Appeal Decision

Inquiry held on 24, 25 and 26 March 2009

Site visit made on 27 March 2009

by Chris Gossop **BSc MA PhD MRTPI**

an Inspector appointed by the Secretary of State for Communities and Local Government

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Decision date:
20 April 2009

Appeal Ref: APP/E2001/A/05/2088796
Land south, north and north east of Homer House, Aldbrough Road, Withernwick, East Riding of Yorkshire HU11 4TF

- The appeal is made under section 78 of the Town and Country Planning Act 1990 against a refusal to grant planning permission.
- The appeal is made by Energie Kontor UK Limited against the decision of East Riding of Yorkshire Council.
- The application Ref.08/01964/STPLFE, dated 4 April 2008, was refused by notice dated 22 September 2008.
- The development proposed is erection of 9 wind turbines, substation, and construction of vehicular access and ancillary works.

Decision

1. I allow this appeal and grant planning permission for the erection of 9 wind turbines, substation, and construction of vehicular access and ancillary works on land to the east and north east of Homer House, Aldbrough Road, Withernwick in accordance with the terms of the application, Ref.08/01964/STPLFE, dated 4 April 2008, and the plans submitted with it, subject to the conditions set out in Annex 2 attached to this decision.

Procedural Matters

2. While the application proposal dated 4 April that has led to this appeal has remained unchanged, there has been an alteration to the original site address which, on the application form, referred to 'Land East of Withernwick'. Thus, the Council's decision and the appeal form places it in relation to Homer House, using the description set out in the heading. To my mind, however, that revised description is misleading in terms of its compass directions. My decision amends it, in the interests of accuracy.

3. The Council refused planning permission on four main grounds, the first three of which have to do with landscape and visual matters. The fourth ground concerned the potential effect upon radar and, as a consequence, aircraft safety. However, in a letter dated 9 March 2009, it was announced on behalf of the controlling organisation for civil aviation safety, NATS[1] (En Route) Plc ('NERL'), that agreement had been reached between the parties that would allow NERL to withdraw its objection.

4. This marked a change from NERL's earlier position which was that they could only accept the effects from one of either the Hall Farm, Routh or the

[1] National Air Traffic Services

Withernwick wind farm proposals. I note that in February 2009, the Secretary of State granted permission for the Hall Farm scheme following an Inquiry held in July 2008 (APP/E2001/A/07/2050015) (ERYC 2).

5. However, the situation regarding Withernwick has changed following those negotiations. While the Council did not officially withdraw this ground for refusal at the Inquiry, it presented no evidence relating to it. To my mind the position is clear and I see no reason to consider this matter further.

6. NERL's decision followed an earlier one by the Ministry of Defence that, subject to the imposition of a specific condition in respect of any planning consent, it would no longer maintain its earlier objection to the proposed development.

7. The application that has led to this appeal is a resubmission and revision of an earlier one submitted to the Council on 5 April 2007 (DC/07/02271/STPLFE). The main differences are in terms of the maximum height of the proposed turbines (reduced from 121 metres to 111 metres from base to blade tip, and from 80 to 70 metres in respect of hub height), the layout of access tracks, hard standings and temporary areas, and an increase in the area available for ecological enhancement.

8. The original application was the subject of an Environmental Statement, produced in accordance with the Town and Country Planning (Environmental Impact Assessment) (England and Wales) Regulations 1999) (the ES). This ES has been resubmitted in conjunction with the present application. It is accompanied by an 'Environmental Statement and Supplementary Information (Addendum)' which sets out the material differences, and supersedes the original ES in some matters of detail.

9. In reaching my decision, I have taken into account the ES, this Supplementary Information and all the other environmental information produced, including the comments from statutory consultation bodies and others about the ES and the likely environmental effects of the proposed development, and the answers to questions posed during the Inquiry.

10. A completed unilateral undertaking was submitted during the course of the Inquiry. This has been the subject of correspondence in the period immediately after the Inquiry closed. I refer to this correspondence in the final section of this decision.

Main issues

11. I consider there to be four main issues in this case:

(i) The impact of the development upon landscape character;

(ii) The visual impact of the development, including its effect upon the living conditions of local residents;

(iii) The cumulative impact of the development having regard, in particular, to its juxtaposition with the approved Whitehill Gas Storage Facility, assuming that this is constructed;

(iv) The benefits of the proposals, having regard to the Government's policies in respect of combating climate change and improving energy security.

Reasons

12. At the Inquiry, I was aided by the considerable level of agreement between the landscape witnesses regarding the magnitude of change that would be brought about by the development and the significance of those effects in landscape and visual terms. Unsurprisingly, the main differences expressed concern the question of whether the changes should be seen as adverse, neutral or positive. My approach will be first to analyse the effects of the development in terms of each of the three main issues. A subsequent section brings together my conclusions regarding these closely linked landscape and visual elements. I then address the fourth issue and Other Matters before turning to my Overall Conclusions.

(i) Landscape Character

13. The appeal site lies within an agricultural landscape consisting of medium to large sized fields bounded by a mixture of dry ditches and established, as well as immature, hedgerows. While the appeal site itself is relatively flat, the area to the east and north is more undulating, and there are some named 'hills'. However, any differences in level are quite small. From one of the Council's figures (5.1) forming part of its Landscape Proof of Evidence, nowhere within a 5km radius of the appeal site does the land rise higher than 25.55mAoD. In terms of turbine base heights, these fall within the range 12-15mAoD (EK4).

14. Tree cover is sparse. In the vicinity of the appeal site, this includes Scarshaws Plantation to the east and areas of mature planting on the eastern edge of Withernwick. There are smaller groups of trees close to some of the isolated farmsteads, advance structure planting has been carried out in connection with with the consented Whitehill Gas Storage Facility (GSF), and there is extensive new planting on land associated with Withernwick Hall. I agree with the appellant that this is 'an essentially large scale open to partially enclosed landscape'. I also agree that its landform can be described as gently undulating and windswept.

15. This brief analysis of the area is consistent with the general characteristics of the Holderness landscape, identified as Character Area 40 in the Countryside Character Assessment of England (CD42). It is also consistent with the Council's recent district wide landscape character assessment (CD44). The latter document shows Withernwick as falling within Landscape Character Area 19 'Open Farmland'. This is itself subdivided, the appeal site falling within an extensive area termed 19d 'Central Holderness Open Farmland'. The assessment goes on to define the character of Area 19, as a whole, as 'ordinary to good' and to state that it has a medium sensitivity to the development of wind farms generally. However, it stresses that 'detailed assessment to confirm this would be required for individual proposals'.

16. Moving to that step, the introduction of nine wind turbines 111m high to blade tip, together with the tracks and other infrastructure, would lead to a substantial change in the area's landscape character. While the development would be visually permeable, retaining the general openness of the area, the

rotating blades would draw attention to it and the character of the application site and the immediately surrounding area would be locally transformed into a wind farm landscape. Following this change, the turbines would be the principal defining element in determining landscape character. Within this core area of influence, the effect would be a major and significant one.

17. The appellant considers that this area of immediate influence would extend to a radius of 800m from the outer turbines. This is a matter for professional judgement. From my own assessment, which included the vertical and horizontal angle of view that the turbines would occupy, it seems to me that a threshold distance of this order is not unreasonable. Clearly, the influence of the turbines would diminish with distance. However, given their size, they would continue to have a considerable impact upon the landscape beyond this core area. Based upon the photomontages and wireframes, and assuming a medium landscape sensitivity, I consider that the effect would range between major and major/moderate up to a radius of 4km. Within this 'ring of influence', the result would be a changed landscape, with the open farmland character modified by the presence of the turbines. With greater distances, the turbines would eventually become minor features in the landscape.

18. The turbines would affect the setting of Withernwick because, in certain views, they would be seen as a backcloth to the village. In terms of public land, this would be most apparent in views from the Beverley Road to the west of the village.

19. The turbines would also affect indirectly other landscape types within Holderness. In particular, there would be a significant effect on parts of the Coastal Farmland Landscape Character Type (20b). I was able to confirm this from Viewpoints 3 (Great Cowden) and 6 (Mappleton Sands car park). A considerable stretch of this zone would be within 4km of the turbines. Given the greater distances, however, I do not think that there would be any significant effect upon the character of Types 17 and 18, 'Holderness Farmed Urban Fringe' and 'Holderness Low Lying Drained Farmland'.

(ii) Visual Impact

20. There is a range of 'potential receptors' whose visual amenity could be affected to varying degrees by the proposed development; they include residents, motorists and recreational users. Of these I shall deal mainly with the first group, i.e. the residents and with the dwellings in which they live and normally spend the bulk of their time. While I do not discount views from other parts of these properties, including their gardens, I attach particular importance to those obtainable from principal living rooms because of their generally high levels of use in daylight hours.

21. The potential effects have been analysed in detail in the appellant's Residential Receptors Survey, the accuracy of which has not been challenged by the Council. The results complement the Viewpoint Analysis.

22. According to the Survey, there are slightly fewer than 400 dwellings within a 3km radius from the outer turbines. However, there would be considerable differences in the extent to which these properties would be affected by the proposed turbines. Much would depend upon their orientation, the location of their main windows and the presence or absence of screening vegetation or

intervening buildings. In assessing the magnitude of change for any individual property, or group of properties, the Survey takes account of such factors. In my site inspection I was able to view a range of potential effects.

23. Withernwick is the closest settlement and it contains many of the properties that would be most affected by the proposed development and where the magnitude of effect would be major or major/moderate, and significant. Those dwellings are primarily those on the eastern fringe of the village and they include some houses where there would be direct open views of the turbines. In most of these cases, tree cover would provide at least partial screening. That would be the case at Homer House, a dwelling owned by one of the appeal site landowners and the closest property to the appeal site; this has well established tree planting along its garden boundaries.

24. Other properties within a number of nearby villages would also be significantly affected. These would include some on the southern edges of Great Hatfield, and Mappleton and along the Main Road, Great Cowden. Also, there are scattered farmsteads and associated dwellings where major effects could be anticipated.

25. Regarding transport routes, the turbines would be visible from parts of both the B1242 coastal road and the local road system. Over short sections of these routes, the effects would be significant. Some recreational users would also have views of the turbines. Thus, there would be views from parts of the Trans Pennine/Hornsea Rail Trail (although much of this former railway corridor is lined with vegetation), from some local rights of way, and possibly from parts of some of the large coastal caravan sites.

(iii) Cumulative Impact

26. The Council's second reason for refusal refers to the cumulative industrialisation that it states would arise because of the proximity of the site to the approved Whitehill Gas Storage Facility (GSF). The Facility's main characteristics are listed in the Statement of Common Ground. While the gas storage and pipelines would be underground, on the surface there would be a series of buildings and compounds to accommodate the various structures, and equipment associated with the storage process. This would be an extensive development, but according to the proposal's ES, its impact in the local landscape would be mitigated through the screening effect of existing woodland and additional planting, coupled with the re-profiling of the site and the surrounding landform.

27. The GSF would be located due east of the proposed wind farm, parts of it, including the Well Head Compound, to the east of the B1242. However, the Gas Processing Plant (GPP) would be less than 1km from the nearest turbine. This proposal has been taken into account in the three cumulative visualisations prepared by the appellant.

28. Those visualisations show the turbines in juxtaposition with a low profile development that would be substantially screened by the existing tree cover. They ignore the proposed structural planting, the establishment of which would further reduce the impact of the GPP in the landscape. Nevertheless, the GPP would involve sizeable structures that would have a wide horizontal spread. Depending upon the phasing of the two schemes, this other development

would add to the impact of the proposed wind farm in the former's early years, before the structural planting could form an effective screen. Seen from the appellant's Viewpoints 2, 16 and 17, it would reinforce an effect that would be significant in respect of the turbines alone.

29. There would also be some cumulative effect in terms of construction impacts. The GSF is a complex facility that in total would take some 6 years to build. The GPP would itself take 2 years. By contrast, construction of the wind farm would take about six months. While, in the latter case, the lorry movements and construction on site would make themselves felt in the local area, it seems to me that they would be relatively minor, in terms of scale and duration, compared to the works for the GSF.

30. In particular, the GSF would require the construction of a temporary haul route connecting to Great Hatfield Road on the northern edge of Withernwick. By contrast, the wind farm traffic would gain site access from Cowden Lane, well away from that village. The main novel, but temporary, impacts would be in respect of the delivery of turbine blades and other substantial components, and the tall cranes that are needed for the erection of the turbines.

31. I have also looked at the potential cumulative effects of this proposed wind farm in conjunction with other operational, consented and proposed wind farms, based upon a study area extending up to a 30km radius of the appeal site. While no objection was put forward by the Council on these grounds, the growing incidence of this infrastructure is a concern expressed in some of the other representations received. At the Inquiry, I heard evidence about actual and proposed wind farm developments, as well as proposed biomass plants.

32. The appellant's wireframes indicate that, from certain points in the landscape, the Withernwick turbines could theoretically be seen in conjunction with other wind farms. However, given the distances involved, the closest consented wind farm being 11km away, those other turbine groups would appear extremely small; in practice, they would be unlikely to be seen from most viewpoints because of intervening tree cover or other features.

33. In terms of the potential cumulative effects of wind turbines and biomass plants, these structures would be likely to be widely spread and any impacts would be chiefly in respect of the impression gained from travelling across the landscape. However, I accept that there might be places where the two types of plant would be seen in the same general view, as with Mrs Cain's property at Tunsterne.

Findings in respect of landscape and visual impacts

34. In terms of the intrinsic character of the landscape, the proposed development would lead to significant changes within a radius of 4km from the development. This would affect parts of the Open and Coastal Farmland Landscape Types. Nevertheless, this is an open, generally large scale landscape that is often windswept. While I find the immediately affected landscape to be pleasant, it has no statutory designation and I would describe it as ordinary and typical of the Area 19d Landscape Type.

35. From the evidence to the Inquiry and from what I saw on site, I consider that this area has the capacity in landscape character terms to accommodate the

proposed wind farm. While, detailed assessment is clearly required for individual proposals, I note that a number of wind farms have already been approved within the Type 19 area.

36. However, in policy terms, there would be a conflict with Policy SP4 of the Joint Structure Plan for Kingston upon Hull and the East Riding of Yorkshire (2005). In that the development would bring about significant change, rather than protecting it (which implies lack of change), I think that it would be incompatible with maintaining (or enhancing) the distinctive character of the Holderness area. There is also a potential conflict with the aims of Policy ENV10 of the Yorkshire and Humber Plan Regional Spatial Strategy to 2026 which has similar aims in respect of the east coast and the Humber.

37. Regarding the setting of Withernwick, Structure Plan Policy SP1 addresses the character and distinctiveness of settlements. Its supporting Table 9.1 refers to the contribution that edges and setting can make to that character. In this case, while the turbines would add a distinctive skyline feature in the setting to Withernwick seen from the west, this would amount to a change that would not be adverse, in my view. Policy SP1 would not be infringed. Related to that, I think that the development would be compliant with saved policy Env30 of the Holderness District Wide Local Plan 1999.

38. Turning to the visual impacts I find that the development would have a significant effect upon the outlook, and hence the living conditions, of a sizeable number of residents. I am satisfied that the properties affected in this way are broadly those so identified in the appellant's Residential Receptors Survey. Within this range of properties there would still be much variation in the degree of effect, with views of the turbines being restricted in many cases by building orientation and intervening planting or structures.

39. A relatively small number of dwellings would have direct, open views from principal living rooms. Much would depend upon the distance. In the case of Withernwick, the place where the largest number of such properties would be concentrated, the separation would be generally greater than 1km. The photomontages and wire frames of Viewpoint 2 provide an approximation of the likely general scale of impact. From this, it is clear to me that the turbines would occupy a significant proportion of the horizontal and vertical view and that the effect upon outlook would be substantial. However, those most affected properties would be outside the core area of influence identified for landscape purposes and there would not be the scale of impact that would be potentially present within that zone.

40. In deriving my conclusions on visual impact, I take into account the fact that residents (as well as visitors) would also, of course, experience the turbines as they moved around in the area, whether as pedestrians, cyclists, motorists or as horseriders. Again, the extent of any such views would vary from nil, for example within many parts of Withernwick, where the built up frontages would provide a screen, to open, for example, from parts of East Lambwath Road and from parts of the local highway network.

41. There is a range of opinion about the aesthetics of wind farms and I do not think that all those affected would automatically regard any change of view as adverse. One factor influencing attitudes is the extent to which wind turbines

are seen to be appropriate in windy landscapes, as a necessary means of countering climate change. At the same time, I consider it to be a reasonable assumption that many of those who would be most affected by this proposal, especially those with direct views from their principal living rooms, would find the presence of turbines in such views to be adverse.

42. My conclusion on visual impact is that, because of the overall effect upon outlook, taking into account the totality of the views that would be affected, that impact would be adverse and contrary to Policy U19(5) of the Holderness District Wide Local Plan (1999).

43. Regarding actual or potential cumulative impacts, I have already found that the wind farm would have a significant impact within a 4km radius and that the GSF would add to that (para.28). However, I have also concluded that the turbines could be accommodated in landscape character terms (para.35). I do not think that the combined effect of the two proposals would change the position, certainly to the point where the wind farm would become an adverse feature in the landscape. Here I take into account the likely limited impact of the GSF which has been located and designed so as to minimise its effect upon the local landscape.

44. To the extent that the developments could be seen together in views from dwellings, there would be some reinforcement of the impact of the turbines in visual terms (para.42).

45. I have also considered the potential cumulative impacts during the construction phase were the works to be happening at the same time. I find that, while the construction of the wind farm would itself have a significant effect upon the area, those works would be of a limited duration and controllable by condition. Were they to occur during the construction of the GSF, they would be distinguishable from those works primarily because of the tall cranes, but that would be countered by the relatively short duration of the works.

46. In terms of the relationship with other wind farms, my conclusion is that there would be no significant cumulative impact to add to the local impacts of the Withernwick scheme seen in isolation. While the Council's Landscape Character Assessment indicates that the Type 19 area 'would be sensitive to the cumulative effects of wind farm development', I do not think that would apply in the circumstances of this case. Regarding biomass plants, they would tend to have a more local effect, although I accept that they might contribute to a perceived cumulative impact from the point of view of those travelling across this landscape. I also accept that there is a perception on the part of at least some people that the local area is becoming industrialised and that it is losing its rural identity.

(iv) Benefits and compliance with national policy

47. The wind farm would have a capacity of between 18 and 22.5MW, depending upon whether 2MW or 2.5MW turbines were chosen. According to the ES, this would provide sufficient electricity to power between 10,000 and 12,500 homes for each year of operation. Also, there would be significant savings in terms of carbon dioxide (CO_2) emissions, possibly of the order of one million tonnes over the 25 year operational life of the development. There would also be

significant savings in terms of sulphur dioxide (SO_2) and nitrogen oxide (NO_x) emissions.

48. The Statement of Common Ground includes a summary of UK national energy policy. This details the UK's goals in cutting CO_2 emissions and it sets out the proportions of total electricity supply that are to be met by renewable forms of energy by certain key dates. Under the Government's current strategy, 20% is to be provided by renewables by 2020. However, based upon current European Union targets for overall energy, the UK contribution would need to be raised still higher. Up to 30-35% of electricity will need to come from renewable sources by 2020, the current (2008) figure being less than 5%.

49. In terms of the link with planning, the 'Renewables Statement of Need' (forming Annex D to the 2006 Energy Review *The Energy Challenge*), refers to the crucial national benefits of new renewable projects (my emphasis). These wider benefits are seen as significant to society and the economy as a whole and they are a material consideration to be given significant weight in decision making. The Statement of Need reinforces the message of PPS22 *Renewable Energy* (Key Principle (iv)) about the significant weight that should be attached to the wider environmental and economic benefits of renewable energy projects.

50. The proposed development would clearly be in line with Government policies to tackle climate change as well as to foster energy security. It would contribute to the achievement of both national and international targets regarding the supply of renewable energy. I turn now to the question of regional targets, as well as targets at more local levels.

Regional and local targets

51. Policy ENV5 of the RSS sets out regional targets for grid-connected renewable energy capacity of 708MW for 2010 and 1862MW for 2020. These have been disaggregated to show indicative targets for sub regions and the individual districts within those areas. Thus, for the East Riding District, they are 41MW and 148MW respectively.

52. From the evidence, it appears likely that the 2010 indicative target for ERYC will be met. At the time of the Inquiry, the Lisset wind farm was about to become operational and this will make up much of the current shortfall against that district target. In terms of the attainment of the regional target to 2010, there are grounds for optimism in respect of onshore generation (EK7); however for both 2010 and 2021 much will depend on the successful introduction of off shore capacity which makes up about one third of each target.

53. To my mind, there remains considerable uncertainty regarding the attainment of the regional level targets which are an important component and building block in the attainment of the national ones. But, while the regional and local targets provide a necessary framework and a sense of direction, they are of limited relevance in this case. It is clear from PPS22 that the two fold role of regional targets is to shape policy and in monitoring and reporting. But the PPS goes on to say that the attainment of a target 'should not be used in itself as a reason for refusing planning permission for further renewable energy projects'. The most recent advice is that set out in *Planning and Climate*

Change, the Supplement to PPS1. This states that targets 'should not be applied directly to individual planning applications'.

Other Matters

54. A range of other matters have been raised by Withernwick Parish Council, by other parish councils and groups and by individual residents. Of these, I have already addressed matters of landscape and visual impact. In respect of noise, this is an inherently quiet area with a low noise background. Wind turbines are not inaudible but, from the appellant's evidence, which is not disputed by the Council, I am satisfied that noise levels at the closest residential properties could be maintained within the limits specified in ETSU-R-97. PPS22 states that this report should be used to assess and rate noise from wind energy development. I address operational, as well as construction, noise further in the section on conditions.

55. In terms of health impacts, the Companion Guide to PPS22 *Planning for Renewable Energy* states that there is no evidence that ground transmitted low frequency noise from wind farms is at a sufficient level to be harmful to human health (infrasound).

56. I believe that the development would adequately safeguard wildlife interests. No areas designated for their nature conservation value would be affected. The ES indicates that there would be some potential displacement of bird populations during the construction phase although most species would return to the site in future years. The wind farm proposals are accompanied by a habitat enhancement plan which, in my view, would compensate for the direct loss of habitat that the development would entail.

57. I am satisfied that the transportation effects of the development have been satisfactorily addressed and that no unacceptable impacts would arise. Overwhelmingly those impacts would be experienced during the construction and decommissioning phases. However, although these would entail many vehicle movements, these would be over a limited period and I am satisfied that, through an appropriate choice of the routes available and the other proposed measures, local disturbance could be minimised.

58. I find no evidence that tourism interests would be significantly affected by the development. Among those interests, there are several caravan sites along the coastal strip and there might be views of the wind farm from some of these. However, given the distances, I think it unlikely that the presence of this wind farm would affect bookings at such developments. It is possible that those offering bed and breakfast and other accommodation would benefit during the construction phase for the wind farm. From the evidence of the ES, cultural heritage interests would not be significantly affected. I do not dispute that assessment.

59. I find no evidence that public safety interests would be significantly affected. While a gas pipeline would run underground across the site, sufficient separation would be provided between it and the turbines to comply with the guidelines set by the United Kingdom Onshore Pipeline Operators Association[2]. Overall, there is nothing to indicate that there would be a material

[2] Proof of Nicholas Edwards, Appendix 2

exacerbation of any risk associated with the Whitehill Gas Storage Facility. Given the distances to the nearest dwellings, shadow flicker is unlikely to be a significant issue. I discuss below a proposed precautionary condition.

60. Concern has been raised locally about possible interference with telecommunications and public broadcast services. The ES indicates that there would be no issues in connection with the first and that there would be technical means for dealing with any problems concerning television reception; provision for remedial action is contained within the unilateral undertaking. The indication from the BBC Windfarms Tool is that a number of homes could be affected. Work undertaken for the Inquiry indicates that there are no homes affected for which there is no alternative service and 713 dwellings for which there is an alternative service.

Mitigation

61. I am satisfied that the planning and design process that has resulted in the present proposal has involved an iterative approach aimed at minimising adverse environmental effects. As is described in the ES, the wind farm design has undergone several main changes, that have reduced the number of turbines from 12 to 10 and then 9, with the aim of reducing impact on Withernwick. As recorded earlier, the resubmission incorporates other changes including a reduction in the maximum height of the turbines (para.5). Further mitigation would be achieved through the proposed conditions and through the unilateral undertaking.

Overall Conclusion

62. This proposed development would confer substantial benefits in terms of reduced CO_2 and other emissions and it would accord with the aims of national and international policies aimed at addressing climate change. It would add to renewable energy generation capacity and it would be in line with the Government's aim of safeguarding the reliability of our energy supplies. These arguments are set out more fully above (paras 47-50).

63. These wider national and international benefits need to be weighed against any adverse impacts, in this case, primarily landscape and visual impacts. In both cases, the proposals would result in significant change. My conclusions are set out in paragraphs 34-46. Briefly, they are that: this area could satisfactorily accommodate the wind farm in landscape character terms, although there would be a policy conflict in respect of two policies in the development plan; the setting to Withernwick would be changed, but not adversely; there would be an adverse visual impact, primarily because of the impact on residential properties and; in terms of cumulative impacts there would be some reinforcement of those landscape and visual impacts.

64. The construction process for the wind farm would itself have a significant impact that would add to that of the GSF it the two projects were being developed at the same time. Against this, the construction of the wind farm would be of relatively short duration.

65. While I have found some adverse effects, these need to be viewed in the context of a type of development that would have a major impact wherever it were located. This proposed wind farm would be located in an essentially large

scale open landscape that in general terms is accommodating to wind farm developments, as well as being a favourable place to exploit the energy of the wind. While the cumulative effects of wind farms might be an issue in other circumstances, I have not found those to be a particular concern here. Moreover, although it may be seen to be quite long term, this would be a temporary development with a 25 year life. At the end of that period the turbines would be decommissioned and the site restored to its former condition.

66. On targets, I note the progress that has been made within the East Riding District and within the Region generally. However, in reaching my decision, I give this factor little weight, given the clear statements of PPS22 and the Supplement to PPS1 on this matter (para.53).

67. Government policy is clear on urgency of action to increase our renewable energy capacity. The Supplement to PPS1 *Planning and Climate Change* states that it is the Government's belief that 'climate change is the greatest long term challenge facing the world today' and that 'addressing climate change is therefore the Government's principal concern for sustainable development'. The *Renewables Statement of Need* is another important indicator of priorities (para.49). My **conclusion**, on balance, is that the substantial benefits of this development to society, to the economy and to the wider environment outweigh the adverse effects locally and that this development is acceptable with conditions.

68. I have taken into account all of the other matters raised. They include the submissions that were made regarding potential breaches of the Human Rights Act. The concerns raised relate principally to the visual impact of the turbines, the generation of noise and the potential effect upon health and well being. Based upon the specialist evidence which has not been challenged by the Council, I am satisfied that the turbines would be able to operate within the noise guidelines set by ETSU-R-97 and endorsed by PPS22. The noise conditions provide the necessary safeguard. From the ES, I am satisfied that shadow flicker would not be a problem. I refer to the issue of low frequency noise in paragraph 55.

69. To the extent that, under Article 8 of the European Convention on Human Rights (ECHR), the development might be said to interfere with the peaceful enjoyment of the property of those who have made submissions, that consideration must be balanced against the rights and freedoms of others. In the light of my conclusions, I consider that any interference would not be disproportionate.

Conditions

70. The conditions that I shall attach are set out in Annex 2. They are based on a schedule discussed at the Inquiry in respect of which there was already substantial agreement between the parties (EK2).

71. Condition 1 sets a time limit for the commencement of development. It departs from the now standard 3 year period to specify 5 years which was the former standard period. However, given that this development would involve negotiations and action regarding military radar, which can be protracted, I consider that 5 years is appropriate. No.2 specifies the lifespan of the wind

farm at the end of which decommissioning and site restoration is required. It would be in the interests of safety and visual amenity.

72. Conditions 3-9 cover the details of decommissioning, action if individual turbines cease to operate, the design, appearance, colour and detailed siting of the turbines and any external transformer units, and details of the control building and substation compound, and of the temporary site compound. They are needed to secure a satisfactory appearance for the development, to ensure landscape and environmental protection and in the interests of safety. Condition 13 indicates that the turbines should not be illuminated and it also covers various aspects of illumination on the site. It is justified on visual impact grounds.

73. Conditions 10 and 11 cover drainage and vehicle washing. They are needed in the first case to protect groundwater resources and to prevent pollution and, in the latter, in the interests of road safety. No.12 requires a traffic management plan; this is justified on highway safety and management grounds. Condition 26 concerns the works needed to upgrade Cowden Lane [/Withernwick Lane] and its junction with the B1242. It is needed to secure an adequate, safe access route to the appeal site.

74. No.14 seeks to safeguard potential features of archaeological importance. It is justified for that reason. No.15 is for a Construction Method Statement and it is needed in the interests of environmental protection and to minimise significant environmental effects. Conditions 16-19 address various ecological matters. All are necessary in the interests of nature conservation generally. No.20 is in respect of aviation; it covers radar integration and it is the basis upon which Defence Estates was prepared to withdraw its former objection.

75. Conditions 21-24 concern noise. The first addresses construction noise. It is needed to minimise disturbance to local residents. Nos 22-24 deal with noise ratings, complaints procedure and monitoring; all refer to Guidance Notes derived from ETSU-R-97 which are appended at Schedule 1. The conditions have been framed within the guidance of that document and they are needed in the interests of residential amenity.

76. I agree with the appellant that the fixed part of the day time noise limit should be set at 40dB(A), rather than at a lower level in the range 35-40dB(A); this limit is apparently supported by the Council. This would appear to be a level that the development would be able to comply with at all wind speeds, even allowing for increased wind shear. At higher wind speeds, turbine noise can be expected to be below the noise background.

77. Condition 25 provides for a report on the potential for shadow flicker and on mitigation to counter it if it is likely to be a problem. From the ES, this seems unlikely given the distances between homes and the closest turbines. However, more detailed study might show it to be a problem at the closest properties and the proposed condition would provide the necessary safeguards to amenity.

The Unilateral Undertaking

78. In the correspondence which I referred to in paragraph 10, the Council expressed some reservations regarding who precisely would be bound by the

undertaking and, relating to that, the ability of the Council to enforce the obligations made in the event of a breach. In the appellant's response, attention is drawn to the various responsibilities and the point is made that the Council would be able to enforce the listed obligations against Energie Kontor as a covenantor and also as the successor in title to the freehold owners. From my reading of the undertaking, I consider that the responsibilities are clear. Moreover, in the event of a breach, I see no reason to believe that the Council would not be able to establish whether another party had carried out the works.

79. However, while I am satisfied that the undertaking would be legally enforceable, to my mind, I find that not all of it is relevant to my decision. Its six provisions relate to:

(1) Interference with domestic television reception;

(2) The setting up of a Community Fund;

(3) Tree planting in respect of the HEYwoods Initiative;

(4) Decommissioning;

(5) Landscaping Scheme (in respect of Homer House); and

(6) Community Liaison.

80. Of these, I find that only (1) and (4) fully meet the tests of ODPM Circular 05/2005, in particular, that they are necessary to make the proposed development acceptable in planning terms. Regarding (1) the undertaking makes provision for baseline and operational surveys of television reception and remedial action if claims of signal impairment are found to be justified. From the consultations carried out, it would appear that a number of homes could be affected making this obligation necessary, in my view. The fourth obligation on decommissioning would complement Conditions 2 and 3 through establishing the financial means to carry out the work. Again, this provision is a necessary accompaniment to the permission I am granting.

81. The other obligations do not meet the tests. While I accept that the tree planting under (3) could be used to help screen affected properties, and might indeed be desirable in some instances, it does not meet the Circular's test of necessity. I accept that the others too have merits, or potential merits, but, again, they do not meet that same test. In reaching my decision, I attach no weight to provisions (2), (3), (5) and (6). I recognise that in the case of (2) I reach a different view to that of the Inspector who conducted the Hall Farm, Routh Inquiry.

Chris Gossop

Inspector

Annex 1 – Appearances and Documents

APPEARANCES

FOR THE LOCAL PLANNING AUTHORITY:

Megan Thomas	Barrister, 6 Pump Court, Temple, London EC4Y 7AR
She called:	
Philip Crichton BA DipLA CMLI	Associate, Scott Wilson, WestOne, Wellington Street, Leeds LS1 1BA
Andrew Wainwright BA MRTPI	Group Manager, Strategic Development Services, East Riding of Yorkshire Council

FOR THE APPELLANT:

David R Hardy LLB BCL (Oxon)	Partner, Cobbetts LLP, 1 Whitehall Riverside, Leeds LS1 4BN
He called:	
Kenneth Halliday BSc MPhil, MLI	Director, Stephenson Halliday, 30 Lowther Street, Kendal, Cumbria LA9 4DH
Nicholas Edwards BSc MRTPI	Principal Planner, Stephenson Halliday, 30 Lowther Street, Kendal, Cumbria LA9 4DH
Justin Adcock	Associate Engineer, Hoare Lee & Partners, Consulting Engineers (conditions session)

INTERESTED PERSONS:

In opposition:

Cllr Matthew Grove, *representing Withernwick Parish Council*	Beck House, East Lambwath Road, Withernwick HU11 ATL
Mrs Jacqueline Brayshaw *Chair of Great Hatfield Parish Council*	Wheatcroft, Main Street, Great Hatfield HU11 4US
She also represented Mrs Sandra Benstead of Greenacres, Aldbrough Road, HU11 4QT	
Mrs Anne Wood	Linton House, East Lambwath Road, Withernwick HU11 4TL
Mrs Joy Cain	Moat Farm, Tunsterne HU11 4RD

In support:

Richard Claxton	6 Rowley Mews, Pocklington YO42 2PP
Paul Hanson	38 Burton Road, Hornsea HU11 1QY

DOCUMENTS

East Riding of Yorkshire Council (ERYC)

1 Letter of notification and addressees
2 Bundle of appeal decisions
3 Revision to Viewpoint 1 Photomontage
4 Extract from T&CP (Environmental Impact Etc.) Regulations 1999
5 E mail exchange between Philip Crichton and Josh Fothergill of IEMA
6 Wind Farm Proposals in East Yorkshire as at 27 February 2009
7 Other proposals in East Yorkshire
8 Viewpoint Significance Plan
9 Site visit schedule

Energie Kontor (UK) limited (EK)

1 Draft of Unilateral Undertaking
2 Schedule of Draft Conditions
3 Yorkshire and Humber Assembly – Installed Renewable Energy Figures
4 AOD base heights
5 Offshore Wind Farms
6 Environmental Statement Review (IEMA)
7 Annual Monitoring Statement 2008 - Yorkshire and Humber Assembly

Third party submissions (Others)

1 Statement of Anne Wood
2 Photos put in by Anne Wood
3 Statement of Jacqueline Brayshaw
4 Beverley to Spurn Head – map put in by Mrs Brayshaw
5 Statement by Sandra Benstead

Annex 2 Conditions

1. The development hereby permitted shall be commenced on or before the expiration of five years from the date of this planning permission.

2. This permission shall endure for a period of 25 years from the date when electricity is first exported from the wind turbines to the electricity distribution network ("First Export Date"). Written confirmation of the First Export Date shall be provided to the Local Planning Authority within 1 month of the First Export Date.

3. Unless otherwise agreed with the Local Planning Authority, not later than 12 months before the end of this permission, a decommissioning, site restoration scheme shall be submitted for the written approval of the Local Planning Authority such scheme to include the management and timing of any works and a traffic management plan to address likely traffic impact issues during the decommissioning period and the approved scheme shall be fully implemented within 24 months of the expiry of this permission.

4. If any turbine ceases to operate for a continuous period of 12 months (unless such cessation is due to the turbine being under repair or replacement) then, unless otherwise approved in writing by the Local Planning Authority, a scheme for the decommissioning and removal of that turbine and any ancillary equipment and structures relating solely to that turbine, shall be submitted to and approved in writing by the Planning Authority within 3 months of the cessation. The approved scheme shall be implemented within 12 months of the date of its approval by the Local Planning Authority.

5. Prior to the erection of the wind turbines and installation of any transformer units, details of the dimensions and appearance of the turbines and the transformer units shall be submitted to and approved in writing by the Local Planning Authority. For the avoidance of doubt, unless otherwise agreed in writing with the Local Planning Authority, the turbine towers shall be of a solid tapered or cylindrical appearance with three-bladed rotors. The turbines and transformer units shall be erected in accordance with the approved details. If the turbine(s) or ancillary equipment fail and a direct replacement cannot reasonably be obtained, an appropriate alternative replacement may be erected in accordance with details approved by the Local Planning Authority.

6. Unless otherwise approved in writing with the Local Planning Authority, the turbines shall be finished in a pale grey semi-matt finish. Details of the colour of the turbine towers and the turbine blades shall be approved in writing by the Local Planning Authority prior to the erection or replacement of the wind turbines. No advertisements other than safety or information notices shall be displayed on the turbine tower and the turbine blades shall all rotate in the same direction.

7. The turbines shall be erected at the following coordinates:

Turbine 1	521279	441219
Turbine 2	521368	440989
Turbine 3	521352	440696
Turbine 4	521415	440442
Turbine 5	521066	440856
Turbine 6	520753	440852
Turbine 7	520767	440612

Turbine 8	521014	440544
Turbine 9	521015	440286

The turbines shall be erected at these co-ordinates unless agreed in writing by the Local Planning Authority and any variation shall be a maximum of 20 metres for any turbine in any direction. A plan showing the position of the turbines as built shall be submitted to the Local Planning Authority within one month of the First Export Date.

8. Prior to the commencement of development, plans at a scale of 1:500 or other suitable scale showing the location of the temporary site compound and/or any other compounds required in connection with the construction of the development shall be submitted to the Local Planning Authority for approval. Each plan shall indicate the location of any buildings, car parking, and boundary fencing and shall describe the surfacing of each site compound and the means of drainage and dust suppression. Any fuel, oil, lubricant, paint or solvent stored within a compound shall be contained within bunds or double skin tanks, which must be 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 and shall be removed and the land reinstated to its former profile and condition no later than 9 months after the First Export Date.

9. Prior to construction of the control building and substation compound, details of the dimensions, appearance and external finishes of the building, the fencing and surface finish of the substation compound shall be submitted to and approved in writing by the Local Planning Authority and thereafter implemented in accordance with the approved details.

10. Prior to the commencement of development, details of the means of drainage from all hard surfaces and structures within the site including access roads to the local highway network shall be submitted for the written approval of the Local Planning Authority and thereafter implemented in accordance with the approved details. For the purposes of this condition, “hard surfaces” includes access tracks within the site, the substation compound, temporary construction and laydown areas, turbine pads and crane pads. The details to be submitted shall indicate the means of protecting groundwater, including private water supplies and diverting surface water run off.

11. No development shall commence until details of vehicle wheel and chassis wash facility, which operates on a closed cycle, has been submitted to and approved by the Local Planning Authority. The approved facility shall be used at all times throughout the construction period.

12. Prior to the commencement of development, a Traffic Management Plan (TMP) addressing likely traffic impacts during the construction period shall be submitted to the Local Planning Authority for approval and thereafter implemented in accordance with the approved TMP. The TMP will include phasing of the construction of any accesses, details of routes to be used by construction traffic, times of delivery of turbines blades, nacelles and towers, proposals for the movement of street furniture required to accommodate construction vehicles and any on-street waiting restrictions required.

13. The turbines shall not be illuminated and there shall be no permanent illumination on the site other than lighting required during the construction period, during planned or unplanned maintenance or emergency lighting, and a movement sensor-operated external door light for the substation building door to allow safe access.

14. Prior to the commencement of development, a scheme for the identification, preservation and recording of archaeological remains during the course of construction shall be submitted to and approved in writing by the Local Planning Authority and the scheme shall be implemented in accordance with the approved details subject to any variations agreed in writing by the Local Planning Authority.

15. Prior to to the commencement of development a Construction Method Statement ("the CMS") shall be submitted to and approved in writing by the Local Planning Authority. The approved CMS shall thereafter be implemented in accordance with the approved details. The CMS shall include the following:
- Timing of works
- Fuel and chemical storage measures to ensure any fuel or chemicals from plant do not cause pollution
- Identification of all waste streams caused by the construction
- Details of emergency procedures/pollution response plans
- Track construction: including the laying of underground cables alongside tracks, materials proposed and track reinstatement
- Watercourse marking: marking off a buffer zone between the edge of watercourses and any proposed works
- Working practices for protecting nearby residential dwellings including measures to control noise and vibration arising from on-site activities

Ecology

16. Unless otherwise agreed in writing by the Local Planning Authority, no vegetation shall be removed from the appeal site during the construction period between 1 March and 30 July. Any request submitted to the Local Planning Authority for approval for the clearance of vegetation between 1 March and 30 July shall be accompanied by the results of a current field survey setting out the justification for the request.

17. Prior to the commencement of development, a programme for the carrying out of the ecological works shown on Figure C1 attached to these conditions as Schedule Two shall be submitted to and approved in writing by the Local Planning Authority. All ecological works shall be carried out in the location shown on Figure C1 unless otherwise agreed in writing with the Local Planning Authority. The programme shall thereafter be carried out in accordance with the approved details.

All approved timetables and methodologies shall thereafter be carried in accordance with the approved details.

18. Prior to the commencement of development, a detailed methodology for the undertaking of a badger sett survey prior to the commencement of construction shall be submitted to and approved in writing by the Local Planning Authority. The sett survey shall be undertaken by an independent ecologist appointed at the expense of the wind farm operator. The approved survey shall thereafter be carried out in accordance with the approved methodology.

19. Prior to the commencement of development, a detailed methodology for the undertaking of survey for great crested newts and water voles prior to the commencement of construction shall be submitted to and approved in writing by the Local Planning Authority. The survey shall thereafter .be carried out in accordance with the approved methodology.

Aviation

20. Prior to the commencement of development a scheme for the integration of the RAF Linton-on-Ouse radar into the United Kingdom Air Surveillance and Control System shall be submitted to and approved by the Local Planning Authority in consultation with the Ministry of Defence. All works shall be implemented in accordance with the approved scheme prior to the First Export Date.

Noise

21. Construction work shall only take place between the hours of 08:00 – 18:00 on Monday to Friday inclusive, 08:00 – 13:00 hours on Saturdays with no construction work on a Sunday or

Bank Holidays. Outwith these hours, works shall be limited to emergency works and dust suppression, unless otherwise approved in writing by the Local Planning Authority. The delivery of any construction materials or equipment, other than turbine blades, nacelles, and towers shall be restricted to the above hours, unless otherwise approved in writing by the Local Planning Authority having been given a minimum of two working days notice of the proposed delivery.

22. The rating level of noise immissions from the combined effects of the wind turbine generators when measured and calculated in accordance with the Guidance Notes annexed as Schedule One to these conditions shall not exceed the values set out below. Where there is more than one property at a location the noise limits apply to all properties at that location:

During the night hours of 23:00-07:00 hours (Maximum Noise Level $L_{A90, 10min}$ dB):

	Standardised Wind Speed at 10m height (m/s)											
Location	1	2	3	4	5	6	7	8	9	10	11	12
Whitefields Farm	43	43	43	43	43	43	43	45	48	51	54	55
Glebe Farm	43	43	43	43	43	43	43	45	48	51	54	55
Cowden Magna	43	43	43	43	43	43	43	45	49	52	54	56
New House	43	43	43	43	43	43	43	45	49	52	54	56
Green Acres	43	43	43	43	43	43	44	48	51	53	54	54
Homer House (involved property)	43	43	43	43	43	43	44	48	52	55	58	60
School House	43	43	43	43	43	43	44	48	52	55	58	60

At all other times (Maximum Noise Level $L_{A90, 10min}$ dB):

	Standardised Wind Speed at 10m height (m/s)											
Location	1	2	3	4	5	6	7	8	9	10	11	12
Whitefields Farm	40	40	40	40	40	40	43	46	49	51	54	56
Glebe Farm	40	40	40	40	40	40	43	46	49	51	54	56
Cowden Magna	40	40	40	40	40	40	42	44	47	50	53	55
New House	40	40	40	40	40	40	42	44	47	50	53	55
Green Acres	40	40	40	40	40	41	45	48	50	52	54	54
Homer House (involved property)	43	43	43	43	43	43	44	48	51	54	57	59
School House	40	40	40	40	40	41	44	48	51	54	57	59

23. In the event of a complaint being received in writing by the Local Planning Authority reasonably alleging breach of condition due to the wind turbines at a dwelling within two kilometres from the nearest wind turbine generator, the wind farm operator shall, at its expense, employ an independent consultant approved by the Local Planning Authority to measure and assess the level of noise immissions from the wind farm at the location of the complainant's property (or, in the event that access is not possible at the nearest publicly accessible location acceptable to the Local Planning Authority) following the procedures described in the Guidance Notes attached to these conditions in Schedule One. Where the complaint relates to a location that is not specified in the tables listed in condition 22, the relevant noise limits shall be those for the property listed in the tables in condition 22 which is nearest to that location. The results of the independent consultant's assessment shall be provided to the Local Planning Authority within three months of the date of notification of complaint unless otherwise agreed in writing with the Local Planning Authority.

24. Not later than the commencement of the operation of the wind farm, the wind speed and wind direction data shall be logged by a method to be approved by the Local Planning Authority and thereafter such data shall be logged continuously throughout the period of operation of the wind

farm and shall be retained for a period of not less than 12 months. This wind data shall include the arithmetic mean wind speed in metres per second (ms^{-1}) and the arithmetic mean wind direction in degrees from north for each 10 minute period synchronised with Greenwich Mean Time. Wind speeds at a standardised height of 10 m shall be derived either by direct measurement of 10 m height wind speeds or derived by calculation from measurements of wind speed at other heights or derived by calculation from the power output of the turbines by a method to be agreed by the Local Planning Authority prior to commencement of the development. The recorded data relating to a standardised height of 10 m above ground level and relating to any periods during which noise monitoring took place or any periods when there was a specific noise complaint shall be made available to the Local Planning Authority within 28 days of receipt in writing of a written request. A list of ten-minute periods during which any one or more of the turbines was not in normal operation shall be provided to the Local Planning Authority within 28 days of a written request. This information will only be required for periods during which noise monitoring was undertaken in accordance with conditions attached to this consent. "Normal operation" is defined in the Guidance Notes attached as Schedule One to these conditions.

25. Within three months of the First Export Date a report on the potential effects of shadow flicker of the development as constructed shall be submitted to the Local Planning Authority. The report shall detail the findings of a study undertaken by a suitably qualified person to assess the impact of shadow flicker generated by the development on residential and other properties within 820 metres from all turbines within an arc 130 degrees either side of north and shall identify mitigation measures required to reduce such effects and a timetable for carrying out the mitigation measures. Any mitigation measures identified in the report to prevent problems of shadow flicker shall be implemented in accordance with the approved timetable.

Highways

26. No development shall be commenced until details of the road safety plan, deflectograph and visual/video surveys of the length of unclassified road known as Cowden Lane [/Withernwick Lane] between the site access and the junction with the B1242 including 50m of the carriageway of the B1242 to the north and south of the junction with Cowden Lane [/Withernwick Lane], including a programme and methodology for improvements and repairs and the funding provision for improvements/repairs have been submitted to and approved in writing by the Local Planning Authority and during the construction period any improvement or repair works on the length of unclassified road known as Cowden Lane [/Withernwick Lane] between the site access and the junction with the B1242 including 50m of the carriageway of the B1242 to the north and south of the junction with Cowden Lane [/Withernwick Lane] shall be completed in accordance with the approved programme and methodology and the road safety plan shall be updated in consultation with the Local Planning Authority.

Schedule One: Guidance Notes For Noise

The following paragraphs are based upon steps 2-6 specified in Section 2 of the Supplementary Guidance Notes to the Planning Obligation contained within pages 102 et seq of "The Assessment and Rating of Noise from Wind Farms, ETSU-R-97" published by ETSU for the Department of Trade and Industry. It has been adapted in the light of experience of actual compliance measurements.

NOTE 1

Values of the $L_{A90,10min}$ noise statistic should be measured at the affected dwelling using a sound level meter of at least IEC 651 Type 1 quality (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 fitted with a ½" diameter microphone and 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). The microphone should be mounted on a tripod at 1.2 - 1.5 m above ground level, fitted with a two layer windshield or suitable equivalent according to current best-practice, and placed in the vicinity of, and external to, the dwelling. The intention is that, as far as possible, the measurements should be made in

"free-field" conditions. To achieve this, the microphone should be placed at least 3.5m away from the building facade or any reflecting surface except the ground.

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

The wind speed and wind direction and a note of all 10 minute periods when one or more of the turbines was not operating normally should be provided to the consultant to enable an analysis to take place.

"Normal operation" is defined as all times other than times when one or more wind turbines are rendered non-operational by loss of connection to the electricity grid network; maintenance or repair work; application of emergency trips or alarms; or having been switched off or disconnected for any reason.

In the interests of commercial confidentiality no information is required to be provided for individual turbines or on the nature of any abnormality or for any period during which noise monitoring is not taking place.

In the event that access is not possible for whatever reason to the complainant's property, then measurement and assessment of the level of noise immissions from the wind farm shall be made at the nearest publicly accessible location acceptable to the Local Planning Authority.

NOTE 2

The noise measurements should be made over a period of time sufficient to provide not less than 100 valid data points. Measurements should also be made over a sufficient period to provide valid data points throughout the range of wind speeds considered by the Local Planning Authority to be most critical. In determining the wind speeds most critical the Local Planning Authority shall have regard to those wind speeds which were most likely to have prevailed during times when the complainant alleges there was disturbance due to noise. Valid data points are those that remain after the following data have been excluded:

- All periods during rainfall.
- All periods during which the measurement position is not within 45 degrees of being downwind of any wind turbine.
- All periods during which turbine operation was not normal.

A least squares, "best fit" curve of a maximum 4^{th} order should be fitted to the data points.

The rating level shall be determined for each integer speed. If the rating level lies at or below those set out in condition 22, then no further action is necessary.

NOTE 3

Where, in the reasonable opinion of the Local Planning Authority, the noise immission contains a tonal component, the following rating procedure should be used. This is based on the repeated application of a tonal assessment methodology.

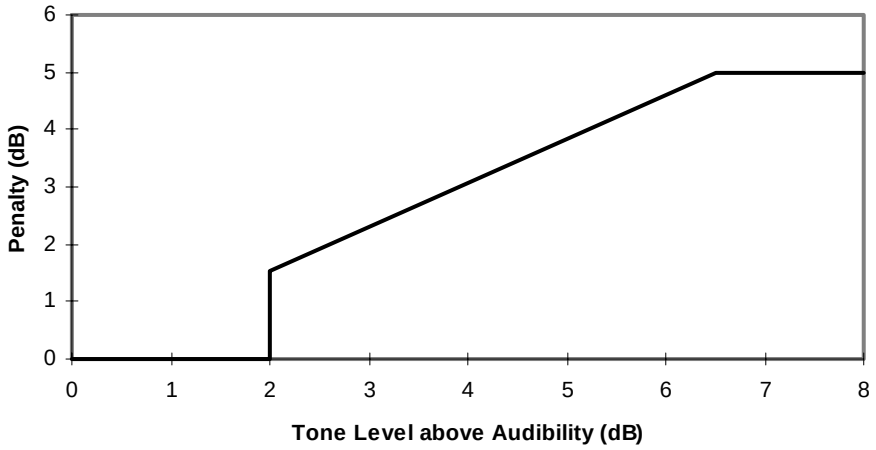
For each 10-minute interval for which $L_{A90,10min}$ data have been obtained, a tonal assessment is performed on noise immission during 2-minutes of the 10-minute period. The 2-minute periods should be regularly spaced at 10-minute intervals provided that uninterrupted clean data are obtained.

For each of the 2-minute samples the margin above or below the audibility criterion of the tone level difference, DL_{tm}, is calculated by comparison with the audibility criterion given in Section 2.1 on page 104 et seq of ETSU-R-97.

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.

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 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.

The rating level shall be determined for each integer wind speed. If the rating level lies at or below those set out in condition 22 then no further action is necessary.

NOTE 4

If the rating level is above the limit set out in condition 22, a correction for the influence of background noise should be made. 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 wind farm noise. If the rating level lies at or below those set out in condition 22 then no further action is necessary. If the rating level exceeds those set out in condition 22, then the development fails to comply with condition 22.