be submitted by the company to the planning authority for its approval in consultation with Scottish Natural Heritage.

**Reason:** In the interests of visual amenity

4 At least one month prior to the commencement of the development, the company shall provide to the planning authority details of the bond or other financial provision which it proposes to put in place to cover all decommissioning and site restoration costs, including the restoration of borrow pits, on the expiry of this consent. No work shall commence on the site until the company has provided documentary evidence that the proposed bond or other financial provision is in place and written confirmation has been given by the planning authority that the proposed bond or other financial provision is The company shall ensure that the approved bond or other satisfactory. financial provision is maintained throughout the duration of this consent and the bond or other financial provision will be subject to a five yearly review, to be conducted by the company, the landowners, and the planning authority, from the commencement of the development.

**Reason:** To ensure that there are sufficient funds available to ensure the full restoration of the site.

5 In the event of the windfarm not generating electricity on a commercial basis to the public network, for a continuous period of 12 months, from 50% or more turbines installed and commissioned from time to time, the planning authority may direct that the development shall be decommissioned and the site reinstated in accordance with the restoration scheme referred to in Condition 56. This Condition will take effect following commissioning of the development, in terms of Condition 1. The planning authority shall have due regard to the circumstances surrounding the failure to generate and shall take the decision on reinstatement following discussion with the company and such other parties as the planning authority consider appropriate. No later than 6 months following the expiry of the said continuous period of 12 months or within such variation of this timescale as the planning authority may agree in writing, the company shall decommission and restore the site in accordance with the terms of Conditions 55 and 56.

**Reason:** To ensure the turbines are removed from the site at the end of their operational life, and to protect the character of the countryside and the visual amenity of the area.

## Design

6 Each turbine shall be erected in the positions indicated on Drawing \*. A variation of the indicated position of any turbine on the said Drawing \* by up to 10 metres shall be permitted. Any variation greater than 10 metres shall require the approval of the Council as planning authority in consultation with the regional archaeologist and Scottish Natural Heritage. The said provisions relating to variation shall not have the effect such that any variation will bring a turbine closer to a residential property than within 2000 metres of the original position of the turbine, unless the impact has already been assessed and permitted by approval of the above drawing.

**Reason:** to ensure that any micro-siting is employed so that areas of high nature conservation value are avoided.

- 7 No work shall commence on construction of the turbine towers and all ancillary elements (including, transformers, switch gear and control building, compound and fencing) until approval has been obtained from the planning authority of the details including colours and external finishes of the turbines and all ancillary elements. Thereafter the whole development shall be implemented in accordance with these details as approved. *Reason: In the interest of visual amenity*
- 8 No turbine shall be commissioned until a scheme of investigation and alleviation of any electromagnetic interference for TV and radio reception which may be caused by the operation of the turbines hereby permitted has been submitted to and approved in writing by the planning authority. The procedure in the approved scheme shall be followed at all times. **Reason**: To protect the amenities of the adjacent residents.
- 9 Detailed landscape, planting and screening proposals shall be submitted to mitigate the visual impact of the wind farm on the properties known as the \* and
  - \*. The details shall include the location of such landscaping, planting and

screening along with species, height size and density of trees and shrubs to be planted and the scheme is subsequently approved, to the satisfaction of the Council as planning, authority shall be carried out and completed no later than one planting season after the first turbine has been erected unless otherwise agreed in writing by the planning authority. Any planting which fails within the first five years of commissioning of the proposal shall be replaced to the satisfaction of the Council as planning authority.

**Reason**: To protect the amenities of the adjacent residents.

### Construction

10 Prior to the commencement of any development on site, a plan to a scale of 1:500 shall be submitted to the planning authority showing the location of any site compound or contractor's laydown area or area where any fuel, oil, lubricant, paint or solvent is stored on site and required temporarily in connection with the construction of the development. Each plan shall indicate the location of the buildings, car parking, material stockpiles, oil storage, lighting columns and boundary fencing. The plans shall describe the surfacing of each site compound, the means of drainage and dust suppression within the compound and shall set out the activities that will take place within that compound. Specifically, any fuel, oil, lubricant, paint or solvent stored on site shall be contained within bunds or double skin tanks, which must be locked and capable of containing at least 110% of the largest capacity vessel stored therein. Thereafter any temporary site compound at the site shall be constructed in accordance with the approved plans.

**Reason:** to ensure necessary contingencies are in place and to minimise pollution risks arising from construction activities.

11 All temporary contractors' site compounds shall be removed and the land reinstated to its former profile and Condition no later than 3 months following the final commissioning of the development.

**Reason:** to ensure temporary compounds do not leave a footprint on site.

12 Track running widths shall be no greater than 5m wide unless otherwise shown on approved plans or otherwise agreed in writing by the Council as planning authority.

**Reason:** to minimise disruption to habitats and the visual impact of the access tracks.

- 13 Prior to the commencement of the construction of any internal access track, details of the means of downgrading all tracks after the completion of construction work shall be submitted by the company to the planning authority. Reinstatement shall be carried out using the materials identified in the restoration plan unless otherwise agreed by the planning authority. *Reason: to minimise the visual impact of the access tracks.*
- 14 All electricity and control cables between the turbines, substations and control buildings shall be laid underground alongside tracks which are to be constructed on the site unless otherwise agreed with the planning authority. *Reason: to minimise disruption to habitats.*

15 Prior to the commencement of the development full details of the location, extent, means of working and restoration of the borrow pits shall be submitted and agreed and thereafter implemented to the satisfaction of the Council as planning authority. Rock crushing activities will be confined to approved borrow pits.

**Reason:** In the interests of visual amenity and to ensure the borrow pits do not leave a footprint on site

## Operation

16 The blades of all the turbines shall rotate in the same direction when generating and the turbines shall be of the same type. The use of logos on turbine blades, towers or nacelles is prohibited.

**Reason**: to ensure that the windfarm matches and thereby maintains the visual quality of the area.

17 No development shall take place until a detailed shadow flicker analysis has been undertaken which shall identify and undertake any remedial action required to minimise this effect at sensitive properties within 1000 metres of the relevant turbine and any remedial action implemented to the satisfaction of the Council as planning authority.

**Reason**: in the interests of visual amenity.

- 18 The wind turbines shall not be illuminated. *Reason: in the interests of visual amenity.*
- 19 Bulk oil shall not be stored on site without the prior written approval of the planning authority. *Reason:* to limit risk of pollutant contamination

## **Method Statements**

- 20 No work shall commence on site until the company has obtained written approval from the planning authority for details of method statements for all activities specified below. Thereafter, each method statement as approved, by the planning authority, shall be implemented. Method statements shall be lodged to cover:
  - 1 Track construction. This method statement shall assume that the company will use geo-textile floating track construction over all areas of peat where the peat depth exceeds 1 metre and "floating tracks" should be at a gradient of 1:10 or under. If tracks cannot be implemented at this gradient, full details of proposed alternative layouts and routes should be submitted to the planning authority, in consultation with Scottish Natural Heritage, for approval prior to the commencement of the track. This method statement will also address the issues of track restoration and 'cut and fill' heights/widths;
  - 2 A track construction/reinstatement plan;

- 3 A peat and soil stripping management plan outlining the storage and proposed use and replacement of peat, topsoil and subsoil. The scheme shall have regard to the drainage implications of soil movement and storage
- 4 The height and location of all stockpiles of roadstone following approval by the planning authority of their location;
- 5 Oil spill contingencies, foul drainage and surface water drainage arrangements, this method statement to be approved by the planning authority in consultation with the Scottish Environment Protection Agency.
- 6 Concrete batching and handling
- 7 A dust management plan
- 8 Water abstraction

**Reason:** to ensure compliance with all commitments made in the environmental statement and subsequent schemes developed following the consultation process.

# Archaeology

21 The company shall prepare and submit for approval an archaeological mitigation plan to the planning authority and thereafter implemented to the satisfaction of the Council as planning authority. The mitigation plan shall include proposals for the avoidance and fencing of known archaeological features; proposals for excavation and further analysis, recording and publication as may be necessary where avoidance is not possible; proposals for a targeted watching brief during development; and the provision of a contingency fund to allow for any major excavation and post excavation analysis found necessary during the watching brief phase.

Reason: In order to safeguard archaeological interests.

22 For all tracks on Figure \* a variation of their indicated position by up to 10 metres shall be permitted subject to approval by the onsite ecologist. A variation of greater than 10 metres shall only be permitted following written approval of the planning authority in consultation with Scottish Natural Heritage and the regional archaeologist.

**Reason:** In order to safeguard heritage interest.

# Ecology

All construction works and the movement of plant, vehicles and machinery shall be carried out in such a way to avoid encroachment onto undisturbed bog the location of which shall be agreed with the planning authority in consultation with SNH. A 75m buffer around the \* cSAC shall be marked by temporary fencing during the construction period. Construction personnel shall not enter the demarcated zone. Turbine pads and tracks must be located at least 100 metres from the boundary of the cSAC.

**Reason:** to protect priority habitat from ground water contamination.

24 Prior to any construction works, an ecologist approved by the planning authority in consultation with Scottish Natural Heritage and other parties as the planning authority consider appropriate shall carry out a protected species survey and based on the findings of this survey, the company shall submit a management plan for the approval of the planning authority. This plan shall include mitigation measures designed to safeguard protected mammals within and adjacent to the operational areas of the site. Thereafter the measures shall be implemented within timescales agreed in writing by the Council as planning authority in consultation with Scottish Natural Heritage.

**Reason:** to protect wildlife species

- 25 Prior to any work commencing on site, details of the measures to be taken to protect breeding birds and specifically to discourage birds from breeding on those areas of the site to be worked in during that breeding season, shall be submitted to the planning authority for approval in consultation with Scottish Natural Heritage and such other parties as the planning authority consider appropriate. Thereafter the measures shall be implemented within a timescale to be determined by the planning authority. *Reason: to protect wildlife species*
- The company shall undertake six years of ornithological monitoring from the 26 date of this consent: first, annually for a period of 3 years following the commissioning of the development, and second, at five yearly intervals, at 5, 10 and 15 years thereafter. This monitoring shall be conducted to an identical standard on both the windfarm site and a reference site to be identified by the company and approved by the planning authority. The detail of this monitoring shall be submitted to and approved by the planning authority in consultation with Scottish Natural Heritage and such other parties the planning authority consider appropriate. The findings of these surveys shall be collated into two reports, at three and fifteen years after the commissioning of the development, and all of the original data, and the reports, shall be made available to the planning authority, Scottish Natural Heritage and such other parties the planning authority consider appropriate. After the first report, any appropriate mitigation measures developed and approved by the planning authority in consultation with Scottish Natural Heritage shall be implemented within a timescale to be approved by the planning authority.

**Reason:** To protect wildlife species

27 Prior to the start of works affecting watercourses, the company shall arrange a survey to determine the presence of migratory fish, and the results of the survey shall be submitted to the planning authority. Should any watercourse, where the presence of migratory fish has been established by the said survey, be likely to be significantly adversely affected by the proposed works, then measures to avoid the adverse impacts shall be submitted for the approval of the planning authority in consultation with Scottish Natural Heritage and such other parties as the planning authority consider appropriate. Thereafter, avoidance measures as approved shall be implemented within a timescale to be approved by the planning authority. Notwithstanding the terms of this condition, any culvert to be constructed on the site shall be designed so as to ensure the free passage of fish, otters and water voles. In the absence of an approved scheme which specifically provides for it, no construction work or vehicular activity is to take place within 10 metres either side of a watercourse

#### Reason: In the interests of nature conservation

28 Before the end of the operational period, an independent assessment by a suitably qualified ecologist, named and approved by the planning authority in consultation with Scottish Natural Heritage, shall be made of habitat quality within the Habitat Management Plan area and any mitigation measures implemented as approved to the satisfaction of the Planning Authority. *Reason:* to protect priority habitat

### Mineral stability of the site

29 Prior to the commencement of the development, a report from a firm of chartered engineers shall be submitted to the planning authority on the mineral and slope stability of the site. No work shall be undertaken on the site so affected until such action as is recommended in the report, including any remedial works, has been implemented and certified by a firm of chartered engineers.

**Reason:** To ensure the mineral and slope stability of the site.

#### Noise

- 30 Construction work, which is audible from the boundary of any noise sensitive receptor, shall only take place between the hours of 07.00 19.00 on Monday to Friday inclusive, 07.00 13.00 on Saturdays with no working on a Sunday or local or national public holiday. Outwith these said hours, development at the site shall be limited to turbine commissioning, emergency works, dust suppression and the testing of plant and equipment, or construction work that is not audible from any noise sensitive property outwith the site. The receipt of any materials or equipment for the construction of the site, by track, other than turbine blades, nacelles and towers, is not allowed outwith the said hours, unless otherwise agreed by the planning authority having been given a minimum of two working days notice of the occurrence of the proposed event. *Reason: to minimise disturbance and protect the amenity of nearby residents.*
- 31 Fixed and mobile plant which incorporates bleeping type warning devices used within the site during the construction period shall not be audible at the nearest noise sensitive property. **Reason:** to minimise disturbance to residents in the vicinity of the windfarm.
- 32 At the reasonable request of the Council the operator of the development shall measure and assess at its expense the level of noise emissions from the wind turbine generators following the procedures described in the document attached to these conditions notes (called in these conditions "the guidance notes") being extracts of advice from certain guidance contained in "The Assessment and Rating of Noise from Wind Farms, ETSU-R-97" published by ETSU for the Department of Trade and Industry.

**Reason:** to minimise disturbance to residents in the vicinity of the windfarm.

33 The level of noise emissions from the combined effects of the wind turbine generators when measured in accordance with section A of the guidance notes shall not exceed **at all times unless otherwise agreed in writing** 

Location	Wind Speed (m/s at 10 metres height)					
		4	5	6	7	8
*		27	30	33	36	39
*		25	28	31	34	37
*		33	36	39	42	45
*		26	29	32	35	38

**Reason:** to minimise disturbance to residents in the vicinity of the windfarm.

- 34 Tonal noise shall be measured by the operator of the development at its expense at the reasonable request of the Council in accordance with the procedure described in section B of the guidance notes. If, at any property, the tonal noise from the combined effect of the wind turbines generators exceeds the threshold of audibility:-
  - (a) by more than 2.0dB but less than 6.5dB a penalty of ((5/6.5) x Audibility)dB shall be added to the noise level derived for that property in accordance with section A of the guidance notes.
  - (b) by more than 6.5dB a penalty of 5dB shall be added to the noise level derived for that property in accordance with section A of the guidance notes.

**Reason:** to minimise disturbance to residents in the vicinity of the windfarm

35 The wind farm operator shall log wind speed and wind direction data at a grid reference to be approved by the Council as planning authority to enable compliance with conditions 32 and 33 to be monitored. This wind data shall include the wind speed in metres per second (ms<sup>-1</sup>) and the wind direction in degrees from north for each 10 minute period. At the reasonable request of the planning authority the recorded data relating to 10m height above ground level shall be made available to them. Where wind speed is measured at a height other than 10m, the wind speed data shall be converted to 10m height, accounting for wind shear by a method whose details shall also be provided to the planning authority.

**Reason:** to minimise disturbance to residents in the vicinity of the windfarm.

## Roads

36 Prior to the commencement of works and over the period of construction, where deemed necessary, the C \* shall be improved by means of passing places/strip widening at no more than 100 metre centres or intervisible at locations to be agreed with the Council as Roads Authority. All works shall be carried out to the standard and specification required by the Council as Roads Authority to the satisfaction of the Council as planning authority.

**Reason:** In the interests of pedestrian and traffic safety and in the interests of free traffic flow

- 37 The details of the new site access from the public road shall be agreed with the Council as Roads Authority and constructed prior to the commencement of works on site to the satisfaction of the Council as planning authority. *Reason:* In the interests of pedestrian and traffic safety and in the interests of free traffic flow
- 38 Prior to the commencement of works the applicant shall enter into a maintenance agreement under Section 96 of the Roads (Scotland) Act 1984 in respect of the C\* whereby the road shall be inspected on a regular basis by the appropriate council officers and repairs carried out to the timescale and standards specified by the Council as Roads Authority to the satisfaction of the Council as planning authority.

**Reason:** In the interests of pedestrian and traffic safety and in the interests of free traffic flow.

39 Prior to the commencement of works \* Bridge on the B\* shall be strengthened to meet the requirements of the Council as Roads Authority to the satisfaction of the Council as planning authority. **Reason:** In the interests of pedestrian and traffic safety and in the interests of

**Reason:** In the interests of pedestrian and traffic safety and in the interests of free traffic flow

40 Prior to the commencement of works the applicant shall enter into an agreement with the Council as Roads Authority in respect of the temporary removal or lowering of bridge parapets, boundary walls and structures adjacent to the public highway and the temporary hardening of verges to aid the passage of abnormal loads and construction vehicles. Advanced warning signs and temporary barriers shall be in accordance with Chapter 8 of the Traffic Signs Manual. Any temporary works shall be restored to the satisfaction of the Council as planning authority.

**Reason:** In the interests of pedestrian and traffic safety and in the interests of free traffic flow

- 41 Prior to the commencement of works the applicant shall enter into an agreement with the Council as Roads Authority in respect of the relocation, removal and temporary re-siting of road signs and other street furniture necessary to aid the passage of abnormal loads over all routes leading to the development. **Reason:** In the interests of pedestrian and traffic safety and in the interests of free traffic flow
- 42 Prior to the commencement of works the applicant shall agree a traffic management scheme with the Council as Roads Authority in accordance with the Roads Traffic Act 1982 and the Council's procedure for Abnormal Loads Routing to the satisfaction of the Council as planning authority. *Reason:* In the interests of pedestrian and traffic safety and in the interests of free traffic flow
- 43 Measures shall be taken during the construction phase to prevent the use by construction vehicles of the C\* between the site entrance and its junction with the A\* to the satisfaction of the Council as planning authority.

**Reason:** In the interests of pedestrian and traffic safety and in the interests of free traffic flow

44 The site access track and public road shall be kept free from mud, debris etc. at all times and suitable wheel cleaning facilities shall be provided within the site to prevent the deposition of mud, debris etc on to the public road to the satisfaction of the Council as planning authority.

**Reason:** In the interests of pedestrian and traffic safety and in the interests of free traffic flow

- 45 A wheel and chassis wash facility which operates on a closed cycle shall be installed at a location determined by the planning authority. Thereafter, this facility shall be operated throughout the construction period. **Reason:** to ensure all vehicles leaving the site will not emit dust or deposit mud, slurry or other deleterious material on the adjoining public highway
- 46 The clearance of snow from access tracks will be by mechanical means only unless otherwise agreed in writing by the planning authority in consultation with SNH.

**Reason:** to minimise the environmental impact of snow clearing operations by avoiding the use of chemicals or salt wherever possible.

- 47 Prior to the commencement of works the applicant shall provide the Council as planning authority, in consultation with Scottish Natural Heritage, with details of road improvements that may affect the \* SSSI. Details of any remedial measures required shall be implemented prior to the start of works on the windfarm site and all costs will be met by the company. *Reason: In the interests of nature conservation*
- 48 Prior to the commencement of works to improve the C\* a scheme (including hours of working) to protect nearby residential properties from noise and vibration arising from these works shall be submitted to and approved by the Council as planning authority. The scheme as approved will be implemented prior to the start of works on the windfarm site and all costs will be met by the company.

**Reason:** In the interests of residential amenity.

### Water

49 Prior to any construction works, a surface and groundwater management plan covering water treatment and the means of drainage from all hard surfaces and structures within the site shall be submitted for the approval of the planning authority. For the purposes of this Condition, "hard surfaces" includes internal access tracks, construction and laydown areas, turbine pads and crane pads. The details to be submitted shall indicate the means of protecting groundwater and diverting surface water run-off, and shall allow for the recharging of peat areas within the site and any necessary mitigation measures implemented within a timescale to be agreed by the planning authority. **Reason:** to ensure compliance with all commitments made in the environmental statement and subsequent schemes developed following the consultation process.

- 50 No work shall commence on site until a scheme relating to the maintenance of the quantity and quality of water supplied from the spring which serves the house known as the \* has been submitted and agreed by the Council. Specifically, said assessment shall detail the potential effect of Turbines \*, \*, and \*. Monitoring of this water course should be undertaken prior to and during the planned construction phase. The company shall fully implement its obligations under the approved scheme and the reasonable costs of implementing the scheme shall be borne by the company. The scheme shall include any mitigation measures to prevent movement of concrete-derived pollutants and surface runoff at Turbines \*, \* and \*. *Reason: to protect private water supplies*
- 51 No work shall commence on site until a scheme relating to the maintenance of the quantity and quality of water supplied from the minor stream to the north of the house known as\* has been submitted and agreed by the Council. Specifically, said assessment shall detail the potential effect of Turbine \* and the proposed borrow pit. Monitoring of this water course should be undertaken prior to and during the planned construction phase. The company shall fully implement its obligations under the approved scheme and the reasonable costs of implementing the scheme shall be borne by the company. The scheme shall include any mitigation measures to prevent movement of concrete-derived pollutants and surface runoff at Turbine \* and the borrow pit. *Reason: to protect private water supplies.*
- 52 No work shall commence on site until a scheme relating to the maintenance of the quantity and quality entering the \* cSAC from the wind farm site has been submitted and agreed by the Council. Specifically, said assessment shall detail the potential effects of Turbines \*, \* and \*. The scheme shall include any mitigation measures to prevent movement of concrete-derived pollutants and surface runoff from the above named turbines. The scheme shall be implemented as approved to the satisfaction of the Planning Authority. *Reason: to protect the priority habitat.*

## Monitoring

53 No later than 6 months from the commencement of development, a habitat management plan shall be submitted to and approved by the local the planning authority in consultation with Scottish Natural Heritage and other parties as the considered appropriate. The Habitat Management Plan, as approved shall be implemented to the satisfaction of the Planning Authority. Specifically the Habitat Management Plan shall include the mitigation measures set out in the Ecology and Ecology – Birds Section 10 of the Environmental Statement and such mitigation measures shall be implemented.

**Reason:** to safeguard protected species and ensure compliance with the Habitats Directive.

54 Prior to the commencement of the development on site, a monitoring plan, shall be submitted for the approval of the planning authority, in consultation with Scottish Natural Heritage, setting out the steps that shall be taken to monitor the environmental effects of the development during the construction phase and the Additionally the plan shall outline a methodology for operational phase. developing avoidance and mitigation measures to address any adverse environmental effects identified during the course of the monitoring. The plan shall be reviewed and amended where necessary at intervals to be agreed by the planning authority. The plan shall make specific reference to ground water, surface water, noise and dust. Thereafter, the plan as approved shall be implemented, in consultation with Scottish Natural Heritage and other parties as the planning authority consider appropriate. Prior to the commencement of the development operational management/mitigation plans shall be submitted for the approval of the planning authority. Thereafter, each plan, as approved by the planning authority, shall be implemented within agreed timescales.

**Reason:** to ensure compliance with all commitments made in the environmental statement and subsequent schemes developed following the consultation process

## Decommissioning

55 Prior to the end of the period of this consent as detailed in Condition 1 all wind turbines, ancillary equipment and buildings shall be dismantled and removed from the site and the land shall be restored and subject to aftercare, in accordance with the restoration and aftercare scheme referred to in Condition 3. For the purposes of this Condition "restored" means the removal of all wind turbines, crane pads, top layer of foundation and all buildings and ancillary development. Notwithstanding this requirement, no later than one year prior to commencement of the restoration and aftercare scheme, the planning authority in consultation with the Scottish Natural Heritage and such other parties as the planning authority considers appropriate, shall review the retention of turbine pads, cable/ducts, access tracks and the grid connection within the context of the restoration strategy.

**Reason:** To ensure the turbines are removed from the site at the end of their operational life, and to protect the character of the countryside and the visual amenity of the area.

56 In order to ensure the satisfactory removal of hill tracks, turbine towers and blades, and any ancillary equipment associated including overhead power lines and pylons with the wind energy development a 'decommissioning statement' will be required prior to the commencement of development as defined in Condition 1 and it should be updated on a five yearly cycle. At least 1 year before the cessation of generation from the site the finalised restoration and aftercare scheme shall be submitted for the approval of the planning authority in consultation with SNH and such other parties as the planning authority consider appropriate.

**Reason:** To ensure the satisfactory restoration of the site and to protect the character of the countryside and the visual amenity of the area.

### **Miscellaneous Reporting Requirements**

57 Prior to the 1 April of every year of construction and operations at the site, until completion of the decommissioning phase, unless a variation of specified date or frequency is agreed by the planning authority, the company shall submit an environmental audit to the planning authority setting out the operations that have been carried out in the previous 12 months within the site boundary. This audit shall indicate the effects of the development on the environment including noise, dust, changes to surface waters, ground water, habitat creation, biodiversity impact, maintenance, access, safeguarding the historic heritage and the protection of amenity. The environmental audit must specify the degree of compliance with Conditions relative to this schedule and, thereafter, specify remedial measures required to be taken in order to the safeguard the environment at the site and the surrounding area in the event of a failure to comply with any Condition. This audit shall be conducted by an independent party, appointed by the planning authority and all costs shall be met by the company. Where the mitigation or remedial measures identified in the audit have not been implemented to the satisfaction of the Council as planning authority in consultation with Scottish Natural Heritage and other parties as the considered appropriate power generation shall cease until such time as any remedial measure has been undertaken. All costs will be met by the Company. **Reason:** to monitor and evaluate compliance with this permission and to undertake any necessary remedial works necessary.

### Definitions

In this consent and conditions, unless the context otherwise requires:-

"anemometry masts" means the permanent mast indicated on Drawing \* appended to this consent;

"the application" means the application submitted by \* and as amended;

"the commencement of the development" means the date on which the development shall be taken as begun in accordance with section 27 of the Town and Country Planning (Scotland) Act 1997;

"the commissioning of the development" means the date on which the first wind turbine generator forming part of the development first supplies electricity on a commercial basis;

"the company" means \*, having its Registered Office at \* or its successors;

"the development" means a wind-powered electricity generating station at \* comprising no more than 16 wind turbines and associated works all as more particularly described in the application;

"decommissioning" means measures to ensure the full restoration and aftercare of the site;

"downgrading" means measures to reduce the visual impact of access tracks including side dressings;

"material operation" has the same meaning as in section 27 of the Town and Country Planning (Scotland) Act 1997;

"method statement" means a set of procedures detailing activities to be undertaken, sequencing of activities, assessment of risks, and an outline of mitigation and contingency measures;

"noise sensitive property" means the curtilage of any residential dwelling existing at the date of this consent and which is occupied or utilised during daytime hours

"operational period" means the period from the date of commissioning of the development until the last date on which any of the wind turbine generators supplies electricity on a commercial basis

"planning authority" means Perth & Kinross Council or its successors

"protected species" means those species protected under schedules 1, 5 and 8 of the Wildlife and Countryside Act 1981 as amended, the Conservation Regulations 1994 (Schedules 2, 3, 4), and the Habitats Directive (92/43/EEC) and Birds Directive (79/409/EEC).

"site" means the area of land outlined in red on Drawing \* appended to this consent;

"switch gear and metering building" means the area of land coloured black on \* appended to this consent, and all of the buildings and erections thereon.

#### **GUIDANCE NOTES FOR NOISE CONDITIONS**

#### Α

The following paragraph is based upon steps 2-5 specified in Section 2 of the Supplementary Guidance Notes to the Planning Obligation contained within pages 102-103 of "The Assessment and Rating of Noise from Wind Farms, ETSU-R-97" published by ETSU for the Department of Trade and Industry .

**2** At least 20 values of the LA90, 10min noise statistic should be measured at the affected property using a sound level meter of at least IEC 651 Type 1 quality. This should be fitted with a  $\frac{1}{2}$ " diameter microphone and calibrated in accordance with the procedure specified in BS 4142: 1990. The microphone should be mounted on a tripod at 1.2 - 1.5 m above ground level, fitted with a wind shield, and placed in the vicinity of, and external to, the property. The intention is that, as far as possible, the measurements should be made in "freefield" conditions. To achieve this, the microphone should be placed at least 10m away from the building facade or any reflecting surface, where possible, and no less than 3.5m away where this is not possible with appropriate adjustment made to measured levels to account for facade effects.

The 20 LA90, 10min measurements should be synchronised with measurements of the 10-minute average wind speed, and be made in wind speeds within  $\pm$  2m/s of the assessed wind speed. Further, at least 10 of these should lie either side of it. The measurements should be made during conditions that are generally typical for the site and not, for example, during periods with a rarely encountered wind direction.

To minimise the effects of extraneous noise sources, it may be necessary to perform these measurements during night-time periods.

Any data recorded during periods of rainfall, or immediately afterwards, where rainfall may have affected flow in nearby rivers or streams, should be discarded. Where this is necessary it shall be ensured that the conditions relating to the number of data points, and their distribution, are still adhered to.

**3** A least squares, "best fit" curve should be fitted to the data points - generally a straight line fit will be sufficient.

**4** The noise level at the assessed wind speed, La, shall be determined from this best fit curve. If this level lies below the value indicated from the two noise criteria curves at the assessed wind speed, and the local authority/EHO consider there to be no audible tones, then no further action is necessary.

**5** If the noise level is above the limit, or if the application of a tonal penalty – see later - takes it above the limit, a correction for the influence of background noise should be made. This may be achieved by repeating steps 2-4, with the Wind farm switched off, and determining the background noise at the assessed wind speed, Lb. The wind farm noise at this speed, Lw, is then calculated as follows:

$$L_w = 10 \log \left( 10^{\frac{L_s}{10}} - 10^{\frac{L_b}{10}} \right)$$

If the wind farm noise level lies below the value indicated from the two noise criteria curves at the assessed wind speed, and the local authority/EHO consider there to be no audible tones, then no further action is necessary.

#### В

The following paragraph comprises step 6 specified in Section 2 of the Supplementary Guidance Notes to the Planning Obligation contained within pages 103-104 of "The Assessment and Rating of Noise from Wind Farms, ETSU-R-97" published by ETSU for the Department of Trade and Industry . Reference is made to Section 2.1 of this document which also forms part of the guidance given here.

**6** Where, in the opinion of the local authority/EHO, the noise emission contains atonal component, the following rating procedure should be used. This is based on the repeated application of a tonal assessment methodology - see below.

For each 10-minute interval for which LA90, 10min data have been obtained, a tonal assessment - see Section 2.1 - is performed on noise emission during 2-minutes of the 10-minute period. The 2-minute periods should be regularly spaced at 10-minute intervals provided that uninterrupted clean data are obtained.

For each of the 2-minute samples the margin above or below the audibility criterion of the tone level difference, Ltm, is calculated by comparison with the audibility criterion given in Section 2.1 below.

The margin above audibility is plotted against wind speed for each of the 2minute samples. For samples for which the tones were inaudible or no tone was identified, substitute a value of zero audibility.

A linear regression is then performed to establish the margin above audibility at the assessed wind speed. If there is no apparent trend with wind speed then a simple arithmetic average will suffice.

The tonal penalty, KT, is derived from the margin above audibility of the tone according to Fig 17.



Figure 17 Penalties for tonal noise

The rating level is the arithmetic sum of the wind farm noise level, Lpw and the tonal penalty, KT. It is this level which determines whether the wind farm has complied with the limits set in the planning condition.