

Directorate for Planning and Environmental Appeals

Appeal Decision Notice

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Decision by Dannie Onn, a Reporter appointed by the Scottish Ministers

- Planning appeal reference: PPA-110-2241
- Site address: Land to the south west of Cornabo, Monymusk, Aberdeenshire, AB51 7JL
- Appeal by Mr and Mrs Steve and Michelle Clark against the decision by Aberdeenshire Council
- Application for planning permission APP/2014/1338 dated 1 April 2014 refused by notice dated 3 October 2014
- The development proposed: the construction and operation of 3 wind turbine generators with a maximum tip height of 74 metres and other associated infrastructure
- Application drawings: a list of the plans is annexed to this decision notice
- Date of site visits by Reporter: 10 December 2014 and 6 January 2015

Date of appeal decision: 23 March 2015

Decision

I allow the appeal and grant planning permission for the construction and operation of 3 wind turbine generators with a maximum tip height of 74 metres and other associated infrastructure subject to the 12 conditions listed at the end of the decision notice. Attention is also drawn to the 4 advisory notes at the end of the notice.

Reasoning

1. I am required to determine this appeal in accordance with the development plan, unless material considerations indicate otherwise. The development plan in this case includes the Aberdeen City and Shire Strategic Development Plan of March 2014 (SDP) and the Aberdeenshire Local Development Plan of 2012 (LDP).
2. Having regard to the provisions of the development plan and the representations before me, the main issues in this appeal are the landscape and visual impacts of the proposed turbines and their effect on air traffic safety due to interference with the air defence radar at Buchan.

Landscape and visual impacts

3. The appeal site lies within the landscape character area defined as Grampian Outliers in the council's published Landscape Character Assessment. These are described as being in the transition between the high mountains of the Cairngorms and the low farmland of the north-east coastlands. This character area comprises an interrelated series of moorland ridges and peaks. They have an almost uniform land cover of heather and forest and appear to coalesce into a continuous backdrop to the lower farmland and

settlements. The Grampian Outliers are a distinctive part of the identity of Aberdeenshire. They have a high landscape value and are popular walking hills, allowing wide views across Aberdeenshire.

4. The SDP recognises the need to increase the supply of heat and power from renewable sources and a further capacity for onshore wind energy as a part of the mix of energy sources. The SDP establishes that the LDP will be responsible for identifying areas or technology that can contribute. Consistent with Scottish Planning Policy (SPP), policy 3 of the LDP supports wind energy development of a suitable scale and in a location that avoids any significant negative impacts. Policy 3 deal with development in the countryside refers to the supplementary guidance at SG Rural Development 2: *Wind Farms and Medium to Large Wind Turbines*, which sets criteria for assessing such development. Policy 12 seeks to protect landscape character and the associated supplementary guidance at SG Landscape 1: *Landscape Character* includes support for development provided its scale, location and design are appropriate to the landscape character area and there would be no adverse impact on its overall composition or quality.

5. Aberdeenshire Council and Scottish Natural Heritage jointly published the Strategic Landscape Capacity Assessment for Wind Energy in Aberdeenshire in March 2014. Its key purpose is to assess the capacity of the landscape across Aberdeenshire to accommodate wind turbine development. This document is prepared to inform preparation of the review of the development plan and supplementary guidance. It is some way from being policy and attracts lesser weight because of that. Nevertheless, it assesses the Grampian Outliers as having high value, high sensitivity and high relative wildness. It indicates that the area is not suitable for wind turbines above 15 metres in height.

6. Having visited the area, I do not consider that the area around the appeal site could be considered to contain wild land of any significance, being of semi-improved grassland and planted forestry, closely related to the settled farmland.

7. The appellant has provided a detailed landscape and visual impact assessment within the Environmental Statement (ES), which finds moderately adverse impacts on landscape of the Howe of Alford and the Grampian Outliers character areas. It also finds moderate adverse visual impacts at the hill tops of Cairn William and Mither Tap and across the settled valley to the west and north-west. The ES, particularly the representative viewpoints in it, has been most useful to me in assessing the impact during my visit to the area. Although I accept that such images can be misleading as to the true impact and despite that small scale turbines were not included in the study area, I have found that the ES provides sufficient information to enable me to reach firm conclusions in this case.

8. From some of the hill tops, a variety of development and wind turbines can be seen in the wide views. This contrast with the local views from the farmland valleys within the ranges, where the hill slopes are largely free from development. I am told that four turbines have been approved within 5 kilometres of the site. All will be below 18 metres in height. At 74 metres to tip, the proposed turbines would be a significant change in scale and a dramatic introduction to many local views.

9. I acknowledge that the proposed development would be a significant change to a landscape which currently contains no structures at this scale. The wind turbines are sited to be exposed to the wind. They would then be exposed to views. However, it appears to me that the proposed turbines would appear as a well-mannered and visually cohesive group of three, set on a gentle hill slope and within the scale and enclosure of the surrounding hills. The appeal site is part of an area of upland grazing, but the turbines

would mostly be seen in the context of the wooded hillsides and rounded hilltops to the north, west and south and as a small component of the extensive character type. The group would appear as a single development appropriate to the scale of its setting. I therefore consider that the landscape can accommodate this development without significant loss of character. It would not become a wind farm landscape.

10. Visually, the proposed turbines would be well-contained by the surrounding hills. The top of the turbines would be no more than 340 metres above sea level, compared to nearby hilltops which are commonly over 400 metres above sea level. The turbines would be largely obscured in views of the hills from the lowlands to the east and there are relatively few places where the turbines would be seen against the skyline.

11. The local development plan identifies valued views within Aberdeenshire under supplementary guidance SG Landscape2: *Valued views*. View 24 is from the junction of Greystone Road and Gallowhill, looking over Alford towards Bennachie. The council considers that there would be no significant impact on this valued view. I see no reason to disagree. There are also valued views towards Bennachie, including from Cairn William. I note that some part of the turbines would be visible from the summit of Cairn William and that the partially visibility of moving blades would be distracting. However, the turbines would not be seen in the valued view and would only be a small part of the wider views. From Bennachie in particular, they would not be the only turbines visible in the wider landscape.

12. The council accepts that the cumulative impacts with other wind turbines would be of no significance. Given the visual containment of the landscape and the separation distance from turbines of a similar scale, I see no reason to disagree with that assessment.

13. For all these reasons, I find that the scale location and design of the proposed development would be appropriate and the turbines would not have a significant adverse visual impact on the overall composition or quality of the landscape character area.

Air traffic safety

14. There is no dispute that the proposed turbines would interfere with the current radar arrangements covering aviation in the surrounding skies. In my experience this is not uncommon with turbine proposals, which can cause unacceptable interference on radar systems, in turn adding risk to aircraft safety. The proposed development should not be built under those circumstances. However, this impact of the turbines might be mitigated by using established technology to remove the radar returns from the turbines at low level whilst maintaining coverage where aircraft will be flying. The appellants say that the necessary upgrade to the radar installation is programmed for completion by mid-2015. They also say that the turbines proposed in this case, together with other consented schemes, would be within the capacity of the new system. On that basis it would be reasonable to permit the development subject to a condition that it could not be built until such mitigation was in place and proven to be effective.

15. Of course, a permitted scheme waiting on a solution with an uncertain timescale and no guarantee of implementation might frustrate other acceptable schemes because of the potential cumulative impacts. However, in this case, I am satisfied that such an outcome would be unlikely. In any event, the lifetime of the permission would be 3 years. That would be a reasonable timescale for completion of the necessary radar blanking system, without which the permission would lapse. Subject to a negatively worded planning



condition, the proposed development could not be built if it would adversely impact upon the MOD radar systems.

Other matters

16. There is a private water supply around 117 metres uphill from proposed turbine 3. Scottish Environment Protection Agency (SEPA) has assessed the application and says that the risk of any effect on the supply is low, although the severity of any impact could be high. SEPA therefore advises that the private supplies could be protected by planning conditions to restrict the siting of the turbines and monitoring of groundwater around the construction period. Despite the low risk, I accept that such a condition would provide the necessary protection of the supply in the event of any change to the groundwater supplies resulting from the works.

17. There are residential properties nearby. The appellants' noise assessment concludes that the turbines may be audible at nearby properties under certain wind conditions. However, the council accepts that the noise levels would be below the levels derived from the procedures set out in ETSU-R-97: *The assessment and rating of Noise from Wind Farms*, which is the methodology for managing wind farm noise acknowledged and supported by the Scottish Government's web-based advice for onshore wind turbines.

18. Shadow flicker from the turbines would not affect any properties due to the distance from the turbines. For that reason, the suggested condition relating to shadow flicker is not necessary. The Scottish Government accepts that there is no evidence of harm to health from operating turbines. Ice throw and any damage from malfunction are also unlikely from the turbines. TV reception is unlikely to be impaired. Although the turbines would be visible from several properties and their grounds, it would not be prominent in the main views from any of them. Taking these matters together with the noise impacts, I consider that residential amenity would not be harmed.

19. I have found that this would be a significant change to a landscape which currently contains no structures at this scale. However, that does not mean, as some suggest, that others would automatically follow and be acceptable. Each case should be decided on its own merits and future applications would be assessed with cumulative impact in mind.

20. The ES accompanying this application provides an assessment of all of the environmental impacts that are likely to be significant in this case. Having reviewed its content, I consider that the ES properly addresses those matters and that no other impacts provide a reason for refusal in this case.

Planning conditions

21. The council proposes conditions to be attached to any permission. One of these confirms that the permission would be for the turbines on which the environmental assessments were made. Any change would therefore require an application to the council. That could include further noise assessment, as the appellant suggests. Further conditions to cover alternative turbines, including tonal noise, are not therefore necessary.

22. However, conditions will be necessary to set the noise limits for the development and to manage any excessive noise perceived by residents during its operation. The Scottish Government's web based advice for onshore wind turbines supports the advice in ETSU-R-97 and the associated Good Practice Guide to its application (published by the Institute of Acoustics). I have based the imposed condition on the examples set out in the ETSU good practice guide, including use of the limits permissible under the guidance.

23. Apart from the matters discussed above, I adopt the council's suggested conditions. I also include conditions suggested by SEPA to protect private water supplies and a conditions requiring aviation lighting put forward by the MOD. Apart from that, I have only modified the suggested conditions for neatness or to comply with the requirements of Circular 04/1998 on the use of planning conditions.

Overall conclusions

24. For the reasons set out above, the landscape and visual impacts would be acceptable in terms of LDP Policy 1 and the associated SG Landscape 1. Air traffic safety would be maintained as required by LDP Policy 3 and the associated supplementary guidance SG Rural Development 2. I conclude that the proposed development would accord overall with the relevant provisions of the development plan and that there are no material considerations which would still justify refusing to grant planning permission. I have taken into account all other matters raised, but there are none which would lead me to alter my conclusions.

Dannie Onn
Reporter

Conditions

1. This permission shall lapse after a period of 25 years from the date of first export of electricity (*the date at which the development starts to supply electricity to the grid*) from the development. The developer shall notify the planning authority of the date of first export of electricity from the development within 3 months of that date and at the end of the 25 year period. Unless the express approval in writing of the planning authority is given, all wind turbines, buildings, associated tracks and ancillary equipment, shall be decommissioned and removed from the site, and the ground fully re-instated in accordance with an approved reinstatement scheme required by condition 2 of this permission.

Reason: To maintain control of this temporary form of development and should the turbines be no longer required ensure removal and reinstatement of the site.

2. No development shall commence until a draft Decommissioning and Restoration Plan for the site has been submitted to and approved in writing by the planning authority. Thereafter, and no later than 12 months prior to the date of decommissioning of the development an updated Decommissioning and Restoration Plan shall be submitted to and approved in writing by the planning authority. The plan should include all above ground elements of the development, treatment of ground surfaces, management and timings of the works including environmental and traffic management in accordance with best practise at the time. On the date of decommissioning the agreed plan shall be fully implemented in accordance with condition 1 of this permission.

Reason: to ensure that the decommissioning of the development and restoration of the site are carried out in an appropriate and environmentally acceptable manner and that all infrastructure relating to the development is removed as required.

3. No development shall begin unless and until an air defence radar mitigation scheme has been submitted to and approved in writing by the planning authority. The air defence radar mitigation scheme means a detailed scheme to mitigate the adverse impacts of the

development on the air defence radar at Buchan and the air surveillance and control operations of the MOD. The scheme will set out the appropriate measures to be implemented to that end. No turbines shall become operational until:

- the mitigation measures which the approved scheme requires to be implemented prior to the operation of the turbines have been implemented; and
- any performance criteria specified in the approved scheme and which the approved scheme requires to have been satisfied have been satisfied; and
- that implementation and satisfaction of the performance criteria have been approved by the planning authority. The operator shall thereafter comply with all other obligations contained within the air defence radar mitigation scheme.

Reason: to protect aviation.

4. Each turbine shall be fitted with 25 candela omni-directional infrared lighting with an optimised flash pattern of 60 flashes per minute of 200ms to 500ms duration at the highest practicable point.

Reason: to protect aviation.

5. Except where otherwise provided for, or required by the terms of this permission, the permission relates strictly to the dimensions and specifications and locations of the turbines and infrastructure shown in the application (including the make, model, design, power rating and sound power level of turbine to be used).

Reason: To ensure the development is carried out in accordance with the submitted proposals and so to manage the environmental impact of any changes.

6. No turbine shall be sited within 100 metres of the Cornabo private water supply well.

Reason: to protect the private water supply

7. No development shall begin until a scheme for protecting private water supplies, including for its monitoring, has been submitted to and approved in writing by the planning authority in consultation with Scottish Environment Protection Agency. The scheme shall include for monitoring ground water levels before, during and after construction; for investigation into the causes of any abnormal changes in groundwater levels; and for mitigation of any effects. The development shall be carried out only in accordance with the approved scheme.

Reason: to protect private water supplies

8. In the event that any turbine fails to produce electricity for a continuous period of 6 months then it shall be deemed to have ceased to be required and, unless otherwise agreed in writing with the planning authority, the wind turbine and ancillary equipment shall be dismantled and removed from site, and the ground fully reinstated to the reasonable specification of the planning authority within 12 months thereafter.

Reason: In the interests of safety, amenity and environmental protection.

9. The wind turbines shall be finished in a non-reflective off-grey semi-matt finish and should not display any advertising on any part of the turbine unless otherwise agreed in writing with the planning authority. Confirmation of the details of the finish and colour of all externally visible components of the associated ancillary aspects of the proposal shall be

submitted to and agreed by the planning authority in writing prior to the commencement of development.

Reason: In the interests of visual amenity.

10. Development should not begin until a Construction Traffic Management Plan (CTMP) has been submitted to and approved in writing by the planning authority in consultation with the council's Roads Development. Development shall then be carried out in accordance with the approved CTMP.

Reason: In order to ensure that the development is served by an appropriate standard of access and associated servicing in the interests of road safety.

11. Prior to commencement of development, an Environmental Site Management Plan shall be submitted to and approved in writing by the planning authority. The Environmental Site Management Plan shall include:

- A scheme for protection of water resources during construction activities and thereafter during the operation of the site.
- Arrangement to avoid construction during the breeding bird season to reduce disturbance to breeding birds if possible. If the breeding season cannot be avoided then pre-construction surveys should be carried out. Where nests are identified these will be marked out and protected until the young have fledged. No-disturbance zones will be established based on the species sensitivity to disturbance.
- Arrangements to avoid adverse impact of lighting on bat commuting routes and feeding areas during construction.
- Implementation and future management to ensure that all turbines are a minimum of 50m from turbine tip to the northern conifer boundary or wet woodland at OP13.

These measures shall be implemented in accordance with an agreed programme unless otherwise agreed in writing with the planning authority.

Reason: To ensure there is no adverse effect on ecology in accordance with Council planning policies.

12. The rating noise level of noise immissions from the combined effects of the wind turbines (including the application of any tonal penalty) when determined in accordance with the guidance notes attached to this condition, shall not exceed the values for the relevant integer wind speed set out in, or derived from, the tables attached to this condition at any dwelling which is lawfully existing or has planning permission at the date of this permission and:

- a) The wind farm operator shall continuously log power production, wind speed and wind direction, all in accordance with guidance note 1(d). These data shall be retained for a period of not less than 24 months. The wind farm operator shall provide this information in the format set out in guidance note 1(e) to the planning authority on its request, within 14 days of receipt in writing of such a request.
- b) No electricity shall be exported until the wind farm operator has submitted to the planning authority for written approval a list of proposed independent consultants who may undertake compliance measurements in accordance with this condition. Amendments to the list of approved consultants shall be made only with the prior written approval of the planning authority.

- c) Within 21 days from receipt of a written request from the planning authority following a complaint to Aberdeenshire Council from an occupant of a dwelling alleging noise disturbance at that dwelling, the wind farm operator shall, at its expense, employ a consultant from the list approved by the planning authority to assess the level of noise immissions from the wind farm at the complainant’s property in accordance with the procedures described in the attached guidance notes. The written request from the planning authority shall set out at least the date, time and location that the complaint relates to and any identified atmospheric conditions, including wind direction, and include a statement as to whether, in the opinion of the planning authority, the noise giving rise to the complaint contains or is likely to contain a tonal component.
- d) The assessment of the rating level of noise immissions shall be undertaken in accordance with an assessment protocol that shall previously have been submitted to and approved in writing by the planning authority. The protocol shall include the proposed measurement location identified in accordance with the guidance notes where measurements for compliance checking purposes shall be undertaken, whether noise giving rise to the complaint contains or is likely to contain a tonal component, and also the range of meteorological and operational conditions (which shall include the range of wind speeds, wind directions, power generation and times of day) to determine the assessment of rating level of noise immissions. The proposed range of conditions shall be those which prevailed during times when the complainant alleges there was disturbance due to noise, having regard to the written request of the planning authority under paragraph c) above, and such others as the independent consultant considers likely to result in a breach of the noise limits.
- e) The wind farm operator shall provide to the planning authority the independent consultant’s assessment of the rating level of noise immissions undertaken in accordance with the guidance notes within 2 months of the date of the written request of the planning authority for compliance measurements to be made under paragraph (c), unless the time limit is extended in writing by the planning authority. The assessment shall include all data collected for the purposes of undertaking the compliance measurements, such data to be provided in the format set on in Guidance Note 1(e). The instrumentation used to undertake the measurements shall be calibrated in accordance with Guidance Note 1(a) and certificates of calibration shall be submitted to the planning authority with the independent consultant’s assessment of the rating level of noise immissions.
- f) Where a further assessment of the rating level of noise immissions from the wind farm is required pursuant to Guidance Note 4(c), the wind farm operator shall submit a copy of the further assessment within 21 days of submission of the independent consultant’s assessment pursuant to paragraph (d) above unless the time limit has been extended in writing by the planning authority.

Table 1 – Night-time 2300 to 0700 each day

	Standardised Wind Speed at 10 m Height in m/s averaged over 10 minute periods											
	1	2	3	4	5	6	7	8	9	10	11	12
Location (and National Grid Ref):	sound pressure levels in dB, $L_{A90,10min}$ for night time periods											
Cornabo House (364677,817674) Financially Involved	45	45	45	45	45	45	45	45	45	45	45	47
All other dwelling	43	43	43	43	43	43	43	43	43	43	44	47

Table 2 – Daytime 0700 to 2300 each day

	Standardised Wind Speed at 10 m Height in m/s averaged over 10 minute periods											
	1	2	3	4	5	6	7	8	9	10	11	12
Location (and National Grid Ref):	sound pressure levels in dB, L _{A90,10min} for night time periods											
Cornabo House (364677,817674) Financially Involved	45	45	45	45	45	45	45	45	45	45	45	48
All other dwellings	35	35	35	35	35	36	37	39	41	43	45	48

Reason: To protect nearby residents from undue noise and disturbance, to ensure that noise limits are not exceeded and to enable prompt investigation of complaints.

Guidance Notes for Noise Conditions

These notes are to be read with and form part of condition 12. They further explain the conditions and specify the methods to be deployed in the assessment of complaints about noise immissions from the wind farm. The rating level at each integer wind speed is the arithmetic sum of the wind farm noise level as determined from the best-fit curve described in Note 2 of these Guidance Notes and any tonal penalty applied in accordance with Note 3. Reference to ETSU-R-97 refers to the publication entitled “*The Assessment and Rating of Noise from Wind Farms*” (1997) published by the Energy Technology Support Unit (ETSU) for the Department of Trade and Industry (DTI). Measured noise imission levels from the turbines must be referenced to standardised 10 metres height wind speeds.

Guidance Note 1

(a) Values of the L_{A90,10-minute} noise index should be measured at the complainant’s property, using a sound level meter of EN 60651/BS EN 60804 Type 1, or BS EN 61672 Class 1 quality (or the equivalent UK adopted standard in force at the time of the measurements) set to measure using the fast time weighted response as specified in BS EN 60651/BS EN 60804 or BS EN 61672-1 (or the equivalent UK adopted standard in force at the time of the measurements). This should be calibrated in accordance with the procedure specified in BS 4142: 1997 (or the equivalent UK adopted standard in force at the time of the measurements). If required, measurements shall be undertaken in such a manner to enable a tonal penalty to be applied in accordance with Guidance Note 3.

(b) The microphone should be mounted at 1.2 - 1.5 metres above ground level, fitted with a two-layer windshield or suitable equivalent approved in writing by the Local Planning Authority, and placed outside the complainant’s dwelling. Measurements should be made in “free field” conditions. To achieve this, the microphone should be placed at least 3.5 metres away from the building facade or any reflecting surface except the ground at the approved measurement location. In the event that the consent of the complainant for access to his or her property to undertake compliance measurements is withheld, the wind farm operator shall notify the planning authority in writing that access has been denied.

(c) The L_{A90,10-minute} measurements should be synchronised with measurements of the 10-minute arithmetic average wind speed, standardised to a height of 10 metres at the wind farm site, and with operational data logged in accordance with Guidance Note 1(d), including the power generation data from the turbine control systems of the wind farm.

(d) To enable compliance with the conditions to be evaluated, the wind farm operator shall continuously log arithmetic mean wind speed in metres per second (m/s), arithmetic mean wind direction in degrees from north in each successive 10-minute periods from the supervisory control and data acquisition (SCADA) system to enable compliance with the conditions to be

evaluated. Wind speed data shall also be standardised to a 10 meters height. It is this standardised 10 metre height wind speed data which is correlated with the noise measurements determined as valid in accordance with Note 2(b), such correlation to be undertaken in the manner described in Note 2(c). In addition, the wind farm operator shall continuously log the arithmetic mean power generated during each successive 10-minutes period for each wind turbine on the wind farm. All 10-minute periods shall commence on the hour and in 10-minute increments thereafter synchronised with Greenwich Mean Time.

(e) Data provided to the planning authority in accordance with the noise condition shall be provided in comma separated values in electronic format.

Guidance Note 2

(a) The noise measurements should be made so as to provide not less than 20 valid data points as defined in Note 2 paragraph (b).

(b) Valid data points are those measured in the conditions set out in the assessment protocol approved by the planning authority under Condition 3 of the noise condition but excluding any periods of rainfall measured at the complainants dwelling.

(c) Values of the $L_{A90,10\text{-minute}}$ noise measurements and corresponding values of the measured 10-minute standardised 10-metre height wind speed for those data points considered valid in accordance with Note 2 paragraph (b) shall be plotted on an X-Y chart with noise level on the Y-axis and wind speed on the X-axis. A least squares best fit curve of an order deemed appropriate by the independent consultant (but which may not be higher than a fourth order) should be fitted to the data points and define the wind farm noise level at each integer speed.

Guidance Note 3

(a) Where in accordance with the approved assessment protocol under condition 3, noise immissions at the location or locations where compliance measurements are being undertaken contain or are likely to contain a tonal component, a tonal penalty is to be calculated and applied using the following rating procedure.

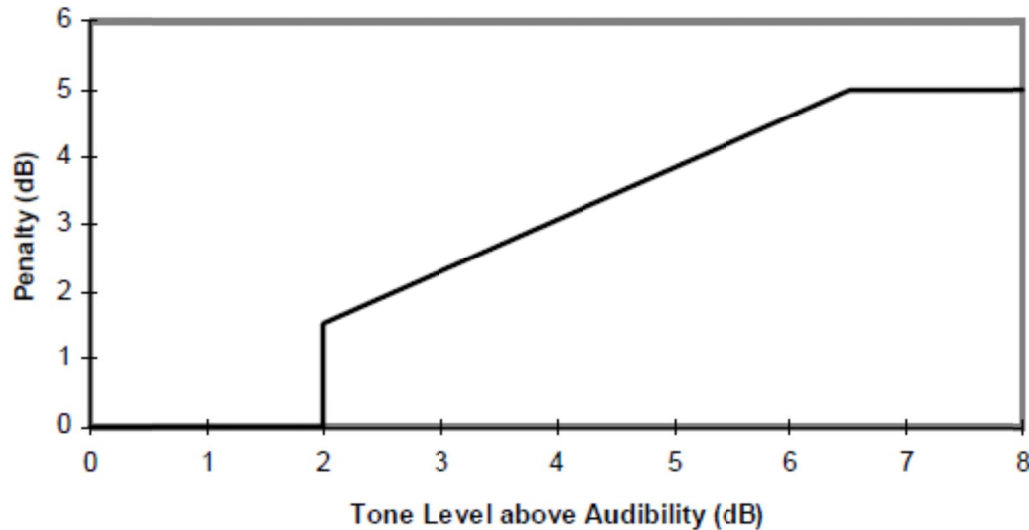
(b) For each 10-minute interval for which $L_{A90,10\text{-minute}}$ data have been determined as valid in accordance with Note 2 a tonal assessment shall be performed on noise immissions during 2 minutes of each 10-minute period. The 2-minute periods should be spaced at 10-minute intervals provided that uninterrupted uncorrupted data are available (“the standard procedure”). Where uncorrupted data are not available, the first available uninterrupted clean 2-minute period out of the affected overall 10-minute period shall be selected. Any such deviations from standard procedure shall be reported.

(c) For each of the 2-minute samples the tone level above audibility, shall be calculated by comparison with the audibility criterion given in Section 2.1 on pages 104 -109 of ETSU-R-97 or future equivalent guidance for wind farm tonal noise assessment.

(d) The tonal level above audibility shall be plotted against wind speed for each of the 2-minute samples. Samples for which the tones were below the audibility criterion or no tone was identified, a value of zero audibility shall be substituted.

(e) A least squares best fit linear regression shall then be performed to establish the average tone level above audibility for each integer wind speed derived from the value of the “best fit” line fitted to values within $\pm 0.5\text{m/s}$ of each integer wind speed. If there is no apparent trend with wind speed then a simple arithmetic mean shall be used. This process shall be repeated for each integer wind speed for which there is an assessment of overall levels in Note 2.

(f) The tonal penalty is derived from the margin above audibility of the tone according to the figure below.



Guidance Note 4

- (a) If a tonal penalty is to be applied in accordance with Note 3 the rating level of the turbine noise at each wind speed is the arithmetic sum of the measured noise level as determined from the best fit curve described in Note 2 and the penalty for tonal noise as derived in accordance with Note 3 above at each integer wind speed within the range set out in the approved assessment protocol under condition 3.
- (b) If no tonal penalty is to be applied then the rating level of the turbine noise at each wind speed is equal to the measured noise level as determined from the best fit curve described in Note 2.
- (c) In the event that the rating level is above the limit(s) set out in the Tables attached to the noise conditions or the noise limits for a complainant's dwelling approved by the Local Authority, the independent consultant shall undertake a further assessment of the rating level to correct for background noise so that the rating level relates to wind turbine noise imission only.
- (d) The wind farm operator shall ensure that all the wind turbines in the development are turned off for such period as the independent consultant or local planning authority requires undertaking the further assessment. The further assessment shall be undertaken in accordance with the following steps:
- (e) Repeating the steps in Note 2, with the wind farm switched off, and determining the background noise (L_3) at each integer wind speed within the range set out in the approved assessment protocol under Condition 3.
- (f) The wind farm noise (L_1) at this speed shall then be calculated as follows where L_2 is the measured level with turbines running but without the addition of any tonal penalty:

$$L_1 = 10 \log \left[10^{L_2/10} - 10^{L_3/10} \right]$$

- (g) The rating level shall be re-calculated by adding the tonal penalty (if any is applied in accordance with Note 3) to the derived wind farm noise L_1 at that integer wind speed.

If the rating level after adjustment for background noise contribution and adjustment for tonal penalty (if required in accordance with note (iii) above) at any integer wind speed lies at or below the values set out in the tables attached to the conditions or at or below the limits approved by the planning authority for a complainants dwelling then no further action is necessary. If the rating level

at any integer wind speed exceeds the values set out in the tables attached to the conditions or the noise limits approved by the planning authority for a complainants dwelling then the development fails to comply with the conditions

Advisory notes

1. **The length of the permission:** This planning permission will lapse on the expiration of a period of three years from the date of this decision notice, unless the development has been started within that period (See section 58(1) of the Town and Country Planning (Scotland) Act 1997 (as amended)).
2. **Notice of the start of development:** The person carrying out the development must give advance notice in writing to the planning authority of the date when it is intended to start. Failure to do so is a breach of planning control. It could result in the planning authority taking enforcement action (See sections 27A and 123(1) of the Town and Country Planning (Scotland) Act 1997 (as amended)).
3. **Notice of the completion of the development:** As soon as possible after it is finished, the person who completed the development must write to the planning authority to confirm the position (See section 27B of the Town and Country Planning (Scotland) Act 1997 (as amended)).
4. **Display of notice:** A notice must be displayed on or near the site while work is being carried out. The planning authority can provide more information about the form of that notice and where to display it (See section 27C of the Town and Country Planning (Scotland) Act 1997 Act (as amended) and Schedule 7 to the Town and Country Planning (Development Management Procedure) (Scotland) Regulations 2013).

Schedule of plans

Figure 1.1 – Site Location
 Figure 12.2 – Port of Entry Site Plan
 Figure 12.3 – Local Routes to Site
 Figure 5.1 – Proposed Design Stage Site Layout Plan
 Figure 12.4 – Ord Mill Swept Path Analysis
 Figure 3.4 – Road Cross Section Details
 Figure 6.2 – Site of Proposed Cornabo Wind Cluster
 Figure 3.3C – Crane Pad Detail 3
 93787SK1001 – Preliminary Site Layout
 Figure 3.6 – Switch Gear & Meter Housing
 Figure 3.5 – Contractors Compound
 611-Figure 3.1 – Revised Drawing – HS Photo-Wireline Visualisations Castle Forbes
 93787/sk1003 – Revised Drawing – Private Water Supplies
 611-Figure 3.2 – Revised Drawing – Wireline Visualisations Rooftop Viewing
 Platform Craigievar Castle and Balflugh Castle
 Revised Track Layout