

3 December 2009

Sarah Holmes
Bond Pearce LLP
Ballard House
West Hoe Road
Plymouth
PL1 3AE

Our Ref: APP/F2415/A/09/2096369/NWF
Your Ref: SCH1/DET1/347662.17

Dear Madam

**TOWN AND COUNTRY PLANNING ACT 1990 – SECTION 78
APPEAL BY NUON UK LTD: LAND TO THE NORTH-EAST OF SWINFORD
APPLICATION REF: 08/00506/FUL**

1. I am directed by the Secretary of State to say that consideration has been given to the report of the Inspector, Mr John Woolcock, BNatRes (Hons) MURP DipLaw MPIA MRTPI, between 14 and 31 July 2009 into your client's appeal for non-determination of an application by Harborough District Council for the construction and operation of a wind farm consisting of eleven 125 m turbines, control building, temporary construction compound, anemometer mast, vehicular access, accommodation works and tracks at land north-east of Swinford, Leicestershire, in accordance with application number 08/00506/FUL.
2. On 12 February 2009 the appeal was recovered for the Secretary of State's determination, in pursuance of section 79 of, and paragraph 3 to Schedule 6 to, the Town and Country Planning Act 1990 because the appeal relates to proposals of major significance for the delivery of the Government's Climate Change Programme and Energy Policies.

Inspector's recommendation and summary of the decision

3. The Inspector recommended that the appeal be allowed and planning permission granted, subject to conditions. For the reasons given below, the Secretary of State agrees with the Inspector's conclusions and with his recommendation. A copy of the Inspector's report (IR) is enclosed. All references to paragraph numbers, unless otherwise stated, are to that report.

Procedural matters

4. In reaching this position the Secretary of State has taken into account the Environmental Statement which was submitted under the Town and Country Planning (Environmental Impact Assessment) (England and Wales) Regulations 1999, and the Inspector's comments at IR187-188. The Secretary of State is content that the Environmental Statement complies with the above regulations

and that sufficient information has been provided for him to assess the environmental impact of the appeal before him.

Matters arising after the close of the inquiry

5. Following the close of the inquiry the Secretary of State received a number of representations about the application scheme. These are listed at Annex A. The Secretary of State has given careful consideration to these representations, but does not consider that they raise any new issues that would either affect his determination of this appeal, or require him to refer back to the parties for further representations prior to reaching his decision. Copies of the correspondence can be made available on written request to the address at the foot of the first page of this letter.

Policy considerations

6. In deciding the appeal, the Secretary of State has had regard to section 38(6) of the Planning and Compulsory Purchase Act 2004 which requires that proposals be determined in accordance with the development plan unless material considerations indicate otherwise.
7. In this case, the development plan comprises the Regional Spatial Strategy (RSS) for the East Midlands (the *East Midlands Regional Plan*) published on 12 March 2009 and saved policies of the Harborough District Local Plan (LP), adopted in 2001. The Secretary of State considers that the development plan policies most relevant to the appeal are those set out by the Inspector at IR20-23.
8. Other material considerations which the Secretary of State has taken into account include Planning Policy Statement (PPS) 1: *Delivering Sustainable Development*; Planning Policy Statement: *Planning and Climate Change* (supplement to PPS1); PPS 7: *Sustainable Development in Rural Areas*; PPS9: *Biodiversity and Geological Conservation*; Planning Policy Guidance (PPG)13: *Transport*; PPG15: *Planning and the Historic Environment*; PPG16: *Archaeology and Planning*; PPS22 and its companion Guide: *Renewable Energy*, along with the Government's subsequent statement regarding the findings of the Salford University report into Aerodynamic Modulation of Wind Turbine Noise (published by BERR in August 2007); PPG24: *Planning and Noise*; Circular 11/95: *Planning Conditions*; and Circular 05/2005: *Planning Obligations*.
9. The Secretary of State has also taken into account draft PPS15: *Planning for the Historic Environment*, published for consultation in July 2009. However, as this document is still at consultation stage and may be subject to change, he affords it little weight.
10. In determining the application the Secretary of State has had regard to the various listed buildings and structures in the vicinity of the appeal site. In accordance with section 66 (1) of the Planning (Listed Buildings and Conservation Areas) Act 1990, the Secretary of State has paid special regard to the desirability of preserving the listed structures or their setting or any features of special architectural or historic interest which they may possess. He has also had regard to potential impacts on the Swinford Conservation Area. As required by section 72 (1) of the Planning (Listed Buildings and Conservation Areas) Act 1990, he has paid special attention to the desirability of preserving or enhancing the character or appearance of this area.

Main issues

11. The Secretary of State considers that the main issues in this case are as set out by the Inspector at IR186.

Landscape and visual impact

12. For the reasons set out at IR189-191, the Secretary of State agrees with the Inspector that the proposal would result in some visual harm to the local landscape (IR191), and would be at odds with national guidance in PPS7 (IR225). However, the Secretary of State does not consider that the proposal would have an unacceptable adverse effect on the integrity of either the Lutterworth Lowlands LCA or the Laughton Hills LCA (IR191). In respect of the assessment of possible cumulative impacts, the Secretary of State considers that some significant negative effects would result if the Yelvertoft and Lilbourne wind farms were constructed in addition to the appeal scheme, but that the effects would not add unduly to the harm to the local landscape identified above (IR192).

Cultural heritage

13. The Secretary of State agrees with the Inspector's reasoning and conclusions on cultural heritage matters at IR193-204. The Secretary of State has had special regard to the desirability of preserving the setting of the Grade 1 listed Stanford Hall. As he agrees with the Inspector that the skyline in views from the Hall and its surround is not a historic skyline for the purposes of applying the guidance in PPG15 (IR195), he also agrees with him that the proposal would not conflict with LP Policy EV/16 and on this basis would accord with relevant guidance on listed buildings in PPG15 (IR196). The Secretary of State also agrees with the Inspector that turbine WT9 would to some degree have a detrimental effect on the setting of the historic parkland associated with Stanford Hall and that this weighs against the appeal (IR200). Like the Inspector, the Secretary of State does not consider that the proposal would have an unacceptable adverse effect on the setting of deserted medieval village within the appeal site, and finds no conflict with guidance in PPG16 in this respect (IR202). Nor does he consider that the proposal would adversely affect the settings of other listed buildings or harm either of the conservation areas considered in IR 203-204.

Noise

14. For the reasons set out at IR205-210 the Secretary of State agrees with the Inspector that the proposal would not cause an unacceptable degree of noise disturbance, and so would not conflict with PPG24 (IR211). Like the Inspector he is satisfied, subject to the imposition of appropriate planning conditions that the scheme would minimise increases in ambient noise levels for this type of development and so would also accord with the guidance in PPS22 (IR211).

Archaeological remains

15. For the reasons set out at IR212 the Secretary of State agrees with the Inspector that there is nothing to indicate that an unacceptable effect on archaeological remains would weigh against permitting the proposal.

Nature conservation

16. For the reasons set out at IR213, the Secretary of State agrees with the Inspector that, subject to the imposition of appropriate conditions, there is no reason that harm to wildlife or nature conservation would significantly weigh against the proposal.

Living conditions for local residents

17. For the reasons set out at IR214-215 the Secretary of State does not consider that the proposal would have an unacceptable effect on nearby dwellings that would adversely affect the living conditions of occupiers. Like the Inspector, he considers that shadow flicker is a matter which could be reasonably dealt with by the imposition of appropriate conditions (IR216).

Other considerations

18. The Secretary of State agrees with the Inspector's reasoning and conclusions in respect of the matters considered at IR217-223. He agrees that the reversibility of the scheme should not be an influential factor in determining this appeal (IR222). Like the Inspector, he does not consider that other issues raised by objectors substantially weigh against allowing the appeal (IR233).

Relationship to development plan and national policy on renewable energy

19. The Secretary of State agrees with the Inspector's assessment of the proposal in respect of development plan policy at IR225-227. As indicated at paragraph 13 above, he agrees with the Inspector that there is no conflict with the aims of LP Policy EV/16. He also agrees that conflict with the development plan would be limited to LP policies EV/5 and EV/18 (IR225) and RSS policies 27 and 31 (IR226). The Secretary of State sees no significant conflict with RSS Policy 26 because, as the Inspector identifies, this policy implies a balancing exercise (IR226). However, the scheme would generate renewable energy that would make a significant contribution towards achieving the targets set out in RSS policy 40 (IR227). Like the Inspector, the Secretary of State considers that the appeal scheme would make an important contribution to reducing the current shortfall against the regional target (IR235).
20. The Secretary of State agrees with the Inspector that an overall balance in favour of the scheme renders the proposal compliant with RSS8, when read as a whole. For this reason the Secretary of State considers that the scheme accords with the development plan as a whole and agrees that the scheme also accords with PPS22 and the Energy White Paper (IR240).
21. The Secretary of State agrees with the Inspector's reasoning and conclusions at IR228-231 in respect of compliance with national planning policy in PPS22 and the support the proposal gains from the Energy White Paper and Stern Report.

Planning balance

22. For the reasons given at IR233-236, the Secretary of State agrees with the Inspector that the significant benefits of renewable energy generation in this case outweigh the limited harm to the local landscape and to the setting of the registered historic parkland, and the resultant policy conflict. He therefore agrees that the planning balance here falls in favour of granting planning permission (IR237).

Conditions

23. The Secretary of State has considered the proposed conditions and the Inspector's comments on these at IR238. He is satisfied that the conditions recommended in the Inspector's schedule are reasonable and necessary and meet the tests of Circular 11/95.

Overall Conclusions

24. The Secretary of State considers that there would be limited harm to the local landscape and to the setting of the registered historic parkland, both of which conflict with policy and weigh against the proposal, but that there are no other material considerations that substantially weigh against it. However, he considers that the significant benefits in terms of renewable energy generation outweigh the limited harms. He concludes that the proposal is in overall accordance with the development plan and complies with national policy in PPG15, PPG16 and PPS22. Overall, the Secretary of State concludes that the planning balance falls in favour of allowing the appeal and that there are no material considerations of sufficient weight which count against the proposal to determine the appeal other than in accordance with the development plan.

Formal decision

25. Accordingly, for the reasons given above, the Secretary of State agrees with the Inspector's recommendation. He hereby allows your client's appeal and grants planning permission for the construction and operation of a wind farm consisting of eleven 125 m turbines, control building, temporary construction compound, anemometer mast, vehicular access, accommodation works and tracks at land north-east of Swinford, Leicestershire in accordance with application number 08/00506/FUL dated 7 April 2008, subject to conditions set out at Annex B.

26. An applicant for any consent, agreement or approval required by a condition of this permission for agreement of reserved matters has a statutory right of appeal to the Secretary of State if consent, agreement or approval is refused or granted conditionally or if the Local Planning Authority fail to give notice of their decision within the prescribed period.

27. This letter does not convey any approval or consent which may be required under any enactment, bye-law, order or regulation other than section 57 of the Town and Country Planning Act 1990.

28. This letter serves as the Secretary of State's statement under regulation 21(2) of the Town and Country (Environmental Impact Assessment) (England and Wales) Regulations 1999.

Right to challenge the decision

29. A separate note is attached setting out the circumstances in which the validity of the Secretary of State's decision may be challenged by making an application to the High Court within six weeks from the date of this letter.

30. A copy of this letter has been sent to Harborough District Council and all parties who appeared at the inquiry.

Yours faithfully

Julian Pitt

Authorised by Secretary of State to sign in that behalf

Annex A

Post inquiry correspondence

14 August 2009	R D Waggin
20 September 2009	Darren Bassett
21 September 2009	Martin K Kilbane
1 November 2009	Mr G Wardell
8 November 2009	Dawn Money
16 November 2009	Dave Havergill

Annex B: Schedule of conditions relating to application 08/00506/FUL

1. The development hereby permitted shall be begun before the expiration of five years from the date of this permission. Written confirmation of the date of the first export of electricity to the grid from the wind farm hereby permitted shall be provided to the local planning authority within one month of the date of this taking place.
2. The planning permission hereby granted is for a period from the date of this decision until the date occurring 25 years after the date of the first export of electricity to the grid from the wind farm hereby permitted, when the use shall cease and the turbines, control building, temporary construction/decommissioning compound and anemometer mast shall be removed from the site in accordance with Condition 17.
3. Each turbine and its site track shall be provided in the position indicated on Figure 4.1 subject to a micro-siting allowance of 50m. Any variation of the indicated position on Figure 4.1, within the micro-siting allowance, shall only be permitted following prior written approval by the local planning authority.
4. No development hereby permitted shall commence until full details of the turbines including their colour, finish, air safety lighting and the warranted sound power level have been submitted to and approved in writing by the local planning authority. The development shall thereafter be carried out in accordance with the approved details.
5. Prior to the erection of any of the turbines hereby permitted, details of the control building, temporary construction compound and anemometer mast, shall be submitted to and approved in writing by the local planning authority. The development shall thereafter be carried out in accordance with the approved details.
6. No development shall commence until a scheme for the investigation and alleviation of electromagnetic interference, including to television reception, caused by the turbines hereby permitted, has been submitted to and approved in writing by the local planning authority. The approved mitigation measures shall be carried out in accordance with a timescale approved in writing by the local planning authority.
7. No development shall commence until a scheme for the investigation and alleviation of shadow flicker caused by the turbines hereby permitted, has been submitted to and approved in writing by the local planning authority. The approved mitigation measures shall be carried out in accordance with a timescale approved in writing by the local planning authority.
8. Prior to the commencement of any works a Construction Method Statement shall be submitted to and approved in writing by the local planning authority. This shall include details relating to:
 - (i) The control of noise and vibration emissions from construction activities including groundwork and the formation of infrastructure, along with arrangements to monitor noise emissions from the development site during the construction phase.

- (ii) The control of dust including arrangements to monitor dust emissions from the development site during the construction phase.
- (iii) Measures for controlling pollution/sedimentation and responding to any spillages/incidents during the construction phase.
- (iv) Measures to control mud deposition offsite from vehicles leaving the site.
- (v) The location and size of temporary parking, lay down and compound areas.
- (vi) The control of surface water drainage from parking and hard-standing areas including the design and construction of oil interceptors (including during the operational phase).
- (vii) The use of impervious bases and impervious bund walls for the storage of oils, fuels or chemicals on-site.
- (viii) Replanting plans for turbine bases and crane operation areas subsequent to construction.
- (ix) Details of the reinstatement of any areas of the site which may have been disturbed during construction.
- (x) The means by which users of public rights of way would be protected during the construction period.

Development shall be carried out in compliance with the approved Construction Method Statement, unless otherwise approved in writing by the local planning authority in advance.

9. All construction and decommissioning works shall be carried out only between the hours of 07:00 to 19:00 Monday to Friday, 07:00 to 16:00 Saturdays and at no times on Sundays and Bank Holidays unless prior written approval has been obtained from the local planning authority. Notwithstanding the hours stated above, the local planning authority may approve in writing deliveries outside these hours on prior application from the developer.

10. No development shall take place until a habitat management plan, including long term ecological objectives, management regime and maintenance schedules has been submitted to and approved in writing by the local planning authority. The plan shall include for the provision of 300 m of new hedging together with the replacement of any hedgerows and trees lost as a result of the development. It shall also include provision for the management of existing ponds and the provision and maintenance of rough grassland. The approved habitat management plan shall be implemented within the first twelve months following the cessation of construction and shall be reviewed at five yearly intervals. Changes to the habitat management plan shall only be made with the prior approval in writing by the local planning authority. The measures included within the approved habitat management plan shall continue throughout the lifetime of the planning permission hereby granted.

11. No development shall take place within the application area until the applicant has secured the implementation of a programme of archaeological work, comprising a staged programme of archaeological mitigation which shall include, as necessary, provision for exploratory trenching, preservation in situ of archaeological remains

and/or appropriate excavation and recording. This work shall be undertaken in accordance with a written scheme of investigation which has been submitted to and approved in writing by the local planning authority.

12. The temporary access to facilitate delivery of the turbine components shall be implemented in accordance with Drawing No. 22991 – R01 Rev B, unless otherwise approved in writing by the local planning authority in advance. The development shall only proceed in accordance with the approved details.

13. Before the development hereby permitted commences, a Transport Management Plan shall be submitted to and approved in writing by the local planning authority. The Transport Management Plan shall include details of:

- (i) The management and routing of construction traffic.
- (ii) Delivery times.
- (iii) Internal compound and wheel washing arrangements.
- (iv) The timing of and means by which the temporary access and road shown hatched grey on drawing number 22991 – R01 Rev B will be stopped up. The sub-base of both the access and the road may be retained during the life of the permission and both the access and the road may be temporarily reopened and used with the prior written approval of the local planning authority.

The Transport Management Plan shall be implemented for the whole of the construction period.

14. Notwithstanding the details submitted, prior to commencement of the development hereby permitted, details of the vehicular access to the site shall be submitted to and approved in writing by the local planning authority. This shall include details about the siting, geometry, visibility splays, surfacing and any gates. Vehicular access to the site shall be implemented in accordance with the approved details prior to commencement of development.

15. Prior to commencement of development, details of parking facilities for maintenance, servicing or repair vehicles for the 25 year duration of the facility hereby permitted shall be submitted to and approved in writing by the local planning authority. These facilities shall be fully implemented prior to the first use of the turbines and retained for the duration of this planning permission.

16. Prior to the commencement of development, details of post-construction monitoring of bird and bat strike to be conducted shall be submitted to and approved in writing by the local planning authority. The aforementioned monitoring shall then be carried out in accordance with the approved details, and the results shall be submitted to the local planning authority in accordance with an approved timescale.

17. Not less than one year prior to the expiry of this planning permission a Decommissioning Method Statement shall be submitted for the written approval of the local planning authority. This shall include details of all site decommissioning works, including how wind turbines and ancillary equipment would be dismantled and removed from the site, the depth to which wind turbine foundations shall be removed below ground level, along with details of site restoration and a timetable of works. The Decommissioning Method Statement shall be carried out as approved.

18. Prior to the commencement of development, details shall be provided to the local planning authority of the bond or other financial provision to be put in place to cover all decommissioning and site restoration costs on the expiry of this planning permission. No work shall commence on the site until documentary evidence that the proposed bond or other financial provision is in place has been provided and written confirmation has been given by the local planning authority that the proposed bond or other financial provision is satisfactory. The applicant, or their agent or successors in title shall ensure that the approved bond or other 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 from the commencement of the development, to be conducted by a competent independent professional approved in writing by the local planning authority who has relevant experience within the wind energy sector, and provided to the applicant, or their agent or successors in title, the landowner(s) and the local planning authority.

19. The rating level of noise emissions from the combined effects of the wind turbines (including the application of any tonal penalty) when calculated in accordance with the attached Guidance Notes 1-4 shall not exceed the noise values set out in Tables 1 & 2 within the Guidance Notes. Noise limits for properties within 2 km of a wind turbine, which lawfully exist or have planning permission for construction at the date of this planning permission, but are not listed in these tables, shall be those of the nearest location listed in Tables 1 & 2.

20. Within 28 days from the receipt of a written request from the local planning authority following a complaint to it, the wind farm operator shall, at its own expense, employ an independent consultant approved in writing by the local planning authority to assess the level of noise emissions from the wind farm at the complainants property following the procedure described in the attached Guidance Notes. Details of the assessment and its results as to whether a breach of the noise limits in Condition 19 has been established shall be reported to the local planning authority as soon as the assessment is completed.

21. Upon notification in writing from the local planning authority of an established breach of the noise limits in Condition 19 the wind farm operator shall, within 28 days propose a scheme to the local planning authority to mitigate the breach to prevent its future occurrence, including a timetable for its implementation. Following the written approval of the scheme by the local planning authority it shall be activated forthwith and thereafter retained.

22. Wind speed, wind direction and power generation data for each wind turbine shall be continuously logged and provided to the local planning authority at its request and in accordance with the attached Guidance Notes within 28 days of such a request. Such data shall be retained for a period of 5 years.

23. Prior to the commencement of development, details of a nominated representative for the development to act as a point of contact for local residents (in connection with conditions 19 - 24) together with the arrangements for notifying and approving any subsequent change in the nominated representative shall be submitted to and approved in writing by the local planning authority. The nominated representative shall have responsibility for dealing with any noise complaints made

during construction, operation and decommissioning of the wind farm and liaison with the local planning authority.

24. On the written request of the local planning authority, following a complaint to it considered by the local planning authority to relate to regular fluctuation in the turbine noise level (amplitude modulation), the wind farm operator shall at its expense employ an independent consultant approved in writing by the local planning authority to undertake the additional assessment outlined in Guidance Note 5 to ascertain whether amplitude modulation is a contributor to the noise complaint as defined in Guidance Note 5. If the said assessment confirms amplitude modulation to be a contributor as defined in Guidance Note 5, the local planning authority shall request that within 28 days of the completion of the noise recordings referred to in Guidance Note 5, the developer shall submit a scheme to mitigate such effect. Following the written approval of the scheme and the timescale for its implementation by the local planning authority the scheme shall be activated forthwith and thereafter retained.

25. No lighting, symbols, signs or logos or other lettering, other than those required for health and safety, traffic management or aviation safety, shall be displayed on any part of the turbines or any other building or structures without the prior written approval of the local planning authority.

26. All cables within the development site between turbines and from the turbines to the substation shall be set underground.

27. The number of turbines shall not exceed 11. The blade tip height of turbines shall not exceed 125 m in height. The hub height of the turbines shall not exceed 84 m and shall not be less than 76 m.

28. All turbine blades shall rotate in the same direction.

29. If any of the wind turbines hereby permitted ceases to operate for a continuous period of 6 months then, unless otherwise approved in writing by the local planning authority, a scheme for the decommissioning and removal of the wind turbine and any other ancillary equipment and structures relating solely to that turbine, shall be submitted to and approved in writing by the local planning authority within 3 months of the end of the 6 month cessation period. The scheme shall include details for the restoration of the site. The scheme shall be implemented and site restoration completed within 12 months of the date of its approval by the local planning authority.

30. No development shall commence on site until the Ministry of Defence has been provided with the following information:

- (i) The date of commencement of the construction.
- (ii) The height above ground level and the location of the tallest structure.
- (iii) The maximum extension height of any construction equipment.
- (iv) Details of site lighting.

GUIDANCE NOTES RELATING TO NOISE CONDITIONS

These notes are to be read with the planning conditions covering operational noise. They further explain these conditions and specify the methods to be deployed in the assessment of any complaints about noise emissions from the wind farm.

NOTE 1

(a) Values of the $L_{A90,10min}$ noise statistic should be measured at the complainant's property, using a sound level meter of IEC 651 Type 1, or BS EN 61672 Class 1, standard (or the equivalent relevant UK adopted standard in force at the time of the measurements) set to measure using a fast time weighted response. This should be calibrated in accordance with the procedure specified in BS 4142: 1997 (or the equivalent relevant UK adopted standard in force at the time of the measurements).

(b) The microphone should be mounted at 1.2 - 1.5 m 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, so that the microphone should be placed at a location approved in writing by the local planning authority and at least 3.5 m away from the building facade or any reflecting surface except the ground.

(c) The $L_{A90,10min}$ measurements should be synchronised with measurements of the 10-minute arithmetic average wind speed and with operational data from the turbine control systems of the wind farm.

(d) The wind farm operator shall continuously log arithmetic mean wind speed and arithmetic mean wind direction data in 10 minute periods from the on-site anemometry mast to enable compliance with the conditions to be evaluated. Such data shall be measured at a height of 10 metres, corrected for the difference between the mast location used for the baseline measurements based on a correlation exercise approved in writing by the local planning authority, and at hub height.

NOTE 2

(a) The noise measurements should be made so as to provide not less than 100 valid data points as defined in Note 2 paragraph (b). Such measurements should provide valid data points for the range of wind speeds, wind directions, times of day and power generation approved in writing by the local planning authority. In specifying such conditions the local planning authority shall have regard to those conditions which were most likely to have prevailed during times when the complainant alleges there was disturbance due to noise. At its request the wind farm operator shall provide all of the data collected under Conditions 20 and 22 to the local planning authority.

(b) Valid data points are those that remain after all periods during rainfall have been excluded.

(c) A least squares, "best fit" polynomial curve of a maximum 2nd order should be fitted to the data points and define the rating level at each integer wind speed.

NOTE 3

Where, in the opinion of the local planning authority noise emissions at the location or locations where assessment measurements are being undertaken contain a tonal component, the following rating procedure should be used.

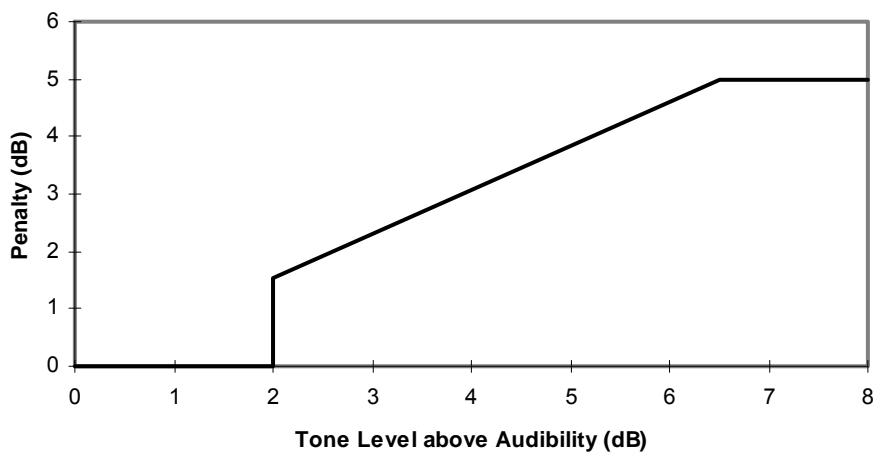
(a) For each 10-minute interval for which $L_{A90,10min}$ data have been obtained as provided for in Note 1 a tonal assessment is performed on noise emissions during 2 minutes of each 10 minute period. The 2 minute periods should be regularly spaced at 10 minute intervals provided that uninterrupted clean data are available. Where clean 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.

(b) For each of the 2-minute samples the margin above or below the audibility criterion of the tone level difference, ΔL_{tm} , should be calculated by comparison with the audibility criterion given in Section 2.1 on pages 104-109 of ETSU-R-97.

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

(d) A linear regression should then be performed to establish the margin above audibility at the assessed wind speed for each integer wind speed. If there is no apparent trend with wind speed then a simple arithmetic average shall be used.

(e) The tonal penalty is derived from the margin above audibility of the tone according to the figure below. The rating level at each wind speed is the arithmetic sum of the wind farm noise level, as determined from the best fit curve described in Note 2, and the penalty for tonal noise.



NOTE 4

If the rating level is above the limit set out in the conditions, measurements of the influence of background noise should be made to determine whether or not there is a breach of condition. This may be achieved by repeating the steps in Note 2, with the wind farm switched off, and determining the background noise at the assessed wind speed, L_3 . The wind farm noise at this speed, L_1 , is then calculated as follows where L_2 is the measured level with turbines running but without the addition of any tonal penalty:

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

The rating level is re-calculated by adding the tonal penalty (if any) to the derived wind farm noise L_1 . If the rating level lies at or below the values set out in the conditions then no further action is necessary. If the rating level exceeds the values set out in the conditions then the development fails to comply with the conditions.

NOTE 5

Amplitude Modulation (AM) is the regular variation of the broadband aerodynamic noise caused by the passage of the blades through the air at the rate at which the blades pass the turbine tower. ETSU-R-97, "The Assessment and Rating of Noise from Wind Turbines", assumes that a certain level of AM (blade swish) is intrinsic to the noise emitted by the wind turbine and may cause regular peak

to trough variation in the noise of around 3 dB and up to 6 dB in some circumstances. The noise assessment and rating framework recommended in ETSU-R-97 fully takes into account the presence of this intrinsic level of AM when setting acceptable noise limits for wind farms.

Where the local planning authority considers the level of AM may be at a level exceeding that envisaged by ETSU-R-97, they may require the operator to appoint an approved independent consultant to carry out an assessment of this feature under Condition 24. In such circumstances, the complainant(s) shall be provided with a switchable noise recording system by the independent consultant and shall initiate recordings of the turbine noise at times and locations when significant amplitude modulation is considered to occur. Such recordings shall allow for analysis of the noise in one-third octave bands from 50Hz to 10kHz at intervals of 125 milliseconds. The effects of amplitude modulation are normally associated with impacts experienced inside properties or at locations close to the property, such as patio or courtyard areas. For this reason the assessment of the effect necessarily differs from the free-field assessment methodologies applied elsewhere in these Guidance Notes.

If, over a period of 6 months, commencing at a time of the first occasion at which the local planning authority records an amplitude modulation event, the complainant fails to record 5 occurrences of significant amplitude modulation, in separate 24 hour periods, then its existence as a contributor to the noise complaint shall be excluded. If, however, the independent consultant, on analysis of the noise recordings, identifies that amplitude modulation is a significant contributor to the noise complaint then the local planning authority shall be informed in writing.

TABLES OF NOISE LIMITS

Table 1: Between 23:00 and 07:00 hours (Noise Level in dB L_{A90, 10min}):

Location	Wind speed at 10 m height (m/s) at on-site anemometry mast									
	3	4	5	6	7	8	9	10	11	≥12
Botney Lodge	43	43	43	43	45	47	50	53	56	59
Top Barn Farm	43	43	43	43	45	47	50	53	56	59
Hill Top Farm	43	43	43	43	45	47	50	53	56	59
Hill Farm	49	49	49	50	51	53	54	56	59	61
Shawell Lodge Farm	49	49	49	50	51	53	54	56	59	61
Melbourne Lodge	43	44	45	47	48	50	52	54	56	58
Poplar's Farm	43	44	45	47	48	50	52	54	56	58
Thornhill Stud	43	44	45	47	48	50	52	54	56	58
London Lodge	43	44	45	47	48	50	52	54	56	58
Orchard Farm	43	44	45	47	48	50	52	54	56	58
Penfoland	47	48	50	51	52	52	53	54	55	56
Denyer's Barn	47	48	50	51	52	52	53	54	55	56
Swinford Lodge	47	48	50	51	52	52	53	54	55	56
Kilworth Road	47	48	50	51	52	52	53	54	55	56
Un-Named Property*	47	48	50	51	52	52	53	54	55	56
Warren Farm	44	45	46	48	49	51	53	56	58	61
Lutterworth Road	44	45	46	48	49	51	53	56	58	61
Misterton Grange	44	45	46	48	49	51	53	56	58	61

Table 2: At all other times (Noise Level in dB L_{A90, 10min}):

Location	Wind speed at 10 m height (m/s) at on-site anemometry mast									
	3	4	5	6	7	8	9	10	11	≥12
Botney Lodge	40	41	43	45	47	50	52	55	57	60
Top Barn Farm	40	41	43	45	47	50	52	55	57	60
Hill Top Farm	40	41	43	45	47	50	52	55	57	60
Hill Farm	56	57	58	59	60	61	62	64	65	67
Shawell Lodge Farm	56	57	58	59	60	61	62	64	65	67
Melbourne Lodge	47	47	48	50	51	53	54	56	58	60
Poplar's Farm	47	47	48	50	51	53	54	56	58	60
Thornhill Stud	47	47	48	50	51	53	54	56	58	60
London Lodge	47	47	48	50	51	53	54	56	58	60
Orchard Farm	47	47	48	50	51	53	54	56	58	60
Penfoland	51	51	52	53	54	55	56	57	58	59
Denyer's Barn	51	51	52	53	54	55	56	57	58	59
Swinford Lodge	51	51	52	53	54	55	56	57	58	59
Kilworth Road	51	51	52	53	54	55	56	57	58	59
Un-Named Property*	51	51	52	53	54	55	56	57	58	59
Warren Farm	49	50	51	52	53	55	56	58	60	62
Lutterworth Road	49	50	51	52	53	55	56	58	60	62
Misterton Grange	49	50	51	52	53	55	56	58	60	62

* Unoccupied un-named property west of Lutterworth Road