



Appeal Decision

Inquiry held on 9-12 March 2010, 16-17 March 2010, 22 April 2010, 30 April 2010 and 7 June 2010

Accompanied site visit made on 18 March 2010

by **J P Watson BSc MICE FCIHT MCI**

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

The Planning Inspectorate
4/11 Eagle Wing
Temple Quay House
2 The Square
Temple Quay
Bristol BS1 6PN

☎ 0117 372 6372
email: enquiries@pins.gsi.gov.uk

**Decision date:
6 July 2010**

Appeal Ref: APP/C3105/A/09/2116152

Willow Bank Farm, Fritwell Road, Fewcott, Bicester OX27 7NZ

- 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 Bolsterstone Innovative Energy (Ardley) Limited against the decision of Cherwell District Council.
- The application Ref 08/02495/F, dated 4 December 2008, was refused by notice dated 8 May 2009.
- The development proposed is the erection of 4 no. turbines and ancillary development including a new site entrance, access tracks, a control building with substation and underground cabling, and the erection of 1 no. anemometer monitoring mast and temporary construction compound.

Decision

1. I allow the appeal, and grant planning permission for 4 no. wind turbines and ancillary development including a new site entrance, access tracks, a control building with substation and underground cabling, and the erection of 1 no. anemometer monitoring mast and temporary construction compound at Willow Bank Farm, Fritwell Road, Fewcott, Bicester OX27 7NZ in accordance with the terms of the application, Ref 08/02495/F, dated 4 December 2008, subject to the conditions set out in the first annexe to this Appeal Decision.

Procedural Matters

2. It is clear from the application papers and other material before me that the turbines that form part of the appeal proposal would be wind turbines.
 3. An environmental statement was submitted by the appellant, in accordance with the Town and Country Planning (Environmental Impact Assessment) (England and Wales) Regulations 1999, as amended. The environmental statement had been the subject of a review, undertaken by consultants for the District Council, which concluded that the ES is comprehensive and was carried out in an appropriate way, and this adds to the weight I attribute to it. There were also before the Inquiry comments from statutory consultation bodies (that is, those required to be consulted by the terms of the Regulations) and representations and evidence (including that arising during questioning at the Inquiry) from other organisations and persons about the environmental statement and the likely environmental effects of the proposed development. I have taken all such information into account in reaching my decision.
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4. The planning application that led to this appeal was refused planning permission by Cherwell District Council for two reasons, the second of which related to access to the site by construction traffic. Subsequently, a statement of common ground was agreed by the appellant and the local highway authority, and at the Inquiry the District Council did not contest its second reason for refusal. I have regard to the highways statement of common ground in reaching my decision.
5. I also have regard to the statement of common ground that was agreed prior to the Inquiry by the Appellant and Oxfordshire County Council and to that which was agreed during the Inquiry by the District Council and the Appellant.
6. During the Inquiry, on 23 March 2010, Planning Policy Statement 5 *Planning For The Historic Environment* ("PPS5") and its accompanying *Practice Guide* were first published. Parties were given an opportunity to revisit their evidence in the light of that.
7. While my accompanied site visit was being made, tethered red blimps some 6 metres long and 2.5 metres in diameter were flown from the appeal site near the sites of the northernmost and southernmost proposed turbines, at a height broadly representative of the height of the tops of the proposed rotors. The positions of the blimps, and their heights, varied as the wind changed and I allow for that in reaching my conclusions. The blimps provided a useful indicator during the site visit and I am grateful to Ardley with Fewcott Parish Council for providing them. On the day of the accompanied site visit, deciduous trees were not in leaf.

Main issue

8. The main issue is whether the benefits of providing renewable energy associated with the appeal proposal would be outweighed by harm, if any, caused by the proposal to:
 - a) The settings of the adjacent heritage assets; and,
 - b) The character of the local landscape, and other visual effects; and,
 - c) Equestrian use of the bridleway that crosses the appeal site; and,
 - d) The living conditions of nearby residents by virtue of noise; and,
 - e) Aviation safety; and
 - f) Any other relevant interest.

Reasons

The Benefits Of Providing Renewable Energy Associated With The Appeal Proposal

Policy

9. There is a body of national energy policy, set out in the UK Renewable Energy Strategy (2009), the UK Low Carbon Transition Plan, the 2003 Energy White Paper and its 2006 review *The Energy Challenge*, and the 2007 Energy White Paper *Meeting the Energy Challenge*. Among other things, these documents

are clear that the Government attaches importance to onshore wind energy as a sustainable source of energy.

10. National planning policy follows the same direction. The supplement to Planning Policy Statement 1 *Planning and Climate Change* ("the PPS1 Supplement") sets out how planning should contribute to reducing emissions and stabilising climate change. Paragraph 20 of the PPS1 Supplement identifies particular actions that planning authorities should take.
11. Planning Policy Statement 22 *Renewable Energy* ("PPS22") provides, among other things, that the wider environmental and economic benefits of all proposals for renewable energy projects, whatever their scale, are material considerations that should be given significant weight in determining whether proposals should be granted planning permission. *Planning for Renewable Energy: A Companion Guide to PPS22* ("the PPS22 Companion") offers advice on implementing the policies set out in PPS22.
12. The Regional Spatial Strategy for the South East of England ("the RSS") was adopted in May 2009. The RSS establishes (in Policy NRM14) an increase of about 50% (from 140 MW to 209 MW) in the target installed land-based renewable energy provision in the Thames Valley and Surrey sub-region (which includes the appeal site) between 2010 and 2016, part of which the RSS indicates to be sourced from the wind. During the Inquiry (on 27 May 2010) the Secretary of State for Communities and Local Government drew attention (by letter to Council leaders) to the Government's intention to rapidly abolish Regional Strategies. This was drawn to parties' attention during the Inquiry. In view of the Secretary of State's letter, I attribute less weight to the RSS than I otherwise would. Nevertheless, until replaced or withdrawn it forms part of the development plan and is not without weight.
13. The Cherwell Local Plan was adopted in November 1996 and is part of the development plan. It includes no policy the subject of which is renewable energy, and it pre-dates current national and regional policy to which I have referred. The Non-Statutory Cherwell Local Plan was approved by that Council on 13 December 2004 but has not been statutorily adopted. Its policy EN21 says that proposals for renewable energy schemes will be permitted subject to various provisos. I attribute much less weight to the Non-Statutory Cherwell Local Plan than I would if it had been adopted (and its policies subsequently saved).
14. The District Council has received a report *Renewable Energy And Sustainable Construction Study*, dated September 2009 (called "the CAG report", after its authors) which is intended to assist policy formulation; but the CAG report is not planning policy and there was no emerging policy associated with it at the Inquiry.

Benefit

15. Turbines with an individual rating of between 2.5 MW (megawatts) and 2.0 MW are under consideration for the development, and 4 turbines are proposed. The performance data in the environmental statement were updated during the Inquiry on the basis of data published by the Department of Energy and Climate Change. The appellant's assessment assumes that the appeal installation would equal the average performance of wind turbines in the UK,

which were found to have generated in 2008 about 29.4% of the theoretical maximum output power. The environmental statement provides (in table 14.1) figures for the annual carbon dioxide emission reduction associated with the proposal. On the basis of 4 turbines of total installed capacity between 8 MW and 10 MW and a capacity factor of 29.4%, the evidence was that the annual carbon dioxide emission reduction associated with the appeal installation would be between 7,748 and 22,456 tonnes. These figures are derived from DECC statistics for 2008 and depend in part on the turbine individual rating and in part on the type of fossil fuel generating plant that would otherwise be used to generate the power sourced from the site; gas produces less carbon dioxide per unit of energy than does coal. The overall fossil fuel mix of the UK's generating capacity also includes oil. DECC has published "average" figures for the carbon dioxide production of the fossil fuelled generating plant mix throughout the country for the years 2008 and 2009. On the basis of the average generating mix in 2009, the annual carbon dioxide reduction associated with the appeal proposal would be 15,581 tonnes if turbines (operating with a 29.4% capacity factor) totalling 10 MW were installed at the site, or 12,465 tonnes if 8 MW were installed there.

16. Clearly, the actual energy output (and hence the saving in emitted carbon dioxide) from the site would depend not only on the installed capacity of the turbines, but also the amount of wind at the site.
17. No wind speed measurements from the site were brought to the Inquiry, but figure 4.4 of document CD18¹, which is derived from BERR data, shows the average wind speed at the appeal site to be in the range of between 6 and 6.5 metres per second. It is within that range of wind speeds that the South East Plan considers turbines to become viable, with technological advances and price support provided by the Renewables Obligation. It does not seem to me that the Government's intention to abolish Regional Spatial Strategies would alter that. And the evidence of CPRE is that the average wind speed for the kilometre square in which the appeal site lies is 6.4 metres per second at 45 metres above ground level.
18. CPRE also gave evidence that turbines operate elsewhere in southern England with lower average wind speeds than any party suggested to be found at the appeal site. At Reading, a turbine beside the M4 with a 70 metre rotor and a hub height of 85 metres has operated since 2005 with a capacity factor of 20% in conjunction with a wind speed of 5.9 metres per second; and two similarly sized turbines at Dagenham dating from 2004 exhibit a capacity factor of 21% in a wind speed of 6 metres per second. I am mindful that the South-East Plan takes the view that the technology is improving and it does not seem to me improbable that a similarly-sized turbine commissioned in 2010 and operated in a wind of average speed 6.4 metres per second would have a capacity factor of the same order as that claimed by the appellant.
19. I find that the claimed performance of the appeal installation, in terms of energy generation, appears feasible. I am in no doubt that the saved carbon dioxide emission attributable to the scheme would be substantial.

¹ CAG Consultants: Renewable Energy and Sustainable Construction Study: Final report for Cherwell District Council, September 2009

20. CPRE challenge the carbon savings claimed to be associated with this energy generation, on the basis that alternative carbon-free sources will come on line in future, and existing fuels are likely to become less carbon-intensive. I agree that such changes are possible. But the rate of such changes is not established; any such effect would only bear on the appeal scheme in so far as it occurs during the next 25 years; and it seems to me that, if the view was universal that changes in energy generation should wait for further improvements in technology, no change would ever be made.

Effect On The Setting Of Adjacent Heritage Assets

21. There is no unique method by which such effects may be categorised. The Environmental Statement establishes at its 9.2.7 the method it uses and that method is clear; it results in a range of four levels of significance, from "not significant" through "minor" and "moderate" to "major significance". The District Council provided findings that it said had been derived from that approach, but those were expressed as being "severe", "high-medium" or "medium" and it is apparent that a different process was at work there. Ardley with Fewcott Parish Council relied on the method set out in the Design Manual for Roads and Bridges ("the DMRB") which produces a classification ranking of 8 levels, from "neutral" to "very large"². Others relied on *ad hoc* expressions to describe effects without reference to any structured taxonomy. The District Council used a 6-level taxonomy that was explained in re-examination at the Inquiry³. In half of all the Council's assessments of effects on the historic environment, the Council finds a severe effect, which is the most harmful possible in the Council's scale; the implication is that no scheme could be more harmful to, for example, St Olave's Church than the appeal proposal but that is clearly not the case. If, for example, several turbines were proposed very much closer to the church than is actually the case, then the harm to the setting of the church would be greater by one or more orders of magnitude.
22. In considering the setting of a historical asset, I consider the setting to be the surroundings in which the asset is experienced.

Conservation Areas

23. The conservation areas nearest the appeal site are those at Fritwell, Fewcott and Ardley. No case was put that the appeal proposal would harm the setting of any other conservation area. The appeal site is not in a conservation area.
24. The setting of the **Fritwell conservation area** would be affected in that turbines would be visible from various places in and near the conservation area, rising above the roofline on the eastern side of the village. These turbines would not intervene in any important view into the village, but they would affect the setting of the East Street, Village Fields and Church areas. They would be an obvious modern intrusion on the skyline, harmful by virtue of their form, mobility and apparent scale. The Environmental Statement classifies this as a minor effect (ranking 2 on its 4-point scale) but that seems to me to underestimate the harm. The District Council found a range of effects

² The full range of stages in the DMRB is: neutral, neutral/slight, slight, moderate/slight, moderate, moderate/large, large/very large, and very large.

³ The Council's scale includes, in ascending order: barely perceivable, low, medium low, medium, high medium, severe.

on this conservation area, ranging from Medium to Severe (ranking from 4 to 6 on its six-point scale), but I do not accept that the effect of the scheme on this conservation area would be in the most harmful category possible. Ardley with Fewcott Parish Council applies the method of the DMRB and finds that the proposal would bring a significant modification to the setting of the conservation area: the significance of this would be Moderate (ranking 5 on the DMRB's 8-point scale). I find that there would be harm equivalent to the fifth rank on an eight-point scale.

25. Views within the **Fewcott conservation area** shown on the Conservation Area Appraisal Visual Analysis include those from Water Lane. The Environmental Statement finds the harm here to be Moderate (the third highest of four tiers). The appellant argues the Environmental Statement to overstate the harm because views to the north (not identified in the visual analysis) are incidental to the character of the village. But it is clear to me that these views across the meadows to the south of Fritwell Road are important characteristics of the conservation area, and that the turbines would be seen from Water Lane, intrusively, behind the village. The District Council found Severe harm at three places in this conservation area (ranking 6 on its six-point scale), but I do not accept that the effect of the scheme on this conservation area could not be significantly surpassed. Ardley with Fewcott Parish Council's evidence was that there would be a Moderate adverse impact on the setting of this conservation area. I find that there would be harm to the setting of the conservation area equivalent to the fifth rank on an eight-point scale.

26. The **Ardley conservation area** is located to the south of Fewcott. There would be occasional views of turbines above or between intervening structures, where local vegetation allows. There would be clear views of turbines across the northern fields in the conservation area, and from the former castle, although the turbines would not obstruct any important views into or out of Ardley conservation area. The Environmental Statement finds there would be Minor harm in the terms of its scale (the second highest of four tiers). The District Council found Severe harm at two places in the conservation area, High-Medium harm at two others, and Medium harm at two further places (ranking from 6 to 4 on its 6-point scale) but it seems to me that these findings overstate the harm to this conservation area. Ardley with Fewcott Parish Council's conservation witness gave no evidence on the scheme's effect on Ardley. In view of the evidence given and my own assessment made during the site visit I conclude that there would be harm to the setting of the conservation area equivalent to the third rank on an eight-point scale.

Listed Buildings

27. I consider next the individual listed buildings in respect of which evidence was given to support representations to the Inquiry that they would suffer harm to their settings, should the development proceed. I deal with those in order of grade.

28. **Aynhoe Park** is a Grade I listed building ("the House") with a Grade II registered Park and Garden ("the Park"). The House is some 4.3 km from the site of the nearest proposed turbine. The Park as designed extended out into the country to the south of the House, and the park design drew the eye to the valley floor and up again to the village of Souldern and the surrounding country

in the distance. Old maps show an avenue of trees leading down the hill from the house and through the park. The avenue has now gone, the park is largely farmed, and the M40 motorway is visible in the distance. The appeal proposal would add another modern change to this scene, in that the turbines would appear above the horizon beyond Souldern, changing the setting of the Park and visible from the House. The Environmental Statement says that the scheme would not affect the relationship of the House to its related structures, nor to the formal gardens and wider parkland surrounding it, or its relationship to the village. The appellant refers to the wider landscape setting of the Park. The evidence given for Cherwell District Council was that the harm to the setting of the Park and that of the House would each be severe, the highest rank on its six-point scale, but I do not agree that the harm in either case would be in the most harmful category possible. Mr Perkins referred to the investment he has made in the House and Park and believes that the landscape would be spoilt. Ardley with Fewcott Parish Council's evidence was that the turbines would have a moderate/large adverse effect on the setting of the House (the sixth highest rank out of eight) and a slight adverse effect on the Park (rank three of eight). The written advice of English Heritage, who did not appear at the Inquiry, is that the wind farm would appear as a modern intrusion into the views from the south windows and south terrace and English Heritage therefore concludes that the setting of the House and the Park would be harmed.

29. It is clear to me from my visit that the setting of the House – the surroundings in which it would be experienced - would be unchanged on three sides. On the fourth (southern) side of the House, one part of the wide view to the south would be changed by the inclusion of the turbines and they would form only a very small part of the outlook in that direction. The change would be so small as to hardly affect the setting of the house. The House is a highly valued building. In my view, the harm to the setting of the House would be at the third rank on an eight-point scale.

30. The effect on the setting of the Park would be tempered by the changes that have been made since the House and Park were laid out, and by the distance at which the turbines would be seen. Nevertheless, the change to this medium value asset would be noticeable and so it seems to me that, in the terms of the DMRB, there would be a negative effect of Slight significance (ranking 3 on a scale of 8).

31. St Olave's Church in Fritwell is a Grade II* listed building. The appellant argues that the sense of place is contained in the churchyard and does not extend to any extent into the surrounding land, and that the relationship between the Church and the nearby buildings would be little affected. Nevertheless, I am satisfied that the Village Fields and the row of buildings in East Street that back onto the Fields are part of the surroundings in which the Church is experienced, and that harmful changes to the appearance of that group would (if apparent from the Church) be harmful to the setting of the Church. Turbines would be clearly visible on the skyline at East Street, by virtue of their form, motion and apparent scale making an obvious harmful modern intrusion into that mature skyline. And they would be in the same view as the Church from its eastern and southern sides. The Environmental Statement says the change would be of minor significance (ranking 2 on its

- scale of 4). The District Council says the effect on the church's setting would be severe, the most harmful possible category, but that is manifestly not the case. Ardley with Fewcott Parish Council conclude that the effect would be moderate/large and adverse, the sixth of eight degrees of harm. It seems to me that this is an asset of high value and its setting would noticeably change; there would be a negative effect of Moderate/Slight significance (ranking 4 on a scale of 8).
32. **St Mary's Church, Ardley**, is a Grade II* listed building. Trees around the Church provide some screening and the effect of the turbines on long views toward the Church would be reduced by those trees. Turbines would be visible from the north elevation of the Church, and from the northern churchyard. Some views of the Church from the south would include at least one turbine. The Environmental Statement says that the church's relationship to its precinct and the village would not be changed, and so the effect on the setting would not be significant. The District Council finds a severe effect, ranking six out of six, but I do not agree that the effect would be in the most harmful category possible. It seems to me that the setting would be adversely affected to a noticeable degree. This high value asset would suffer a minor impact, leading to harm of a Moderate/Slight significance (ranking 4 on a scale of 8).
33. **Tusmore granary/dovecote**, Grade II* listed, is part of a group that includes the recently-built House in the Georgian style and its associated buildings. It stands in a walled enclosure from part of which the turbines, some 3.1 km away, would be visible. The enclosure is used, in part, for parking cars and other vehicles and part of a large dome at RAF Croughton was visible in the distance when viewing the Dovecote from the east front of the house. The Environmental Statement finds the development's effect not significant. Mr Leay believes the turbines would detract from the setting of the building. In my view, this is an asset of high value but the changes that the appeal proposal would make to its setting would be slight, and the significance of the harm would also be Slight (ranking 3 on a scale of 8).
34. **St Peter's Church, Stoke Lyne**, Grade II* listed, would be some 2.6 km east of the nearest turbine. The main approaches to the village are so aligned that turbines would not intrude on views of the Church as one approaches. The Environmental Statement finds the relationship of the church to its surroundings would be unchanged, and therefore finds the effect to be not significant. The District Council gave evidence that the turbines would have a material effect on the setting of the church, competing with its tower on the skyline. It is clear to me that the turbines could be seen from the Churchyard, but the consequent change to the experience of being at the Church would be hardly affected. This is an asset of high value. The overall harm to its setting would be of Slight significance, (ranking 3 on a scale of 8).
35. **Manor Farmhouse, Fewcott** is Grade II listed. Its setting includes land to the north that is largely free of modern features, and its association with the village. The nearest turbine would be about 500 metres away. The building's relationship to the village would not change. The Environmental Statement finds that the effect on Manor Farmhouse would not be significant. The District Council's evidence was that the effect on the setting of the building would be severe and overwhelming, ranking six out of six, and Mr Shepherd-Cross considers that the house would be ruined, but I do not agree that the effect

would be in the most harmful category possible. Ardley with Fewcott Parish Council also drew attention to the house's historic links with the landscape to the north, finding that the development would cause moderate harm to the setting of the building (which the Council identifies as being of medium value), ranking 5 out of 8 on the DMRB scale. But to me those links are functional and historic rather than visual, and I find that the insertion of the appeal proposal into that area would bring a noticeable change but not one that could reasonably be described as a significant modification to the relationship between the house and the land. I find that there would be slight harm to the setting of the building, ranking 3 on a scale of 8.

36. **Heath Farmhouse, Fritwell** is Grade II listed. The District Council contends that the appearance of turbines above the buildings on East Street would alter the setting of the Farmhouse and harm its relationship with St Olave's Church, the barns, and Village Field. It seems to me that, as the barns stand between the Farmhouse and the Village Fields, they provide a degree of separation between the Farmhouse and East Street much greater than is available, for example, between St Olave's Church and East Street; and that the change to the setting of the Farmhouse would be so slight as to hardly affect it. This asset of medium value would be subject to a negligible impact, leading to harm of Neutral/Slight significance (ranked 2 on a scale of 8).
37. **Fewcott Farmhouse** is Grade II listed. The District Council's evidence is that when viewed from Water Lane, its setting would be harmed by the introduction of the group of turbines to the north. It seems to me that this change would be no more than noticeable and that its effect on this asset of medium value would be slight (ranked 3 on a scale of 8).
38. **Hill House** is a Grade II listed building, some 2.7 km from the nearest proposed turbine. Intervening vegetation would impede views of the turbines from the house at ground level. Although the development might be visible from some upstairs windows at Hill House, I do not accept that there would be any noticeable effect on the setting of this listed building.
39. **Pimlico Farm and its Barn** are Grade II listed buildings some 2.4 km from the nearest proposed turbines. It is argued that the appeal proposal would have a dominant effect on the setting of these two buildings but I do not agree that such an effect would be achieved at such a distance. Rather, there would be hardly any effect on the setting of the buildings and the contribution of the setting to the significance of these medium-valued assets, and the significance of the harm would be neutral/slight.

Other Heritage Assets

40. **Ardley Castle** is a non-extant Scheduled Ancient Monument. Tree cover limits visibility. There are no long views of the monument in which the turbines would be visible, and the relationship to the village would not be affected. There would be no change to the surroundings in which the asset is experienced.
41. **Rousham Park** is listed as Grade I in the English Heritage Register of Parks and Gardens. The Environmental Statement identifies registered historic gardens such as this which are not World Heritage sites to be of equivalent sensitivity to that of Grade I listed buildings, a finding I consider reasonable

and which if used in the DMRB assessment method submitted by the Parish Council would indicate the Park to be of High value. The Environmental Statement considers the harm here to be not significant, due to the low-lying landform, lack of visibility and screening by trees near the Park, other built influences in the landscape, the small number of turbines and their distance from the Park. Dr Rutherford found that views from the main viewpoints in the Park would be significantly damaged.

42. The park has a number of outward views that are important to its design and to the appreciation of it, and my attention was drawn to those when I visited. Some of those views have been changed from the original design: there are trees behind the Eyecatcher where none was intended, the hardened hangars and some other buildings at former RAF Upper Heyford are in some views in the distance (it is argued that they might be removed, but there was no evidence of any firm intention to demolish by anyone in a position to do so), and of course modern traffic uses the bridge that carries the B4030 road over the river near the end of the Waterside Walk.
43. At Rousham Park the site visit party had difficulty in finding the blimps that were flown from the appeal site (over 7 kilometres away) but nevertheless the blimps were located from all but one of the viewpoints to which my attention was drawn. The difficulty in finding them reflects the evidence of a drawing⁴ produced at the Inquiry by Ardley with Fewcott Parish Council that shows much less than the whole of a turbine to be potentially visible from the "Dying Gladiator" viewpoint (which seemed to me to be among the most elevated viewpoints shown to me at the Park), and even that only by looking among intervening vegetation and, to a degree, past intervening buildings. But I remind myself that this is one of the "set piece" views from the park, designed to be seen, and that it might well be studied most carefully. Most trees in the lines of sight in question appeared to be deciduous, and not in leaf at the time of my visit. In those conditions it seems to me that the setting of the Park would be noticeably changed to those who study the view carefully. But, when trees are in leaf, the conspicuity of those parts of the turbines that would be in the line of sight shown on the drawing would be still further reduced so that they would hardly affect the views.
44. It seems to me that in winter this asset of high value would be subject to a minor magnitude impact, giving rise to a change of moderate/slight significance (ranking 4 on a scale of 8). In summer, the impact would reduce to negligible, and so the change would be one of slight significance (3 on a scale of 8).

Conclusion on the Effect On The Settings Of Heritage Assets

45. In summary of the effects of the appeal proposal on the settings of heritage assets, I have found (on the DMRB scale) that there would be one site where the effect would be moderate/slight in the winter and slight in the summer. There would be 3 adverse changes of neutral/slight significance and 7 adverse changes of slight significance. Three further sites would have adverse changes of moderate/slight significance and 2 would have adverse changes of moderate significance. No greater harm would be caused, and no site would benefit.

⁴ Drawing B09039.12, The Landscape Partnership

Effect On The Character Of The Local Landscape

Policy

46. The District Council refers in its decision notice to two policies from the Cherwell Local Plan that are relevant to the effect of development proposals on the local landscape.
47. Policy C7 normally precludes development that would cause demonstrable harm to the topography and character of the landscape. I am satisfied that the appeal proposal would not involve earthworks of such a scale as to alter to any noticeable extent the topography (that is, the form of the land or its surface configuration) of the landscape. I will return to the matter of the effect the proposal would have on the character of the landscape.
48. Policy C8 of the Cherwell Local Plan 1996 expresses general resistance to sporadic development in the open countryside including developments near motorway or major road junctions. The supporting text explains the purpose of this to be to maintain what is termed the attractive, open, rural character of the countryside; explains the increasing pressure experienced in 1996 for development in the open countryside; and mentions the Council's intention to seek where practicable to direct development to suitable sites at Banbury or Bicester. I have noted that the Cherwell Local Plan 1996 includes no policy the subject of which is renewable energy. It predates current national and regional policy by many years. It seems to me that Policy C8 when applied to renewable energy development is at odds with Policy NRM15 of the South East Plan, which says among other things that "Outside of urban areas, priority should be given to [renewable energy] development in less sensitive parts of countryside and coast, including on previously developed land and in major transport areas." Because Policy NRM15 more closely follows the direction of current national planning policy I attribute more weight to Policy NRM15 than I do to Policy C8. Neither the CAG report nor any manifestation of planning policy that came before me suggests that wind farms should be built in urban areas. I attribute little weight to Policy C8 in this case.
49. Planning Policy Statement 7 *Sustainable Development in Rural Areas* ("PPS7") says that the quality and character of the wider countryside should be protected and, where possible, enhanced. PPS7 also describes the importance of the conservation of the natural beauty of the landscape and countryside in nationally designated areas comprising National Parks, the Broads, the New Forest Heritage Area and Areas of Outstanding Natural Beauty. The appeal site and the area around it is none of these. Policy C13 of the Cherwell Local Plan 1996 identifies Areas of High Landscape Value, which designation is applied to land within a few hundred metres of the site to its north and to its east but excludes the site itself and a relatively large tract of land to the west and to the south. A similar local designation is applied to land to the north, in Northamptonshire. But paragraph 24 of PPS7 says that criteria-based policies in local development documents, using tools such as landscape character assessment, should provide sufficient protection for areas of landscape that are highly valued locally. The intention of PPS7 in this regard is to be sure not to unduly restrict acceptable, sustainable development and the economic activity that underpins the vitality of rural areas.

50. PPS22 includes several paragraphs on locational considerations. I have previously considered designations relating to the cultural heritage of the area including, among other things, the Grade 1 park at Rousham. In addition to those considerations I am satisfied that the appeal proposal would affect the landscape quality of no site of international importance nor any site of nationally recognised designation for the quality of its landscape. The appeal site is not in the Green Belt. Local landscape designations should not be used in themselves to refuse planning permission for renewable energy developments. PPS22 recommends the use of criterion-based policies, Policy NRM15 of the South East Plan 2009 sets out some basic criteria and so does Policy EN21 of the Non-Statutory Cherwell Local Plan 2011 (I have previously noted the weight I give to these latter two documents). Adverse impacts on landscape should be avoided, and priority should be given to development in less sensitive parts of the countryside, including in major transport areas. PPS22 says that the landscape and visual effects of proposed developments should be assessed using objective descriptive material. Nothing in the development plan – apart from Policy C8, to which I attribute little weight for the reason given – precludes the appeal proposal on landscape and visual grounds as a matter of principle.

Landscape And Visual Assessment

51. The 1996 Cherwell Local Plan identified Areas of High Landscape Value (“AHLV”) but local designations such as this are not now supported by national or regional policy and so I attribute very little weight to that designation. I remain mindful of the quality of the landscape, in the identified area and elsewhere.
52. The scheme’s landscape and visual effect would in very large part be that due to the four turbine/tower assemblies. Some changes would also arise from the hedgerow alterations, tree planting, access tracks, crane hardstandings and the substation/control building, but the landscape and visual effect of those changes would be localised and, as a whole, slightly beneficial. In the context of the whole development, the anemometer mast would have little effect.
53. Although individual receptors further away might be affected, there was no reasoned view other than that the effect of the development on the landscape as a whole would extend for about 3 kilometres from the appeal site. Two landscape character areas identified in the Oxfordshire Wildlife and Landscape Study would be affected by the development. The Farmland Plateau, in which the site is located, is open and sparsely settled. I am satisfied that the large scale and simple form of this landscape character area can reasonably accommodate large structures. The second landscape character area to be affected by the appeal proposal would be the Wooded Estatelands, an area of medium-high sensitivity. The magnitude of change would depend on the viewer’s location; the partially wooded nature of the area means that some places would be more or less completely screened from the development, and others would not.
54. In both the Farmland Plateau and the Wooded Estatelands character areas the appeal proposal, with its mitigation, would cause a significant change in the local landscape character. The site is not in any designated landscape area. The turbines would be set in a large-scale landscape, not particularly sensitive

to the introduction of large-scale features. The landscape is already affected by large-scale development including the M40 motorway and its service area, the former RAF base at Upper Heyford and the RAF base at Croughton, and the effects of these extend into the AHLV. In the AHLV my attention was drawn to the effects the appeal proposal would have on the landscape character at the Tusmore Estate and at Stoke Lyne. The turbines would be visible from both of those locations, as they would from other locations in the AHLV, and the landscape would be changed by them. But from both Tusmore House and Stoke Lyne they would be more than 2½ kilometres away which in my view is ample for the capacity of the landscape to accept them without particular harm. In view of that capacity and the large-scale development that has already taken place in the area I conclude that the appeal proposal would not cause demonstrable harm to the character of the landscape. There would be change but not harm. Policy C7 of the 1996 Cherwell Local Plan would be satisfied.

55. As to the effects on views, the appeal development would be prominent in the outlook from some 50 houses in Ardley and Fewcot, another 50 or thereabouts in Fritwell, some 12 in Stoke Lyne and the house at Green Farm. But I remind myself that no protection exists for the benefit of a private view. Consequently, I do not regard as unacceptable the situation in which a turbine is prominent in the view from a domestic window. Rather, my concern is to recognise cases in which the effect on the living conditions of people in such houses would be one of unacceptable dominance or overbearing.
56. Evidence was given at the Inquiry that there is a risk of such an effect within up to 3 times the turbine height (to rotor tip), which in this case is 375 metres; this was based on observations at a wide number of finished wind farms. Attention was also drawn to a report *Renewable Energy and Sustainable Construction Study*, commissioned by the District Council, which recommends a buffer of 800 metres between individual dwellings and turbines on grounds of noise and visual effects but does not explain in any detail the rationale for the recommendation. The Inquiry was also referred to Scottish planning guidance (Scottish Planning Policy 6: *Renewable Energy*) which says that “development up to 2 km is likely to be a prominent feature in an open landscape” and suggests that a 2 km distance should be used in Scotland as a mechanism for steering proposals to broad areas of search for wind farm sites, with individual proposals judged on a case by case basis. But it is dominance and overbearing, not prominence, that I address; and I determine this case on its own merits.
57. One dwelling would be within 375 metres of a turbine: Willowbank Farm, the home of the owner of the appeal site. But I do not regard that circumstance as complete mitigation for the harm: the change must weigh in the balance.
58. Other, public, views would be altered, particularly from a short section of the M40, from some local roads and from public rights of way within about 3 kilometres of the site. In several public views (from Fritwell, from the road near Troy Farmhouse, from the B4100 from Ploughley Hill to Baynard’s Green and beyond) the District Council finds that the turbines would be dominant, and near Hill House its evidence is that the turbines would create a strange impression. I agree that the turbines would be plainly visible from those locations, and prominent in some cases – such as the B4100 at its junction

with the bridleway that leads from the B4100 across the M40 to the appeal site. But there is no evidence that the views in question are recognised as having any individual merit, although some look out from the Area of High Landscape Value, and I find no significant harm in the changes to those views associated with the proposals. The impression described as strange would, in the Council's submission, arise from a foreshortening of the view of the turbines caused by the landform when viewed from a particular locality and, though this may be unusual, there was no evidence of harm associated with it.

59. The view from the motorway would be experienced by passers-by for only a short time, there is no evidence that it currently has any special qualities, and to be able to see turbines from a motorway seems to me consistent with the Governmental view that renewable energy development might be located in major transport areas. Nor, with one exception, was any case put that views from local roads or public rights of way that would include the turbines are currently of any special merit, or that they would be unacceptably harmed by the appeal proposal. The exception was the public rights of way on the Tusmore Estate. But, although they would be visible from the Estate they would be some distance away and I do not accept the argument that the turbines would be a major and dominant source of harm in the landscape there.
60. Deddington, to the west of Aynho, includes the site of the former Castle, now a Scheduled Ancient Monument. No evidence was given that the setting of this site would be harmed, but Cherwell District Council considers the turbines, when viewed from there (a distance of at least 5.7 km) would appear as a dominant group of moving objects that would draw the eye and thus detracting from the view which it considers to be rural, rich in texture and of high quality. But I do not accept that a group of four slender wind turbines 125 metres high to the rotor top would be dominant when viewed from a distance of 5700 metres. The turbines would not be the predominant feature in the landscape, nor would they overshadow other features such as the area of intervening country. They would be visible, but I do not accept that there would be perceptible harm.
61. In summary, I find that the proposed development would have an overbearing effect on one house and that it would change many views in the area, but without perceptible harm to the views described to me or that I saw. There would be a change to the character of the landscape, but no harm in that respect.

Effect On Equestrian Use Of The Bridleway On The Site

62. A bridleway crosses the site where it abuts the M40, and follows the boundary fence. The bridleway connects Fritwell to a bridge over the motorway which leads to a number of bridleways on the north-eastern side of the motorway. The bridge has the high parapets usually provided on equestrian bridges, and no other nearby bridge over the M40 has such parapets.
63. The British Horse Society gave evidence that wind turbines can frighten horses. The turbines would be much closer to the bridleway than the 200 metre minimum separation distance reported by PPS22 to be recommended by the Society. Evidence given by the Society at the inquiry was that in this case the

turbines should be 375 metres from the bridleway (three times the turbine height) and they were supported in that by Oxfordshire County Council.

64. Evidence was given that the bridleway was not ridden at all during a survey undertaken over several days, and that to some people it is an important route particularly since it leads to the only local crossing of the M40 suitable for equestrians. There was also evidence that some horses co-exist satisfactorily with wind farms elsewhere, and the BHS agreed in examination that horses can become familiar with turbines.
65. For my part, it is clear from the evidence given that there is no satisfactory alternative route for at least some users of the bridleway. The Technical Annex to the PPS22 Companion Guide, in drawing attention to the issue⁵, takes the position that wind turbines can frighten horses and so I take the same position. I consider there would be a risk that some horses ridden along the bridleway would be frightened by the turbines, by virtue of the turbines' size and proximity, and that that would reduce safety for some users of the bridleway.
66. The appellant has suggested that mitigation could be provided by the detailed design of the site access road near the bridleway so as to provide extra width for nervous horses, and a width of 5 metres was recommended by the British Horse Society. The appellant's suggested mitigation measures also include raising the parapet height on a nearby motorway road bridge (on the road leading north-east out of Fritwell) so as to make it safe for equestrian use. No section 278 agreement or other delivery mechanism for that was before me but I am aware of no reason why such a change should be discounted. Although some local people argue that the alternative route this would create would be less safe and convenient than the current arrangement, it seems to me that the need for riders of horses likely to be affected by the turbines to access the bridleways and lanes to the north of the motorway would be met if such provision were made, providing that riders were given good notice of the proximity of the turbines to the bridleway. The matter of the scheme's effect on equestrians can be resolved by condition.

Noise

67. Planning Policy Statement 22 *Renewable Energy* ("PPS22") considers at its paragraph 22 the matter of noise. It recommends the use of the report *The Assessment And Rating Of Noise From Windfarms*, published in 1997 by the Energy Technology Support Unit ("ETSU") on behalf of the Department of Trade and Industry. The report bears the reference ETSU-R-97. The Companion Guide to PPS22 also provides information, and re-states from ETSU-R-97 "Recommended Good Practice On Controlling Noise From Wind Turbines".
68. The stated good practice set out in the Companion Guide recommends the application of noise limits at the nearest noise-sensitive properties, which limits should apply only to external locations frequently used for relaxation or for which a quiet environment is highly desirable. Noise limits should be set relative to the existing background noise levels and the limits should reflect the

⁵ PPS22 Companion Guide Technical Annex Wind Turbines para 56

variations in turbine source noise and background noise with wind speed. The predicted noise levels from the turbines are than compared with the limits.

69. The $L_{A90,10\text{minute}}$ descriptor should be used. A fixed limit of 43 dB(A) is recommended for night-time (that is, the period starting at 23:00 and ending at 07:00 the following day), which may be increased to 45 dB(A) where the occupier of the property has some financial interest in the wind farm (as is the case only at Willowbank Farm in the current appeal). ETSU-R-97 recommends that noise from the wind farm should be limited to 5 dB(A) above background noise except in low-noise environments, and no case was put that a low-noise environment is to be found here.
70. The appellant's case is that, in these and other relevant respects, the noise assessment as set out in the Environmental Statement and other evidence put before the Inquiry complies with current good practice and confirms that the appeal proposal's noise effects would be acceptable. The appellant proposes that planning permission for the proposed wind farm should be subject to a series of noise-related conditions, the purposes of which would include:
- i) setting upper limits to the rating level of noise emissions from the combined effects of the wind turbines, when calculated in an appropriate stated way;
 - ii) establishing an independent regime for the checking of noise associated with the wind farm;
 - iii) correcting any identified breach of the noise limits; and
 - iv) controlling the installed sound power levels of the turbines, taking and keeping records of wind speed, wind direction and power generation, establishing a representative of the development as a point of contact for local people, obtaining local authority approval to a construction management plan, and limiting the hours during which construction activity may take place at the site.
71. This approach was considered by Cherwell District Council's relevant officers and the Council raised no objection on noise grounds. The Environmental Statement has been independently reviewed at the Council's request and its coverage of noise was found to be thorough, realistic and in line with the ETSU methodology.
72. Noise limits are proposed by the appellant at six locations, at each of which the background noise has been surveyed. The Environmental Statement identifies that background noise levels vary with wind speed. The appellant proposes the same noise limit at all wind speeds between 1 and 12 metres per second (measured 10 metres above ground level). The proposed daytime noise limit is based upon the lowest prevailing background noise level (at each site) plus 5 dB. The proposed noise limits are:

Noise Limit, dB, $L_{A90,10min}$ for all wind speeds between 1 and 12 metres per second (10 metres above ground), at stated time

Location	From 23:00 to 07:00	All other times
Fewcott Lodge	43.0	46.1
Green Farm	43.0	61.8
17 Hodgson Close	43.0	41.5
Lodge Farm	43.0	42.3
Baynard House	43.0	58.1
Willowbank Farm	45.0	46.1

73. The predicted noise levels are no higher than the noise limit at Willowbank Farm, and lower than the noise limit elsewhere. There is thus a degree of robustness about the findings, other than at the appeal site itself, in that the findings accommodate the situation in which the actual noise levels could be higher than predicted without exceeding the noise limit. Other than at the appeal site, the margin for error in the noise model is between 2.0 dB (at Manor Farm, near Fewcott Lodge) and 19.5 dB (at Green Farm).
74. The appellant's witness was the only acoustician to give evidence at the Inquiry but various matters relating to the noise assessment were raised by others. Some of these related to background noise measurements, and I consider those now.
75. **Background noise measurements and the time of year** – The noise surveys were conducted during the summer, and not at times of rain. ETSU-R-97 expects higher ambient noise levels during the summer due to leaves on trees. Objectors put the view that the background noise levels were therefore overestimated. But the noise survey equipment was located where summer background noise sources, such as vegetation, were minimised. I note too that where ETSU-R-97 considers the survey period, there is no requirement that a survey should be undertaken during the winter; only that the survey should be undertaken over enough time to allow a reliable assessment to be made, and that at least 1 week's worth of data are required. It was the view of the appellant's acoustician and the view of the local planning authority's officers that a winter survey was not needed, and I am not satisfied that any other conclusion should be drawn.
76. **Whether the wind conditions during the survey were representative of general local conditions** – Although planning permission had been granted for an anemometry mast at the site, none had been put up and there was no long-term record of wind conditions there. Instead, the appellant drew a comparison between short-term records from the site and a long-term record from RAF Brize Norton, some 19.5 miles from the site. There is no evidence that the comparison is relevant – that the weather at Brize Norton is sufficiently similar to that at the appeal site to give confidence that the short-

term records from the site adequately replicate conditions there in the long term, even if the short-term records from the site closely replicate conditions at Brize Norton.

77. I therefore consider whether the survey data can reasonably be accepted as providing a reliable assessment of the prevailing background noise levels. The advice of ETSU-R-97 is that *"to avoid the results being weighted by unrepresentative conditions at least 1 week's worth of measurements will be required. The actual duration will depend upon the weather conditions, in particular that strength and direction of the wind that has blown during the survey period and the amount of rain."* The matter of rain has been addressed. With the exception I have described, at least a week's worth of data was obtained. I compare the Brize Norton 10-year wind rose with the much shorter duration wind rose from the surveys. Some differences between the two were pointed out to me. It seems to me that, while it very well might be the case that Brize Norton's wind rose is a reliable proxy for wind conditions at the site, and while it very well might be the case that the wind distribution found on the survey days near the site is an adequate proxy for the Brize Norton wind rose, absolute reliance cannot be placed on either of those propositions. Therefore it has not been established beyond doubt that the survey results are truly representative. On the other hand, there was no evidence that the weather during the survey period was in any way atypical, the minimum survey duration suggested in ETSU-R-97 was achieved at four of the five survey stations and was one day short at the fifth, and the wind rose for the survey shares with the Brize Norton rose (and that for Elmdon, submitted by CPRE) the characteristic that the prevailing wind is from the southwest. The survey results should therefore not be dismissed. But I conclude that absolute reliance should not be placed on the survey results.
78. **Fritwell and 17 Hodgson Close** – Whereas ETSU-R-97 seeks at least a week's worth of data from each survey site, only 6 days' worth was obtained from the survey at 17 Hodgson Close. Another survey station, Lodge Farm, was some 200 metres away and produced more survey data. The appellant's supplementary analysis found that the prevailing background noise level at Lodge Farm, on the days when the survey at Hodgson Close was missed, was higher than on other surveyed days at Lodge Farm. The appellant infers from this that surveys at Hodgson Close that included the "missing" day would have shown higher noise levels than were actually obtained there. Although that is disputed, I am satisfied that, since the proposed daytime noise limit at Hodgson Close is derived from the lowest reported noise level there, the result of the omission of the seventh day's data at Hodgson Close is not likely to result in a lesser degree of protection of local people from noise associated with the turbines.
79. **Children at play** – Objectors observe that the surveys were undertaken largely during school holidays, and that the results might therefore have been skewed by the sound of children playing. But in areas where people live there will be a patchwork of noise sources coming and going as people do different things and as (for example) cars or aeroplanes pass. All gardens will have different noise sources. I am satisfied that the use of the lowest noise level to set the noise limits results in an acceptable degree of protection for local people in this respect.

80. **Best fit curves** – the best fit noise curves used in the environmental statement were criticised as being counter-intuitive, for example in respect of the apparent relationship between wind speed and sound level, and it was contended that, for that and other given reasons, the prevailing background assessment is therefore unreliable. In reply, the view was put that the variations identified by the best fit curves were unsurprising in an environment where motorway noise and southwesterly winds predominate. It seems to me that the numerical representation of outdoor ambient sound levels in areas such as this where there is diverse human activity as well as varying meteorological conditions must necessarily involve a degree of approximation. I am not satisfied that an intuitive approach will necessarily provide an accurate guide to actuality, particularly when the intuition is that of non-specialists. But this does nothing to change my view that absolute reliance should not be placed on the survey findings.
81. In view of this lack of absolute reliance on the noise survey findings, it therefore seems appropriate to me that the daytime noise limits in the proposed planning conditions should be based on the lowest noise level at each site irrespective of wind speed (rather than the less demanding common practice of relating the noise limit to wind speed, thus allowing noise levels to rise in windy conditions). This precautionary approach adds robustness to the proposal that, for the reasons I have given, is to a degree lacking from the survey work.
82. Objectors who pursued the matter of noise also raised noise propagation, arguing that the noise effects of the turbines had been modelled wrongly in various identified ways. The appellant's acoustics witness was examined for some time on the matter. For my part, I am content that the proposed noise limits, enforced by condition, would provide adequate protection for local residents against adverse noise effects that the turbines might otherwise cause. The predicted noise levels would not remove that protection and the simplified form of the noise limit would ease enforcement.
83. Ardley with Fewcott Parish Council invites me to consider the submitted paper "*Noise Radiation From Wind Turbines Installed Near Homes: Effects On Health*" by Frey and Haddon, and I have done so. The paper, which is dated 2006, argues that further investigation of the health effects of wind turbines on nearby residents is warranted, with a minimum buffer zone of 2 km between the nearest wind turbine and any dwelling, and that the Government would be prudent to institute an immediate and mandatory minimum buffer of 2 km between a dwelling and an industrial wind turbine, and with great separation from a dwelling for a wind turbine with greater than 2 MW installed capacity. Some four years later, the Government has yet to take such a step. The advice in the Wind Technical Annex of the Companion Guide to PPS22 remains current. That advice includes, among other things, the following:
- i) Noise levels from turbines are generally low and, under most operating conditions, it is likely that turbine noise would be completely masked by wind-generated background noise;
 - ii) The mechanical noise produced by the gearbox, generator and other parts of the drive train has reduced significantly since the early 1990s

and it is now (2004) usually less than, or of a similar level to, the aerodynamic noise;

- iii) Aerodynamic noise from wind turbines is generally unobtrusive;
 - iv) Varying the speed of the turbines can, if necessary, reduce the sound output from modern turbines;
 - v) There is no evidence that ground transmitted low frequency noise from wind turbines is at a sufficient level to be harmful to human health. A study undertaken for the DTI by ETSU found that vibration levels 100 metres from the nearest turbine were a factor of 10 less than those recommended for human exposure in critical buildings (such as laboratories for precision measurement), and tones above 3.0 Hz were found to attenuate rapidly with distance.
84. There is no evidence that the Frey and Haddon paper has been peer reviewed, nor that it has any authority. Nor is it explained how the cases cited in the paper compare with the proposal before me. I am not persuaded that I should give as much weight to the Frey and Haddon paper as I do to the Companion Guide to PPS22.

Aviation Safety

85. London Oxford Airport, near Kidlington, is a commercial airport and the primary regional airport serving the Thames Valley area. Circular 01/2003, issued in 2003 by the Office of the Deputy Prime Minister, identifies London Oxford Airport as an officially safeguarded civil aerodrome. An Aerodrome Safeguarding Map for London Oxford Airport has been prepared and it was before the Inquiry. The appeal site is positioned in the area identified on the Aerodrome Safeguarding Map as one in which the Airport operator should be consulted in the event that a building, structure, erection or works exceeding 90 metres high is proposed. The appeal proposal would be more than 90 metres high. The Circular says that the need for consultation, indicated in this way, does not necessarily mean that planning permission should be refused.
86. London Oxford Airport Limited was represented at the Inquiry and evidence was given by the Airport Manager and by the Airport's aviation consultant, among others. Aviation evidence was also given for the Appellant. Discussions outside the Inquiry took place between the Airport's representatives and those of the Appellant. Two matters relevant to my decision remained at the end of the Inquiry.
87. The first relates to the Outer Horizontal Surface established for London Oxford Airport. This is part of a more complex surface centred on the Airport, above which consideration needs to be given to the control of new obstacles in order to ensure that aircraft can travel safely to and from the Airport. The appeal proposal would penetrate the Outer Horizontal Surface and so it is necessary to show that a satisfactory situation would continue in this respect if the proposed wind turbines were built, so that aviation safety would not be prejudiced. A Safety Case relating to the appeal proposal was produced during the Inquiry on behalf of the Appellant and submitted to London Oxford Airport Limited for review. London Oxford Airport Limited is content with the safety case at the review stage and submitted the Safety Case to the Civil Aviation Authority. No

response had been received from the Authority by the end of the Inquiry. I am satisfied that, if no fault is found with the Safety Case, the appeal proposal would offer no threat to aviation safety by virtue of its penetration of the Outer Horizontal Surface. This matter can be addressed by condition.

88. The second issue relates to the Airport's intention to install a primary surveillance radar, and the effect that the wind farm could have on that proposed installation. London Oxford Airport Limited intends to install radar so as to provide a safe and expeditious air traffic service. If no special provision was made in the proposed radar installation (and the turbines built), the rotating blades of the turbines may cause interference with the operation of the radar, and if that happened then uncertainty may arise in the minds of air traffic controllers which could compromise safety. There is no dispute, however, that special provision could be made. London Oxford Airport Limited says that it is not envisaged that there would be an outcome where no appropriate form of technical mitigation would be available; it would be a matter of cost.
89. The evidence is that the appellant is prepared to contract with London Oxford Airport Limited to make a reasonable contribution towards meeting the extra costs of technical mitigation of the adverse effects expected to be caused to the operation of a future radar installation by the appeal proposal. But, notwithstanding the stated intentions of both parties, no such agreement is before me. Instead, both parties suggest that the matter could be addressed by a Grampian condition.
90. No case was put that, if the appeal were allowed and the wind farm built without such a condition, the Airport would be constrained to install a radar system that would lack the features necessary to mitigate the effect of the appeal proposal. There is no reason to conclude that the future operation of the Airport would be compromised if the appeal proposal were brought into use. But it seems to me that aviation interests are wide, and extend to the cost of the planned radar system.
91. Paragraph 96 of the Wind Technical Annex to PPS22 places an onus on the appellant to prove that the proposed wind farm would have no adverse effect on aviation interests. It is common ground that the proposed radar would be more expensive if it made provision for the wind farm than if it did not. And there is no dispute that an unmodified radar would be inadequate if the wind farm was built. Therefore the proposal would have an adverse effect on aviation interests: the adverse effect would be the extra work in making the radar capable of working satisfactorily with the turbines in place. The "no adverse effect" test would be met only if the radar is not installed at all, or if the airport was relieved of the extra work in making the radar accommodate the wind farm.
92. I am therefore satisfied that the matter of the appeal proposal's effect on a future radar system at London Oxford Airport can be properly resolved by a condition which would prevent the start of development at the site (so as to ensure the situation would not arise in which the development remained partially complete because of unmet expectations) until written confirmation is received by the local planning authority and approved by them in consultation with London Oxford Airport Limited that radar mitigation measures in

accordance with *CAP 764 Policy And Guidance On Wind Turbines* (and any other relevant Civil Aviation Authority guidance in force at the time) can be implemented by London Oxford Airport such that a radar operation at London Oxford Airport will be safe when the turbines become operational.

Other Suggested Harm

93. The **stability of the turbines** was questioned by some. The stability of built structures is not often a planning consideration because adequate checks are imposed on their design by other legislation or procedures. In this case, I am satisfied that certified compliance with European Standard IEC61 400-1 and with BS EN 61400-1:2005 *Wind Turbine Design Requirements* would provide adequate assurance of the safety of the development, and this can be secured by condition.
94. **Traffic on the M40** might, in the view of some, be dangerously distracted by the turbines. The Highways Agency is the highway authority for the M40 and responded to routine consultation that it has no objection to the proposal.
95. **Air navigation lights** would be fitted to the turbines, for safety. CPRE is concerned that these would be harmful to the living conditions of residents. But the evidence is that the 25-candela lights that are proposed (equivalent in intensity to the rear light of a car) would not be visible to the human eye at a distance of more than 500 metres. Aircrew wear night vision goggles, making the lights much more conspicuous to them. Few properties would be affected, and the intrusive effect at those properties would not be great. But a condition is needed to limit the intensity of illumination, so that the effect is as predicted.
96. **Shadow flicker** was a concern to some, and one Fewcott resident gave evidence at the Inquiry that she has a medical condition that makes her very sensitive to flickering light. She considers that the proposed development would severely reduce her quality of life, contrary to Article 1 of the First Protocol of the Human Rights Act 1998. Shadow flicker is a phenomenon associated with the shadows of moving turbine blades, and so will only be experienced where those shadows fall. Fewcott is to the south of the appeal site and is therefore outside the area where shadow flicker is possible. Flicker can be predicted from consideration of the changing orientation and elevation of the sun, the likelihood of sunny or cloudy weather during daylight hours, the possibility that the turbines will not be rotating and other relevant factors. It occurs only within ten rotor diameters of the turbine. The Environmental Statement identifies those properties where shadow flicker may arise and calculates that flicker is likely at any one window of those properties facing the site for up to 4.6 hours each year. Mitigation is proposed in the environmental statement and can be secured by condition.
97. **Tourism and Outdoor Activities** were the subject of representations to the Inquiry. Concern was expressed that the appeal proposal would reduce the attractiveness of the area to visitors, and that local businesses would suffer as a result. No evidence was brought to illustrate the scale of the contribution that tourism and other outdoor interests (in the area from which the turbines could be seen) makes to the local economy, although the Environmental Statement includes some data for the county. Nor was there evidence of the effect on such businesses that wind farms have had elsewhere, or that the

envisaged harm would be unavoidable. It is clear to me from the results of the District Council's original public consultation on the planning application that most people find wind turbines acceptable (249 people wrote in support of the application whereas 113 opposed it) and among those reported to the Council are the views that "a group of turbines is not an eyesore" and "wind farms have been known to result in an increase in the tourist trade." The Environmental Statement reports that sixty separate surveys conducted over 15 years have found consistently high levels of support for the development of wind farms both in principle and in practice among residents living near a wind farm. I am not satisfied that the appeal proposal would cause the harm expected by those who made representations to the Inquiry on this matter.

98. **Construction traffic** associated with the appeal proposal is the subject of a statement of common ground with Oxfordshire County Council, and various conditions are suggested in that. The District Council's objection to the proposal on highway grounds was withdrawn before the Inquiry. The traffic flows associated with the construction of the development would be modest in comparison with the traffic that currently uses the road past the site entrance.
99. I have considered all other matters raised but find nothing to alter my decision.
100. I conclude that no other harm was suggested that could not be set aside, or dealt with by condition.

Whether The Benefits Would Outweigh The Harm

101. The appeal proposal would cause the following harm during its conditioned 25-year life:
- i) In summary of the effects of the appeal proposal on the settings of heritage assets, I have found that there would be one site where the effect would be moderate/slight in the winter and slight in the summer. There would be 3 adverse changes of neutral/slight significance and 7 adverse changes of slight significance. Three further sites would have adverse changes of moderate/slight significance and 2 would have adverse changes of moderate significance. No greater harm would be caused, and no site would benefit.
 - ii) The proposed development would have an overbearing effect on one house (currently occupied by the owner of the appeal site) and it would change many views in the area, but without perceptible harm to the views described to me or that I saw. There would be a change to the character of the landscape, but no harm in that respect.
102. Providing the measures I have set out in paragraph 66 were implemented, no harm would arise from the relationship of the turbines and the bridleway on the site. A condition can secure this.
103. I am content that the proposed noise limits, that would be enforced by condition, would provide adequate protection for local residents against adverse noise effects that might otherwise be caused by the turbines. The predicted noise levels would not remove that protection and the simplified form

of the noise limit would facilitate enforcement. Noise would then cause no harm.

104. I am satisfied that the matter of the appeal proposal's effect on a future radar system at London Oxford Airport can be properly resolved by a condition, the effect of which would be as described in paragraph 92. The appeal proposal would then have no adverse effect on aviation.
105. I have described the benefit likely to be associated with the proposal, in paragraph 19. Providing each turbine was of at least 2 MW capacity, the saved carbon dioxide emission would be substantial. The reduced amount of carbon dioxide in the atmosphere would be a continuing benefit for years after the turbines were removed. I attribute significant weight to this benefit.
106. The harm associated with the proposal is all of a type that would cease at the end of the development's life. None of the harmful effects identified would continue in the long term and there would be no enduring harm to the significance of heritage assets.
107. I conclude that the benefit would outweigh the harm. The proposal would therefore meet the relevant tests set in Policy EN21 of the Non-Statutory Cherwell Local Plan 2011. I am satisfied that the proposal is consistent with the direction of national planning policy set out in PPS22, PPS5, the supplement to PPS1 and in PPS7 in the respects I describe in the following paragraph.
108. PPS22 is clear that the wider environmental and economic benefits of all proposals for renewable energy projects are material considerations that should be given significant weight in determining whether proposals should be granted planning permission. PPS5, published during the Inquiry, recommends that where there is unavoidable conflict between climate change objectives and the conservation of heritage assets, the public benefit of mitigating the effects of climate change should be weighed against any harm to the significance of heritage assets. The Supplement to PPS1, *Planning and Climate Change*, requires that any local approach to protecting the landscape and townscape should be consistent with PPS22 and should not preclude the supply of any type of renewable energy other than in the most exceptional circumstances. PPS7 Sustainable Development in Rural Areas considers countryside protection and development in the countryside, and enjoins decision makers to provide for the sensitive exploitation of renewable energy sources in the countryside in accordance with the policies set out in PPS22.
109. The appeal should therefore be allowed, and planning permission granted subject to conditions.

CONDITIONS

110. In drawing up the conditions to which the planning permission I grant should be subject, I have regard to, among other things, Circular 11/95 *The Use of Conditions in Planning Permissions* and the submissions made at the Inquiry.
111. Particularly:
- i) A time condition is necessary to comply with the Town and Country Planning Act as amended.

- ii) The application and the appeal were made on the basis that the planning permission would expire 25 years after the development first came into use, and I have determined the appeal on that basis. A condition is needed to ensure that the site is restored to its current state at the end of that period, and a method statement provided for that work.
- iii) The external finishes should be subject to detailed approval, to ensure that the development is no more conspicuous than necessary.
- iv) A condition was suggested that would allow each turbine to be erected within 50 metres of its position shown on the approved drawings, so that landscape and visual impacts may be minimised. But section 5.4.5 of the Environmental Statement explains that the layout has been through a number of iterations to obtain the optimum layout, and I have found the result acceptable. No such condition is necessary in that respect. It was also suggested that the ability to vary the turbine positions might be necessary to avoid extra works associated with bad ground, but no reason was offered as to why a sufficient site investigation had not already been carried out. However, a condition is needed to identify the approved drawings, so that there is no doubt as to the form of the approved development.
- v) To optimise the appearance of the scheme, a condition should require all turbine blades to rotate in the same direction.
- vi) A construction method statement is needed to ensure that the construction of the development has no unwanted avoidable side effects. The undeveloped areas of the site should be cleared when construction is complete, to ensure the site is satisfactorily restored to and available for agricultural use.
- vii) A condition is needed to secure necessary highway works, in the interest of highway safety. It is also necessary to ensure that vehicles can turn into the site without obstructing the highway, and so any entrance gates should be set back from the highway boundary.
- viii) A condition to avoid shadow flicker is needed for the reasons I have set out in paragraph 96.
- ix) A condition to ensure that any television interference caused by the development is mitigated is needed for the reason given in paragraph 68 of the Wind Technical Annex of the Companion Guide to PPS22.
- x) The aviation authorities should be notified of the development, in the interest of aviation safety.
- xi) A condition is needed to ensure that trees, hedges and other natural features are not unnecessarily harmed or removed from the site, so as to not cause undue environmental harm.
- xii) A condition to ensure the removal of inoperative turbines is needed to ensure that the expected balance between benefits and harm is maintained.

- xiii) An archaeological investigation of the site is needed as a precaution against the loss of unrecorded archaeological material from the site.
- xiv) A condition to secure ecological measures on the site is necessary for the reasons given in sections 6.6 and 7.6 of the Environmental Statement.
- xv) A condition to secure the proper management of foul and surface water runoff from the site is needed so as to prevent flooding, or contamination of the underlying aquifer.
- xvi) A condition regarding the location of on-site cables is needed to protect the character of the landscape.
- xvii) To ensure that the envisaged generating capacity is provided, a condition should require each turbine to have an installed capacity of at least 2 MW.
- xviii) A condition to regulate noise emissions from the site is needed for the reason I have given in paragraph 82.
- xix) A condition should secure the availability of a point of contact for the public so that, should noise exceed the established limit, there is a clear arrangement to deal with the matter.
- xx) A condition is needed to ensure the scheme's effect on equestrians does not cause danger or inconvenience.
- xxi) Two conditions are needed to protect the interests of aviation, as described in paragraphs 87 and 92.
- xxii) A condition is needed to protect residential amenity by limiting the intensity of the air navigation lights fitted to each turbine.
- xxiii) A condition to ensure the structural integrity of the turbines is needed, for the reason given in paragraph 93.

112. Further conditions were suggested but I am not satisfied that they meet the tests set out in the Annex to Circular 11/95.

113. The planning permission that I grant is therefore subject to the conditions set out in the first Annex to this Appeal Decision.

J.P. Watson

INSPECTOR

FIRST ANNEXE TO THE APPEAL DECISION: CONDITIONS

- 1) The development hereby permitted shall begin not later than three years from the date of this decision.
- 2) Written confirmation of the date on which the development first provided electricity shall be given to the local planning authority within one month of that event. The development hereby permitted shall be removed on or before the twenty-fifth anniversary of the date on which the development first provided electricity, and the land restored to its former condition in accordance with a restoration scheme submitted not later than the twenty-fourth such anniversary to and approved in writing by the local planning authority. The restoration scheme shall include, among other things, a timescale for the restoration of the site after the removal of the development, a description of the measures to be taken in the demolition and removal of the development hereby permitted and of the measures to be taken to ensure that contemporary standards of pollution control and protection of public and neighbouring interests will be met.
- 3) No development shall take place until details of the external colours and finishes of the development hereby approved have been submitted to and approved in writing by the local planning authority. Thereafter the development shall be carried out as approved and the agreed colours and finishes shall not be changed without the prior written consent of the local planning authority.
- 4) The development hereby permitted shall be carried out in accordance with the following approved plans:

Drawing Reference	Revision	Title
109/ES/002	D	Proposed Site Layout
109/ES/005	C	Vegetation Changes
109/ES/019	B	Typical Wind Turbine
109/ES/020	A	Typical Turbine And Transformer Foundation
109/ES/021	A	Typical Crane Hardstanding
109/ES/022	B	Typical Access Track Design
109/ES/037	A	Site Access Arrangements
109/ES/023	B	Typical Access Track And Drainage Details
109/ES/025	B	Typical Cable Trench
109/ES/035	B	Typical Control Building And Compound
109/ES/024	C	Typical Anemometer Mast
109/ES/36	B	Typical Construction Compound

- 5) All turbine blades shall rotate in the same direction.

- 6) No development shall take place until a construction method statement has been submitted to and approved by the local planning authority, including measures to secure:
- i) The monitoring and control of noise, vibration and dust caused by construction activity on the site;
 - ii) Control of pollution or sedimentation and responding to any spillages or contamination during the construction phase, including among other things oil interceptors to serve vehicle parking and hardstanding areas;
 - iii) Details of wheel washing equipment to ensure that no material is deposited on the nearby roads from vehicles travelling from the site;
 - iv) The use of impervious bases and impervious bund walls to areas used for the storage of oils, fuels or chemicals on the site;
 - v) Removal of the construction compound and all temporary buildings and the reinstatement of the whole site not subject to built development all within 6 months of the date on which the development first provided electricity;
 - vi) The use of only approved routes to and from the site by traffic associated with the construction of the development hereby approved, or its decommissioning, and arrangements for parking and access at the site and for the storage of plant and materials there;
 - vii) That no construction machinery shall be operated on the site, no process carried out on the site and no construction-related traffic shall enter or leave the site other than between 08:00 and 13:00 on Saturdays or between 07:30 and 18:00 on Mondays to Fridays unless previously approved in writing by the local planning authority, with no deliveries on Sundays or on Bank or other public Holidays;
 - viii) Arrangements for outdoor artificial lighting (if necessary) so as to prevent nuisance to surrounding properties.
- Development shall be carried out in accordance with the approved construction method statement.
- 7) i) No development shall take place at the site until a scheme for alterations to the public highway made necessary by the construction of the approved development has been approved in writing by the local planning authority and has been implemented as appropriate at that stage. The scheme shall include any changes that are necessary before construction of the approved development, after construction, before decommissioning and after decommissioning. A timetable shall be provided. The scheme shall be implemented as approved.
- ii) No gate shall be placed across the site access closer than 15 metres to the highway boundary.
- 8) No development shall take place until a shadow flicker mitigation scheme has been approved in writing by the local planning authority. The development shall be operated in accordance with the approved mitigation scheme.

- 9) No development shall take place until a baseline television reception study has been carried out in an area previously approved in writing by the local planning authority, and the results submitted to the local planning authority. Details of works necessary to mitigate any adverse effects to domestic television signals caused in the survey area by the development shall, if approved in writing by the local planning authority, be implemented before the turbine blades are first fitted. A scheme for subsequent reactive mitigation in response to independently validated claims that television reception is impaired by the development, shall be submitted for approval by the local planning authority. The turbines shall not be brought into use until the reactive mitigation scheme has been approved, and the approved scheme shall be implemented for the life of the development.
- 10) Written confirmation of the submission of the following details to the Ministry of Defence and the Civil Aviation Authority shall be provided to the local planning authority within 3 months of the date of this permission and there shall be no development until such confirmation has been given:
- i) Proposed date of commencement of the development; and,
 - ii) The maximum extension height of any construction equipment to be on the site.

Written confirmation of the submission of the following details to the Ministry of Defence and the Civil Aviation Authority shall be provided to the local planning authority within 14 days of the completion of construction of the final turbine:

- a) Date of completion of construction;
 - b) The height above ground level of the highest part of the built development (anemometry mast or turbine rotor tip);
 - c) The latitude and longitude of the highest part of the built development; and,
 - d) The lighting details of the site.
- 11) No development shall take place until full details of a planting scheme for the site have been submitted to and approved in writing by the local planning authority and these works shall be carried out as approved. These details shall include proposed location, density and species type of new planting and shall identify existing trees and hedges that are to be retained. All planting in the approved details shall be carried out in the first planting season after the development is complete, and any trees or hedging that dies during the first five years thereafter shall be replaced with healthy stock of similar size and species. All existing trees and hedges that are not to be removed shall be protected in accordance with BS 5837:2005 during the construction period.
- 12) If any wind turbine hereby approved fails to provide electricity for a continuous period of 9 months then a scheme for the decommissioning and removal of the failed turbine and any other ancillary equipment and structures relating solely to that turbine shall be submitted within 2 months to the local planning authority for their written approval. If the

turbine remains failed at the end of a continuous 12-month period (including the initial 9 months previously mentioned) then it shall be removed in accordance with the approved decommissioning scheme. The decommissioning scheme shall set the timescale for removal.

- 13) No development shall take place until a staged programme of archaeological work has been secured in accordance with a written scheme which has been approved in writing by the local planning authority.
- 14) No development shall take place until an ecological method statement has been approved in writing by the local planning authority. The ecological method statement shall include arrangements for the following:
 - i) The provision of an Ecological Clerk of Works;
 - ii) Details of and siting for new wildlife grassland habitat, bumble bee and bird nest boxes, including the timing of their provision; and,
 - iii) The execution of the works generally.

The development shall be carried out and operated in accordance with the approved ecological method statement.

- 15) No development shall take place until a scheme to dispose of foul and surface water has been approved in writing by the local planning authority. The surface water drainage scheme shall be based on sustainable drainage principles and shall include an assessment of the hydrological and hydro geological context of the development. The development shall be carried out in accordance with the approved scheme and with the approved Flood Risk Assessment dated March 2009 and the addendum letter from Arcus dated 9 April 2009. The surface water drainage system shall contain the 1 in 100 year storm event with suitable allowance for climate change, in accordance with section 5 of the Flood Risk Assessment, and shall be such that surface water discharge from the site shall not exceed the Greenfield runoff rates identified in Table 1 of the Flood Risk Assessment. The approved scheme shall be implemented before the development is brought into use.
- 16) All cabling on the site to and from the wind farm shall be underground.
- 17) Each turbine shall have an installed generating capacity of at least 2 megawatts.
- 18)
 - i) 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 shall not exceed the values set out in the attached Tables 1(a) and 1(b). Noise limits for residential properties which lawfully exist or have planning permission for construction at the date of this decision but are not listed in the Tables attached shall be determined according to one of the two following methods, as appropriate:
 - a) A fixed limit of 35 dB $L_{A90, 10min}$ up to wind speeds of 10 metres per second at 10 metres height will apply to properties located

- outside the 35 dB $L_{A90, 10min}$ contour, as shown in Figure 10.1 of the Fewcott Windfarm Environmental Statement;
- b) For properties inside the 35 dB $L_{A90, 10min}$ contour, as shown in Figure 10.1 of the Fewcott Windfarm Environmental Statement, the applicable noise limits shall be taken to be those of the nearest location listed in Tables 1(a) and 1(b) unless a minor change is reasonably requested by the local planning authority. The coordinate locations to be used in determining the location of each of the properties listed in Tables 1(a) and 1(b) shall be those listed in Table 2.
- ii) Within 28 days from the receipt of a written request from the local planning authority, follow a complaint to the local planning authority, the wind farm operator shall, at its 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 complainant's property following the procedures described in the attached Guidance Notes.
 - iii) The wind farm operator shall provide to the Local Planning Authority the independent consultant's assessment and conclusions regarding the said noise complaint, including all calculations, audio recordings and the raw data upon which those assessments and conclusions are based. Such information shall be provided within 3 months of the date of the written request by the local planning authority unless otherwise extended in writing by the local planning authority.
 - iv) Upon notification in writing by the local planning authority of an established breach of the noise limits at i)(a) or i)(b) above, the wind farm operator shall within 28 days propose a scheme to the local planning authority to mitigate the breach and prevent its future occurrence. The scheme shall specify the timescale for implementation. If the scheme is approved by the local planning authority then it shall be implemented in accordance with the approved timescale. If the scheme is rejected by the local planning authority, then the wind farm operator shall revise the scheme and resubmit it within seven days so as to secure the local planning authority's approval, and the approved scheme shall be implemented.
 - v) Wind speed, wind direction and power generation data for each turbine shall be continuously logged and provided to the local planning authority at its written request and in accordance with the attached Guidance Notes within 28 days of the receipt of such request. Such data shall be retained by the wind farm operator for a period of not less than 12 months.
 - vi) No development shall take place until the technical specification including size, sound power level, control software (including noise management options) and design of the turbines as generally indicated in the Environmental Statement have been approved in writing by the local planning authority. Sound power levels derived from the manufacturer's warranty and test literature over the wind speed range of 4 metres per second to 12 metres per second at 10

metres above ground level shall not exceed those set out as the "Assessment Envelope" in Table 10.1 of the Environmental Statement.

- 19) No development shall take place until there has been approved by the local planning authority details of a nominated representative for the development and their contact arrangements to act as a point of contact for the public available by convenient means on at least six days each week together with the arrangements for notifying and approving any subsequent change in the nominated representative. The approved representative shall work within the approved details and shall have responsibility for liaison with the local planning authority in dealing with any noise complaints arising from the development during the period from start of work to completion of final site restoration. In the event that the local planning authority has given written notice to the wind farm operator three times in any 12-month period that it finds the nominated representative to be not working within the approved details, the wind farm operator shall replace the nominated representative, within two weeks of receipt of the third written notice, with an alternative who has been approved by the local planning authority.
- 20) No development shall take place until the parapets on the bridge that carries the road leading north-east from Fritwell (toward Green Farm) over the M40 motorway have been brought to the normal standard for bridges on equestrian routes recommended by the Design Manual for Roads and Bridges, and the development shall not be brought into use until a scheme for the provision of signs on the bridleway that passes nearest the site has been approved by the local planning authority and implemented. The purpose of the signs shall be to give equestrians advance warning of the proximity of the wind farm to the bridleway and the availability of an alternative route, and the signs shall be located so that alternative routes may conveniently be taken.
- 21) No development shall take place until written confirmation has been provided to the local planning authority that a Safety Report has been submitted to and approved in writing by the operators of London Oxford Airport in consultation with the Civil Aviation Authority in relation to the safe operation of London Oxford Airport with the proposed wind farm in place. The turbines shall only be operated in accordance with the terms of the Safety Report.
- 22) No development shall take place until written confirmation is received by the local planning authority and approved in consultation with London Oxford Airport and the Civil Aviation Authority that radar mitigation measures in accordance with CAP 764 (Policy and Guidance on Wind Turbines) (and any other relevant CAA guidance in force at the time) can be implemented by London Oxford Airport such that a radar operation at London Oxford Airport will be safe when the turbines become operational.
- 23) The intensity of air navigation warning lights fitted to the turbines and anemometry mast shall not exceed 25 candela, except with the written approval of the local planning authority.
- 24) The development hereby approved shall not be brought into use until written notice, signed by a Member of the Institution of Structural

Engineers, has been provided to the local planning authority to the following effect:

- i) That the manufacture of the wind turbines conforms to European Standard IEC61 400-1; and
- ii) That the design and installation of the installation as a whole has been carried out in compliance with BS EN 61400-1:2005 *Wind turbines Design requirements*.

The maintenance operation and removal of the installation as a whole shall comply with BS EN 61400-1:2005.

Schedule Of Noise Guidance Notes

These notes form part of condition 18. They further explain that condition and specify the methods to be deployed in the assessment of complaints about noise emissions from the wind farm.

Reference to ETSU-R-97 refers to the publication entitled "The Assessment and Rating of Noise from Wind Farm" (1997) published by the Energy Technology Support unit (ETSU) for the Department of Trade and Industry (DTI).

Note 1

- a) Values of the $L_{A90,10min}$ noise statistic shall be measured at the complainant's property using a sound level meter of EN 60651/BS EN 60804 Type 1, or EN 61672 Class 1 quality (or the replacement thereof) set to measure using a fast time weighted response as specified in BS EN 60651/BS EN 60804 or BS EN 61672-1 (or the equivalent UK adopted standard in force at the time of the measurements). This shall be calibrated in accordance with the procedure specified in BS 4142: 1997 (or the replacement thereof). These measurements shall be made in such a way that the requirements of Note 3 shall also be satisfied.
- b) The microphone should be mounted at 1.2 - 1.5 m above ground level, fitted with a two layer windshield (or suitable alternative approved in writing from the local planning authority), and placed outside the complainant's dwelling. Measurements should be made in "free-field" conditions. To achieve this, the microphone should be placed at least 3.5m away from the building facade or any reflecting surface except the ground at a location agreed with the local planning authority.
- c) The $L_{A90,10min}$ measurements shall be synchronised with measurements of the 10-minute arithmetic mean wind speed and with operational data, including power generation information for each wind turbine, 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 hub height anemometer located on the site meteorological mast unless otherwise agreed with the Local Planning Authority, to enable compliance with the conditions to be evaluated. The mean wind speed data shall be

'standardised' to a reference height of 10 metres as described in ETSU-R-97 at page 120 using a reference roughness length of 0.05 metres. It is this standardised 10m height wind speed data which is correlated with the noise measurements of Note 2(a) in the manner described in Note 2(c)

Note 2

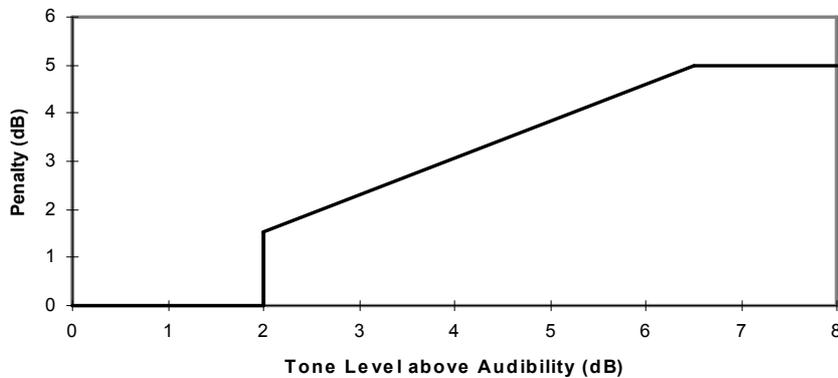
- (a) The noise measurements shall be made so as to provide not less than 20 valid data points as defined in Note 2 paragraph (b). Such measurements shall provide valid data points for the range of wind speeds, wind directions, times of day and power generation requested by the Local Planning Authority. 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 within 28 days of the completion of the measurements all of the data collected under condition 2 to the local planning authority.
- (b) Valid data points are those that remain after all periods during rainfall have been excluded. Rainfall shall be assessed by use of a rain gauge that shall log the occurrence of rainfall in each 10minute period concurrent with the measurement periods set out in Note 1(c) and is situated in the vicinity of the sound level meter.
- (c) A least squares, "best fit" curve of a maximum 2nd order polynomial or otherwise as may be agreed with the local planning authority shall be fitted between the standardised mean wind speed (as defined in Note 1 paragraph (d)) plotted against the measured $L_{A90,10min}$ noise levels. The noise level at each integer speed shall be derived from this best-fit curve.

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 shall be used.

- a) For each 10-minute interval for which $L_{A90,10min}$ data have been obtained as provided for in Notes 1 and 2, a tonal assessment shall be performed on noise emissions during 2-minutes of each 10-minute period. The 2-minute periods shall 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, as described in Section 2.1 on pages 104-109 of ETSU-R-97, 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} (Delta L_{tm}), shall 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 shall be 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, a value of zero audibility shall be substituted.
- d) A linear regression shall 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 shall be derived from the margin above audibility of the tone according to the figure below. The rating level at each wind speed shall be calculated as 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 wind farm noise level (including the application of any tonal penalty as per Note 3) is above the limit set out in the conditions, measurements of the influence of background noise shall be made to determine whether or not there is a breach of condition. This may be achieved by repeating the steps in Notes 1 & 2 with the wind farm switched off in order to determine the background noise, L_3 , at the assessed wind speed. The wind farm noise at this wind speed, L_1 , is then calculated as follows, where L_2 is the measured wind farm noise level at the assessed wind speed 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 wind farm noise level is re-calculated by adding the tonal penalty (if any) to the wind farm noise.

Tables Of Noise Limits Relating To Condition 18

Table 1(a): The $L_{A90,10min}$ dB Wind Farm Noise Level Between 23:00 and 07:00 hours:

Noise Limit, dB, $L_{A90,10min}$ for all wind speeds between 1 and 12 metres per second (10 metres above ground), at stated time

Location	From 23:00 to 07:00
Fewcott Lodge	43.0
Green Farm	43.0
17 Hodgson Close	43.0
Lodge Farm	43.0
Baynard House	43.0
Willowbank Farm	45.0

Table 1(b): $L_{A90,10min}$ dB Wind Farm Noise Level at all other times:

Noise Limit, dB, $L_{A90,10min}$ for all wind speeds between 1 and 12 metres per second (10 metres above ground) at stated time

Location	From 07:00 to 23:00
Fewcott Lodge	46.1
Green Farm	61.8
17 Hodgson Close	41.5
Lodge Farm	42.3
Baynard House	58.1
Willowbank Farm	46.1

Table Of Coordinate Locations Of Properties

Table 2: Coordinate locations of the properties listed in Table 1a & 1b.

Property	Easting	Northing
Fewcott Lodge	453967	228005
Green Farm	453655	229698
17 Hodgson Close	452832	229091
Lodge Farm	452788	228952
Baynard House	454784	229089
Willowbank Farm	453797	228235

SECOND ANNEXE TO THE APPEAL DECISION: APPEARANCES

For Cherwell District Council

Mr Gwion Lewis, of Counsel, instructed by Mr Paul Manning, Solicitor to the Council

He called:

Mr Andrew Lewis, Senior Planning Officer, Cherwell District Council
Councillor Mrs Catherine Fulljames, Cherwell District Council
Councillor James Macnamara, Cherwell District Council
Ms Sarah Reynolds BSc (hons) Dip LD MA MLI, The Landscape Partnership

For the Appellant

Mr Paul G Tucker QC, assisted by Ms Sarah Reid, instructed by Mr David Hammond MRICS, Director, Bolsterstone Limited.

He called:

Mr James Welch BA(hons) CMLI, Optimised Environments Limited
Dr Jonathon Edis BA(hons) MA(dist) PhD MIFA MIHBC, Historic Buildings CgMs Limited
Mr Richard Woodford BA(hons) MRICS MRTPI, How Planning Limited
Mr Michael Reid BSc PGDip AMIOA AIEMA, Arcus Renewable Energy Limited
Mr Mike Watson, Pager Power Limited

For Ardley with Fewcott Parish Council

Mrs Rowena Meager, of Counsel

She called:

Mr J Keyte BSc MIA MIES CEnv, Ove Arup and Partners Limited
Dr Sarah Rutherford Dip Hort Kew MA PhD on behalf of Mr & Mrs Charles Cottrell-Dormer
Mr Ian Corkin, Ardley with Fewcott Parish Council
Mr Richard Shepherd-Cross
Mr Thomas Hand, Fritwell Parish Council
Mr Tim Boswell MP
Dr Richard Stephenson, Upper Aynho Grounds
Ms Troth Wells, British Horse Society
Mr James Perkins, Aynhoe Park
Colonel Anthony Barkas, Resident Agent, Tusmore Park Estate
Mr Martin Leay, Martin Leay Associates

For Campaign to Protect Rural England, Oxfordshire Branch, Bicester and Ploughley District

Mr Michael Tyce FCMI

For Mr and Mrs Farha

Mr Reuben Taylor, of Counsel

For London Oxford Airport Limited

Ms Sasha Blackmore, of Counsel

She called:

Mr Mike Sparrow, Airport Manager, London Oxford Airport

Mr Barry Hawkins MBA, Cyrrus Limited

Mr Shaun Whitfield BA DipTP MRTPI, DPDS Consulting

Mr J A Hunter, Green Farm, Fritwell

Dr Deborah Peat, Local resident

Mrs J Pollock, Local resident

Mrs Joanna Matthews, Oxfordshire Gardens Trust

Mr Eddie Kerins, Local Resident

Mr Marton Lee, Local Resident

THIRD ANNEXE TO THE APPEAL DECISION: INQUIRY DOCUMENTS

Documents (other than proofs of evidence) provided before the Inquiry

Core Documents

- CD1 Planning Policy Statement 1: Delivering Sustainable Development
- CD2 Consultation Planning Policy Statement: Planning and Climate Change
- CD3 Planning Policy Statement 7: Sustainable Development in Rural Areas
- CD4 Planning Policy Guidance 15: Planning and the Historic Environment
- CD5 Planning Policy Statement 22: Renewable Energy. Also: Planning for Renewable Energy: A Companion Guide to PPS22
- CD6 The South East Plan: Regional Spatial Strategy for the South East of England
- CD7 Regional Planning Guidance for the South East (RPG9)
- CD8 Oxfordshire Structure Plan 2016
- CD9 Cherwell Local Plan November 1996
- CD10 The Non-Statutory Cherwell Local Plan 2011
- CD11 Ardley Conservation Area Appraisal
- CD12 Fewcott Conservation Area Appraisal
- CD13 Fritwell Conservation Area Appraisal
- CD14 RAF Upper Heyford Conservation Area Appraisal
- CD15 Not used
- CD16 Cherwell District Landscape Assessment
- CD17 Fewcott Windfarm: Environmental Statement Review
- CD18 Renewable Energy and Sustainable Construction Study
- CD19 Cherwell District Council Planning Officer's Report
- CD20 EIA Screening Opinion Request, Proposed Wind Turbines at Cherwell Valley Services
- CD21 Guidelines for Landscape and Visual Impact Assessment: Landscape Institute with the Institute of Environmental Management and Assessment
- CD22 Landscape Character Assessment: Guidance for England and Scotland
- CD23 Details of listed buildings: Ardley
- CD24 Details of listed buildings: Fritwell
- CD25 Details of listed buildings: Various
- CD26 Notes on Aynho Park
- CD27 Character Area 107: Cotswolds
- CD28 Oxfordshire Wildlife and Landscape Study
- CD29 Landscape Character Assessment: Guidance for England and Scotland: Topic Paper 9: Climate change and natural forces – the consequences for landscape character
- CD30 Landscape Character Assessment: Guidance for England and Scotland: Topic Paper 6: Techniques and Criteria for Judging Capacity and Sensitivity
- CD31 Natural England's Policy on Landscape
- CD32 Climate Change Position
- CD33 Wind Power in the UK
- CD34 Visual Representation of Windfarms: Good Practice Guide
- CD35 Climate Change: The UK Programme 2006
- CD36 European Parliament Directive 2001/77/EC
- CD37 Renewable Energy Capacity in Regional Spatial Strategies
- CD38 Climate Change 2007: Synthesis Report

- CD39 Energy Markets Outlook
- CD40 Our Energy Future – Creating A Low Carbon Economy
- CD41 The UK Renewable Energy Strategy
- CD42 UK’s National Strategy for Climate and Energy: Transition to a Low Carbon Society
- CD43 Draft Overarching National Policy Statement for Energy (EN-1)
- CD44 Draft National Policy Statement for Renewable Energy Infrastructure (EN-3)
- CD45 Conservation Principles Policies And Guidance For The Sustainable Management Of The Historic Environment
- CD46 Wind Energy and the Historic Environment
- CD47 Climate Change and the Historic Environment
- CD48 Notes regarding schedules ancient monuments
- Consultation Paper on a new Planning Policy Statement: Planning for a Natural and Healthy Environment
- Consultation on a Planning Policy Statement: Planning for a Low Carbon Future in a Changing Climate

Planning Application Documents

- 1 Application form and plans
- 2 Environmental Statement Volume I
- 3 Environmental Statement Volume II
- 4 Design and Access Statement
- 5 Planning Statement
- 6 Statement of Community Involvement

Ardley with Fewcott Parish Council Documents
 Volumes 1, 2 and 3

Documents Submitted During the Inquiry

Introductory remarks of Anthony Barkas	Party
Rebuttal proof of evidence on noise: Mr Reid	AFPC
Appellant's opening submission	Appellant
Lever arch file with Additional Noise Documents 1 to 19	Appellant
Opening submission on behalf of the LPA	CDC
Summary proof of evidence of Mrs Reynolds	CDC
Bundle of letters to CDC from: Mr Lockyer, Natural England, Mrs Daly, Highways Agency (2), Croughton Parish Council, Tusmore Park, Ms Wells, Mr & Mrs Loggin	CDC
Listing notice, granary/dovecote at Tusmore	MLA
Statement of Martin Leay	MLA
Statement of Martin Leay – attachments and plans	MLA
Ancient Monument Schedule – Tusmore medieval settlement	MLA
Extract from <i>Country Life</i> , 6/8/38	MLA
Extract from <i>Country Life</i> , 8/12/05	MLA
Statement of Martin Lee	
Statement of Dr Deborah Peat	
Consultation paper on a new PPS: Planning for a natural and	Appellant

healthy environment	
Consultation on a PPS: Planning for a low carbon future in a changing climate	Appellant
Bundle of additional documents from CPRE	CPRE
Letter from Oxfordshire Gardens Trust	
Wireframes: viewpoints A, B, C and D	Appellant
Note: Wind Energy And Horses	Appellant
BHS leaflet: Wind Farms	Appellant
Paragraph 1.4 of Mrs Reynolds' proof of evidence	CDC
E-mail dated 26/11/09 from Oxfordshire CC	CDC
E-mail dated 10/3/10 from CDC to English Heritage re Aynho Park	CDC
Note regarding English Heritage response	CDC
English Heritage letter dated 9/3/09	CDC
Letter dated 20/1/10 from Oxfordshire CC	CDC
Aynho House: engraving, 1820	AFPC
Statement of Common Ground with Cherwell DC	Appellant
Three bundles of appeal decisions	Appellant
Bundle of Additional Noise Documents	Appellant
Bundle of correspondence regarding Aynho House	CDC
Landscape Partnership Drg B09039/14: Historic Map 1st edition 1885-1890	CDC
A4 copy of Rousham cross-section	CPRE
Note re proposal for wind turbines in the Oxford Green Belt	CPRE
Note re Policy re Wind Farm Viability	CPRE
Appeal Decision extract: Runcorn	CPRE
Rousham Park brochure	AFPC
Appeal decision extract: Cumwhinton, Carlisle	AFPC
Landscape Partnership Drg B09039/12	AFPC
Further bundle of papers	AFPC
Bundle of papers: wind turbine efficiency	Appellant
Note: Fewcott Wind Farm Landscape and Visual Review	Appellant
Upper Heyford – a position statement for the public Inquiry	CDC
Draft conditions 09 03 10	CDC
Summary proof of evidence of Mr Tyce	CPRE
Oxford Aviation Services Ltd: Statement of Case	LOA
Letter dated 15/3/10 from "Save Britain's Heritage"	
Letter dated 15/3/10 from St Mary's PCC, Ardley with Fewcott	AFPC
AFPC proposed planning conditions	AFPC
Summary statement by Ian Corkin	AFPC
Summary statement by Richard Shepherd-Cross, and bundle of supporting papers	AFPC
Scottish planning policy extract, 2010	Appellant
Technical details, turbine type E-82 E2	Appellant
Site visit itinerary	CDC
CPRE – further suggested conditions	CPRE
Load factors for wind technologies in 2008	CPRE
Scottish planning guidance	CPRE
Notes of proceedings, days 1 to 6	Appellant
Commentary paper on Appellant's Landscape and Visual Review Document	AFPC

Annotated version of Appellant's Landscape and Visual Review Document	AFPC
Inspector's Note Number 1: PPS5	
Inspector's Note Number 2: Questions of Clarification	
Photographs taken on the day of the Inspector's Site Visit	MLA
"Policy and Corporate Responses To Climate Change: Personal Recollections	CPRE
Letter from Tony Baldry MP to Planning Inspectorate.	
Letter from Civil Aviation Authority to CDC, 7 January 2009	CDC
Note regarding PPS5: CPRE: dated 31/3/10	CPRE
Letter dated 31 March 2010 from English Heritage	CDC
Note regarding PPS5: CDC: 9 April 2010	CDC
Note regarding PPS5: Dr Edis: 9 April 2010	Appellant
Statement on PPS5: Mr Keyte	AFPC
Proof of evidence of Mr Whitfield	LOA
Proof of evidence of Mr Sparrow	LOA
Proof of evidence of Mr Hawkins	LOA
Supplementary Information on Noise: Mr Reid	Appellant
Rebuttal Proof of Evidence: Mr Watson	Appellant
Bundle of manuscript notes	Appellant
Note regarding blimps flown on 18 March 2010	Appellant
Note regarding turbine certification	Appellant
"Wind Farm Noise Predictions And Comparison With Measurements", Bullmore et al	Appellant
Revised tables of noise limits relating to condition 1	Appellant
Note on Environmental Impact Assessment Directive for Local Planning Authorities	CDC
Judgement: R v Rochdale MBC: May 7 1999	CDC
Heights of Balloons on Inspector's Site Visit	CDC
Note regarding proposed minimum generating capacity of turbines	Appellant
Draft Conditions 22 April 2010	Appellant
Proposals for amendments to Conditions	AFPC
E-mail: Council's acceptance of a condition re BS EN 6140-1:2005	CDC
Highways Agency advice note SP 12/09	CPRE
Comment on Appellant's evidence of comparative output of different turbines	CPRE
Outline opening submissions	LOA
Scope of work undertaken by Cyrrus Ltd	Appellant
Letter to CDC regarding single turbine proposal at Cherwell Valley	LOA
Draft Planning Obligation, dated 30 April 2010	Appellant
Draft condition: Outer Horizontal Surface of LOA	Appellant
Inspector's Note 3	Inspector
Information requested by Ruben Taylor: Brize Norton Wind Data	Appellant
CDC letter to appellant regarding draft Planning Obligation: 17 May 2010	CDC
E-mail dated 22 May 2010, regarding Regional Spatial Strategy	CPRE
E-mail dated 27 May inviting submissions re weight of RSS policy	Inspector

E-mail dated 27 May regarding condition re BS EN 6140-1: 2005	Appellant
Secretary of State letter dated 27 May re intended abolition of RSS	Inspector
Notes of proceedings, days 7 and 8	Appellant
CPRE closing statement	CPRE
South Northants Consultation Draft SPD: Wind Turbines in the Open Countryside	CPRE
Newspaper article "Biomass to blow out wind farms"	CPRE
Incredible picture of wind turbines at night	CPRE
Lillgrund Wind Farm - Visual effects	CPRE
LOA Response to Inspector's queries on radar mitigation	LOA
Agreed note on radar mitigation	LOA
LOA's further note on radar mitigation, including matters not agreed	LOA
Closing submissions on behalf of London Oxford Airport Ltd	LOA
Extract from "Planning Obligations: Practice Guidance" (DCLG)	LOA
Extract from PINS website: "Planning Conditions And Obligations"	LOA
Closing submissions on behalf of Mr & Mrs Farha	Farha
Closing submissions on behalf of Ardley with Fewcott Parish Council	AFPC
Closing submissions on behalf of the Local Planning Authority	CDC
Proposed condition regarding aviation safety	Appellant
Bundle of papers regarding wind farm at Middlemoor, North Charlton, Northumberland	Appellant
E-mail dated 7 June 2010 from Cyrrus Ltd	Appellant
Statement of Common Ground regarding radar mitigation	Appellant
Extracts from Inspector's report, Wind Farm at Little Cheyne Court, Kent	Appellant
Appeal Decision, wind farm at Enifer Downs Farm near Dover	Appellant
Closing submissions on behalf of the Appellant	Appellant
Addendum to the closing submissions on behalf of the Appellant	Appellant