



Department for
Communities and
Local Government

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Our Ref: APP/J3720/A/13/2193579
Your Ref: 181122.000004

1 October 2014

Dear Madam,

**TOWN AND COUNTRY PLANNING ACT 1990 – SECTION 78
APPEAL BY BROADVIEW ENERGY LTD- THE ERECTION OF 4 No. WIND
TURBINES.
LAND BETWEEN BISHOPS ITCHINGTON, GAYDON AND KNIGHTCOTE TO THE
SOUTH-EAST OF THE B4451
(APPLICATION REF: 12/00330/FUL)**

1. I am directed by the Secretary of State to say that consideration has been given to the report of the Inspector, SRG Baird BA(Hons), MRTPI, who held an inquiry beginning on 10 September 2013 into your client's appeal against the refusal of Stratford-On-Avon District Council ("the Council") to grant planning permission for the erection of 4no. wind turbines up to a maximum tip height of 125m high, and other ancillary development including a new vehicular access off the Gaydon Road (B4551), access tracks, vehicular accesses, crane hard standing areas, a control building, underground cabling, construction compound and meteorological mast on land between Bishops Itchington, Gaydon and Knightcote to the south-east of the B4451.
2. On the 11th October 2013 the appeal was recovered for the Secretary of State's determination, in pursuance of section 79 of, and paragraph 3 of Schedule 6 to, the Town and Country Planning Act 1990 on the grounds that it involves a renewable energy development.

Inspector's recommendation and summary of the decision

3. The Inspector, whose report is enclosed with this letter, recommended that the appeal be dismissed and planning permission refused. For the reasons given below, the Secretary of State agrees with the Inspector's conclusions and

recommendation, dismisses the appeal and refuses planning permission. All paragraph numbers, unless otherwise stated, refer to the Inspector's report (IR).

Procedural matter

4. In reaching this position the Secretary of State has taken into account the submitted Environmental Statement (ES) and the Further Environmental Information Report (FEI) (IR1.4). Overall the Secretary of State is satisfied that the ES and FEI comply with the Town and Country Planning (Environmental Impact Assessment) Regulations 2011 and that sufficient information has been provided for him to assess the environmental impact of the proposal.

Policy Considerations

5. In deciding the appeal, the Secretary of State has had regard to section 38(6) of the Planning and Compulsory Purchase Act 2004 which requires that proposals be determined in accordance with the development plan unless material considerations indicate otherwise. In this case, he agrees with the Inspector (IR3.21) that the development plan comprises the saved policies of the Stratford-on-Avon District Local Plan Review adopted in July 2006 (LP).
6. The Secretary of State notes that Proposed Submission Core Strategy (CS) was endorsed by the Council in July 2013 (IR3.29) and has since been published for consultation. He agrees with the Inspector that given the CS is at an early stage in the process only limited weight should be attached to its policies in the planning balance (IR10.70).
7. Other material considerations which the Secretary of State has taken into account include the National Planning Policy Framework ("the Framework") and the planning guidance published in March 2014; the National Policy Statements (NPS) for Energy (EN-1) and Renewable Energy (EN-3); the Community Infrastructure Levy (CIL) Regulations 2010 as amended and Planning Practice Guidance for Renewable and Low Carbon Energy (2013). The Secretary of State has also taken into account the Written Ministerial Statements on renewable energy published in June 2013 by the Secretaries of State for Energy and Climate Change and for Communities and Local Government and the Written Ministerial Statement on renewable energy published by the Secretary of State for Communities and Local Government in April 2014.
8. In accordance with section 66(1) of the Planning (Listed Buildings and Conservation Areas) Act 1990 (the LB Act), the Secretary of State has paid special regard to the desirability of preserving those listed structures potentially affected by the proposals before him or their settings or any features of special architectural or historic interest which they may possess.

Main Considerations

9. The Secretary of State agrees with the Inspector that the main issues in this case are those set out at IR10.2.

Living conditions

Outlook

10. The Secretary of State agrees with the Inspector that the proposed turbines would appear unacceptably dominant and overbearing to Lower Spring Farm and as a result this property would become an unacceptable and unattractive place in which to live (IR10.10). Similarly he agrees with the Inspector's conclusion in relation to Meadow Farm and finds that the proposed turbines would appear dominant and overbearing rendering this property an unacceptably unattractive place in which to live (IR10.12). He accepts the Inspector's conclusion that at the property 'Trotters', the layout of the property is such that the impact of the proposed turbines would be reduced so that, taken in the round, it would not be an unacceptably unattractive place in which to live (IR10.13). He finds no reason to disagree with the Inspector's conclusions that the impact of the proposed turbines on the properties identified in IR10.14 would be such as to make those dwellings unacceptable and unattractive places in which to live.

Shadow Flicker

11. For the reasons given at IR10.15 the Secretary of State concludes that the proposed development would not result in significant effects as a result of shadow flicker and reflected light and that suitable conditions to control these effects could be attached to any grant of permission.

Noise

12. The Secretary of State agrees with the Inspector that the noise assessment undertaken for the ES, and agreed with the Council's Environmental Health Officer, is a sound basis for determining this appeal. He finds no reason to disagree with the Inspector's conclusions that this assessment demonstrates that noise levels would fall within the relevant limits of acceptability for all locations, at all wind speed and directions, at all times (IR10.20).
13. The Secretary of State agrees with the Inspector at IR10.22 that there is insufficient evidence on the issue of the operation of wind turbines and serious health problems to consider departing from Government advice on the matter.

Amplitude Modulation

14. The Secretary of State acknowledges the concerns raised by the Inspector in relation to the Local Planning Authority's Suggested Conditions (IR10.23-10.29) and agrees with his conclusion at IR10.30 that the Suggested Conditions would not meet the policy tests of the planning guidance – Use of Conditions and paragraph 206 of the Framework.

Heritage Assets

15. The Secretary of State agrees that, given the separation of the proposed turbines from the Heritage Assets identified in the LPA's reasons for refusal, the potential for harm arises from the positioning of the turbines within their setting, i.e. non-physical harm (IR10.36).

16. The Secretary of State has carefully considered the inspector's assessment of the impact of the proposed turbines on the three Heritage Assets (HAs) identified in IR10.37 and agrees with the Inspector's conclusions that the potential impacts on the significance on each of those HAs would be minor, that is, less than substantial. He notes that paragraph 134 of the Framework states that where a development proposal will lead to less than substantial harm to the significance of a heritage asset this harm should be weighed against the public benefits in the planning balance.
17. In relation to the Burton Dassett Beacon Tower, the Secretary of State agrees with the Inspector's conclusion that there would be a moderately harmful impact to its setting and its significance as a HA but, in terms of the balancing exercise required by the Framework, this would be less than substantial (IR10.40).
18. The Secretary of State agrees that although the harm to the HAs is not substantial it is a significant level of harm and weight should be attached in the planning balance given the statutory duty attached in section 66 of the LB Act.

Landscape and Public visual Impact

19. The Secretary of State agrees with the Inspector's conclusion that the wider NCA 96 landscape would be capable of absorbing the four proposed turbines without significant harm to its landscape character (IR10.44).
20. With respect to the public visual impacts of the proposed turbines identified in IR10.46, the Secretary of State agrees with the Inspector's conclusions that these would be very significant and adverse.
21. The Secretary of State further agrees with the Inspector's assessment of the extent of the area where a "Landscape with Wind Farms" would be created and his conclusion that the landscape and visual impacts would be significant (IR10.47).
22. The Secretary of State agrees with the Inspector's conclusion at IR10.49 that the impact of the proposed turbines would materially and unacceptably reduce the amenity value of the Country Park and the public's enjoyment and use of it.
23. The Secretary of State has carefully considered the Inspector's assessment of the impact of the turbines on views both in and out the AONB and agrees with his conclusion that the proposal would have a moderately adverse effect it would not unacceptable detract from the character and appearance of the AONB (IR10.50).

Equestrian Activity

24. The Secretary of State agrees with the Inspector's reasoning and conclusions on the issue of equestrian activity at IR10.52-10.57.

Other Considerations

25. The Secretary of State agrees with the Inspector's assessments and conclusions in respect of the matters referred to in IR10.58-10.64.

Planning and Energy policy

26. The Secretary of State agrees that the relevant development plan policies are those set out by the Inspector at IR10.66. He agrees with the Inspector on the relative weight to be attributed to these policies is in accordance with their consistency with the Framework (IR10.67-10.69).
27. The Secretary of State agrees with the Inspector's summary of national energy and planning policy in IR10.71.

Planning Balance and Conclusion

28. The Secretary of State agrees with the Inspector's conclusions that the matters to weigh in the balance are the benefits of this scheme against the landscape/visual impacts, to which he adds the impact on living conditions of identified residential properties and cultural heritage impact (IR10.72).
29. The Secretary of State has identified that the increase in the supply of renewable energy and a reduction in the CO² emissions, assisting in mitigating climate change, as very important factors in favour of this appeal. However, he has also found that this consideration is significantly and demonstrably outweighed by the impact on the living conditions of the properties identified at paragraph 10 above. He considers that the proposal is unacceptable in this respect. Added to this he has identified harm in respect of cultural heritage and the visual amenity of the area generally up to 5Km of the development as well as landscape impact. The Secretary of State concludes that, taken as a whole, the proposal conflicts with national policy set out in the Framework.
30. Like the Inspector at IR10.80, the Secretary of State has considered the temporary nature and reversibility of the proposal. He agrees with the Inspector's conclusion particularly in relation to the impact of the proposals upon the use of and enjoyment by occupiers of the houses affected. In carrying out the balancing exercise he too attaches limited weight to the potential for reversibility.
31. Having weighed up all relevant considerations, the Secretary of State concludes that the factors which weigh in favour of the proposed development do not outweigh its shortcomings and the conflict identified with the development plan and national policy. He considers that there are no material considerations of sufficient weight which would justify allowing the appeal.

Conditions

32. The Secretary of State has had regard to the schedule of conditions at Annex A of the IR. He is satisfied that the Inspector's proposed conditions are reasonable and necessary and would meet the tests of the paragraph 206 of the Framework. However, he does not consider that they would overcome his reasons for dismissing this appeal.

Formal Decision

33. Accordingly, for the reasons given above, the Secretary of State agrees with the Inspector's recommendation. He hereby dismisses your client's appeal and refuses planning permission.

Right to challenge the decision

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

35. A copy of this letter has been sent to the Council. A notification letter has been sent to all other parties who asked to be informed of the decision.

Yours faithfully

Richard Watson

Authorised by the Secretary of State to sign in that behalf

Report to the Secretary of State for Communities and Local Government

by S R G Baird BA (Hons), MRTPI

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

Date: 27 May 2014

TOWN AND COUNTRY PLANNING ACT 1990

APPEAL BY

BROADVIEW ENERGY LIMITED

STRATFORD-ON-AVON DISTRICT COUNCIL

Inquiry held on 10 September 2013

Land between Bishops Itchington, Gaydon and Knightcote to the south-east of the B4451

File Ref: APP/J3720/A/13/2193579

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File Ref: APP/J3720/A/13/2193579

Land between Bishops Itchington, Gaydon and Knightcote to the south-east of the B4451

- 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 Broadview Energy Limited against the decision of Stratford on Avon District Council.
- The application Ref 12/00330/FUL, dated 7 February 2012, was refused by notice dated 13 February 2013.
- The development proposed is the erection of 4 wind turbines, up to a maximum tip height of 125m high, and other ancillary development including a new vehicular access off the Gaydon Road (B4451), access tracks, vehicular accesses, crane hard standing areas, a control building, underground cabling, construction compound and meteorological mast.

Summary of Recommendation: The appeal be dismissed.

1 Preliminary Matters

- 1.1 As the appeal involves a renewable energy development, the Secretary of State (SoS), exercising his powers under S79 and paragraph 3 of Schedule 6 of the above Act, directed that he would determine this appeal.
- 1.2 The local planning authority's (lpa) third, fifth and sixth reasons for refusal (RfR) refer to the effect of the scheme on: aviation safety; archaeology and telecommunication links. At the Inquiry it was confirmed that these matters could be dealt with by imposing planning conditions (Docs 8 & 33, SCs 20, 22, 23, 26 and 27). With regard to aviation safety and archaeology, although the relevant proofs of evidence are listed as Inquiry documents, neither the lpa nor the appellant called witnesses. The potential effect of noise is not a RfR and the lpa's evidence relates solely to the imposition of appropriate planning conditions.
- 1.3 The RfRs refer to the Regional Spatial Strategy for the West Midlands (RSS). An Order to revoke the RSS came into force on 20 May 2013. The Order also revoked all directions preserving policies in the Warwickshire Structure Plan.
- 1.4 Regard has been had to an Environmental Statement (ES) dated January 2012 and submitted under The Town and Country Planning (Environmental Impact Assessment) Regulations 2011¹ and a Further Environmental Information Report (FEI) dated October 2012. The submitted ES complies with the requirement of the Regulations.
- 1.5 In December 2013 RenewableUK (ReUK) published 6 documents relating to research and guidance on wind turbine amplitude modulation (Docs 81A to 81F). The parties were given the opportunity to comment on the implications of the research and guidance documents (Doc 81 & Docs 82 to 84).
- 1.6 In February 2014, further to the Court of Appeal decision in the case of Barnwell Manor Wind Energy Limited and East Northamptonshire District Council, English Heritage, National Trust and the Secretary of State for Communities and Local Government [2014] EWCA Civ 137, the parties were

¹ EIA.

given the opportunity to comment on the implications of this judgement for their case (Docs 85 to 88).

- 1.7 Planning Practice Guidance (PPG) was published in March 2014 and cancelled of DCLG Planning Practice Guidance for Renewable and Low Carbon Energy - July 2013, the parties were given an opportunity to comment on the implications of the PPG for this proposal (Docs 89 & 90).
- 1.8 The list of documents includes opening and closing submissions and proofs of evidence from the main parties. The proofs of evidence are as originally submitted and do not take account of how that evidence may have been affected by cross-examination or subsequent discussions and agreement between the parties. In reporting the cases for the main parties, I have used the opening and closing submissions as the basis for their cases and have taken into consideration the responses received in relation to my requests for further comment.

2 The Site and Surroundings

- 2.1 The site is located on agricultural land between the settlements of Knightcote, Bishops Itchington and junction 12 of the M40 near Gaydon. Knightcote lies approximately 1km to the south-east of the site; Bishops Itchington is some 2km north, Fenny Compton is some 3.5km to the south-east, Northend and Burton Dassett are some 2km and 2.5km respectively to the south. To the west and south-west of the M40 lies Lighthorne Heath, the Jaguar Land Rover plant and Vehicle Proving Ground, Gaydon and Temple Herdewyke (ES Figure 1.1). The immediate area is relatively sparsely settled, with small clusters of farmsteads, former farmsteads and individual dwellings of varying size
- 2.2 The elevated nature of the surrounding landform creates a low-lying basin within which the site lies (Doc 37 Appendix 1). The site and its immediate surroundings have a medium scale field pattern contained by native hedgerows and occasional individual and small groups of trees. The site slopes gently from north-west to south-east varying between 105m AOD to 90m AOD. A minor road, Knightcote Bottom Road (D6396), locally referred to as The Old Salt Road, passes through the southern part of the site. The B4451 passes to the north-west linking Gaydon and the M40 to the south-west and Bishops Itchington and Southam in the north. To the north-west of Gaydon Road, the land rises gently towards the wooded slopes of Christmas Hill and Pipers Hill. A few scattered dwellings occupy the slope, which is crossed by public footpaths. To the south and south-west beyond Northend, the land rises to form the Burton Dassett Hills and CP on an undulating plateau at 181m AOD. At the northern end of this plateau and overlooking the site is Beacon Tower, a Scheduled Ancient Monument (SAM) and a Grade II Listed Building. Beyond is the scarp slope of the Cotswolds Area of Outstanding Natural Beauty (AONB).
- 2.3 Knightcote Lane (C51) runs in the east between Bishops Itchington and Knightcote and Pimple Lane/Long Lane, a minor road and part of the route of the Centenary Way footpath, passes to the south and south-west, as it runs between Northend and Gaydon. The B4451 and Knightcote Lane have individual residential and commercial properties intermittently positioned along their length. These properties enjoy a range of generally open views across the countryside and towards the appeal site.
- 2.4 The appeal site is not the subject of a landscape designation. The nearest nationally designated landscape is the AONB, located approximately 5.5km to the south. There are numerous designations within the 30km ES study area, including a number of Local Landscape Areas; Special Landscape Areas, Areas of High Landscape Value and Areas of Attractive Landscape located within Oxfordshire, Northamptonshire and Buckinghamshire. The landscape designations are shown on Figure 7.1 in ES Volume 3 (CD12.2H). There are no public rights of way within the appeal site. The closest public footpath and bridleway, The Centenary Way, is approximately 600m to the west of the nearest turbine. The Centenary Way is a 158km long distance path which runs in a north-south direction.

3 Planning Policy and Other Guidance

National Energy Policy

- 3.1 The Energy Challenge July - 2006 highlights that the generation and use of renewable energy is an integral part of the Government's strategy for tackling climate change and the key role planning has in its delivery (Doc 20 Appendix 1). The Energy White Paper, Meeting the Challenge - May 2007, reiterates the international and domestic energy strategy response to the challenges of climate change and energy security (Doc 20 Appendix 2). The Climate Change Act 2008 sets a legally binding target to reduce greenhouse gas emissions by at least 80% by 2050 and reductions in CO₂ emissions of some 26% by 2020 against a 1990 base. The Act set up the Committee on Climate Change (CCC), an independent expert body to advise on, amongst other things, the level of carbon budgets necessary to meet the binding target. The EU Directive 2009/28/EC set the UK a target to produce 15% of all energy from renewable sources by 2020.
- 3.2 The Renewable Energy Strategy - July 2009 (RES) sets out the means by which binding targets will be met (CD6.5). The RES notes that the UK's contribution to the EU target is to increase the share of renewables in the energy mix to 15% by 2020, represents a seven-fold increase in UK renewable energy production from 2008 levels. The RES seeks to ensure that it can deliver more than 30% of electricity generated from renewables of which some 66% will come through on and offshore wind projects. Recognising there would be pressure on some local environments from renewable energy infrastructure provision, the RES supports the swifter delivery of renewable and low carbon energy applications.
- 3.3 The RES seeks: to reduce the UK CO₂ emissions between now and 2030; promote the security of our energy supply, reducing overall fossil fuel demand by around 10% and gas imports by 20–30% against forecast use in 2020. The RES is an integral part of the overall Low Carbon Transition Plan to ensure delivery of the clean, secure and affordable energy of the future (CD 6.6). This plan established a roadmap for the decarbonisation of the UK, set 5-year carbon budgets and reiterated the central role planning has in supporting the deployment of renewable energy.
- 3.4 The Coalition: Our Programme for Government May 2010 set out support for increasing the target for energy from renewable sources and increasing the EU emission reduction target to 30% by 2020 (CD6.8). The National Renewable Energy Action Plan July 2010 highlights the need to radically increase the use of renewable energy. The Plan referred to the CCC reviewing the renewables target and providing advice on "*increasing the level of ambition*". In 2009, the CCC identified that investment in a broad range of renewables technologies, but mainly on and off-shore wind, would directly contribute to decarbonisation. However, the CCC warned that meeting the 2020 target would require a step change in the rate of progress (CD6.7).
- 3.5 The CCC in The Renewable Energy Review - May 2011 (RER) highlights that the 2020 ambition to develop renewables as an option for future decarbonisation requires large-scale investment to help support technology innovation and new policies to address barriers to uptake (CD6.9). The RER indicated that, compared with on-shore wind, most other renewable energy

generation technologies are expensive and likely to remain so until at least 2020, and in some cases, considerably later.

- 3.6 The UK Renewable Energy Roadmap - July 2011 (CD6.10) reiterates the target that 15% of UK energy demand is to be met from renewable sources by 2020 and highlights that to meet it consumption of electricity would have to rise by 17% per annum. The Roadmap analysed recent trends in renewables deployment and the pipeline of projects that could come forward before 2020, as well as the barriers to be overcome. Onshore wind is identified as the biggest single contributor to the pipeline of new capacity. However, although the pipeline of new projects is thought to be healthy, it is recognised that not all would be commissioned and there is still an urgent need for new projects to come forward.
- 3.7 The Carbon Plan – Delivering our Low Carbon Future - December 2011, set out plans for achieving the emissions reductions committed to in the first 4 Carbon Budgets for the period 2008 to 2027. These relate to the legally binding targets to reduce the greenhouse gas emissions as set out in the 2008 Act. The 3 parts of the expected electricity generation portfolio are listed as renewable power, nuclear and coal and gas fired power stations fitted with carbon capture and storage (CCS). The Plan identifies that the power sector accounts for some 27% of UK total emissions by source and that by 2050, emissions from the sector needs to be close to zero. In addition, it is estimated that electricity demand may rise between 30 and 60% and *"...may need as much as double today's electricity capacity to deal with peak demand..."*. Given uncertainties over the most cost effective mix of technologies and the pace of transition, the Delivery Plan sets out the commitment to *"ensuring that the low carbon technologies with the lowest costs will win the largest market share..."*. Thus, whilst there is some flexibility in the overall eventual mix that will constitute the future UK generation platform, wind energy as a low cost renewable technology is seen as having an important role.
- 3.8 The Energy Bill and Annual Energy Statement 2012 (AES) (CD6.15) were introduced to Parliament in November 2012. The Energy Bill is intended to implement the key aspects of Electricity Market Reform (CD6.11) to establish investor confidence in providing renewable energy infrastructure. The AES intends that a balanced energy policy will be delivered that involves more investment in renewables. The AES recognises that increasing the supply of renewable energy is critical to keeping the UK on a low carbon pathway and helping to meet legally binding carbon targets. On planning policy, the AES notes the important role the planning system has in tackling climate change and the transition to a low carbon economy and looks to Lpas to have a positive strategy to promote energy from renewable and low carbon sources in their local plans. Lpas are expected to approve applications if the impacts are, or can be made, acceptable.
- 3.9 The Renewable Energy Roadmap Update - December 2012 (CD6.16) sets out the progress and changes in the renewables sector over the past year and sets out challenges and actions for the year ahead. The commitment to increasing the deployment of renewable energy is reiterated and identifies that encouraging a diverse mix of energy sources including renewables is the best way to meet our decarbonisation ambitions.

- 3.10 On onshore wind, the Update records that *"...the Government is committed to onshore wind as part of a diverse energy mix contributing to a security of supply and carbon reduction targets..."* It adds that onshore wind provides substantial economic benefits and that the Government is seeking to remove barriers to the development of appropriately sited projects, whilst giving local communities more influence. The Update repeats the 2011 Roadmap conclusion that whilst the current pipeline for onshore wind has the potential to provide the appropriate quantity of development, *"...we cannot be certain how much of the capacity in the pipeline projects will go forward as not everything in the pipeline will be consented and not everything consented will be built..."* The Update recognises that there remains an urgent need for new large scale projects to come forward to ensure that the 2020 target and the wider decarbonisation objectives are met.
- 3.11 Although largely overtaken by the publication of Planning Practice Guidance in March 2014, parallel statements by the SoS for Energy and Climate Change and the SoS for Communities and Local Government relating to onshore wind and planning are relevant (CDs 2.3 & 2.4). These statements recognise that appropriately sited onshore wind energy developments where the correct weight has been given to the various environmental considerations, are one of the most cost effective and proven renewable energy technologies and have an important role to play in a balanced energy policy.

National Planning Policy and Guidance

- 3.12 National Policy Statements (NPS) are a material consideration in decisions on planning applications². NPS EN-1 – Overarching National Policy Statement for Energy - July 2011 (CD6.1) highlights that to meet emissions targets, the consumption of electricity will need to be almost exclusively from low carbon sources. The short-term implication is that much of the new capacity would need to come from on and off-shore wind generated electricity. To meet the 2020 target for energy from renewable sources, NPS EN-1 highlights an urgent need to bring forward new renewable electricity generating projects as soon as possible. Whilst off-shore wind is expected to provide the largest single contribution to the 2020 target, on-shore wind is highlighted as, the most well-established and currently the most economically viable source of renewable energy available for future large-scale deployment in the UK (paragraph 3.4.3). To meet binding targets and to decarbonise the power sector by 2030, paragraph 3.4.5 of NPS EN1 reiterates that it is necessary to bring forward renewable energy electricity generating projects as soon as possible and that the need for these projects is urgent.
- 3.13 NPS EN-1 recognises that renewable energy infrastructure has the potential to result in adverse impacts on the historic environment. In considering proposals, the decision maker should seek to identify and assess the significance of any Heritage Asset (HA) including development within its setting. In considering applications affecting the setting of a designated HA, the negative effects should be weighed against the wider benefits of the proposal. Paragraphs 5.9.12 and 5.9.13 of NPS EN-1 refer to developments outside nationally designated areas i.e. AONBs and whilst it cautions that

² Paragraph 3 – National Planning Policy Framework

development should avoid compromising the purposes of designation, the fact that a project would be visible from within a designated area should not, in itself, be a reason for refusing consent.

- 3.14 Paragraph 2.7.1 of NPS EN-3 – Renewable Energy Infrastructure - July 2011 reiterates the important role of on-shore wind and deals with issues including landscape and visual impact, the historic environment noise and ecology (CD6.2). Paragraph 2.7.43 indicates that the length of time for which consent is sought should be taken into account when considering any effects on the setting of a designated HA. NPS EN-3 recognises that commercial wind farms are large structures and that there will always be significant landscape and visual impacts for several kilometres around a site. Paragraph 2.7.56 says that any noise assessment should be based on ETSU-R-97 and published best practice.
- 3.15 National planning policy is set out in the National Planning Policy Framework (the Framework) (CD2.1). At the heart of the Framework is a presumption in favour of sustainable development. A core principle is that in a changing climate, planning should support the transition to a low carbon future and encourage the use of renewable resources. Paragraph 93 provides for planning to play a key role in helping to shape places to secure radical reductions in greenhouse gas emissions, minimising vulnerability and providing resilience to the effects of climate change, and supporting the delivery of renewable energy and associated infrastructure. This is central to the 3 dimensions of sustainable development. Paragraph 98 recognises that small-scale renewable energy projects provide a valuable contribution to cutting greenhouse gas emissions.
- 3.16 The Framework's core principles recognise the intrinsic character and beauty of the countryside and that development should contribute to conserving and enhancing the natural environment by protecting and enhancing valued landscapes (paragraph 109). AONBs have the highest status of protection in relation to landscape and scenic beauty (paragraph 115). Paragraph 123 sets out the principle that planning decisions should aim to avoid noise giving rise to significant impacts on health and quality of life and mitigate and reduce to a minimum other adverse impacts on health and quality of life arising from noise from new development, through the use of planning conditions.
- 3.17 In terms of the historic environment, paragraph 131 says that account is to be had to: the desirability of sustaining and enhancing the significance of HAs; highlights the positive contribution that conservation of HAs can make to sustainable communities and the desirability of new development making a positive contribution to local character and distinctiveness. The Framework identifies that when considering the impact of a proposed development on the significance of a designated HA, great weight should be given to the asset's conservation and the more important the asset, the greater the weight should be. Significance can be harmed or lost through alteration or destruction of the HA or development within its setting. Substantial harm to a designated HA of the highest significance (SAMs and Grade I and II* Listed Buildings) should be wholly exceptional. Where a proposed development would lead to substantial harm to the significance of a designated HA, permission should be refused, unless it can be demonstrated that the substantial harm is necessary to achieve substantial public benefits that outweigh that harm. Where a

development proposal would lead to less than substantial harm to the significance of a designated HA, this harm should be weighed against the public benefits of the proposal (paragraphs 132 to 134).

- 3.18 Planning Practice Guidance (PPG) was issued on the 6 March 2014, cancelled Planning Practice Guidance for Renewable and Low Carbon Energy - July 2013. The PPG reiterates the importance of, renewable energy to the economy, reducing greenhouse gases and tackling climate change. PPG makes it clear that: need does not automatically override environmental protections; local topography is an important factor recognising that the impact can be as great in mainly flat landscapes as in hilly areas; great care should be taken to ensure HAs are conserved in a manner appropriate to their significance, including the impact of proposals on views important to their setting; that proposals close to AONBs where there could be an adverse effect will need careful consideration and that protecting local amenity is an important consideration. PPG indicates that acceptable renewable energy developments should not be ruled out through inflexible rules on buffer zones or separation distances. Relating to wind turbines, PPG confirms that ETSU-R-97 should be used to assess and rate noise and that the May 2013 Institute of Acoustics (IoA) Good Practice Guide represents current industry good practice. Reference is also made to public safety, ecology, shadow flicker, energy output, landscape and visual impacts.
- 3.19 ETSU describes a framework for the measurement of wind farm noise and attempts to strike a balance between the environmental benefits of wind energy development and the potential for environmental damage through noise pollution (CD8.1). ETSU gives indicative levels calculated to offer a reasonable degree of protection for neighbours without placing an unreasonable restriction on wind farm developments. Thus, in most cases noise limits set relative to the existing background noise at the nearest noise-sensitive properties is considered the most appropriate approach.
- 3.20 Although Planning Policy Statement (PPS) 5 Planning for the Historic Environment has been superseded by the Framework, the associated PPS5 Historic Planning Practice Guide (CD2.7) remains extant. SAMs, Listed Buildings and Conservation Areas are identified as designated HAs. The PPS5 PPG recognises that any development capable of affecting the significance of a HA or people's experience of it can be considered as falling within its setting. The proper assessment of the impact of a development on setting will take account of, and be proportionate to, the significance of the HA and the degree to which proposed changes enhance or detract from that significance and the ability to appreciate it.

Development Plan Policy

- 3.21 The development plan comprises saved policies of the Stratford-on-Avon District Local Plan Review 1996-2011 (LP) adopted in July 2006 (CD1.1). Paragraph 215 of the Framework says that due weight can be given to relevant policies according to their degree of consistency with it.
- 3.22 Section 3 of the LP identifies the principles that will influence and control the location of development. Under the heading Landscape and Settlement Character, Policy PR.1 indicates that, *"...all proposals should respect and enhance the quality and character of the area. Proposals that would damage*

or destroy features which contribute to distinctiveness of the local area will not be permitted unless significant public benefit would arise from the scheme. The value attached to such features by local communities will be taken into account.", and, where appropriate, consideration will be given to relevant supplementary planning guidance.

- 3.23 Under Resource Protection, Policy PR.5 says that *"all development will be expected to minimise the depletion of irreplaceable resources such as... historic features"* and that, amongst other things, *"a thorough assessment will be carried to gauge; (a) the extent to which resources are affected and (d) the opportunity to compensate effectively for any apparent loss of resources."* The supporting text indicates that specific LP policies deal with features of acknowledged importance and are covered by some form of national or local designation with the objective of protecting them from development which would cause unreasonable harm.
- 3.24 Under the heading Renewable Energy, Policy PR.6 indicates that *"...renewable energy schemes particularly from wind resources... will be encouraged"* and, depending on the scale and nature of the scheme, will be assessed against 4 criteria. These are: (a) that the scheme would not have a detrimental effect on the environment and character of the area including visual impact; (b) the scheme is located and designed such that it would be sensitive to the character of any buildings affected; (c) the scheme does not impinge on transport routes and (d) the scheme would not cause an unreasonable adverse effect on existing dwellings and business premises. Although the policy does not define what is meant by "large scale wind farms", the supporting text indicates that in terms of visual and noise impact it is unlikely that such schemes will be appropriate.
- 3.25 LP Section 4 identifies that the natural and built environment makes a vital contribution to the character of the District and it is essential that the quality of these features is protected and, wherever possible, enhanced. In relation to the Cotswold AONB, Policy EF.1 seeks to ensure that its special qualities are protected. Proposals should be founded on a high degree of sensitivity towards the natural beauty of the landscape and the special qualities and features that contribute to the distinctive character of the area. Proposals outside the AONB that would adversely affect its setting will be resisted. In all cases, the impact on the economic and social well being of the area will be taken into account.
- 3.26 The site contains features associated with a Romano-British Farmstead and there are several archaeological features within the wider area. Policies EF.11 and 11A seek to ensure those sites of archaeological importance and their settings are protected. There are several Conservation Areas (CA) in the wider area and Policy EF.13 indicates that proposals located outside a CA, but would affect its setting, will be resisted if they harm its character or appearance. On Listed Buildings, Policy EF.14 indicates that the preservation of Listed Buildings will be secured through, amongst other things, *"ensuring that... development on adjoining land will not have an adverse impact on the special qualities of such buildings or their settings"*.
- 3.27 RfR 1, 2 and 3 refer to Policy DEV.1 - Layout and Design sets out several principles against which proposals will be assessed. However, whilst some of

the policy text is couched in general terms, i.e. development proposals will be required to have regard to the character and quality of the local area, this is qualified in terms that it refers to the layout and design of new buildings and the extension or change of use of existing buildings. Similarly, the thrust of the principles against which proposals are considered is direct to the layout and design of buildings.

- 3.28 Policy CTY.1 refers to development generally in the countryside. In order to preserve the character of the countryside, other than development that accords with policy elsewhere in the plan all forms of development in the countryside will be resisted.

Emerging Development Plan Policy

- 3.29 The Intended Proposed Submission Core Strategy (CS) was endorsed by the Council in July 2013 (CD3.6). Paragraph 216 of the Framework advises that weight can be attached to relevant emerging plans according to the stage of preparation, the extent of unresolved objections and the degree of consistency of the emerging policy with Framework policies.
- 3.30 Sustainable development is the central theme that underpins CS policies. Policy CS.1 - Sustainable Development is a general policy that seeks to take a positive approach that reflects the presumption in favour of sustainable development contained in the Framework. This policy requires that all proposals should contribute towards the character and quality of the District and the well being of those who live, work and visit there.
- 3.31 Policy CS.2 - Climate Change and Sustainable Energy supports the building of standalone renewable technologies provided that any adverse impact can be satisfactorily addressed. Large scale schemes that serve more than a local interest, but where the majority of impacts would be felt locally, are required to show that the negative impacts are avoided or minimised and there are appropriate measures to mitigate and compensate for the harm that would arise. The overarching aim is that the overall balance of outcomes should be positive for the local community. Where a proposal would affect a designated or non-designated HA, a Special Landscape Area or the AONB, the objective of designation must not be compromised. Within and adjacent to the AONB, large scale renewable energy proposals are unlikely to be appropriate.
- 3.32 Wind energy proposals will be supported provided any adverse impacts can be satisfactorily addressed. Proposal will be assessed against their effect, individually and cumulatively on the landscape, topography, traffic generation visual amenity, noise, historic features and their setting and biodiversity. Where a standalone wind energy development includes turbines between 100 and 150m, a minimum separation distance of 2,000m will be applied between the turbine and residential premises.
- 3.33 Policy CS.12 – Cotswolds AONB says that development involving land outside but affecting the AONB should conserve and enhance its special landscape qualities and scenic beauty and be consistent with the objectives set out in the AONB Management Plan. The appeal site is located outside and to the north and west of the Ironstone Hills Fringe Special Landscape Areas designated under Policy CS.13. This policy indicates that the high landscape quality of the area including associated historic and cultural features will be

protected by resisting development that would have a harmful effect on their distinctive character and appearance.

Other Relevant Guidance

- 3.34 The Cotswolds Area of Outstanding Natural Beauty Management Plan 2013-2018 (Doc 80 Appendices 4 & 8)³. The Plan sets out the objectives of the AONB and the Cotswolds Conservation Board's policies for the management of the AONB and is intended as a guide to Ipas and other bodies. The primary purpose of the AONB designation is to conserve and enhance the natural beauty of the area, sharing with National Parks the same highest status in relation to landscape and natural beauty. The Management Plan refers to the AONB Landscape Character Assessment 2004 which identifies 19 distinct Landscape Character Types (LCT) subdivided into Landscape Character Areas (LCA).
- 3.35 The LCT nearest the appeal site is the Escarpment LCT whose key characteristics are: a steep exposed and elevated west facing scarp slope partly cloaked in semi-natural broadleaved woodland; a distinct sense of elevation with dramatic panoramic views over the Severn Vale to the Forest of Dean and beyond; the continuity of the escarpment face interrupted only by a series of major valleys and embayments; a gentler landform on lower slopes below the spring line; the summit of the scarp slope marked by dramatic linear beech hangers; rock outcrops marking the site of former quarries; woodlands, hedgerows, scrub and isolated trees giving the impression of a well treed landscape (Doc 79 Appendix 6).
- 3.36 A key component of the Escarpment LCT is the Edge Hill LCA is described as, *"A distinctive stretch of escarpment... the scarp slopes are generally steep but not high, rising from 140m AOD to ...200m AOD. ...The lower slopes are broad, gently sloping and agriculturally improved, becoming less improved and more extensively grazed on the steeper upper slopes where gappy hedges enclose large irregular fields. Rough grassland occupies the scarp crest. Beech woods, typical of the crest of the escarpment elsewhere in the AONB, are not found in this character area.Despite this, isolated trees are evident along hedge lines and often mark the crest of the scarp. In contrast to these open sections of the escarpment, large mixed woodlands are located along the upper steep slopes between Edgehill Farm and Radway Grange. The lower slopes are generally improved and form a patchwork of regular hedged fields. Many retain traces of ridge and furrow. There is very little settlement on the escarpment, farms and villages... tending to be located at the foot of the scarp"* (Doc 79 Appendix 7).
- 3.37 AONB Policy LP1 says that the key characteristics, principal elements and spatial qualities (including tranquillity), which form the natural beauty of the Cotswold landscape are conserved and where possible enhanced.
- 3.38 The Ipa has adopted Village Design Statements for Fenny Compton (CD3.9), Burton Dassett-Northend (CD3.10) and Knightcote as Supplementary

³ The Core Documents at CD7.14 contains the 2008-2013 Management Plan, which the Ipa has endorsed as Supplementary Guidance (CD14.1 paragraph 8.5).

Planning Guidance (SPG). Both Bishop's Itchington, in 2007, and Fenny Compton, in 2008, produced Parish Plans (CD3.7 & 3.8).

- 3.39 Published by English Heritage (EH), Conservation Principles Policies and Guidance - April 2008 (CD 9.3) sets out the principles, terminology, and theoretical and philosophical underpinning of the values attaching to HAs which afford them their significance. Paragraphs 34 to 57 identify that these values fall into 4 categories: evidential, historical and aesthetic.
- 3.40 Setting relates to the surroundings in which a place is experienced, its local context, embracing present and past relationships to the adjacent landscape. Definitions of the setting of a significant place will normally be guided by the extent to which it could affect, i.e. enhance or diminish, the place's significance. Context is any relationships between a place and other places. Examples given are: cultural, spiritual, spatial, or functional, resulting in any one place exhibiting a multi-layered context. The range of contextual relationships of a place will normally emerge from an understanding of its origins and evolution. Understanding context is considered particularly relevant to assessing whether a place has greater value for being part of a larger entity, or sharing characteristics with other places.
- 3.41 The EH guidance deals with the balance to be struck between conservation and other public interests. Changes that would harm the heritage values of a significant place should be unacceptable unless: the changes are demonstrably necessary either to make the place sustainable, or to meet an overriding public policy objective or need; there is no reasonably practicable alternative means of doing so without harm; that harm has been reduced to the minimum consistent with achieving the objective; it has been demonstrated that the predicted public benefit decisively outweighs the harm to the values of the place, taking into account its comparative significance, the impact on that significance, and the benefits to the place itself and/or the wider community or society as a whole.
- 3.42 Published by EH, The Setting of Heritage Assets - October 2011 (CD9.4) seeks to provide assistance to the decision maker where the settings of HAs may be affected by development. The significance of a HA derives not only from its physical presence and historic fabric, but also from its setting. Thus, the careful management of change within the surroundings of HAs makes an important contribution to the quality of the places in which we live which creates a link between the key issue of significance and setting. The guidance highlights that the contribution of setting to the significance of a HA is often expressed by reference to views. A view is described as being a purely visual impression of an asset or place, obtained from, or by moving through, a particular viewing point or viewing. Thus, the setting of any HA is likely to include a variety of views, across, or including that asset, and views of the surroundings from or through the asset.
- 3.43 EH's Seeing the History in the View: A Method for Assessing Heritage Significance Within Views - May 2011 (CD9.12) recognises that, views play an important part in shaping our appreciation and understanding of the historic environment. Whilst some views were deliberately designed to be seen as a unity, a significant view is a historical composite, the cumulative result of a long process of development. These views, often containing well-known

landmarks and cherished landscapes, enrich daily life, can attract visitors and help communities to prosper. This document explains: how the heritage significance of views can be assessed in a systematic way; how to analyse the content and importance of a view where HAs are visible and how to document the impact on historically important views.

- 3.44 The Renewable and Low Carbon Energy Resource Assessment and Feasibility Study - April 2010 (CD3.2) was carried out on behalf of several Councils including Stratford-on-Avon. The aim of the study is to inform the authorities about the potential viability and the deliverability of various renewable and low carbon options through the preparation of an evidence base to inform the preparation of their Local Development Frameworks. This study is a technical capacity study of the West Midlands Region and its constituent authorities and does not assess the potential landscape, visual and other impacts of renewable energy developments. The report concluded that Stratford-on-Avon has the largest percentage of renewable energy potential by district and that wind energy is the dominant technology for the district. The technical analysis suggests that the District has the technical capacity to accommodate 115 to 214 turbines by 2026 supplying electricity equivalent to between 97 and 181% of its predicted electricity demand.
- 3.45 Renewable Energy Capacity Study for the West Midlands - March 2011 (CD6.27) was produced to provide an evidence base to develop policies for renewable energy. Again this was a technical capacity study which did not assesses the potential landscape, visual and other impacts of renewable energy developments. The main conclusions are that there is a very large potentially accessible onshore renewable energy resource of some 54.2GW with commercial scale wind and micro-generation providing the most abundant resource. For Stratford-on-Avon, the Study identified a potential renewable energy capacity of 4,200Mw of which some 3,547Mw could come from commercial wind power generation.

4 The Proposal

- 4.1 The scheme consists of four, 3-bladed wind turbines with a maximum height to blade tip of 125m (80m to the hub and 45m blade) and an 80m high meteorological mast. Although the precise make and model of the turbine has yet to be determined, each would have a rated capacity of between 2 and 3MW. The external surfaces of the turbines would be finished in an off white/grey semi-matt colour.
- 4.2 Associated infrastructure would include foundation and crane pads for each turbine, a control building, some 3.35km of new track and underground electrical and control cabling. Vehicular access would be from the B4451 Gaydon Road with a crossing point over Knightcote Bottoms Road, The Old Salt Road, linking the northern and southern parts of the site. The operational lifetime of the development would be up to 25 years and the construction phase would around 12 months. A temporary site storage and construction compound would be required during the construction period.

5 The Case for Broadview Energy Limited

The material points are: -

Introduction

- 5.1 Given agreement on aviation, archaeology and telecommunication matters, the planning balance to be struck by the decision maker is very different to the one articulated by the 6 RfRs. Without any other factor changing, the degree of planning harm alleged in respect of the above must come off the weighing scales. Moreover, in relation to cultural heritage concerns, even at its highest any alleged harm, individual or cumulative, to the significance of HAs, does not comprise substantial harm in terms of Framework guidance. Indeed, the lpa acknowledges "*...that the identified harm is outweighed by the benefits of the proposal when taken in isolation*" (Doc 30 paragraph 1.4).
- 5.2 The lpa confirms that RfR1 does not allege any significant effects on the AONB. Thus, it cannot be the case that there would be unacceptable impacts on the special qualities of the AONB. The lpa acknowledged⁴ that RfR1 was character based and it did not suggest that, on its own, the general visual amenity case would justify dismissing the appeal. In terms of priority concerns, views towards the Burton Dasset Hills CP from the north, particularly from VPs 6 and 21 are considered to be the most important.
- 5.3 On residential visual amenity (RfR2), the lpa alleges unacceptable impacts at 3 properties and rank them in descending order in terms of the likelihood of them failing the public interest test. Broadview accepts that, when viewed objectively, if any property were to be rendered an unattractive place in which to live that would be sufficient to kill the scheme and no amount of benefit would save it. However, the corollary is that if the public interest test is not failed at these 3 properties then planning permission should not be refused on some more generalised consideration of visual harm to residential amenity as asserted by FRAWT.
- 5.4 Noise is not a RfR, rather it is the issue of EAM in the form of a pass or fail issue, depending on whether a lawful condition can be imposed or not. Rather like the approach taken on residential visual amenity, it is not an issue of planning balance.
- 5.5 The lpa's treatment of reversibility is confused and lacks transparency. NPS EN-3, Paragraph 2.7.17, highlights that the time limited nature of any planning permission is likely to be an important consideration. It is common ground that reversibility can only militate in favour of allowing this scheme. Whilst the lpa accepts⁵ that it is a consideration of moderate/major importance that would reduce the weight attaching to harm to landscape character, visual amenity and HAs, the evidence that it gave due weight to reversibility is unconvincing. Nowhere is there evidence of how a material consideration of major/moderate importance affected the weighing scales (Doc 45 page 53).

⁴ X-Examination of Mr Chin.

⁵ X-Examination of Mr Hempstead.

- 5.6 Thus, the lpa's case has all but sunk. Broadview accepts that there are the 2 pass/fail issues to be decided, i.e. residential visual amenity and the imposition of an EAM condition. Beyond these, the main planning harm that has to be outweighed reduces to: impacts on views towards the Burton Dassett Hills CP; impacts on the heritage significance of the Beacon Tower and the residual impacts on the visual component of residential amenity at properties other than Lower Spring Farm, Trotters and Meadow Farm.
- 5.7 This is a case where, pursuant to Framework paragraph 98, the harm is very limited and the impacts of the proposed development are or can be made acceptable and the proposed development would comply with the relevant Framework consistent LP policies and planning permission should be granted without delay. Recently, the SoS for Energy and Climate Change reaffirmed that: *"appropriately sited onshore wind, as one of the most cost effective and proven renewable energy technologies, has an important part to play in a responsible and balanced UK energy policy"* (CD2.4). This scheme is appropriately sited and can and should play a part in our low carbon future.
- 5.8 Whilst much has been made of local opinion, PPG is not a community veto. Whilst FRAWT, BIPC and BDPC are articulate and forthright, opposition is limited to a relatively small number of residents. Indeed, more than one local objector in an unguarded moment indicated that diminution in house prices was a main concern of local residents. Broadview acknowledges that local residents identify the local landscape as unique and value it. However, modern commercial wind turbines are large structures that bring with them significant change in the open countryside, and it is unrealistic to expect otherwise. To argue that such impacts are unacceptable is to say that onshore wind should not, as a matter of principle, play a significant role in renewable energy provision. However, that view runs counter to express Government policy, reiterated in recent Ministerial Statements and PPG.
- 5.9 Third party objections, where they are of substance, must be given due weight and the PPG says nothing new in this regard. However, such objections must be subjected to careful and robust evidential testing and their planning merit assessed.

Planning Policy Framework

- 5.10 The development plan comprises Saved Policies of the Stratford-on-Avon District Local Plan Review (1996-2011). Conflict is alleged with Policies PR.1, PR.5 (a) and (d), PR.6 (a), (c) and (d), EF.1, EF.11, EF.11A, EF.13, EF.14, DEV.1 (a), (b), (c), (d) and (h). In terms of consistency with the Framework, full weight can be attached to Policies PR.1, PR.5, PR.6, EF.1 and DEV.1. Given they do not contain a balancing provision to weigh the harm to the significance of HAs against wider environmental benefits, Policies EF.11, EF.11 (a), EF.13 and EF.14 are inconsistent with paragraph 134 of the Framework; consequently they should attract limited weight. Moreover, given that the degree of actual harm to HAs is modest reduced weight should be placed on a breach of these policies.
- 5.11 The CS is at an early stage and the lpa accepts that the weight to be given to draft policies is very limited. In particular, PPG cautions against the use of arbitrary buffers or separation distances from residential properties which

might serve to prevent renewable energy development coming forward. Thus, it is unlikely that this element of the CS will survive.

- 5.12 The Framework and its Core Principles makes clear the support for renewable energy proposals in explicit and trenchant terms. Paragraph 93 urges that the planning system plays "*a key role*" in supporting the delivery of renewable energy and that the delivery of renewable energy is "*central to the economic, social and environmental dimensions of sustainable development*".
- 5.13 Paragraph 96 of the Framework refers to the responsibility of "*...all communities to contribute to...*" renewable and low carbon energy. Need for renewable generation projects does not need to be demonstrated (paragraph 98) and all applications should be granted permission provided that the impacts are or can be made acceptable. The Framework makes an explicit direction that, in the determination of planning applications for wind energy development, the decision maker should follow the approach set out in the relevant NPSs, which contain the Government position on the magnitude and urgency of need. These factors and policy statements need to be given significant weight in the determination of this application.
- 5.14 To meet vital policy objectives, the threshold of acceptable change has to be set at the right level; it has to be set at a level which provides adequate protection for the local environment and communities but which allows the industry to "get on with it". This means that this appeal should be allowed if the impacts of the scheme are or can be made "*acceptable*"; it does not mean that the scheme has to display perfection; it means "*satisfactory*" or "*generally agreeable*". The policy imperative can be translated to mean "as many schemes as possible and as fast as possible, providing that in each case the impacts of a given scheme are acceptable". This language and sentiment comes directly from NPS EN-1. The word "*acceptable*" can be interpreted to mean that planning permission should follow unless interests of acknowledged importance would be unacceptably harmed. Unacceptable harm is clearly not the same thing as a "*significant effect*" identified for the purposes of the EIA Regulations 2011. As accepted by the lpa, unacceptable harm must indicate something of much greater overall gravity. The only way to give expression to the overwhelming policy drive is to interpret Framework Paragraphs 14 and 98 in such a way as to set the threshold of acceptable change on the various interests of acknowledged importance at a level which allows sufficient schemes to go through in sufficient places.
- 5.15 The June 2013 Ministerial Statements from the SoSs for DECC and CLG taken together demonstrate explicit and continued support for the further deployment of onshore wind. The lpa accepts⁶ that these statements did not constitute a change in Government planning policy in relation to onshore wind development and deployment or that the Ministerial Statements directed the decision maker to actually do anything different. Onshore wind remains a technology with an important part to play in the delivery of UK energy policy and the various benefits resulting from its further deployment are set out in the statements. The Framework remains, alongside the NPSs, the principal national planning policy guidance for onshore wind development in England.

⁶ X-Examination of Mr Hempstead.

- 5.16 The 4 bullet points identified in the Ministerial Statements and the addition of 2 more as being matters that need to be carefully considered have been carried through to PPG. These are: the need case; cumulative matters; topography; HAs; national designations and amenity. All these matters were already addressed in national planning policy and guidance, and they gain no greater weight from being repeated. The important point is that PPG does not seek to recalibrate the threshold of acceptable change and does not say that any greater weight should be afforded to local concerns. The lpa reads into PPG words and motives which are not there (Doc 45).
- 5.17 Whilst the need case does not automatically override environmental protection and the concerns of the community, need is an important material consideration in this case which should be afforded significant weight in the planning balance. As part of the LVIA, Broadview has taken full account of cumulative matters and local topographic considerations. Broadview has properly assessed the potential effects on HAs in line with national planning policy and guidance and has satisfied English Heritage (EH), who has no objection to the scheme. The impact on living conditions has been assessed in line with the benchmark case at Burnthouse Farm, decided by the SoS (CD5.4). In summary, the considerations set out in the Ministerial Statements were those that would already be applied under the Framework and in EIA procedures and were considerations that Broadview properly addressed at the time of the application and now. PPG does not require the decision maker to do anything more or different.

Energy Policy Context

- 5.18 The SOCG, Appendix 2, sets out the national energy policy context. When these documents are read together, there is no room for dispute regarding the seriousness of climate change and its potential effects, the seriousness of the need to cut CO² emissions or the seriousness of the Government's intentions regarding the deployment of renewable energy generation. Such trenchant policy cannot just be mentioned in passing or agreed quickly in cross-examination and then forgotten. There is a very real danger of it becoming weightless. When considering the effects on landscape character, visual and residential amenity, sight must not be lost of this underlying message.
- 5.19 The lpa and FRAWT agreed that they were not taking a performance related case against this scheme. There is nothing relating to available wind speed, commercial viability, predicted output, carbon payback or emissions savings that specifically weigh against the scheme in the planning balance. Any recalculations of the likely benefits of the scheme have been on the basis of revised assumptions, which would be common to all commercial scale wind farms (Doc 21 Appendix A). It is not that this wind farm proposal has suddenly become 20% less beneficial; adjusted calculative assumptions would apply to all schemes across the United Kingdom.
- 5.20 The 2011 Renewable Energy Roadmap and the 2012 Renewable Energy Roadmap Update are key documents (CDs 6.10 & 6.16). Whilst paragraph 2.20 of the 2011 Roadmap notes that the pipeline for new plant across the United Kingdom is healthy, paragraph 2.21, and the 2012 Update, adopts a more cautionary tone because it is not certain that all the projects in the

pipeline will be consented or commissioned or that they will progress quickly enough to contribute when needed. This is why NPS EN-1 states that there is an urgent need for new large scale renewable energy projects to come forward to ensure that we meet the 2020 target and wider decarbonisation ambitions. The Ipa agreed⁷ that, whether by reason of good past performance at a national level or by reason of the revocation of binding regional renewable energy targets, there has been no abatement in the strength of the need case.

- 5.21 The 2011 Roadmap, paragraph 1.1, sets out the Coalition Government's clear commitment to increase the amount of renewable energy deployed in the United Kingdom so as: to make the nation more energy secure; to protect customers from fluctuations in the price of fossil fuels and to help drive investment in new jobs and businesses in the renewable energy sector as well as keeping us on track to meet our carbon reduction objectives for the coming decades. The 2012 Update, paragraph 1.3, makes clear that renewable energy has a "*pivotal*" role to play.
- 5.22 Paragraph 1.2 of the 2011 Roadmap notes that the goal is to ensure that 15% of all our energy demand is met from renewable sources by 2020 in the most cost effective way, with ambition equally strong across all areas of the UK. Paragraph 1.3 looks beyond 2020 and cites advice from the CCC that there is scope for the penetration of renewable energy to reach 30-45% of all energy consumed in the UK by 2030.
- 5.23 The Roadmap Update, written at the end of 2012 and after considerable "chatter" about the future role to be played by on-shore wind, confirms that its illustrative central ranges for deployment did not represent technology specific targets or the level of national ambition. The 13GW of onshore wind is not a cap or limit and onshore wind continues to play a key part going forward. NPS EN-1 specifically states that it is not the Government's intention to impose a target or cap for any given technology type. Reflecting this, Framework paragraphs 93, 97 and 98 say that planning plays a key role in helping shape places to secure radical reductions in greenhouse gas emissions, minimising vulnerability, providing resilience to the impacts of climate change and supporting the delivery of renewable energy.
- 5.24 Whilst the national pipeline to 2020 in terms of renewable technologies overall and onshore wind specifically may be healthy, that health depends to a large extent on schemes, like this one, coming to fruition on time. Onshore wind is currently the most cost effective way of generating renewable energy and because it is a mature technology it can be deployed quickly and it will play an important part in making up the shortfall in progress from other technologies. There are no technical impediments to rapid deployment.
- 5.25 The Renewables and Low Carbon Energy Resource Assessment and Feasibility Study (April 2010) and the Renewable Energy Capacity for the West Midlands: A Final Report to Telford and Wrekin Council (March 2011) are important considerations and are consistent. They identify substantial potential for commercial scale onshore wind in Stratford District and more widely in the, County and Region, that uptake has been extremely slow and

⁷ X-Examination of Mr Hempstead.

that the appeal site is precisely the type of site upon which it is likely that a viable wind farm scheme of this scale would come forward. Whilst strategic scale studies do not obviate the need for a rigorous EIA process and consideration of local issues during the planning process, they give comfort that this scheme is intelligible, sensible and a direct response to the need for the rapid deployment of renewable energy.

Landscape Character and Visual Amenity

- 5.26 In contrast to Broadview's witness, the lpa's landscape witness has little or no experience of wind farm development and length of service is not the same thing as depth of experience. Commercial scale wind turbines have unique characteristics and present unique issues in terms of professional assessment. Whilst there is considerable agreement between the lpa and Broadview on those points of difference which remain, the considered view of Broadview's landscape witness should be preferred.
- 5.27 The lpa has placed very considerable store in its professional landscape advisor; he wrote the landscape and visual section of the report to Committee and has advised throughout the appeal process. As a result, if he has incorrectly calibrated the degree of harm caused by the proposed development then it would infect the whole of the lpa's case; there is no evidence of any professional opinion to serve as a moderating force. The approach to the assessment of landscape and visual impact in the GLVIA 3rd Edition has moved away from the labyrinthine, matrix-based approach used by The Coalition. The layer upon layer of complicated methodology involved in The Coalition's methodology takes the decision maker nowhere. The only substantive difference of any gravity identified by The Coalition was the additional seriousness accorded to views looking out from the CP because of its function as a locally important amenity resource.
- 5.28 Natural England (NE) does not object to the proposed development on the basis of landscape impacts. Whilst the AONB Management Board maintains its objection, Broadview was unable to test the submitted evidence and as such it must accordingly be accorded reduced weight as a consequence.

Landscape Features

- 5.29 The site is within NCA 96: Dunsmore and Feldon. At the local level, the scheme would be located at the northern end of the Vale Farmlands (Feldon) Landscape Character Area (LCA) (CD12.2h Figure 7.3). It is agreed that this scheme would not have significant effects on landscape features or elements (Doc 10 paragraphs 6.32 & 6.33).
- 5.30 The local landscape in which the significant landscape character effects from the development would be felt is Medium to Large in scale. The lpa focuses on what is seen as a potential tension between Broadview's landscape evidence and the factual description in the SOCG. Whatever a procedural document like the SOCG may say, it cannot stand in the way of independent expert evidence. The authors of the LVIA chapter in the ES considered the scale to be Medium to Large and FRAWT thinks exactly the same.
- 5.31 The only significant effects on landscape character would be those which occur relatively close to the site and in a landscape capable of accepting that

change by reason of its scale and undisputed openness (Doc 10 paragraphs 6.39 & 6.40). These effects would be entirely in keeping with what would be expected of any commercial wind energy development upon its host landscape. A "wind farm landscape" is the area where the turbines would be the defining element in the landscape and would extend out to about 650m to 700m. The creation of such a landscape is inevitable but here it is not unacceptable. This landscape is capable of accommodating such effects. The lpa suggests a larger zone extending up to about 1km but in reality, this makes little or no difference.

- 5.32 In the LCAs that adjoin the site, the scheme would result in new landscape subtypes extending out to about 2km to 2.5km. The lpa agreed⁸ the spatial extent of this outer zone of significant effects. A "Vale Farmlands with Wind Turbines" sub-type would be created extending up to 2.5km to the south-east and south-west, around Northend and would also extend to just beyond the railway line in the east. Beyond 2.5km, the sub-type would no longer occur and there would be no significant effect on the character of the remaining Vale Farmlands LCA. Although there would be some significant effect on the Vale Farmlands LCA, the primary key characteristics would remain.
- 5.33 The scheme would lead to the creation of a "Lias Village Farmlands with Wind Turbines" sub-type that would extend up to 2km to the west and north-west of the site towards Gaydon, to the ridge line immediately north and west of the settlement, and 2.5km to the north to Christmas Hill. The topography in this LCA would significantly influence the extent of intervisibility between the site and the LCA thus limiting the effects to 2km to 2.5km in distance. Significant effects on landscape character within the Lias Village Farmlands were not considered to occur beyond such distances. The proposal would not alter the existing key elements that characterise this landscape.
- 5.34 The Ironstone Fringe LCA covers one discrete area of the landscape around 1.5km to the north-east of the site and extends to cover a broad tract of landscape up to the administrative boundary with Northamptonshire. This LCA comprises a ring of high ground which is distinct from the Vale Farmlands and Lias Village Farmlands landscapes to its west. The scheme would have no effect upon the key characteristics of the Ironstone Fringe LCA and a small area of "Ironstone Fringe with Wind Turbines" would result from the introduction of the scheme. This would extend up to 2.5km to the north-east of the site in the vicinity of the railway line. The undulating nature of the Ironstone Fringe landscape beyond 2.5km of the site would influence intervisibility between the site and the study area. The presence of hills would contribute to the reduction in intervisibility of the turbines, in turn reducing their influence on landscape character.
- 5.35 The Plateau Redlands and Edge Hill LCA lies some 2.2km to the south of the site. The LCA covers 2 areas, the northernmost of these covers the area in and around the Burton Dassett Hills, and the southernmost covers a tract of landscape to the west of the M40 and south of Warmington, around the village of Shotteswell. The scheme would have moderate effect on the landscape character of this LCA, which would not be significant. There would

⁸ X-Examination of Mr Chinn.

be no effect on the key characteristic features of the LCA and the openness of views would remain intact. Analysis of the ZTV shows that there is little potential visibility of the scheme from within this LCA as a whole (CD12.2H Figure 7.8). There would be almost no visibility from the southernmost area of the LCA around Shotteswell and for much of the Burton Dassett Hills, particularly around Avon Dassett, there would be no visibility.

- 5.36 Beyond 2.5km from the site there would be no significant effects on landscape character.
- 5.37 Large modern wind turbines of the type and nature that are required to meet the nation's need for renewable energy will inevitably have an effect on the landscape in which they are located. NPS EN-3 states that: "*Modern onshore wind turbines that are used in commercial wind farms are large structures and there will always be significant landscape and visual effects from their construction and operation for a number of kilometres around a site*" (CD6.1 paragraph 2.7.48). The lpa's decision notice acknowledges that any wind farm is likely to bring a significant change to the local landscape.
- 5.38 This scheme would not prevent an appreciation and visual comprehension of the key characteristics of the underlying and surrounding landscape. The change in character would not be unacceptably detrimental given the scale of the landscape and the expansive nature of the views, in which the turbines would be seen in a relatively small section of the view. The turbines would also be seen in a landscape where other built developments such as the M40 and the nearby MoD Kineton facilities are part of the character.

Effects on Designated Landscapes

- 5.39 The nearest nationally designated landscape to the site is the Cotswolds AONB, which lies some 5.5km to the south. The effects on the AONB are not sufficient to warrant refusal of the scheme. Designated in 1966 the AONB covers some 2,038 sq. km of landscape in an area stretching from Bath in the south-west to Warwickshire to the north-east. The site lies beyond this easternmost tip of the AONB in an area of landscape beyond the large MOD Kineton site and the M40 motorway. The special qualities of the AONB include the Escarpment and views from it and into it.
- 5.40 No significant effects are predicted on the special qualities of the AONB. The physical integrity of the escarpment and the AONB as a whole would remain intact and no significant harm would arise with respect to the achievement and maintenance of the object of this designation to conserve and enhance the natural beauty and landscape character of the Cotswolds.
- 5.41 There would be a moderate, but not significant, effect upon the character of the AONB. Such moderate effects would be experienced from the slopes of the Escarpment. In relation to visual effects experienced by receptors within the AONB, the proposal would result in a moderate but not significant effect upon views from public footpaths from the lower slopes of the Edge Hill Escarpment (CD12.2 H VP 13) with a moderate/minor but not significant effect upon road users. There would no significant effects on views from elsewhere within the AONB.

- 5.42 The summit and plateau of the Edge Hill escarpment is generally an inward looking, enclosed landscape. This is due to a combination of topography and vegetation with few opportunities to appreciate the view towards the Feldon Vale from the escarpment summit. The scheme would not have a harmful effect upon either the landscape or views from the AONB at the escarpment summit or the High Wolds plateau landscape.
- 5.43 The north-west facing scarp slopes of Edge Hill are different in nature to the summit landscape. The landscape is more open in character, yet remains well vegetated beyond the steepest wooded scarp slopes. As a result there are opportunities for views, interrupted or filtered by vegetation, to the north and north-west from the lower slopes across the Feldon Vale. The site is not located in the view to the north or north-west but in the middle distance view to the north east, beyond the Burton Dassett Hills.
- 5.44 The scheme would be visible in views to the north-east from the north-west facing scarp slopes of the AONB. The turbines would not be located in the primary orientation of views available from the public rights of way that cross the escarpment. The turbines would form a noticeable feature in a small proportion of the middle distance view to the north-east, filtered or interrupted by vegetation in the immediate view as one passes through the landscape between Edge Hill and Radway. The scheme would not have any direct effect upon the character of the escarpment nor the wider AONB. The proposals would appear as a further feature of the developed Feldon Vale beyond the AONB boundary.
- 5.45 In addition to the AONB there are a number of other designated landscapes within the 30km study area surrounding the proposed development. These include Special Landscape Areas in Northamptonshire, Areas of High Landscape Value in Oxfordshire, and both Areas of Attractive Landscape and Local Landscape Areas in Buckinghamshire. Each of these designated areas lies over 7.5km from the proposed development and there would be no significant effects on any of these designated areas. There are 10 Registered Parks and Gardens which lie within 15km of the site, the nearest of which, Compton Verney, lies 7km from the site. Whilst there would be some views of the proposed turbines from a number of these Registered Parks and Gardens there would be no significant visual effects on any of these sites.

Visual Amenity

Recreational Users of Public Rights of Way (PRoW)

- 5.46 There are several PRoW in the vicinity of the site (Doc 43 Appendix 6). Whilst the FEI identifies that users of public footpaths and bridleways within 5 to 6km of the turbines would experience significant effects due to their proximity and position in the landscape this is an overly cautious conclusion. Rather, these effects would be more limited in their extent, even before the screening effect of hedgerows, trees and other vegetation is considered.
- 5.47 A public footpath runs to the east of the site between Bishop's Itchington and Knightcote (SM85), which, at its closest, would pass some 630m from the nearest turbine (T3). Whilst this footpath is the western fork (SM85a) of 2 alternative routes which connect with The Old Salt Road, the easternmost fork (SM85), which runs closer towards Knightcote, is the better used route.

This route would lie some 850m from the nearest turbine (CF12.2H VP 2). The viewpoint lies 1,176m from the nearest turbine and is typical of views that would be experienced where clear open views are available.

- 5.48 The turbines would form prominent features in the view when walking south between Bishops Itchington and Knightcote. The turbines would be viewed within the medium to large scale arable landscape to the south west, beyond the line of Knightcote Road for much of the route. However, the turbines would appear well spaced in the view; the turbine bases would be screened by intervening vegetation in the landscape and seen against the backdrop of rising land at Thorn Hill. Whilst there would be significant effects on the visual amenity of this public footpath, this, in itself, is not a reason to refuse the development.
- 5.49 The Old Salt Road, runs between the B4451 and Knightcote and passes through the site. Turbines would lie either side of the road, 2 to the north and 2 to the south. The distances to each turbine would be: T2 at 229m, T3 at 215m, T4 at 151m and T5 at 140m. As a public highway, this route has the potential to be used by horse riders. The Old Salt Road is bounded by tall roadside hedges with trees which enclose the visual experience to the road along much of the length of the route. Where field gates and access roads are present, and where vegetation is absent at the roadside, views become available across the immediate arable landscape. Views in a southerly direction include the Burton Dassett Hills and the Beacon Tower, which form the horizon. Views to the north comprise the settlement of Bishops Itchington. The horizon is formed by Christmas Hill. There would be a significant visual effect on receptors, including horse riders, using the Old Salt Road in the vicinity of the turbines and the turbines would be prominent in views from the route to both the north and the south, particularly where breaks in the roadside vegetation are present. However, although prominent the turbines would not restrict views of the landscape beyond the turbines. Views towards the Burton Dassett Hills, and the Beacon Tower, would remain. The turbines would not result in such an overwhelming visual experience on the route that it would be unpleasant for a horse rider or others to travel along the route in this context.
- 5.50 In addition to the Centenary Way Long Distance Route, there are footpaths on the edge of Bishop's Itchington (SM86); footpaths crossing the south facing side slopes of Christmas Hill to the north of the site (SM83 including a-c) and footpaths in the vicinity of Fenny Compton (SM136) (CD12.2H VPs 8, 11 & 6). The turbines would be prominent features in the view from the footpath leaving the Cross Green area of Bishops Itchington towards Christmas Hill (SM83 including a-c). The turbines would be visible in the much wider view available from the footpath (VP 6). However, the well spaced arrangement of the turbines would allow visual permeability towards the Burton Dassett Hills. As one travels towards Christmas Hill the view from the footpath becomes intermittently interrupted by vegetation, particularly woodland. The turbines would be seen in glimpsed views in a southerly direction. There would be a significant effect upon the visual amenity of the footpath for intermittent periods as one walks the footpath between Cross Green and Christmas Hill. However such an effect upon the footpath in itself is not sufficient to warrant a reason for refusal of the proposals.

- 5.51 In views from the footpath leaving Bishops Itchington towards Hambridge Road (SM86) the moving blades of the turbines would be visible beyond the localised roll of the landform and vegetation within the landscape. The turbines would occupy a small part of the overall view available and seen in a separate part of the view to the Burton Dassett Hills. The prominence of the turbines in the view would increase as one travels closer to the site, and particularly as the footpath travels over slightly higher ground in the vicinity of Holmes Houses on Hambridge Road. The visual effects upon the users of the footpath, although significant, would not be so damaging that they should warrant a reason for the refusal of the development.
- 5.52 The visual experience afforded from the footpath between Knightcote and Fenny Compton (SM136) encompasses the Feldon Vale with the Burton Dassett Hills forming the horizon to the south-west. The proposals would be viewed in the context of the large scale Vale landscape (CD12.2H VP 11). Nonetheless, the turbines would form a prominent feature in the view, particularly from open ground as the route passes through fields, away from field boundaries. The turbines would be located in the primary orientation of the view when heading in a north-westerly direction with the lower parts of the turbines filtered by vegetation within the intervening landscape. The turbines would be located behind the receptor when travelling from Knightcote to Fenny Compton. Whilst the effect upon views from the footpath would be significant it would not detract from the overall amenity value of the route and in itself is not a reason for refusal.
- 5.53 The Centenary Way is a circuitous route established to mark 100 years of Warwickshire County Council (WCC), extending over a total distance of 158km and connecting at both ends with the Heart of England Way. At its closest point the route would pass 612m to the west of the nearest turbine (T4) as it runs along the track between The Old Salt Road and the minor road which runs between Gaydon and Northend. CD12.2H VP 1 is some 701m from the nearest turbine and shows that whilst the turbines would be prominent the route would remain attractive with the wider landscape clearly appreciable. Although the FEI concludes there would be the potential for significant visual effects on users of the route within a 5km radius from the south and generally up to a 4km radius from the north this is overly cautious. The effects would be more limited in their extent, even before the screening effects of hedgerows, trees and other vegetation is considered.
- 5.54 When travelling on the route from the south-west, the first section that would have some visibility of the proposal would be the section between Upper Quinton and Shipston-on-Stour, where distant intermittent views may be experienced from high ground within the AONB, including the Ilmington Downs. However, at distances in excess of 18km there would be no significant effects on the view. From Shipston-on-Stour the route then continues in a north easterly direction passing along the upper escarpment of Edge Hill to Ratley within the AONB offering the potential for filtered and in places open views towards the turbines at distances in excess of 7km with no potential for significant visual effects. Over the section to the north-east of Ratley, the route descends the northern slopes of Edge Hill offering open views similar in nature to VP 13. The route then crosses the M40 to Avon Dassett where there would be limited visibility of the turbines. The Centenary Way then passes to high ground within the Burton Dassett CP offering

panoramic views to a wide area including elevated views in a northerly direction towards the proposed development at a distance of 2-3km, with a significant visual effect (CD12.2H VP 9).

- 5.55 Open views towards the site would continue to be experienced as the route descends the north facing slopes of the Burton Dassett Hills to Northend, with the potential for filtered views of the turbines from the northern edge of the settlement (CD12.2H VP 7). The turbines would continue to be prominent in the view over the following section which follows the minor road towards Gaydon with the potential for open views at close range, passing within 600m of the closest turbine to the south of the B4451 near the M40 Gaydon interchange with significant visual effects (CD12.2H VP 1). Here views over this section of the route are strongly influenced by the adjacent M40 corridor.
- 5.56 When following the route in a southerly direction, distant views may be experienced from the southern edge of Lington Spa, similar in nature to the elevated views from Newbold CP, where visibility is substantially screened by intervening topography and woodland/tree cover (CD12.2H VP 16). The route then follows the Grand Union Canal Walk towards Ufton with no views available. Over the following section from Ufton to Harbury, that potential visibility of the turbines would continue to be intermittent. The ZTV analysis indicates that the potential for visibility of the turbines would be felt from south of Harbury to Christmas Hill but views would frequently be filtered or in places completely screened by intervening woodland and hedgerow trees limiting the potential for significant effects. Itchington Holt Woodland would screen views from the western section of the Christmas Hill ridgeline as the route approaches the M40 before descending to cross the B4451.
- 5.57 Significant visual effects on users of the Centenary Way would be limited. With distance from the site, views would become much wider in nature and the presence of the turbines in the view would diminish. The scheme would occupy a small proportion of a much wider view from locations such as the lower Escarpment slopes at Ratley. Significant visual effects would occur at closer proximity to the site along the part of the route that passes south of Itchington Holt towards Northend. Along this section of the route the turbines would be seen in the near view within the Vale landscape and would form prominent features in the view to the east.
- 5.58 The Oxford Canal Walk connects Oxford and Coventry using the continuous canal towpath. Users of the Oxford Canal Walk would have the potential to experience significant visual effects on limited parts of the route within 4 to 6km of the turbines in the areas close to the A423 near Wharf and around Wormleighton Hill. Although the turbines would be visible from particular sections of the Oxford Canal Walk, they would be visible in the context of the wider landscape. The landform between the canal route and the site is undulating, which would interrupt the view towards the site to some extent. The turbines would form a feature in the overall view but they would not alter the view to such a degree to be considered a significant effect. There would be no significant visual effects on any other public rights of way, including the Macmillan Way and other Long Distance Routes in the surrounding area.
- 5.59 Due in part to their proximity, the turbines would become prominent elements and result in significant effects on a number of PROW, and a part of

the Centenary Way. However, the changes to the views from these public rights of way would not give rise to any unacceptable effects on their recreational amenity value. The turbines would become a feature of views from these routes and a part of the experience of walking along them. In the North Dover decision it was noted that *"...people pass through a diverse variety of environments when going about their daily lives, whether by car or when using the local rights of way network, and I find nothing generally objectionable in turbines being part of that wider experience"* (CD5.41 paragraph 66). There is no identified quality of the experience of using these rights of way that would be significantly harmed by the turbines.

Burton Dassett Country Park

- 5.60 Although not specifically referred to in the RfR, it is alleged that the scheme would result in detrimental effects upon the visual amenity and recreational value of the Burton Dassett Hills CP. Owned and managed by WCC the 40.5ha CP is not a designated landscape in the LP. However, it is acknowledged that the area is well used by walkers and cyclists in addition to a wide range of other recreational pursuits such as kite flying, model glider flying, picnics or simply sitting in the car to enjoy the distant panoramic views. Significant visual effects would be experienced from the north-western area of the CP in the vicinity of the Beacon and in views from the adjoining summits (CD12.2H VP 9). However, the turbines would be seen in the context of the M40 and would occupy a narrow portion of the view.
- 5.61 The CP incorporates the northernmost hill formations of the Burton Dassett Hills associated with a former quarry. The quarrying activities have formed a distinct bowl on the summit of the hill in which a number of small rounded hillocks surround namely Pleasant Hill, Bonfire Hill, Windmill Hill, Magpie Hill and Harts Hill. One of these hillocks, Magpie Hill, forms a public viewing point. Magpie Hill is marked by a large stone table with an interpretation disc highlighting visible features in the panoramic view available from the hill. A second hillock, Windmill Hill, forms a further viewing point within the CP. The Beacon Tower forms a natural location to afford the panoramic view of the surrounding landscape. Aside from these 2 viewing areas, all of the hillocks in the CP provide opportunity to afford views out towards the surrounding landscape in varying directions. In contrast, the central area of the CP, formed by the former quarry, offers few opportunities for views due to the interruption provided by the surrounding hillocks.
- 5.62 At the summit of Magpie Hill the interpretation disc provides the viewer information on what features are visible in the 360° view. Such features include a number of manmade features such as telecommunications mast, concrete works chimneys and high rise flats at varying distances from the viewpoint. The view from Magpie Hill is panoramic incorporating the Edge Hill escarpment in the south-west, the Feldon Vale landscape in the west through to the north and the Ironstone Fringe landscape to the east. The M40 motorway corridor is a visible feature in the near view to the immediate west, the motorway corridor can be followed through the landscape in a northerly direction towards the ridgeline formed at Christmas Hill. The immediate view to the north is formed by the CP and the Beacon Tower. The turbines would be located beyond the CP in the view to the east of the Beacon Tower. A similar view to Magpie Hill is afforded at Windmill Hill and the Beacon Tower.

However, the foreground view from Windmill Hill is not formed by CP, instead it is formed by the steep wooded slopes of the Burton Dassett Hills and the settlement of Northend. The site is visible in the near to middle view.

- 5.63 There would be a major to major/moderate and significant effect on views from the CP (CD12.2H VP 9). The turbines would be visible in a small proportion of the overall view (12° of the horizontal view), the turbines would be located within part of the view where there is already movement in the landscape due to the presence of the M40 corridor, and that the wide and open vale landscape below the CP legible and unobstructed.
- 5.64 The turbines would form a prominent feature in the vale landscape in the middle distance view. The turbines would appear as a linear feature, occupying a small portion of the overall panoramic view available from both Magpie Hill and Windmill Hill; they would not appear in the same part of the view as the escarpment. The scheme would be a visible feature in the view from the CP, as are many other man made features in the landscape. However, the proposals would not be detrimental to the public enjoyment of the CP, or its overall recreational and visual amenity value.
- 5.65 The report to the Planning Committee regarding views of the CP from Pipers Hill says "*there are serious concerns about views towards the AONB Edge Hill scarp slope (and Burton Dassett Hills outside the AONB) from public areas to the west and south west of Bishops Itchington including the elevated Public Right of Way link to Piper's Hill where the turbines appear directly in front of the views of the Edge Hill scarp slope and Burton Dassett Hills*" (CD12.3 page 57). The site is located between the CP and Pipers Hill/Christmas Hill, some 2.5km to the north of the CP boundary. These hill formations contain the landscape in which the site is located and the turbines would be visible in views from Pipers Hill and Christmas Hill towards the CP (CD12.2H VP 6 & Doc 43 Appendix 7). The view represented at Doc 43 Appendix 7 illustrates the worst case view from a part of the footpath network on Christmas Hill and Pipers Hill. As one moves along the footpath towards both the M40 and the Cross Green area of Bishops Itchington, the turbines would be visible alongside the CP and the Beacon Tower, rather than directly in front.
- 5.66 It is inevitable that the turbines would be seen interposed with the CP at certain locations from the footpaths that cross Pipers Hill and Christmas Hill. The Committee report does recognise that the turbines would not hide the view towards the CP. There would be a major to moderate and significant effect upon visual amenity from the footpath at Christmas Hill. The footpaths on Pipers Hill and Christmas Hill represent a small number of publicly accessible locations in which the CP can be seen and the effects on visual amenity would not be so damaging as to justify refusing planning permission.

Transport Routes

- 5.67 A wide network of major and minor roads and a railway route traverse the landscape within the area surrounding the site. There would be significant visual effects on users of limited sections of the M40, A423, B4100, B4451 roads, and other minor roads in the vicinity of the site, where views would not be screened by houses or vegetation.

- 5.68 The M40 crosses the study area between the M42 junction south of Birmingham and Bicester. For those travelling in a south easterly direction, potential visibility from the M42 to J13 near Bishop's Tachbrook would be variable given the effect of intervening topography and limited to a few short sections. Continuing south-east of Junction 13, more open views would be experienced from sections of the route with the proposed turbines at times seen directly ahead in the direction of travel, in part screened by intervening topography. Beyond Warwick Services, the route passes through a series of cuttings with associated embankment planting limiting potential visibility of the turbines to intermittent views of the blades. On passing Junction 12 at Gaydon, views continue to be partially restricted and then open up with opportunities for oblique views of the turbines seen to the east.
- 5.69 Travelling in the opposite north-westerly direction, potential visibility of the turbines would be limited by the screening effects of Burton Dassett Hills, which would eliminate views until the route is within 5km of the site north of the overbridge at Avon Dassett. The route continues north to the Gaydon junction and over this section, views are generally restricted by motorway embankments and planting. More open close range views would be experienced over a short section to the south of Junction 12 at Gaydon, where the turbines would be clearly visible in views to the east.
- 5.70 Travelling south-easterly, the potential for significant effects experienced by road users on the M40 would be limited to intermittent views over a section of the route within a 4km radius of the site. CD12.2H VPs 5 & 10). The potential for significant visual effects when travelling in a northerly direction would be limited to a 4km section, to the north of Temple Herdewyke, but this effect would not be constant given the extent of screening. There would be significant visual effects upon the section of the M40 which passes the site to the immediate west. The turbines would form prominent features in the oblique view from the motorway. Here, the turbines would form a point of interest along the route and significant visual effects on the motorway are not a reason to justify refusal.
- 5.71 The A423 from Coventry to Banbury, passing within 3.5km of the site to the south of Ladbroke. ZTV analysis indicates that potential visibility experienced by motorists travelling in a southerly direction over much of the route south of Ryton-on-Dunsmore to Southam at distances of 7.5km to 17km from the development. Potential visibility would frequently be restricted by local topography, intervening tree cover and embankment slopes. Significant effects would be limited to a 2km section to the south of Ladbroke within a 4km radius of the site where views would be partially restricted by intervening topography and tree cover.
- 5.72 Travelling in the opposite direction, potential for views of the turbines would be limited to a section from the bridge crossing of the main line railway and Oxford Canal (east of Fenny Compton), extending north towards Ladbroke. Significant effects would be limited to a section of the route south of Ladbroke where the turbines would be oblique to the direction of travel. Whilst the turbines would be visible from sections of the A423 it would not result in significant visual effects on users of the road. The turbines would be visible in the oblique view to the west beyond an undulating landscape. Taking into account this landform and vegetation views towards the turbines

would be frequently interrupted. The turbines would not have a prominent presence in the view for much of the route and where visible, they would be seen in the context of the wider landscape. There would be no significant visual effects on this route.

- 5.73 The B4100 extends from the M40 Junction 13, near Bishop's Tachbrook in a south-easterly direction, generally following the alignment of the M40 towards Banbury. When travelling in a south-easterly direction, visibility would be limited to intermittent views, which would be more open in winter months and potentially significant within a 4km radius over the section south of Chesterton Wood to Gaydon. When travelling in a northerly direction from Banbury, initial views may be experienced on the approach to Warmington, before the route descends onto lower ground and follows the alignment of the M40 with the potential for glimpsed blade tip views, then more open views on the approach to Temple Herdewyke. Although in part screened by the landform of Thorn Hill, significant visual effects would be experienced over the section of the route within 4km. Significant visual effects upon users of the B4100 would be limited to the part of the route that passes to the west of the site between Little Dasset/ Temple Herdewyke and Lighthorne Heath. Beyond this section of the road topographical features within the intervening landscape would interrupt the extent of visibility of the turbines. Where visibility of the turbines does occur beyond this part of the route, they would be seen in the context of the wider landscape. These visual effects would not justify refusal of the development.
- 5.74 The B4451 extends from Gaydon to Southam passing directly north of the proposed development. When travelling in a north easterly direction from Gaydon, oblique views would be experienced on the approach to the M40 junction with elevated open views from the overbridge at Junction 12 (CD12.2H VP 5). Consistent, open, lightly filtered views oblique to the direction of travel would continue to be experienced over the section north east of J12 (CD12.2H VP 4). When travelling in the opposite south-westerly direction from Southam towards Gaydon, the route initially passes through the Kineton Road Industrial Estate, with the potential for open filtered views towards the turbines over the section to Depper's Bridge. The route continues to Bishop's Itchington with open close range views over the following section to Gaydon. Significant effects would be experienced within a 4km radius, including close range open views to the north east of the M40 junction.
- 5.75 There would be significant visual effects upon users of the B4461 as the route passes to the north of the site between Gaydon and Bishops Itchington. As one travels further away from the site the visual presence of the turbines would diminish and the turbines would be seen within the wider landscape context. Roadside vegetation and topographical variation will also interrupt the view from the route. These significant visual effects upon the B4451 would not justify refusal of the scheme.
- 5.76 There would be the potential for significant visual effects on minor roads where there would be a clear open view towards the turbines up to a distance of 4km of the site. In addition to The Old Salt Road, the minor road between Bishop's Itchington and Northend lies to the east of the site passing through Knightcote and offering close range views (CD12.2H VPs 2 & 3). A minor road between Fenny Compton and Gaydon crosses an area to the south and south-

west of the site and coincides with the Centenary Way over the section to the north of Northend, with the potential for open views (CD12.2H VP 1). The turbines would form a prominent feature in the view from these minor roads and there would be significant visual effects upon the users of the roads as the routes pass close to the site. However, visibility of the turbines is likely to be interrupted by roadside vegetation. Such significant effects are an inevitable consequence of such development and it should not be a reason for refusal of the scheme.

Cumulative Effects

- 5.77 The RfR do not include cumulative landscape or visual effects. The FEI contains a cumulative assessment of simultaneous, successive and sequential effects (CD12.2F Appendix 7.5). This considered the proposal in combination with all other commercial scale wind turbines within the 30km study area, which were operational, under construction, consented or in planning at the time the ES was produced, plus further specific sites beyond 30km which were requested by the lpa. A cut off date for information relating to cumulative sites of 31 August 2012 was used in the assessment.
- 5.78 There would be no significant cumulative landscape effects as a result of this development, even if all of the schemes considered in the cumulative assessment, including those yet to receive consent, were to be constructed. There would be no significant cumulative effects on the AONB, with regard to its special qualities, even if all of the cumulative sites were to be constructed.
- 5.79 As to cumulative visual effects, there would be the potential for significant visual cumulative effects up to 5km from the site. These effects would occur firstly where there would be a reasonable portion of the turbines visible and the clear presence of other wind farms within a realistic viewing range that would exert a significant effect in their own right. Secondly, significant cumulative visual effects could occur where the other schemes in the study area would be of a magnitude of influence such that the addition of the proposal would raise this to a visually significant level.
- 5.80 As such, there would be no significant cumulative landscape effects which would occur as a result of the development, nor any significant cumulative effects on the Cotswolds AONB. With regard to the significant cumulative visual effects this judgement takes into account the proposed turbines at Stoneton. If only operational and consented schemes are considered in the cumulative visual assessment, there would be no significant cumulative visual effects. The development would not give rise to any significant cumulative effects which would warrant a refusal of this proposal.

Visual Residential Amenity

- 5.81 No individual has the right to a particular view but there comes a point when, by virtue of the proximity, size and scale of a given development, a residential property would be rendered so unattractive a place to live that planning permission should be refused. There is agreement regarding the test to be applied, drawing carefully from the appeal decisions of Carland Cross and Burnt House Farm in particular (CD5.6 & CD5.4).

- 5.82 The test of what would be unacceptably unattractive should be an objective test albeit that a professional judgement has to be made on the facts of any particular case. There needs to be a degree of harm over and above an identified substantial adverse effect on a private interest to take a case into the category of refusal in the public interest. Changing the outlook from a property is not sufficient. Indeed, even a fundamental change in outlook is not necessarily unacceptable. The visual component of residential amenity should be assessed "in the round" taking into account factors such as distance from the turbines, the orientation, size and layout of the dwelling, internal circulation, division between primary and secondary rooms, garden and other amenity space, arc of view occupied by the wind farm, views through the turbines and the availability of screening.
- 5.83 The Ipa mistakenly believes that the general threshold of acceptability set out in the Enifer Downs case for 120m high turbines was 1km rather than the "*up to about 800m*" figure which was the figure the Inspector used (CD5.41). The Ipa accepted that Lower Spring Farm, Trotters and Meadow Farm were beyond this distance. Whilst distance is not the sole determining factor, it is an important one and other appeal decisions provide a useful benchmarking exercise. These are Enifer Downs (CD5.41), Earls Hall Farm (CD5.24), Hempnall (CD5.27), Beech Tree Farm (CD5.67), Carland Cross (CD5.6), Cotton Farm (CD5.19), Burnt House Farm (CD5.4) and Spaldington Airfield (CD5.12). Granting permission here would be consistent with such decisions.
- 5.84 Broadview has undertaken a detailed and comprehensive Residential Visual Amenity Assessment (RVAS) (CD12.2C page 102; CD12.2D Appendix B; CD12.2E pages 44 to 46; CD12.2F Appendix B). There would be no unacceptable effects on the visual component of residential amenity whether in the case of Lower Spring Farm, Trotters and Meadow Farm (aka Bungalow Farm) or any other individual dwelling, groups of dwellings or settlements.
- 5.85 Lower Spring Farm is a detached 2-storey house (CDs 12.2D & F Appendices B, P1). The turbines would have significant effects upon views from the rear elevation of and its rear garden. The turbines would also be visible on the approach to the property from the relatively long driveway from the B4451 Gaydon Road. The 4 turbines would be seen at distances over 800m from the property, with 3 of the turbines located over 1km from the property, within a wide view of a medium to large scale landscape. The turbines would be arranged such that views towards the Burton Dassett Hills would remain. From the driveway, the turbines would appear evenly spaced in the view, with T2 appearing slightly closer in the view.
- 5.86 In views from the rear windows and the garden the turbines would again appear well spaced, T2 and T5 would appear closer together in the view yet would remain well arranged, and there would be no stacking of blades. T2 would appear closest in the view with T5 the furthest turbine. The 4 turbines would not appear in the same part of the view as the Beacon Tower. The landform of the Burton Dassett Hills would remain visible and can be appreciated nonetheless. The landform beyond the property falls away gently to the south. The turbines would be located beyond the slight roll in the land beyond the property. The turbines would also be located beyond a number of hedged field boundaries with trees which would filter views of the bases of the turbines, particularly when viewed from ground floor windows, the rear

garden and driveway. Vegetation within the rear garden would also offer a degree of filtering to the view from the garden.

- 5.87 The turbines would be visible from the majority of the garden, kitchen, sitting rooms and bedrooms. The magnitude of change would be substantial, the visual effect would be major and the ES Significance would be significant. However, such visual effects would not be so significant or harmful as to warrant refusal of the development. The turbines would occupy a small part of the wider view available and would be at such distances that their presence in the view would not be overwhelming.
- 5.88 Trotters is a single storey barn conversion adjoining Lower Spring Farm (CDs 12.2D & F Appendices B, P2). The rear elevation of the property faces south-east with views towards the turbines available across the rear garden and farmland beyond. The rear elevation has windows serving key habitable rooms including 2 bedrooms and a kitchen. The turbines would appear similar in the view to that experienced at Lower Spring Farm. The turbines would appear well spaced and no stacking of blades would occur. The turbines would not appear in front of the Beacon Tower and the Burton Dassett Hills would remain visible in the view beyond the turbines.
- 5.89 The turbines are located over 800m from Trotters, with 3 of the 4 turbines located beyond 1km from the property. The land falls gently away from the property towards the site, marginally diminishing the appearance of the turbines in the view. The bases of the turbines would be filtered in the view by vegetation within the intervening landscape. The view from the rear elevation of the bungalow comprises a medium to large scale agricultural landscape with longer distance views towards the Burton Dassett Hills. The rear garden is set on sloping ground with the patio area located on higher ground than the wider garden. From the patio there are open views beyond the garden boundary vegetation from the east to the south. The turbines would be located in a part of this view only. From the lower part of the garden, towards the south eastern curtilage boundary, the hedge which forms the boundary would increasingly interrupt the view towards the turbines in summer months as one moves towards the further parts of the garden, including the covered seating area in the south eastern corner of the garden. Nevertheless, it is recognised the moving blades of the turbines would remain visible in the wider landscape beyond the property.
- 5.90 The turbines would be visible from the kitchen and bedrooms. The magnitude of change would be substantial, the visual effect would be major and the ES significance would be Significant. However, such effects are not considered to be as significant or harmful to refuse the development.
- 5.91 Meadow Farm is a bungalow some 990m to the east of the turbines. The bungalow has open and direct views from the rear elevation, which includes a conservatory, towards the proposed wind farm (CDs 12.2D & F Appendices B, P12). Beyond some 900m of a turbine, Meadow Farm was not considered to the same level of detail in the RVAS as the other properties which lie within 900m (Document 11 Appendix 3).
- 5.92 Meadow Farm is set within a well-proportioned curtilage enclosed to the front (east) elevation by both deciduous and coniferous vegetation, and open to the rear (west), the boundary formed by a post and wire fence. The northern

curtilage boundary is also formed by a post and wire fence with the southern boundary partially vegetated by mature trees and a hedgerow. The primary outlook from the rear of the property comprises a large agricultural field which has a slight roll in the landform before marginally falling away from the property in a westerly direction. Higher ground in the vicinity of Gaydon and Christmas Hill form the far horizon. The M40 motorway is just visible as it passes to the west of Christmas Hill.

- 5.93 The rear garden at Meadow Farm is arranged into a number of separate areas. A slightly sunken patio area is formed by raised terraced planters to the immediate rear of the conservatory. This area is generally inward looking with the primary focus being the attractive planted terraces. The lawn area beyond the patio is separated in two by a timber fence. Within the southern part of the lawn area there is a timber shed and a woven summerhouse located under a number of trees in the south western corner of the garden. Views from the summerhouse are primarily orientated towards the garden with a narrow view towards the field to the immediate west. Within the northern lawn area there are 2 further seating areas, a timber table with chairs and a timber swing seat. The lawn then continues to wrap around the northern elevation of the property to the front garden.
- 5.94 The front garden is separated from the rear by a timber fence with hedge to the south of the dwelling and a temporary fence to the north. Within the front garden is a narrow driveway leading to a parking area to the immediate front of the property. The visual experience from the front of the property is open to the north across an arable field with a longer distance view available towards Bishops Itchington. To the east and south the view is enclosed by vegetation.
- 5.95 On the approach to the property the primary focus of the driveway is the property itself. Views to the north and north-west are available towards Bishops Itchington and Christmas Hill beyond the post and wire fence. A side extension on the southern elevation provides the primary entrance to the property. The extension then leads into the kitchen, the window of which looks onto the front drive. The further windows look immediately onto the parking area with the garden beyond. On the rear elevation of the property there are 2 windows and a set of patio doors. A conservatory is located on the southern elevation of the property with windows facing to the west and south, the doors of the conservatory open out to the south onto a patio which wraps around the conservatory on the western elevation. The view from the conservatory is primarily the patio area which is partly sunken and surrounded by raised terraced planters. This provides a degree of enclosure to the space. The patio doors lead out into the garden from the living room. The foreground view from the living room is the rear lawn including 3 small trees. The arable land beyond the property is visible with longer distance views towards Thorn Hill. The two other windows on the rear elevation are those of the bathroom, which is a frosted window, and the master bedroom.
- 5.96 The view from the master bedroom looks onto the rear lawn. A garage/shed within the garden is visible to the immediate north-west and 2 small trees within the garden break up the wider view of the arable land beyond the property curtilage. The longer distance view comprises a rural outlook with Christmas Hill and Thorn Hill forming the far horizon.

- 5.97 The turbines would be located to the rear of the property beyond the slight roll in the landform of the large field in the immediate view. The bases of the turbines would be filtered by the vegetation within the intervening view. The turbines would appear in part of the wider view available from the rear of the property which extends from the west to the north. The turbines would appear as 2 small groups, T2 and T3 forming a northern group and T4 and T5 forming a southern group. The separation gap between the two groups would allow views through the wind farm towards the hills that form the far horizon. The turbines are located at distances between 980m and 1.35km from the property. The increasing distance of the turbines from the property would diminish the presence of the turbines within the view. The magnitude of change would be substantial, the visual effect would be major and the ES Significance would be significant. However, such effects are not considered to be as significant or harmful as to warrant refusal of the development.
- 5.98 Although there would be significant visual effects experienced at the 3 properties set out within the reasons for refusal, such effects are not so significant or harmful as to warrant refusal of the development. The turbines would not have an overbearing effect upon the properties and they would not become unattractive places to live.

Other Properties within 1km

- 5.99 A further 6 dwellings lie within 1 km of a proposed turbine, along with 5 holiday cottages. One of these, New House Farm and the associated 5 holiday cottages, is a landowner with financial involvement in the scheme. For the remaining 5 residential properties, whilst there would be significant visual effects, none would become unattractive places to live.

Properties between 1km and 2km of the turbines

- 5.100 Between 1km and 2km of a turbine there are a number of individual residential properties/clusters. In addition to these, the village of Knightcote and the eastern edge of the village of Gaydon would also lie within 2km of a turbine. Although there are a few residential dwellings within 1km-2km of the site with open views of the turbines and there would be a significant effect on their visual amenity, in no circumstance would there be an overbearing or unacceptable visual effect on the living conditions of the residents at any of these dwellings. For many of the properties there would not be a significant visual effect due to screening by other buildings, vegetation, or to a lesser extent landform.
- 5.101 Located at a distance of between 0.9km and 1.35km from the nearest turbine (T5) Knightcote is the closest settlement to the scheme. However, the only properties in the village which lie within 1km of a turbine are the financially involved property and associated holiday lettings located at New House Farm. The nearest non-involved properties in Knightcote are 'The Old Schoolhouse' and Knightcote Lodge located on the north-western edge of the village. The RVAS identified that the views from The Old Schoolhouse are in part restricted by garden tree and shrub planting and that there was the potential for open unrestricted views from the dwelling and rear garden of Knightcote Lodge. Both properties were noted to have the potential to experience a significant visual effect.

- 5.102 Views towards the turbines from the remainder of the properties in Knightcote would be restricted in part by vegetation and the screening effect of other properties in the village. For the majority of properties on Kimble Close and the main road running through the village there would be no view of the turbines. Properties on the northern side of Poplar Close would have more open views towards the site from their rear, although these would be slightly oblique with the turbines lying to the northwest. Overall, there would be no visual effects from within the village of Knightcote, either from public or private locations, which would be so significant as to warrant refusal of the development. Indeed, many locations would have no view of the turbines.
- 5.103 Gaydon is located to the west of the M40 with properties on the eastern edge of the village lying some 1.9km from the site. The settlement is located on north and east facing slopes with views to the east towards the Starbold site characterised by rising ground towards the low ridgeline of Thorn Hill. The potential for significant visual effects would primarily be limited to dwellings on the eastern edge of the settlement adjoining the B4100. The turbines would appear on the skyline in views to the east with the lower towers screened by landform and in part filtered by tree cover. Whilst there may be a limited number of significant visual effects on properties in the eastern edge of Gaydon, these effects would not be so dominating or harmful as to warrant refusal of the development. The effects on the settlement would be no different to that which may be experienced from other villages in the vicinity of existing commercial wind energy developments elsewhere in England. Properties and Settlements over 2km from the turbines
- 5.104 There are several individual properties and settlements beyond 2km of the turbines where there is the potential for significant effects. Located approximately 2km to the south, Northend is a village on the lower north facing slopes of the Burton Dassett Hills. Views of the turbines from Northend would in part be limited by intervening hedgerows, tree cover and buildings. However, significant effects would be experienced by residents where it is possible to obtain open views towards the proposed development (CD12.2H VP 7). Whilst there is the potential for significant effects, such effects would not occur beyond those properties on the northern edge of the village where the view towards to the site is open.
- 5.105 Located approximately 2.1km to the north is Bishop's Itchington. Whilst the ZTV indicates potential visibility of the turbines throughout the village potential views of the turbines would be well screened by trees and buildings from much of the village. The potential for open or filtered views exists from properties towards the southern edge of the village, where there is the potential for significant visual effects at dwellings on Gaydon Road (B4451), Knightcote Lane, Scowcroft Drive, Dadglow Road, Poplar Road and Hambridge Road. These dwellings would have the potential to experience open or partially filtered views to the south of the village (CD12.2H VP 8).
- 5.106 The majority of the properties on the southern edge of Bishops Itchington are not orientated towards the site and the turbines would not be located in the view from the primary elevations of the properties. The greatest potential for significant visual effects is limited to Parrish Close and Daglow Road as the dwellings are orientated north to south. However, the properties are located on the south-eastern side of the settlement and the turbines would be located

at an oblique angle. Whilst potentially significant visual effects are identified on the southern edge of Bishops Itchington, these effects are not so damaging to warrant refusal of the development.

- 5.107 Located some 2.3km to the south of the site and to the west of the M40 the village of Temple Herdewyke is largely incorporated within the MOD Defence Storage and Distribution Agency Kineton. There would be open views in a northerly direction towards the turbines with significant effects experienced from Stuart Gardens and Hampden Court on the northern and north-eastern edge of the village. Whilst the turbines would be visible from the settlement, they would be seen in the context of the wider landscape and would be filtered in the view by vegetation associated with the MOD site, the B4110, and the M40 motorway. There would be no significant visual effects upon the settlement of Temple Herdewyke.
- 5.108 Located approximately 3km to the west of the site and north of the extensive Jaguar Land Rover Gaydon Test Centre, Lighthorne Heath is located at the former site of RAF Gaydon. The village forms a tight cluster of dwellings, located to the west of the B4100, with views in a westerly direction towards the site limited by intervening tree cover. There is the potential for significant effects limited primarily to winter months when more open views would occur. The village is relatively enclosed by tree cover to the east and south and the B4100 is heavily planted along its eastern side. The village itself is generally inward looking with views in a south-eastern direction towards the site limited to those properties overlooking the B4100. There is the potential for the turbines to be visible in the wider landscape, beyond the B4100 and M40 corridors and the woodland at Itchington Holt. However, such potential visibility would not result in a significant visual effect.
- 5.109 Located some 3.5km to the south east Fenny Compton is orientated north east to south-west, offering open views in a north westerly direction from dwellings located on the northern and western edge of the settlement. There would be the potential for significant effects to be experienced in views from dwellings on Fieldgate Lane, High Street, North End Road, Bridge Street, with views frequently partially filtered by local tree cover and garden vegetation. There would be open views from the high ground on Mill Hill to the south-east of Fenny Compton (CD12.2H VP11). Fenny Compton is an inward looking settlement located at the foothills of the Burton Dassett Hills. The properties located along Northend Road are not orientated towards the site. The properties located on the northern side of Bridge Street afford an outlook that comprises farm buildings and mature vegetation in the immediate view. A similar outlook is afforded by properties along the northern side of High Street. Although visible, the turbines would not result in significant visual effects upon the above streets. Fieldgate Lane is located on the far north-eastern side of the settlement. A proportion of the properties on Fieldgate Lane have an open aspect to the rear of the property in a north-westerly direction. The turbines would be visible in the middle distance view as a feature of the wider view available. However, the presence of the turbines in the view would not result in significant visual effects that are so damaging as to warrant refusal of the proposal.
- 5.110 Running along the B4451, Depper's Bridge is a small settlement 4km from the site, to the east of Harbury. Dwellings within the settlement are generally

located on the northern side of the B4451 with an open outlook to the south, in places restricted by local tree cover. The turbines would be visible on the skyline, with the potential for significant visual effects. The Deppers Bridge properties are orientated in a south westerly direction, towards the site. The intervening landscape between the site and the settlement is undulating and well vegetated in nature. The turbines would not form a prominent feature in views available from the settlement and there would not be significant visual effects from Deppers Bridge.

- 5.111 Harbury lies to the north of the site, situated on elevated ground at some 4.2km from the nearest turbine. The land to the south of Harbury rises slightly to the wooded ridgeline of Christmas Hill and any potential views of the turbines would, in part, be screened or filtered by intervening topography and woodland cover. Taking into account the distance from the site and the nature of the intervening landscape, there would no significant visual effects within or on the edge of Harbury.
- 5.112 Chadshunt is a small hamlet located to the south west of Gaydon, some 3.5km to the south-west of the site. Views in a north easterly direction towards the proposed turbines would be limited by rising ground, the intervening landform of Thorn Hill and scattered tree cover. There would be some potential visibility of the uppermost parts of the turbines. The potential for significant visual effects would be limited.

Conclusions of Effects on Properties and Settlements beyond 1km of a turbine

- 5.113 The turbines, although prominent features in some views, would not be dominating; nor would they change the view to such a degree that it would not remain open, rural and attractive. The views from these local villages and individual properties are capable of accommodating the change without undue harm. With this scheme, the visual amenity that the local settlements and surrounding individual residential properties enjoy would remain high, even in those views which would contain the turbines.

Cultural Heritage

- 5.114 The lpa does not argue that harm to the significance of any individual HA or when taken together would be substantial harm for the purpose of paragraph 133 of the Framework. At its highest, harm to the significance of any asset or assets is simply to be weighed in the overall planning balance.
- 5.115 The lpa suggests that Broadview's assessment that substantial harm, whether that be caused by direct harm to an asset or indirect harm by reason of harm to those elements of setting which contribute to significance of an asset would require something akin to total loss of heritage significance. The lpa's witness has stated that the threshold was "*a long way below*" total loss of heritage significance; that the threshold was "*a long way short of total loss*" and that there would be cases where the threshold of substantial harm "*would not be near*" total loss of heritage significance. These are lower thresholds used by Broadview and even using this lower threshold the lpa does not think that harm to any asset, including the Beacon Tower crosses it. The lpa's evidence neatly indicates the low level of harm alleged.

- 5.116 Broadview's approach is correct: the recent decision of Bedford Borough Council v (1) SSGLG and (2) Nuon UK Limited [2013] EWHC 4344 concluded that the Inspector was correct in saying that *"for harm to be substantial, the impact on significance was required to be serious such that very much, if not all, of the significance was drained away. Plainly in the context of physical harm, this would apply in the case of demolition or destruction, being a case of total loss. It would also apply to a case of serious damage to the structure of the building. In the context of non-physical or indirect harm, the yardstick was effectively the same. One was looking for an impact which would have such a serious impact on the significance of the asset that its significance was either vitiated altogether or very much reduced"* (Doc 2 paragraph 24).
- 5.117 Whilst the lpa's evidence relates to the 4 assets relevant to RfR4, it concentrates on the Beacon Tower. The other 3 assets get very little analysis or justification in terms of the identified harm that might occur and appear very much as make-weights in the argument. The lpa's conclusion corresponds very closely to the conclusions reached by Broadview on the impacts on the other 3 assets. The lpa say the impacts would be as follows: Fenny Compton CA - Minor but noticeable; Knightcote Manor -Minor; Church of St. Peter and St. Clare –Minor. Broadview's assessment of impact is: Fenny Compton CA - Negligible; Knightcote Manor – Slight; Church of St. Peter and St. Clare – Negligible (Doc 16 paragraphs 4.10 to 4.19).
- 5.118 The lpa's approach adopts 3 assessments or "triangulation". Whilst fine in principle it does not add up in practice. Of the 3 methods, it is only EH's document "Setting of Heritage Assets 2011" that is relevant (CD9.4). EH's "Wind Energy and the Historic Environment 2005" (CD9.2) is simply an earlier and simpler version of the material in the 2011 Setting guidance. Similarly, EH's "Seeing History in The View A Method for Assessing Heritage Significance within Views 2011" (CD9.12) is not an appropriate method as it relates to recognised important views and not to the assessment of setting effects. The limited relevance of this document is illustrated by the trouble the lpa's witness has in applying his method, including the definition of Viewing Place, Viewing Point and Assessment Point.
- 5.119 Whilst the lpa's assessment of the Beacon Tower appears systematic, it is fundamentally flawed with a vital link in the analytical chain missing. Having identified how setting may contribute to heritage significance, it describes visual change and simply equates this with harm without ever explaining how such change would affect the contribution to significance made by setting. This is further compounded by the use of the term "prominent" to cover the entire zone in which the Beacon Tower would be "clearly discernible as a landmark feature", a use far broader than by both landscape consultants. The lpa's witness was given a number of opportunities to put forward an explanation and he could not do so. Thus the Inquiry is simply left with the lpa's assertion that visual change would be harmful, which is simply wrong.
- 5.120 The lpa is rather too dismissive of EH's position. Somewhat unusually, EH indicated that it saw no grounds upon which to object to the proposed development, a view which was based upon the familiarity of the officer with the local area in addition to a desk top exercise. Considerable weight should be attached to this consultation response.

Statutory and Policy Framework

- 5.121 With regard to section 66(1) of the Planning (Listed Buildings and Conservation Areas Act) 1990, notwithstanding misgivings about it expressed in the Bedford case, the Barnwell Manor litigation has made plain, the statutory duty is separate to the planning policy position. The Court of Appeal in *Barnwell Manor Wind Energy Limited -v (1) East Northamptonshire District Council (2) English Heritage (3) National Trust (4) The Secretary of State for Communities and Local Government* [2014] EWCA Civ 137 confirms that it is necessary for the decision maker to give the desirability of preserving a listed building and/or its setting considerable importance and weight when undertaking the planning balance. It is not simply a matter of giving such desirability careful consideration for the purpose of deciding whether there will be some harm to the Listed Building and/or its setting and, if so, whether the benefits of the proposed development outweigh that harm. If there is harm to the setting of a Listed Building, the decision maker is required to accord the desirability of preserving the setting of the building considerable importance and weight when undertaking the planning balance and to make clear in the decision, by way of an express statement, that he has done so. The Court of Appeal decision does not require an appellant or its heritage consultant to do anything differently. The Court of Appeal decision was concerned with the weight to be attached to competing interests in the planning balance which is a matter for the decision maker alone.
- 5.122 Laborious as it may be, each and every HA within the study area has to be considered separately under both regimes. LP Policies EF.11, EF.13 and EF.14 are relevant and form the starting point to decision making. However, All 3 policies are inconsistent with the Framework because they lack any balancing provision and accordingly, breach of their strict wording should be accorded limited weight.
- 5.123 One of the Framework's core planning principles, Paragraph 17, is the conservation of HAs in a manner appropriate to their significance so that they can be enjoyed for their contribution to the quality of life of this and future generations. Significance is something that is experienced through an understanding of the HA and which should be expressed in terms of archaeological, architectural, artistic or historic interest. This is an exhaustive list of the special interests which go towards significance, drawn from the definition in Annex 2 to the Framework. EH's "Conservation Principles – Policies and Guidance" (CD9.3) upon which the lpa relies to some extent was originally intended as guidance to EH officers, pre-dated PPS 5 and its approach was not followed in PPS 5 itself or the Framework. The differences are material because as EH sets out itself, the value based approach in Conservation Principles is more discretionary and less objective than the special interest based approach in the NPPF. The hierarchy of (1) primary legislation in the Listed Building and Conservation Area Act 1990 (2) national planning policy (3) the Practice Guide and then below those 3 (4) EH guidance, which includes Conservation Principles, is clear and set out in Figure 1 of the Guidance on Setting of Heritage Assets.
- 5.124 Significance is not the same thing as general visitor amenity; nor is it the same as a contemporary landscape and visual amenity assessment. Any assessment of the significance of a HA should include the contribution of its

setting. Any assessment should recognise that elements of the setting may make a positive contribution to, better reveal, remain neutral or detract from the heritage significance of the asset. In other words it is not protection of the setting for the sake of setting; it is protection of what is required to understand the importance of the asset itself.

- 5.125 The Framework, the Practice Guide to PPS 5 and the EH Guidance on Setting do not use terms like “wider setting” or “landscape setting”. These are simply working terms and should not be used in place of the policy definition in Annex 2 to the Framework. When an asset is likely to be affected, significance must be assessed in its entirety. This involves looking at setting “in the round”. Particular views may be more important, because they were designed or because they convey more heritage relevant information, than others but an assessment must not be restricted merely to views in which a development may have an effect.

Reversibility

- 5.126 Paragraph 2.7.17 of NPS EN-3 directs that when undertaking an assessment of the likely impacts of wind turbines on the landscape and cultural heritage assets, the decision maker should take reversibility into account. This echoes EH's own guidance on “Wind Energy and the Historic Environment” which provides in the last bullet point on the Checklist that consideration should always be given to the reversibility of wind turbines. Reversibility can only serve to mitigate any harm arising and militate in favour of the grant of planning permission. This factor does not dilute Broadview's assessment of impact rather it has been factored in when undertaking the final planning balance. The Ipa's evidence about the extent to which reversibility is relevant is confused and lacking on how a material consideration of “Moderate-Major” weight had been taken into account in the planning balance.

Burton Dasset Beacon Tower

- 5.127 The origins and history of the Beacon Tower are not well understood. At some 6m, the tower is a relatively small structure that was not designed as a landmark. Regardless of which interpretation of the history of the tower is preferred, the setting potentially contributes to its significance in at least some of the following ways: the local landform; views out from the tower and views towards the tower. This scheme would not affect the nature of the landform where the tower is sited.
- 5.128 Views out from the tower contribute to significance because they illustrate how it could have functioned as a lookout tower, one of the possible explanations for its construction. The turbines would add a new man-made feature to the panoramic view that already includes major modern features but which do not detract from its heritage significance (CD12.2H VP 9). The landscape is not valued as an original or unchanged 15th century landscape which evokes the possible medieval origins of the tower. The addition of 4 turbines would not in any way obstruct or restrict the open panoramic views and it is this quality of the view that is relevant to the significance of the tower. The significance of the tower would not be affected. Moreover, it was

agreed⁹ that the wind farm would not obstruct any of the lines of sight between known beacons.

- 5.129 Views towards the tower contribute to heritage significance because they provide opportunities, regardless of its precise origins or function, to appreciate the tower as a distinctive landmark feature. It is a relatively small structure and was not designed as an eye-catching landmark. As a result, it is only prominent at relatively close range and the only views that contribute substantively to the significance of the tower as a landmark structure are within 3km of it (Doc 16 paragraph 3.25). These views are located in a 180° arc from the south, through west round to north. This is because the tower is located close to the west edge of the Burton Dassett Hills and is screened by the local landform of the hills in closer-range views from the east. Views of the tower would be changed in 2 parts of the landscape, one to the north where the turbines would appear in the foreground and one to the south where they would appear in the background.
- 5.130 To the north, the Tower would be seen in combination with turbines from viewpoints within the 10° sector of overlap with the turbines in the foreground. The Tower would also be seen in close proximity to turbines for about 10° on either side of this zone of overlap. The area defined by these parameters extends northwards for some 2 to 3km from turbines to the top of the ridge on Christmas Hill, west to Itchington Holt and east to Bishops Itchington (CD12.2H VPs 2, 6, 8 & 21). These viewpoints are between 4 and 5.5km from the Tower and illustrate the open views towards the Tower from elevated viewpoints on Christmas Hill (VP 6 & VP 21) and the scope for obstruction due to vegetation in lower-lying viewpoints (VP 2 & VP 8). In most of this area, off the higher ground of Christmas Hill, views towards the Tower are intermittent and obstructed by trees or even tall hedges. On the ridge, where there are open views towards the Burton Dassett Hills, the Tower is an inconspicuous mark on the skyline at a range of 4.5 to 5.5km.
- 5.131 To the south of the wind farm it is possible to define another 30° sector of theoretical overlap or proximity where Tower and turbines would be seen in combination. Based on blade-tip ZTV, for most of this southern sector, either the Tower or turbines or both would be screened by the Burton Dassett Hills and no in-combination views would result. This screening ends around Warmington where there would be open views northwards from the west side of the village to the Tower at some 4km away with the turbines beyond (CD12.2H VP 14). There would be views of the Tower and turbines from the indicator board on top of Magpie Hill, 300m to the south-east of the tower. This viewpoint lies outside the 30° sector and the turbines would be seen to the right of the tower. This is the location that would come closest to providing a short-range view of the Tower in combination with the turbines. In all other areas where the Tower is visible, the turbines would either be peripheral in the view or behind the viewer. In such close range views to the south and to the north, the Tower would remain the focal point and its significance would not be affected.

⁹ X-Examination of Dr Firth.

- 5.132 The difference between the lpa and Broadview is manifest. The lpa considers that the operation of the turbines would cause "substantial harm" to the significance of the Beacon Tower which approaches. For this to be the case, the lpa would have to allocate the majority of heritage significance of the asset to its setting and then conclude that simple visibility of the turbines would be inherently harmful. This is not right either in terms of policy or a properly conducted assessment.

Other Heritage Assets (Doc 16 paragraphs 4.1 to 4.9)

- 5.133 The Roman rural settlement at Windmill Hill Farm is a SAM and lies beyond the some 6km north-west of the turbines. The significance of this HA lies in its below ground archaeological deposits. Whilst most of the site would be screened by Windmill Hill views to the south-east do not contribute to its significance. Given the low level of likely visual change there would be no effect on the significance of this SAM.
- 5.134 Gredenton Hill Camp, a possible Iron Age hill fort above Fenny Compton is located some 3.7km to the north-west of the site. The local topography, a steep sided spur projecting from the ridge is a key contribution to its significance. Whilst all 4 turbines would be visible from the north and west facing sides of the hill, they would not affect the interpretation of the site and would not compete with the fort as a landscape feature. There would be no impact on the significance of this HA.
- 5.135 Norbury Camp is a hill fort where again topography contributes to its significance. At some 6.5km the turbines would be potentially visible but would have no impact on the significance of this HA.

Noise

- 5.136 The noise assessment was carried out in accordance with ETSU-R-97 together with application of the IoA Bulletin from March/April 2009 and IoA Best Practice Guidance. It is a matter of fact that ETSU was introduced in 1996 and that turbines have progressively increased in size since then. However, whilst increased heights have changed the relative importance of some factors i.e. wind shear, the fundamental methodology remains sound.
- 5.137 Although there is some criticism of the choice of background noise monitoring locations this lacks conviction and Broadview's of monitoring locations, as evidenced by the data sheets and has provided results reasonably representative of the typical background noise environment. The purpose of any assessment is not to find the absolute quietest location but to determine what is reasonably representative. This has been done. Final choice of monitoring locations is not an objective science and demands the exercise of expert judgement; nothing has been done to seriously call this into question.
- 5.138 The noise assessment demonstrates that noise levels would fall within the relevant limits of acceptability for all locations, at all wind speeds and directions, at all times. Appropriately worded planning conditions which are in identical form to those which have been employed previously and which have been tested in the High Court are proposed by Broadview. The reasons

behind the substantive difference in levels contained within the lpa's tables relating to the noise condition was revealed as its witness¹⁰, applying his own subjective opinion in a sort of "pick and mix" exercise, wholly without support from any element of guidance or policy, had purported to reduce levels by applying differing grades of penalty. Such an approach should be rejected; either the background noise assessment is reliable, which Broadview says it is, and should be used or it is not and planning permission would ultimately have to be refused.

- 5.139 The Parish Councils and other interested persons raise concerns regarding the adverse impact of wind turbine noise on health and sleep disturbance. It is well established that noise and sleep disturbance can have very real adverse health impacts (CD8.34). The most recent WHO report¹¹ examined the relationship between environmental noise and health effects, including cardiovascular disease, cognitive impairment, sleep disturbance, tinnitus, and annoyance. Whilst this emphasises the importance that WHO place upon the effects of environmental noise on sleep disturbance, however the report makes no mention of wind turbines, highlighting instead the significance of transport and social sources. This puts disturbance from wind farms in the right perspective, contrary to popular media presentations. Paragraph 123 of the Framework identifies that planning decisions should aim to avoid noise giving rise to significant adverse impacts on health and quality of life.
- 5.140 Whilst the concerns raised are genuinely held, they remain unsupported by any substantive evidence. Issues relating to sleep disturbance, irritability, headaches, nausea, and heart related problems and generally referred to as Wind Turbine Syndrome or Vibro-Acoustic Disease are raised regularly at Inquiries. However, Inspectors have concluded that the evidence does not justify refusing planning permission (Doc 13 pages 12 to 28).

Excess Amplitude Modulation

- 5.141 Excess Amplitude Modulation (EAM) has been discussed at length in a number of Inquiries. Even if the lpa is right, in its own view, a lawful condition can be imposed, so it is not a reason for refusal. The debate is about imposition of a condition or not.
- 5.142 The lpa's noise witness accepts that up until recently, no Inspector on appeal or the SoS accepted evidence regarding the need for a stand-alone EAM condition. A condition imposed by an Inspector at Den Brook (CD5.28) and by the SoS at Swinford (CD5.25). Very recently, in the Turncole Farm¹² appeal decided by the SoS in February 2014 and Dunsland Cross¹³ appeal decided by an Inspector in January 2014 AM conditions have been imposed. In this case, having appeared at the Spaldington Inquiry and failed to convince the Inspector there, the lpa's witness and this lpa have been very keen to highlight what they say are new material and research which might justify a different answer (CD5.12).

¹⁰ X-Examination of Mr Stigwood

¹¹ Environmental Burden of Disease-European Countries Project, WHO, Geneva, 2011

¹² APP/X1545/A/12/2174982

¹³ APP/W1145/A/13/2194484

- 5.143 In reality, not very much has changed at all. The condition proposed by the lpa and the 3db(A) metric for identification of EAM is exactly the same form that it has been for years. There remains no objective standard for the identification of EAM. Notwithstanding what Broadview says is misplaced confidence on the part of the lpa's witness about his understanding of the phenomenon, there is no consensus amongst the acoustic community regarding the causes or mechanics of AM. It is very easy to demonstrate the lpa's witness's confusion between causal mechanism and factors such as conditions of high wind shear which would influence propagation of the phenomenon to a receptor. Government policy and guidance, notwithstanding a number of opportunities to change tack by its authors has not changed. As recorded in the very recently published IoA Good Practice Guidance, current best practice is not to attempt to impose AM condition and that has not changed even with the recent ReUK research and guidance (Doc 81 a –f).
- 5.144 Without any policy backing or support, by reason of the wording of his proposed condition, the lpa's witness wants to set a definition of acceptable levels AM using a 3db(A) metric. Subject to his frequency criteria, if a turbine or wind farm exhibits AM above this level then the problem would need to be abated. The suitability of this as a threshold for determining what may or may not be acceptable in the public interest rather than simply being a point to draw a line for identification purposes is disputed. Reference has been made to the Hayes McKenzie report, ETSU, differing standards in South Australia and New Zealand, reports from Sweden and a completely different approach to measurement emerging in Japan.
- 5.145 A good analogy might be the way in which ETSU set levels for normal operational noise. ETSU acknowledged that impacts on amenity were likely to start as low as 33 db(A) but, in order to strike a balance between reasonable protection of amenity and the need to deploy renewable energy, a lower day time fixed limit of 35 db(A) to 40db(A) would be adopted. In short, just because the lpa's witness labels something as EAM using his metric does not mean that others would assess it in a similar way or that the same would be unacceptable when judged in the public interest.
- 5.146 Care has to be taken when attempting to extrapolate from scientific papers or academic conference papers that have not been peer reviewed. Contrary to the lpa's witness's own view, the Lees' paper expressly states that wind shear is not the cause of AM (CD8.30), a position which even Professor Van den Berg has moved away from. Here, at this site it is simply not possible to model potential Heightened Noise Zones (Doc 32) based upon pure mathematical modelling which took no account of real world factors. The lpa's HNZ mapping exercise is "pie in the sky" (Doc 6). It would be nice if the current state of knowledge allowed us to model in spatial terms in this way but it simply does not. The latest Japanese paper to the Denver conference confirms the absence of any consensus of professional opinion, does not set any type of threshold for identification of what would be unacceptable amplitude modulation or identify frequency, duration or predictive methodology, serving only to confirm the absence of any consensus of professional opinion.
- 5.147 Leaving aside all of the technical difficulties which persist, according to the lpa's witness, would only occur at night, would only occur in circumstances of

high shear, would only be manifest against low nocturnal background noise levels, would only occur within particular zones (HNZs) and it has the potential to be masked by the effect of background noise such as motorway and road traffic noise.

- 5.148 Whilst the lpa's witness provides "snap shot" evidence of what appears to be EAM in relation to 11 wind farms, crucially he is unable to provide any evidence regarding the frequency of events or their duration. He is unable to provide any convincing prediction of the likelihood of the development causing. In a sense, the lpa's noise witness devalues his own currency; if the likelihood is that every large scale commercial wind farm would display amplitude modulation and each scheme would fail his 3db(A) metric then it may well be far too sensitive to be an appropriate threshold balancing different and competing public interests.
- 5.149 Eleven schemes out of 380 plus operational wind farms in the UK remains a small number. The lpa's witness is not able to say whether or not the other 70 or so schemes he identifies would exhibit EAM as he defines it and would fail his condition. Even less is he able to extrapolate to say that some 140 operational wind farms in the United Kingdom would fail.
- 5.150 Interesting though this research is, at best it adds a couple more dots on the "dot to dot" drawing. The evidence here does not join up the dots such that there has been any step change in understanding. Indeed, a very real danger is that, based upon what increased knowledge may show very quickly to be a mistaken understanding of causal mechanisms, a condition with country wide precedential value becomes attached to this scheme for 25 years. A condition based upon a misapprehension could serve to render this otherwise good scheme unbankable by a financial institution because of what would be an unquantifiable risk and threatens to drive a coach and horses through the commercial on-shore wind farm sector because, if he is right, virtually every commercial scheme would be snared. Of course, this is not reason enough to avoid a condition by itself but the real life evidence is that vast numbers of wind farms which may well have failed the lpa's metric have operated perfectly satisfactorily and without unacceptable impacts.
- 5.151 Broadview submits that it is not possible, given the current state of play to construct a lawful condition to control EAM. Precisely because the causal mechanism is not known, it is impossible to devise a scheme to predict and abate it. The condition would likely dissolve into a blunt tool requiring turbines to be switched off, at least every night which is neither proportionate nor workable. Particular reference should be made to the detailed discussions in the recent appeals at Woolley Hill (CD5.3), Jacks Lane/Chiplow (CD5.2) and Batsworthy Cross (CD5.21) and the conclusions reached therein, all of which remain sound.
- 5.152 As the likelihood of EAM itself cannot be predicted and there is nothing to suggest that the site would be particularly prone, or even likely to such tendencies, the imposition of a condition cannot be claimed to be necessary in the sense of mitigating foreseeable impacts. Similarly, asking the question "whether planning permission would have to be refused if the condition were not imposed", the answer would be "no" because there is no evidence of demonstrable harm. Because there is so little understanding of EAM, any

condition set would be arbitrary. The Court of Appeal decision in Hulme concerned the construction of the specific wording of Conditions 20 and 21 (CD4.2). The Court did not consider the science of and clearly was not deciding on the need for an EAM condition in any given case.

- 5.153 Broadview's position is clear; an EAM condition would be unnecessary, imprecise, unenforceable; unreasonable and unlawful. However, this does not then mean that planning permission should be refused. The unquantifiable risk of EAM occurring here at levels which would be unacceptable and which might justify refusal of planning permission in the public interest does not lead to this conclusion. Moreover, whatever concerns the lpa's witness may have about the process, statutory nuisance and private nuisance remains methods of control which can and should be relied on. The criticisms of the statutory nuisance system would apply to its usefulness across the full spectrum of environmental protection cases; what is a generalised, highly personalised view of nuisance related legal procedure should not be used to drive the decision maker to the wrong result.

Broadview EAM Response

- 5.154 There is nothing in the ReUK documents that is specific or quantifiable about the probability, or severity of EAM occurring at this wind farm, nor does Broadview's evidence, which, based on the experience of over 400 operational wind farms, that the likelihood of EAM occurring at any particular site should be considered relatively rare. ReUK Work Package F notes that reported incidences of EAM are relatively limited (Doc 81a Work Package F Executive Summary page 4). Although that conclusion was written in 2012, Broadview is not aware of multiple new sites exhibiting this phenomenon that were commissioned in 2013.
- 5.155 Annex A of Work Package F summarises the changes in knowledge that have resulted from the Phase 1 research. In asking the question "*How common is AM?*" it notes: "*OAM, generally still as per 'past knowledge' comments, as no additional systematic data on prevalence has been collected, but additionally:*
- *seen to be acknowledged by the wind energy industry as a key issue through the letting of the RUK AM Research Project; publicly reported as being 'a small problem' but now 'too large to ignore' and even on those limited sites where it has been reported, its frequency of occurrence appears to be at best infrequent and intermittent*".
- 5.156 None of the work packages specifically addressed the incidence of EAM, so the ReUK work has not improved the understanding in that respect and it cannot be used to either support or refute the position that is rare or conversely that is widespread. Insofar as the number of sites that have exhibited EAM at some time, simply no evidence is provided. The last bullet point however confirms that the number of sites exhibiting EAM, at whatever frequency of occurrence, is limited. This is consistent with Broadview's understanding prior to December 2013, and with the evidence to the Inquiry.
- 5.157 The ReUK documents confirm that no one is able to predict when or how often EAM might occur, where it will be perceived or under what conditions it may be manifest. (WPF - Collation of Work Package Reports and Final Reporting notes (Section 4.7 and Table 2)), "*Several of the potential causal factors which have been suggested were shown through the present project*

to have little or no association to the occurrence of OAM. However some of these factors may represent potential contributory factors. It is not therefore possible to be prescriptive as to whether any particular site is more or less likely to give rise to OAM be generated at source. This is considered likely to be due to a combination of site and installation specific factors".

- 5.158 The "Summary of Research into Amplitude Modulation of Aerodynamic Noise from Wind Turbines, Page 10", Fiumicelli notes, *"The study reports that the occurrence and intensity of DAM is dependent on a number of interacting factors that are specific to a location and it isn't feasible to reliably predict the occurrence of OAM at another location simply by cross checking whether similar conditions that arise at a location where DAM has occurred might arise at the new location. Instead, the study has concluded that an aerodynamic effect called "stall" and the associated separation of wind flow from the upper surface of the turbine blade are primary causes of OAM. The study demonstrates that when the angle of attack of the turbine blade to the incoming wind flow becomes more acute (i.e. the angle increases), the boundary layer of air on the upper surface of the blade can separate from the blade surface, this in turn produces more intense noise at lower frequencies, and with a different radiation pattern, than when the blade is at a less acute angle to the wind flow."*
- 5.159 The identification of partial transitory stall as a potentially key causative mechanism in EAM is undoubtedly a significant improvement in our knowledge, but equally the acknowledgement that multiple additional interacting factors influence whether such transitory stalling would lead to being manifest at any given receptor makes reliable prediction a practical impossibility. In addition, the finding that historical occurrence of EAM at one site does not infer that will arise at a similar location is an important one; it is not therefore reasonable to base any assessment of the perceived risk of EAM upon generalisations or regional geography.
- 5.160 PPG advice is that any condition should be site specific, based upon necessity and determined by the facts of a particular case. Planning conditions must be necessary. The guidance provided is unambiguous; the argument that a condition will do no harm is no justification for its imposition. There is nothing in the ReUK publications, including the rationale for the proposed planning condition, that suggests planning consent should be withheld unless a condition was imposed, neither is there any new evidence to indicate EAM is a significant issue anywhere in the UK. On that basis it is difficult to understand why a template condition was considered necessary. It appears the situation pre and post publication of the ReUK material has not altered in that regard; the imposition of any condition could only be on a precautionary basis, which is inconsistent with the PPG.
- 5.161 In terms of the conditions provided by Broadview (Doc 8), as there was no AM condition proposed, the wording of the ReUK template condition is not relevant. The lpa's condition, No. 31, seeks to address AM (Doc 28). The analysis requirements prescribed in the lpa condition, which is a variant of the Den Brook condition, are fundamentally different from the ReUK analysis methods proposed. Without undertaking both forms of analysis on the same noise sample and comparing the outcomes, Broadview is unable to determine whether they provide an equivalent result.

- 5.162 The lpa condition sets a 3dB limit on the depth of modulation. This is at the upper end of the range described in ETSU which recognised typical AM up to 2-3 dB, although in some cases up to 6dB (CD 8.1 pages & 68). The condition does not reflect this variation acknowledged within ETSU. In addition to the 3dB modulation depth limit, the lpa condition provides a number of further qualifications e.g. a lower limit such that it would not apply where the LAeq was below 28dBA, while the ReUK method does not provide any limits. There is no justification provided for this arbitrary limit, although the lpa suggests that noise below this level is not considered to be problematic regardless of the depth of AM. Similar criteria, including the number of recorded events in any one minute or in any hour are provided without any basis, these are entirely arbitrary. The work is not apparently supported by any dose response relationship. Under the circumstances this is unreasonable.
- 5.163 Clause (vii) of the lpa condition provides that if the independent consultants report identifies a breach of the condition, the wind farm operator shall submit a scheme of mitigation within 14 days. The scheme shall be designed to mitigate the breach and prevent further recurrence. It seeks therefore not to impose a penalty that would be applied to the rating level, but rather to require the AM be sufficiently ameliorated to ensure it stays below the 3dB limit.
- 5.164 Reference to the ReUK documents, Section 4.8, page 51, of WPF summarises a range of options explored during the Phase 1 research; *"There is, therefore, currently no clear case history of successful mitigation of OAM noise, except through curtailment of turbine operation in the specific conditions in which it is encountered in the far-field, which can in some case only cover a restricted range of wind speeds and/or wind directions"*. That statement was written prior to the subsequent Phase 2 research, undertaken by the Danish Technical University (DTU), which investigated 3 mitigation strategies; collective pitch control for decreasing the mean Angle of Attack (AoA) and in this way move the operating point on the lift curve away from stall; individual pitch control (IPC) in order to reduce the AoA variations and yaw control also to reduce AoA variations.
- 5.165 These investigations were based upon simulating pitch errors on an NREL 5MW turbine. There is no evidence provided in respect to the applicability of these outcomes to the smaller turbines proposed here. Firstly, simulation of collective pitch control indicated that it is possible to achieve large reductions of the mean AoA and thus operate further away from the stall region. This would reduce the likelihood of flow separation and the potential for EAM. However, it is also seen that these reductions are obtained at the expense of decreased power production (WP3 Section 3.1 page 32). Secondly, simulations using IPC were beneficial in reducing AoA variations only at higher wind speeds above 8m/s (WP3 Section 3.2 page 33) with modest power losses. Finally WP3 Section 3.3 explains that yaw control, which is usually applied to ensure that the rotor is aligned such that the rotor plane is perpendicular to the mean inflow direction, can also be applied for load alleviation. Introducing a certain amount of yaw misalignment in situations with vertical wind shear can also lead to decreased AoA variations. Although these worked at all wind speeds, they also resulted in significant power loss.

- 5.166 The DTU report provided no firm conclusions indicating which approach was preferred. No evidence was provided to suggest that any of these simulations can actually be applied at this time, by any particular turbine manufacturer. This has very direct consequences for any planning condition based upon lpa condition 31 that requires a scheme of mitigation to be agreed. At the present time, and for the foreseeable future, there is no evidence to support any realistic prospect of mitigation being made available. The only mitigation would be to turn off the turbine(s) during relevant times when adverse conditions are experienced
- 5.167 Thus, the condition as drafted is unreasonably restrictive and provides no justification for adoption of the arbitrary criteria and thresholds it is based upon. Although the ReUK researchers were largely IoA members, and several were also IoA Working group members, the IoA itself was not involved in the project. In January 2014, Richard Perkins, Chairman of the IoA Noise Working Group responsible for producing the IoA Good Practice Guidance, said: *"This research is a significant step forward in understanding what causes amplitude modulation from a wind turbine, and how people react to it. The proposed planning condition, though, needs a period of testing and validation before it can be considered to be good practice. The IoA understands that RenewableUK will shortly be making the analysis tool publicly available on their website so that all interested parties can test the proposed condition, and the IoA will review the results later in the year. Until that time, the IoA cautions the use of the proposed planning condition."*
- 5.168 A number of limitations are evident with the proposed ReUK condition. The objective analysis of EAM is prescribed in a particular methodology, which effectively defines what constitutes EAM. This is currently one of several definitions available, all of which need further consultation and discussion amongst the wider acoustics community before any consensus is achieved. Although ReUK have now released software to enable the analysis their proposed metric requires, Broadview has not yet been able to evaluate this on measurement data containing AM. Although developed by well qualified specialists in digital signal processing, the assessment methodology has not been tested or evaluated in any way by the wider acoustics community; and, most critically, the proposed penalty scheme is not based upon a robust dose response relationship; once the assessment methodology has been applied, wherever EAM is found to occur above a threshold of 3dB, a penalty system is proposed. The rating level of noise is amended to reflect a combination of the turbine noise plus a penalty.
- 5.169 The proposed penalty scheme and the basis for it are described within the documents although the authors of the scheme are not attributed (Doc 81c). Although it refers to the work undertaken at Salford University (Work Package b2) that work was aimed at establishing a dose-response relationship, not determining a penalty scheme. The condition imposes a penalty if EAM is detected in a certain number of 10ms samples. It takes no account of how frequently EAM is manifest, or the duration of any episode(s). Any penalty scheme can only be arrived at by taking into account both the planning and environmental objectives of any condition, in addition to the outcomes of further testing.

- 5.170 Regarding the dose-response relationship, the authors reported their findings in an objective and straightforward manner befitting a scientific study, but the report, by Hunerbein et al, makes clear that there are limitations on the work undertaken (e.g. Section 6.2, Section 8 on page 42, or discussing Figure 9.3 at page 58), and their conclusions should only be considered as preliminary findings with further work required.
- 5.171 The research acknowledges (Section 10.3) that the study focused on steady AM sounds with constant AM amplitude, while in reality both the modulation amplitude and spectral characteristics can vary widely on time scales as short as a few seconds. The occurrence of EAM has also been observed to be largely intermittent, rather than continuous. Hunerbein et al observe that while both phenomena will certainly affect annoyance, it is, with the current knowledge on AM, not possible to define a representative set of stimuli to study listener perception of this phenomenon.
- 5.172 It should be noted that the number of participants was small (20), all sourced from within the University, and it appears not to have been a representative population sample (Section 6.5.1 page 32). The listening tests did not fully evaluate the role of masking noise that may occur in windy conditions, or consider the frequency of occurrence and duration of the EAM phenomenon, which would in my view influence any adverse response in the medium to long term. They report (Section 10.2) that: *"after taking the effect of LAeq which always dominated the annoyance rating into account, increases in modulation depth seemed to increase the annoyance rating slightly and consistently (monotonically), in agreement with previous research. However, the effect was not statistically significant because there was a large spread of ratings"*. Later in that same section: *"The consistency of the increase for all LAeq suggests that given a large enough group of participants it can possibly be shown that average annoyance rating increase slightly but consistently (monotonically) with modulation depth"*.
- 5.173 The researchers were unable to establish the clear onset of annoyance at a particular modulation depth, for either of the 2 rating methods (L_{Aeq} or L_{A90} parameters). The presence of AM made only a slight difference to the perceived annoyance. It seems the level of AM was less important than anticipated. There was insufficient evidence to ascertain the degree to which the level of AM increased annoyance and they could not establish the level of AM that was, or was not, acceptable. The researchers were transparent in reporting the outcomes of their work and acknowledged the results were not statistically significant. However in drafting the rationale for the penalty, ReUK have inexplicably ignored that point and have inferred that a firm dose response relationship was established. Without such a relationship it is difficult to see how the penalty scheme can be justified within the template planning condition. The ReUK comparisons with equivalent research in Japan, publication of which post dated the ReUK researchers work, fail to acknowledge the different metric for EAM adopted by the Japanese researchers, which makes meaningful comparison very difficult.
- 5.174 The outcomes of applying the template condition here are unclear. The general approach is that should EAM be measured above the notional 3dB threshold in any wind speed bin then a penalty is applied, increasing the overall rating level at that wind speed. Sites designed with substantial

headroom could potentially be immune to the consequence of that approach, providing the rating level remained within the consented limits.

- 5.175 The template condition does not require amelioration of EAM; it simply requires that the overall rating level is met. While this may reflect the findings of the dose response research, which suggested the overall L_{Aeq} level was more important than the depth of modulation, there is no certainty that it could provide an acceptable outcome. In this context, the application of the template condition would not be appropriate.
- 5.176 Broadview is aware of 2 appeal decisions which post-date publication of the ReUK material where relevant conditions have been imposed. These are Turncole Farm¹⁴ decided by the SoS in February 2014 and Dunsland Cross¹⁵ decided by an Inspector in January 2014.
- 5.177 Turncole Farm was specific to the facts of that case. There, the lpa and the appellant agreed that a condition to control EAM was necessary at that particular site. The rationale for imposition of the condition was that the SoS, no doubt encouraged by the principal parties, was satisfied that the condition was necessary for the protection of neighbouring properties. Dunsland Cross has a stand alone EAM condition, No. 28, designed to control AM which was deemed to be excessive. In this case, the Inspector noted, paragraph 59, that the lpa and the appellant agreed that the appeal site was one where high wind shear occurs and where the proposed wind turbines "*could be more prone than average to exhibiting excess AM*". The wording of condition 28 and attached guidance note in the form in which it was imposed was agreed by the parties.
- 5.178 This is not the case here. Broadview does not accept the validity or accuracy of the evidence relating to the HNZs mapped by the lpa (Doc 32). The Turncole Farm decision does not and cannot purport to set a general precedent for a stand alone condition in other cases. Whether a condition is a metric based condition or a "scheme to be agreed" type, a condition to control EAM here is not necessary and would be unlawful. The Framework and the PPG set out guidance on the Use of Planning Conditions. The Framework and PPG say that conditions should be tailored to tackle specific problems, rather than impose unjustified controls and should not be imposed unless there is a definite need for it. Where a condition is wider in its scope than is necessary to achieve the desired objective, it will fail the test of need. The fact that a condition will do no harm is no justification for its imposition.
- 5.179 The ReUK report notes that currently there is an absence of consensus regarding causal mechanism and prediction, even if likely candidate causal factors are attracting relatively more professional interest than others. The ReUK report points to the unavailability of mitigation short of turning the turbines off at the present time. In such circumstances, there is likely to be considerable uncertainty regarding the type of scheme or what reasonable planning purpose such a scheme would be expected to achieve. In addition to the condition not being necessary for the proposed development as set out above, without such clarity, Broadview is of the view that such a condition

¹⁴ APP/X1545/A/12/2174982

¹⁵ APP/W1145/A/13/2194484

would also fail tests of precision, enforceability and reasonableness if attached to any planning permission in this appeal.

- 5.180 In respect of precision and enforceability, PPG provides that the framing of conditions requires care, not least to ensure that a condition is enforceable. Similarly, PPG provides that a condition should be written in a way that makes it clear to the applicant and others what must be done to comply with it and cannot be imposed. In terms of reasonableness, given the absence of consensus regarding causal mechanism and prediction and the bluntness of the tool in turning turbines off by way of mitigation, a Turncole Farm type condition would not be reasonable in this case. Moreover, a condition that places unjustifiable and disproportionate burdens on an applicant fails the test of reasonableness. Here the lpa's suggested condition or the ReUK condition would create a degree of uncertainty regarding power generation and output and potentially make it difficult to obtain project finance.
- 5.181 There appear to have been very site specific reasons for parties to form the view that they did at Turncole Farm and for the SoS to feel that the type and form of condition imposed was lawful. In a similar way, there were very site specific reasons for the parties to agree the position at Dunsland Cross. In this case, those site specific reasons do not exist and there is no such agreement. The ReUK material which is before the SoS indicates that the occurrence of unacceptable levels of EAM is rare. In the event that the SoS agrees with Broadview that it would not be possible to frame a condition which complies with PPG then there is no reason that would justify a dismissal of the appeal based on some hypothetical and unknown risk of it occurring. Planning permission should be granted in the form in which it has been sought.

Equestrian Activity

- 5.182 The lpa does not object to the proposed development on the basis of impacts on equestrian activity or equine related local businesses. Consistent with the conclusions at page 97 of the report to committee, the lpa confirmed¹⁶ that there is insufficient evidence to demonstrate that horses visiting the Spring Paddocks Equine Veterinary Clinic would be significantly affected by the turbines and as a result, there was little evidence to prove that the business would suffer. From others, the objections relate to: the impact on the safety of horses and riders; potential sterilisation of riding routes due to a perception of harm and the impact on equine related businesses.
- 5.183 There is nothing in law, regulation or policy guidance which requires even a separation distance of 200m between a turbine and any bridleway. There is no clear rationale for the increased distances now sought as a starting point by the British Horse Society (BHS) for either local riding routes or national routes. The BHS guidance has to be read carefully. The 4-times tip height separation distance for national trails and the 3-times tip height distance for other bridleways are the starting point. The guidance indicates that 200m would normally be the minimum but goes on to suggest alternative routes, mitigation measures and even simple payment of money to improve other

¹⁶ X-Examination of Mr Hempstead.

routes in the area may be acceptable. Accordingly, this scheme complies with the BHS guidance.

- 5.184 Most operational wind farms are in rural locations where horse riding can and does take place. There is no reliable empirical evidence to show that commercial wind turbines are unsafe for horses and riders. The BHS Scotland Advice Note which is more recent in substance than that of BHS England, only reprinted in February 2013 to update references to the Framework, is very positive in tone, recognising that horse riding and wind turbines can happily and safely coexist. It also provides very practical advice regarding habituation and riding with a wind farm buddy horse on a first trip.
- 5.185 Turbines start very slowly and gradually pick up speed and are unlikely to frighten all but the most highly strung horses. If there was a tangible and unacceptable risk of horses being frightened by turbines, with likelihood of injury to them, their riders and third parties, it seems inevitable that it would have been addressed in national planning policy guidance a long time ago and rehearsed at Inquiries (Doc 20 Appendix 11). There is nothing so special about either the concentration of horse activity in this area or the nature of horse related businesses to warrant a different decision being reached.
- 5.186 Good horsemanship requires riders to be alert to potential dangers and when choosing where to ride, to recognise their own abilities and the sensitivities of their mounts. It is unrealistic for riders to expect all risks to be excluded from anywhere they may choose to ride. To do otherwise would effectively exclude turbines, and indeed many agricultural and other activities, from large parts of rural England. Whilst it does not accept the need for such a condition, in the event the SoS thought it PPG compliant, Broadview is prepared to offer a scheme of horse familiarisation days for riders.

Loss of amenity and potential sterilisation of riding routes

- 5.187 There is no credible evidence regarding the degree to which, if any, wind turbines deter horse riders from using nearby bridleways or riding routes. However, much is made by some owners about how the turbines would prevent them from using the metalled surface of The Old Salt Road. However, what is clear is the quantity, quality and variety of alternative riding routes available both on and off road. Reference was made to the need for a metalled road surface and use of The Old Salt Road as part of a circuit from Pipers Farm. It is not accepted that it would be unsafe for riders to use The Old Salt Road where it runs between the turbines. Even if this were to be the case, the vast majority of exactly the same circuit would be available travelling in an anti-clockwise direction. Horses could still be exercised and trained in exactly the same way.
- 5.188 The ZTVs show that the turbines would be visible to horses at virtually all points along and around the circuits; there would be no element of surprise or the turbines "popping up" from behind vegetation or built development at any point. Under-hoof conditions and the need to ride on local roads, access to the bridleway network both locally and further afield, including the Centenary Way would be completely unaffected by the turbines.

Impact on equine related businesses

- 5.189 There needs to be clear and demonstrable empirical evidence of likely harm to local equine related businesses before it come close to warranting refusal of planning permission. The owner of Spring Paddocks Equine presented as someone who had become pre-disposed to disliking the turbines in principle rather than the proprietor of a business who had studied available evidence and formed a sanguine view. He acknowledged that neither he nor the referees upon which he sought to rely had experience of riding horses close to wind turbines. It is clear from his consultation response and those of other family members that his objection to the development is wide ranging and extends to matters much broader than equestrian matters.
- 5.190 The nearest turbine to horses being loaded or unloaded at Spring Paddocks Equine would be more than twice the separation distance from a National Trail sought as a starting point by the BHS. Whilst Broadview does not accept that the turbines would cause any actual unacceptable risk to horses or staff at the clinic, what is clear is that practical measures such as altering vehicle movements within the yard or even the simple positioning of a canvas screen for the most distressed horse would obviate the problem.
- 5.191 Spring Paddocks Equine sought to place considerable reliance on the appeal decision at Grise (CD5.71). Each case turns on its own facts but there are clear differentiating factors between the situation there and here. The critical factor was the axis of the all important racing gallops, used by valuable and highly strung race horses which would have been aligned directly towards rotating blades in a much larger turbine array and at a distance of 500m. The likely impact on such an important and rare facility both in perceptual terms and actuality is understandable; there is nothing comparable here. The concentration of stables and livery yards other than the Clinic is quite normal for large tracts of lowland settled England. It is correct to say that perception of harm can, in some circumstances form a material planning consideration. However, such a perception has to be based on sound evidence. As the Government Response on the Framework demonstrates and as stated in NPS EN-1, simple assertions of harm will not suffice; any such assertion has to be backed up with empirical and testable evidence.

Other Considerations

- 5.192 The SOCG records that the lpa has no objection to the scheme in relation to: ecology including impacts on protected species and designated sites; impact on the local highway network, including construction traffic routing and any disturbance to other road users; cumulative noise impacts from other wind farms proposed, consented and operational; public safety, ice throw or driver distraction; loss of agricultural land; hydrology and hydrogeology, including controlled waters, flood risk and surface run-off from the site during construction and operation; contamination; the effects of electro-magnetic interference on telecommunication and public broadcast services and impacts on military radar or military aviation interests. The SOCG records that commercial viability of the proposed development is not a planning matter.

Traffic and Transport

- 5.193 The Highways Agency has no objections on principle and the Highways Authority have no objection subject to the imposition of conditions relating to delivery hours, access details, a Construction Traffic Management Plan, a Construction Method Statement and a Highway Damage Survey Scheme. In response to concerns raised by BIPC and interested persons, regarding impact on planned works to improve J12 of the M40, the impact of construction traffic on the road network and the operation of Spring Paddocks Equine, driver distraction and the risk to pedestrians using The Old Salt Road Broadview commissioned WSP to assess these concerns. WSP's conclusion is that there are no highway or transportation issues that would prevent planning permission being granted (Doc 20 Appendix 10).

Tourism

- 5.194 The ES and FEI conclude that the operation of the turbines would not have a significant effect on tourism in the wider area. Whilst visitors would note the presence of the turbines there is no evidence to suggest that it would adversely affect visitor numbers and spend to an unacceptable level. The consistent message from planning and appeal decisions is that there is no compelling evidence to support concerns about tourism being undermined by the presence of turbines (Doc 20 Appendix 6).
- 5.195 The DECC Study "Onshore Wind Direct and Wider Economic Impacts - May 2012" addressed tourism impacts and made reference to several surveys and reports that have been published with on the potential impacts of wind farms on tourism (CD 11.3). It concludes that there is no evidence to suggest a serious negative impact of wind farms on tourists. Paragraph 5.12.7 of NPS EN-1 says that limited weight should be given to assertions of socio-economic impacts that are not supported by evidence, particularly in the view for the need for energy infrastructure (CD 6.1). Fear of potential impacts on tourism have been raised for many years and notwithstanding the development of multiple wind farms in tourist areas throughout the UK, such fears have simply not been borne out. The turbines would not have a negative impact on tourism and the economic value of this sector either in isolation, or cumulatively, with other projects proposed for the wider area.

Benefits of the Scheme

- 5.196 Depending on the choice of turbine, this scheme would have an installed capacity of between 8 and 12MW (Doc 21 Table 9). Similarly, the predicted net energy generated would be some 20,200 to 21,950 MWh/yr. The electricity generated would supply the equivalent of between 4,950 to 5,380 UK homes or 4,910 to 5,340 West Midland homes (Doc 21 Table 10). The supply of a material amount of renewable energy and contribution to the achievement of the national target of meeting 15% of the United Kingdom's energy demand from renewable resources by 2020. The scheme would provide stimulus in a region which has woefully underperformed in relation to its available capacity for renewable energy generation capacity and energy security through contributing to a mix of renewable resources in Warwickshire. The projected lifetime total CO² savings would be between 86,000 and 93,300 tonnes contributing to mitigating climate change.

- 5.197 Further benefits include: the provision of renewable energy at lowest cost to the consumer; direct economic benefit in terms of some local new employment; indirect economic benefits which are recognised by the Coalition Government; induced economic benefits and the proposed development is a wholly reversible form of development which will leave the landscape character and visual resource intact.

Conclusion

- 5.198 This decision is not finely balanced. Taking a long hard look at the harm that is alleged and taking into account the benefits of the proposed development, the answer is clearly in favour of the grant of planning permission. If the Government had some limit or target in mind when it wrote the Framework then it would have not have said in effect that all renewable energy developments should be granted planning permission provided that any resulting impacts are or can be made acceptable. There is no reference in any policy document to phrases such as "provided there is still a need to be met" or "providing targets have not been reached" or "taking account of progress towards meeting the Roadmap". The position is that all contributions, big or small, are to be welcomed and positively supported, provided that the planning impacts are or can be made acceptable. This scheme complies with those parts of the development plan that are consistent with the Framework and the environmental, economic and social impacts of the proposed development would be acceptable or could be made acceptable with the imposition of conditions.
- 5.199 This development would result in change to the local landscape and would involve change to the local character and composition of a number of views, including the view from a number of settlements, from a number of public rights of way and the Burton Dasset Hills CP. However, change in itself is not unacceptable. None of the likely significant environmental effects that would result from this wind farm would be unacceptable in the public interest which the planning system is there to preserve.

6 The Case for Stratford-upon-Avon District Council

The material points are: -

Development Plan Policy and Consistency with the Framework

- 6.1 LP Policy PR.1 requires development to respect and where possible enhance the quality and character of the area. Proposals that would damage or destroy features that contribute to the distinctiveness of the area will not be permitted unless there is significant public benefit. The value the community attaches to such features is taken into account.
- 6.2 Policy DEV.1 requires development to have regard to the character and quality of the local area and, amongst other things, requires account to be had to the extent to which characteristics that define the locality are shared by the proposal; the interrelationship between the development and the landscape and the effect on the surrounding area. In terms of the impact on residents, the effect of the development in terms of its position, shape, size and height and the provision of appropriate standards of amenity within the development and the extent to which the general amenity of adjoining properties is protected are relevant, DEV. 1 (d) and (e).
- 6.3 Policy PR.6 is supportive of renewable energy schemes assessed against criteria which include (a) whether the scale and nature of the scheme would have a detrimental effect on the environment and character of the local area, including visual impact and (d) the scheme does not cause an unreasonable adverse effect on existing dwellings.
- 6.4 Policy EF.1 says that the special qualities of the AONB will be protected and, where possible, enhanced. Development should be founded on a high degree of sensitivity towards the natural beauty of the landscape, towards its special qualities and features that contribute to the distinctive character of the area. Proposals located within or outside the designated area that would have a detrimental impact on the AONB will not be permitted. Assessment of proposals will take into account the potential cumulative impact of development, particularly on the rural nature and tranquillity of the area.
- 6.5 These policies are consistent with: the Framework's Core Planning Principles regarding the protection of the countryside and ensuring a good standard of amenity for residents; the requirements of Section 7 on making places better for people; paragraph 97 on promoting renewable energy and ensuring that any adverse impacts are addressed satisfactorily and paragraph 115 on conserving the landscape and scenic beauty of AONBs. These policies are also consistent with paragraphs 5.9.15 and 5.9.18 in NPS EN-1 where it highlights that the appropriate planning test is whether any adverse landscape and visual impact on local residents and visitors would be so damaging that the harm is not offset by the benefits of the project.

Landscape and Visual Impacts

Context

- 6.6 The lpa acknowledges that there are bound to be significant impacts from any wind farm in the immediate area and, as reflected in RfR1, that just because an impact is significant refusal should not follow. However, it is also agreed

by Broadview that just because the significant impacts are limited to the immediate 4-5km area that does not mean that permission should be granted and that such impacts are the necessary corollary of wind farms.

- 6.7 It is necessary to consider the extent of those significant impacts, both in terms of severity and quantity. They include significant landscape and visual impacts on numerous individual dwellings, a large number of settlements, albeit in many cases limited to edges or parts of them, and a large number of transport routes, both rights of way and roads and the Burton Dassett CP.
- 6.8 It is also necessary, as Broadview agrees, to have regard to impacts which are not significant but still material. It is in this context that regard should be had to moderate impacts and to the impacts on views to the AONB.

Assessment of Impact and Significance

- 6.9 The ES and the FEI conclude that this scheme would have a significant adverse effect on the landscape character of the site and surroundings with the presence of the turbines resulting in a new key characteristic. Broadview suggest that the turbines and the meteorological mast would become the defining element of the site and the countryside immediately surrounding it, creating a new Wind Farm Landscape Character area with a radius of some 650 to 700m. Based on an assessment of the effect of the Low Spinney Wind Farm¹⁷, where the turbines are a similar height; the lpa consider this too conservative and that the Wind Farm Landscape Character Area would extend up to at least 1 km from the turbines.
- 6.10 Whilst the difference between 650 and 1km may not appear large; the extent of the extended area is significant and encompasses several minor roads and properties, underlining the likely adverse impact on receptors at these points. Moreover, the wider area fits more closely with the impacts to the existing landscape as they would be appreciated on the ground (CD12.2H PMs 1b, 2b, 3b & 4b). VP 3 is 1,014m from the site from where there would be a direct view of the turbines in a landscape where there is little vertical emphasis. From here the turbines would be seen to dwarf the trees and dominate the landscape. From VP 4 at a distance of some 1,044m, the turbines would be seen over the hedgerow where they would be prominent and dominant.
- 6.11 Beyond this new Wind Farm Landscape Character type, at distances of approximately 2km to the north and west and 2.5km to the south and east, the ES predicts new landscape sub-types namely Vale Farmlands with Wind Turbines, Lias Village Farmlands with Wind Turbines and Iron Stone Fringe with Wind Turbines. These are landscapes¹⁸, which have, save for some telephone masts, a lack of vertical emphasis and when away from the immediate influence of the M40 have a "static quality"; a lack of visual foci and the horizontal nature of the other landscape features at Kineton MoD base and the Jaguar facilities (CD12.2H VP 11). Given the scale of the turbines, Broadview's assessment of landscapes with wind turbines is also conservative, and that the edge of these areas will depend on the nature of

¹⁷ Lutterworth, Leicestershire

¹⁸ X-Examination of Mr Denney

the intervening topography and landscape (CD12.3 Operational Effects on Landscape – Landscape Character).

- 6.12 On public visual impact, the ES and FEI assesses the turbines as having a significant adverse visual effect when viewed from settlements and public areas up to 4 to 5km from the site. This area covers the majority of the low lying bowl which has a medium scale field pattern and inward facing elevated land. At the Inquiry, Broadview sought to differ from the SOCG¹⁹ on the scale of field pattern. Whilst the lpa accept there are larger fields beyond the M40 and to the south of the site, the immediate area is of medium scale (CD12.2H VPs 6 & R1). At VP 9, the point is more arguable in terms of the field pattern closer to the Burton Dassett Hills (CD12.2H). Whilst Broadview now suggests that the field pattern is medium to large scale, it does not satisfactorily justify the change in assessment.
- 6.13 Notwithstanding the change in emphasis, it is agreed that this is not a large scale landscape and the impact of large turbines would not accord with the medium scale of the field pattern or indeed Broadview's medium to large scale pattern. In the latter case, there would be a contrast which would be more muted depending upon the particular viewpoint i.e. whether the site appeared more in medium scale or larger scale landscape. Broadview's quibbles over whether the site should be described as a low lying bowl and the description of the field pattern are insignificant. However, it emphasises that Broadview has under-estimated the landscape and visual impact of the proposal.
- 6.14 It is acknowledged that in many locations, particularly within the settlements, visibility would be restricted by intervening buildings and tree cover. However, the low-lying bowl and inward facing elevated land effect emphasises the centre of the bowl as the current visual focal point, particularly for those properties and publicly accessible points elevated above the base of the turbines (CD12.2H PMs 6b, 9b & 11b). This large development would create a significant focal point and totally change these views and provide a focus, through its scale and movement (blade rotation) in a panorama which it currently lacks such visual focus (CD12.2H VP 9 & PM9a). Here, whether or not they can be "seen through" the 4 turbines would draw the viewer's attention away from the broad gaze to the specific (CD12.2H VP 11 & PM11b).
- 6.15 The area that would experience significant adverse effects are: parts of the villages of Knightcote, Northend, Fenny Compton and Bishop's Itchington, a substantial number of rural dwellings and the access routes to them; several public rights of way that include The Centenary Way to the south and west; the Oxford Canal Walk to the east and local footpaths that connect Christmas Hill and Pipers Hill to Bishops Itchington, Knightcote and Northend; viewpoints on the elevated Burton Dassett Hills CP through which The Centenary Way runs and motorists on short sections of the M40, the A423 Banbury to Southam, B4451 Gaydon to Bishops Itchington, B42100 south and parallel to the M40 and the minor roads around the site linking the villages of Knightcote, Northend, Fenny Compton and Bishop's Itchington.

¹⁹ Paragraph 4.6

- 6.16 On the assessment of impacts, whilst there are limited areas of disagreement, where they occur they are important and show that Broadview has underestimated the landscape and visual impact of this scheme. There are material differences between the assessments contained in the ES and the FEI²⁰ relating to key public access viewpoints particularly VPs 9, 11 and 13 (CD12.2D Appendix B pages 10, 12 & 14; CD12.2F Appendix B pages 7, 10 & 12).
- 6.17 Despite the removal of T1, from VP 9 on the well used Burton Dassett Hills CP, and VP 11 on the public footpath on Mill Hill, in these views, the scale and spread of the remaining 4 turbines would remain the same and the reduction does not justify a change in the assessment from a significant effect on landscape character in the ES to no significant effect on landscape character in the FEI (CD 12.2H). From VP 13 in the AONB, T1 would have been seen in the middle of the group leaving as before Ts 2 and 4 and Ts 3 and 5 visually stacking. The removal of the central T1 does not justify a downgrading of the visual impact from significant effect to no significant effect. Moreover, it is important to note that the differences in the ES, which the lpa considers to correctly assess impact, and the FEI, relate to key view elevated points to the south and west of the site.
- 6.18 Broadview's landscape witness agreed²¹ that there was inadequate, if any, explanation in the FEI to explain why the assessments had then been downgraded. There was no explanation why, in respect of VPs 9 and 11, what appeared to be relevant material had been removed from each of the assessments. Whilst the Broadview's witness disagrees with the original EA assessments on the 5 turbine schemes in respect of VPs 9, 11 and 13 in terms of visual impact). Broadview's witness did explain why he considered the impact was not significant, but could not explain the change of heart of the authors of the FEI. Rather, it was surmised that it may have something to do with weight ascribed to visual impact, as a factor of landscape change – as it must be to all landscape character areas which do not contain the appeal site. In this regard, as was put to the lpa's heritage witness²² by Broadview that there were no foci in the panoramic views out to the north, west and east. Thus the contrast with the turbines in it would be clearly significant.
- 6.19 Broadview's landscape witness also disagreed with the other assessments in the EA and FEI relating to settlements were in a 5km radius, which the lpa does not accept. Broadview's evidence as to the significance of impact on Gaydon, Temple Herdewyke, Fenny Compton, Depper's Bridge, Harbury as well as on the A423 contrasts with the ES (Doc 10 paragraphs 6.167 to 6.180 & 6.232 and CD12.2C Chapter 7 pages 109-111 & 115). The lpa submit that the authors of the ES display a detailed knowledge of these settlements and there is nothing to support Broadview's suggestion that they had not²³. Whilst the lpa acknowledges that these differences are of lesser importance what they do show is that the effect of Broadway's assessments is to reduce the nature of the impact as assessed by the lpa or by the experienced authors of the ES. Thus, Broadview has understated the impacts

²⁰ The ES relates to a 5 turbine scheme whereas the FEI refers to a reduced 4 turbine scheme.

²¹ X-Examination of Mr Denney.

²² X-Examination of Dr Firth.

²³ X-Examination of Mr Denney.

which, the lpa suggests, is indicative of the assessments as a whole whether or not it accepted a significant impact.

- 6.20 Similar to the AONB Management Board, the lpa has concerns about the harm to views towards the AONB from the north-west, which Broadview does not consider to be significant adverse. The lpa and the authors of the FEI are in agreement that there would be a moderate impact on the AONB. Broadview's landscape witness agreed the contents of the FEI Chapter 7 at paragraph 7.10.5 (CD12.2E). Thus, it is hard to understand why Broadview continue to contend that there would be no impact.
- 6.21 Paragraph 7.10.5 of the FEI identifies that there would be a moderate effect on the Cotswolds AONB. There would be clear identification of a "cone of view" around Bishop's Itchington, albeit the effect would be limited in extent and is described in a reference to Table 7.8 in paragraph 7.10.5 as moderate. The conclusion in terms of views to the AONB is "no significant effect", not "no effect". This in fact accords with the lpa's consistent view of the matter. Whilst the AONB Management Board puts the impact higher, at the very least that evidence supports that of the lpa.
- 6.22 In so far as Broadview's landscape witness's view is different, it is another example of a disagreement with the FEI, however, the basis for his disagreement is not clear. These impacts do lead, even at this scale, to conflict with policy. Broadview's planning witness appears to accept that a moderate non-significant impact needs to be taken into account and that there would be "some harm" to the AONB.

Cumulative Impact

- 6.23 Broadview has assessed the potential cumulative landscape and visual effects of turbines in relation to other operational, consented and proposed projects within a 30km study area (CD12.2H CLVIA 01). If only the operational and consented wind farms are considered which are located 20km plus distance from the appeal site along the M1 corridor to the north east the appeal site would be seen as an isolated and localised wind farm landscape with no coalescence and there would therefore be no cumulative effect.
- 6.24 Taking account of the proposed wind farm at Stoneton for which a planning application for nine 125m high turbines located approximately 6km to the east of the appeal site close to the Oxford Canal has been submitted there would, if both were approved and constructed, be some coalescence of landscape sub types between the 2 proposals. This would lead to some significant adverse cumulative effects at a local level (CD12.2H).
- 6.25 The Stoneton site is located in the Ironstone Fringe (Feldon) local landscape character area which links with the Vale Farmlands (Feldon) where the appeal site is located. The 2 proposals would combine to create a larger connected and therefore more significant With Wind Farm Landscape sub type area from the public footpath near Christmas Hill Farm to the west and from the Burton Dassett Hills CP respectfully (CD12.2H VP 6c, 6d, 9.1c, 9.1d). Users of the Oxford Canal Walk who are identified as suffering significant adverse visual effects from the appeal proposal would also suffer significant adverse effects in both landscape and visual terms from Stoneton. Accordingly, this potential cumulative impact should be a material consideration in making the decision.

Visual Impact on Residents

- 6.26 This would vary depending on a range of factors including: distance; the orientation of views, the significance of the view to the resident, the availability of alternative views and the availability of intervening screening structures and planting. The lpa accepts that Broadview's RVAS, based on best practice guidance in GLVIA 2002 (CD7.2), is an appropriate methodology to assess the impact of the scheme on residents' visual amenity.
- 6.27 The lpa agrees with Broadview that the test of what would be unacceptable should, as far as possible, be an objective test and based on the approach used in the Enifer Downs, Carland Cross and Burnthouse Farm appeal decisions. At Enifer Downs decision, (121m high turbines), the approach was based on *"...when turbines are present in such number, size and proximity that they represent an unpleasantly overwhelming and unavoidable presence in main views from a house or garden, there is every likelihood that the property concerned would come to be widely regarded as an unattractive (rather than simply less attractive, but not necessarily uninhabitable) place which to live"* (CD5.41 paragraph 66). At Carland Cross (100m high turbines), the Inspector concluded that properties over 1km away were too distant to suffer unsatisfactory living conditions in consequence of the turbines being seen (CD5.6 paragraph 24).
- 6.28 At Burnthouse Farm, the approach was that the visual component of residential amenity should be assessed "in the round" taking into account factors such as distance from the turbines, orientation, size and layout of the dwelling, internal circulation, division between primary and secondary rooms, garden and other amenity space, arc of view occupied by the wind farm and the availability of screening". The SoS's decision at Burnthouse Farm the SoS said: *"...when assessing the effect on visual outlook, it is helpful to pose the question: would the proposal affect the outlook of these residents to such an extent i.e. be so unpleasant, overwhelming and oppressive that this would become an unattractive place to live?"* (CD5.4).
- 6.29 Here, the lpa consider that the turbines would be present in such number, size and proximity that they would represent an unpleasantly overwhelming and unavoidable presence in the main views from 3 properties. These are Lower Spring Farm, Trotters and Meadow Farm (formerly Bungalow Farm) and these dwellings would become unattractive places to live in. Although the impact on Knightcote Lodge and other dwellings in the wider area would be significant, the lpa accepts that the turbines would not represent an unpleasantly overwhelming and unavoidable presence in the main views from these dwellings (Doc 36 pages 25 to 37).
- 6.30 Lower Spring Farm and to a lesser extent Trotters and Meadow Farm are designed and laid out to maximise the open views from their gardens and principal rooms. In the case of Lower Spring Farm and Trotters, the views from the majority of the principal rooms are across large rear gardens, over open countryside to the Northamptonshire Uplands including the Burton Dassett Hills that form a backdrop and skyline (CD12.2H VP R1a). From Meadow Farm, the view is in reverse across a shallower rear garden to higher land at Itchington Holt/Christmas Hill in the distance.

- 6.31 All of the principal rooms at Lower Spring Farm are to the rear and face the site. There is on the ground floor: kitchen/diner with 2 sets of floor to ceiling double French doors and a secondary north-east facing window, 2 sitting rooms with floor to ceiling double French doors. All 3 rooms open onto a deep, full width patio. At first-floor level there are: 3 bedrooms each with a large south-east facing window; a study with a balcony accessed via a French window and a bathroom with 2 small windows (CD12.2F Appendix B7.4, P1 & Doc 37 Appendix 4 pages 19 & 20). The distances to the turbines from the rear elevation would be some 831m to T2 (790m to curtilage), 1,084m to T4 (1,043m to curtilage), 1,193m to T3 (1,152m to curtilage) and 1,378m to T5 (1,337m to curtilage).
- 6.32 Trotters is a single-storey dwelling whose rear elevation faces south-east and is immediately adjacent to and north-east of Lower Spring Farm (CD12.2F Appendix B7.4, P1 & Doc 37 Appendix 4 page 21). The rear south-east elevation facing the site has a single window and a set of French doors to the kitchen, a window to a study, French doors to a bedroom and a window and French doors to the main bedroom. The rooms and windows on the front and side elevations are all secondary. The distances to the turbines from the dwelling would be some 837m to T2 (792 to curtilage), 1,097m to T4 (1,052m to curtilage), 1,194m to T3 (1,149m to curtilage) and 1,387m to T5 (1,342m to curtilage).
- 6.33 Both Lower Spring Farm and Trotters have large rear gardens and patios to the rear from where views of the turbines would be largely unrestricted. At both houses the rear boundaries comprise a native field hedge with occasional hedgerow trees that are managed to take advantage of the attractive rural outlook and as such they would not materially screen the turbines. Moreover, both houses are slightly elevated with the gardens sloping down to the boundary hedge which enhances the view out over the countryside. In addition, Trotters has a sitting-out area with timber pergola in the eastern corner of the garden, orientated to benefit from the evening sun and extensive rural view. The common boundary between Lower Spring Farm and Trotters is a native hedge some 3m high that limits views from the rear elevation of Trotters towards the Burton Dassett Hills. Both houses share a long driveway from Gaydon Road.
- 6.34 Although 3 of the turbines would be more than 1km from Lower Spring Farm and Trotters, distance is only one factor in assessing visual impact. The room layouts of Lower Spring Farm and Trotters have been designed to take advantage of the open countryside views to the south-east. At Lower Spring Farm almost all of the principal rooms face the site and all 4 turbines would be within the occupants' arc of view for most of the time. The extent of the glazing and French doors shows the importance the rear of the house and its visual link to the countryside has for the occupants' enjoyment of the property. The unacceptable impact of the turbines would be exacerbated by the lack of significant intervening screening and, given the flatness and extent of the appeal site, the lack of opportunity to introduce screening. The hedges and few trees that do exist are deciduous, providing little or no screening from October through to April. For the occupants of Lower Spring Farm and Trotters, the upper parts of the turbines would be prominent in the approach along the unscreened and long access road from the B4451.

- 6.35 Meadow Farm is a detached bungalow lying to the east of the site with the main rear garden facing west towards it. Meadow Farm has a lean-to conservatory attached to the southern elevation that has views to the west and south. The rear elevation has windows to a bathroom and bedroom and French doors serve the main living room; all face the appeal site. The rear boundary is formed by open wire fencing with a few small trees allowing unrestricted open views of the turbines. On the boundary the view is completely open across relatively flat land with few intervening trees. The front, east facing, elevation which has the main entrance and windows to a kitchen, dining room and bedroom faces away from the turbines towards Knightcote Lane. Access is via a short access drive from the Knightcote Lane. The distances to the turbines from the dwelling would be some 990m to T5 (965m to curtilage), 1,010m to T3 (995m to curtilage), 1,370m to T4 (1,350m to curtilage) and 1,390m to T2 (1375m to curtilage).
- 6.36 At Meadow Farm, the primary rooms and rear garden would have a direct view of the turbines which would be within the occupants' arc of view for most of the time. The adverse effect would be exacerbated by the shallowness of the rear garden, the degree of separation, the lack of intervening screening and lack of opportunity to introduce meaningful screening. Whilst there are large gardens to the front and side, the garden layout is influenced by the availability of attractive views to the west over the open countryside and the link to the main living spaces. Although the dwelling would afford some screening to the lower part of the turbines, they would be prominent when viewed on the approach along the drive.
- 6.37 In all 3 cases, the unacceptable visual effects would be exacerbated by micro-siting and that the 90m diameter blades on top of an 80m high column would be rotating for significant periods, creating a significant level of movement in an otherwise relatively static landscape. The M40 motorway and the London to Birmingham railway line do introduce an element of movement into the landscape when viewed from some vantage points in the landscape. However, the M40 was "cut" into the landscape reducing its visual impact and is well screened from the majority of the surrounding landscape. The M40 cannot be seen from Lower Spring Farm or the Trotters and can only be glimpsed in an oblique and distant view from Meadow Farm.
- 6.38 The railway is at a low level where intervening vegetation and buildings provide significant screening and is only glimpsed from Lower Spring Farm and Trotters but not Meadow Farm and has a minor impact. Moreover, the movement of the train emphasises a horizontal movement on the landscape and is consistent with other movement that would be expected in a rural environment. In complete contrast, the vertical emphasis introduced by the turbines would be incongruous and out of keeping with this horizontal landscape. Whilst there is the occasional individual telecommunication tower and meteorological masts in the wider landscape these are present in long distance views and the overwhelming impression is a lack of tall man-made features in the Vale landscape.
- 6.39 Whilst at Low Spinney, turbines are positioned closer to houses, there are significant material differences which set that decision apart from the situation here (CD5.26). At Low Spinney, the Inspector concluded that taking into account oblique views of the turbines, narrow fields of view, whether the

windows were the primary windows serving the affected rooms and separation distances, that scheme would not have a detrimental impact on residential amenity. At Lower Spring Farm, Trotters and Meadow Farm all the turbines would be in the main field of view from the rear of the dwellings and gardens. Moreover, the layout/primary orientation of the dwellings has been designed to take in these views. At Lower Spring Farm, the emphasis of the views is directly towards the turbines and there would be little relief from direct and uninterrupted views. This would also be the same but to a slightly lesser degree for Trotters and Meadow Farm where it is accepted they would have the opportunity to use primary rooms where the turbines would not be in view i.e. living room and dining room for Trotters, kitchen and dining room at Meadow Farm.

- 6.40 The turbines would be present in such number, size and proximity that they would represent an unpleasantly overwhelming and unavoidable presence in the main views from the houses and gardens of Lower Spring Farm, Trotters and Meadow Farm and therefore would result in these houses becoming unattractive places in line with the approaches adopted in the Enifer Downs and Burnthouse Farm cases. As such the proposal would be contrary to the requirements of LP Policies DEV.1 (d) and LP Policy PR.6 (d) and the objectives of paragraphs 9 and 17 of the Framework, paragraph 5.9.18 of NPS EN-1 and paragraph 2.7.49 of NPS EN-3.

Cultural Heritage

- 6.41 The erection of four, 125m high turbines would introduce large scale vertical structures into the settings of the 4 designated HAs. These are: Burton Dassett Beacon Tower a Grade II Listed Building and a SAM; Knightcote Manor a Grade II Listed Building; the Church of St Peter and St Clare in Fenny Compton a Grade II* Listed Building and the Fenny Compton CA.
- 6.42 LP Policy EF.13 indicates that proposals located outside a CA, but which would affect its setting, will be resisted if they harm its character or appearance. On Listed Buildings, Policy EF.14 indicates that the preservation of Listed Buildings will be secured through, amongst other things, ensuring that development on adjoining land will not have an adverse impact on the special qualities of such buildings or their settings.
- 6.43 The Framework indicates that the significance of a HA is derived not only from its physical presence but also from its setting²⁴. The Framework²⁵ defines the setting of a HA as: *"The surroundings in which a heritage asset is experienced. Its extent is not fixed and may change as the asset and its surroundings evolve. Elements of a setting may make a positive or negative contribution to the significance of an asset, may affect the ability to appreciate that significance or may be neutral."*
- 6.44 Principle and practice suggests that when assessing the impact of a proposal on the setting of a designated HA the definition of what the setting is should not be interpreted too narrowly. Setting is linked to the experience of the asset and how it is appreciated which may include land some distance away.

²⁴ Framework Annex 2 – Glossary, Page 56.

²⁵ Framework Annex 2 – Glossary, Page 56.

Setting does not have a fixed boundary and cannot be definitively described as lying within a set distance from the asset (CD9.4 paragraph 2.2). The proposition that setting depends upon a number of factors, including a wide range of physical elements, as well as perceptual and associational attributes, pertaining to the surroundings of the asset is not disputed by Broadview²⁶. Broadview agrees with the lpa that here the assessment is concerned with the visual effects of the proposed scheme on the setting of the above HAs, and that any development or change capable of affecting peoples' experience of them can be considered as falling within their setting (CD9.4 paragraph 4.3; CD2.7 paragraph 118).

Beacon Tower

- 6.45 Although Beacon Tower may have been used variously as a windmill tower, a beacon, a landmark or a lookout, it is a 15th century structure that has significant historical and architectural interest and is a HA of the highest status. A major part of the Tower's significance derives from: its elevated and exposed location, which gives it a dual role as a landmark and a viewpoint, its relationship with the surrounding landscape and the way it is visually appreciated in that landscape context. The Tower is seen as a focal point from an extremely wide area of relatively low lying countryside and its elevated position affords panoramic views out over that same wide area of low lying countryside. The tower is sited in a specific location on a promontory of the Burton Dassett Hills. This location is the focal point from where visitors can best appreciate the views of the surrounding landscape. The immediate setting is characterised by a gently undulating landform with the tower on top of a hillock, which emphasises its prominence (Doc 40 Appendix 2 Photograph 2; CD12.2H VP 9a).
- 6.46 From distant and near viewpoints in the wider area, the Tower, protruding from the raised horizon along the top of the Burton Dassett Hills, is a subtle but very significant visual landmark (Doc 40 Appendix 2 Photographs 5 & 6; CD12.2H VPs 6a & 8a). The wider landscape is characterised by agricultural uses, scattered small settlements and individual buildings. Other than roads including the M40 which have a low level horizontal visual impact, there are no other large scale structures prominent in this landscape. As a result, the Tower is a visually unchallenged landmark.
- 6.47 The Tower is experienced both at the site itself and from the wider surroundings. Views to and from the Tower are crucial to its significance relative to its landmark and beacon attributes. Within the wider landscape, there are numerous locations from where the Tower is experienced as a focal point on the horizon often appearing as a silhouette against the skyline. These features underline its significance as a viewing tower, as well as a beacon or as a landmark.
- 6.48 Although there would be no physical impact on the immediate hilltop setting of the tower, its wider setting would be substantially affected. EH highlight that turbine towers can have a zone of visual influence more than 10km in radius. Moreover, visibility is often increased by them being located on high ground or in exposed positions (CD9.2 page 7). Here, the turbines would sit

²⁶ X-Examination of Dr. Carter

in the heart of low lying agricultural land, with rising land and hills a few kilometres away in several directions. Principal among these nearby hills are the Burton Dassett Hills at some 2km, which rise fairly steeply to the south-east, beyond which are the steep slopes of Edgehill rising above the battlefield site. The position of the turbines means that they would be seen from virtually every direction, including from the Beacon Tower.

- 6.49 Although the turbines would not completely block particular views, given their size and the sweep of the blades they would be at odds with all previous development in this landscape. The turbines would distract from and disrupt a visual appreciation of existing landscape characteristics and the skyline setting they provide for the Tower. The light finish of the turbines and the degree of reflection would contribute to and exacerbate the level of distraction and the extent to which the eye would be drawn to them and away from other more subtle existing characteristics and features, including the Tower.
- 6.50 The key views from the Tower sweep an arc, broadly from south-west to north-east, over a landscape of predominantly horizontal character, with low hills forming a shallow undulating skyline on the far horizons. The turbines would represent a totally new form of development and a radical departure from the exiting historic pattern. The turbines would be positioned in the heart of these views, in sharp contrast with the existing visual characteristics in the views. The views resulting from the prominent siting of Beacon Tower and the ability to appreciate those views contribute to the significance of the Tower. The adverse effects on the views impacts on this element of the Tower's significance. The sense of remoteness and a largely coherent agricultural landscape would be compromised. Whilst the quality of what can be viewed from the Tower arguably has little impact on the significance of the asset, for generations this view has retained a largely unchanged character, and the change would be a detrimental one.
- 6.51 Views towards the Tower link directly to the ability to appreciate it. Key views would be affected, particularly in relation to the substantial change in the extent to which the skyline would be broken by man-made structures. Currently, the Tower, as a landmark on the skyline, is unchallenged by any other substantial structures. Several views of the skyline from the surrounding low-lying landscape would be compromised by the turbines and the level of visual distraction would be exacerbated by the rotating blades.
- 6.52 In relation to their landscape setting, the turbines would be prominent, dominant, and conspicuous. They would become obvious visual focal points and distract the eye from other more subtle features in the landscape. From several viewpoints within a 5km radius the turbines would not only compete and distract, but also would substantially visually dwarf the subtle visual appreciation of the Tower as a landmark in the landscape and on the skyline. The change to the skyline would be particularly significant. The visible impact of the Tower as a feature on the skyline, which is otherwise characterised by natural forms, is a major contributor to its significance. This scheme would result in other man-made structures breaking the skyline from several viewpoints, very much reducing the impact of the asset on this skyline.

- 6.53 Drawing all these factors together, the lpa concludes that the degree of harm falls towards the upper end of the less than substantial range of harm identified at paragraph 134 of the Framework.

Fenny Compton CA

- 6.54 The significance of this CA has many facets, partly deriving from: buildings within the settlement, patterns of development, patterns of use; its relationships with its geographical and topographical contexts and the links with the surrounding land. These contexts have both contemporary and historic dimensions. The importance and significance of these relationships is reflected in the legislative and policy imperative to consider views into and out of a CA when assessing the impact of any development. It is relevant, as noted in EH's "The Setting of Heritage Assets" to consider views across a CA as well as views into and out of the area.
- 6.55 Currently, the views across the CA show it sitting in a landscape of agricultural activity, with scattered domestic and agricultural buildings sitting in almost exclusively rural countryside. These views are uninterrupted by any tall structures (Doc 40 Appendix 2 Photograph 1; CD 12.2H PM 11a). The lack of visual distraction leads the eye naturally to focus on Fenny Compton, the main settlement in this landscape. The turbines would be a significant distraction in the landscape and the view across the CA from Mill Hill resulting in minor harm to the significance of this CA (CD 12.2H PM 11a).

Knightcote Manor

- 6.56 The significance of Knightcote Manor (Grade II) derives both from its architectural and historic interest and from its setting. The architectural and historic interest inherent in the fabric of the building is not affected by the development. Rather the harm is to the rural tranquillity of its setting. The small settlement of Knightcote is located in an open agricultural landscape devoid of any large-scale non-agricultural development (CD12.2H VP Ha). Knightcote Manor sits on the edge of the settlement and is set slightly apart from the main concentration of domestic dwellings. Views of the building in this setting are unencumbered by any large scale modern or industrial development (Doc 40 Appendix 2 Photograph 3). When viewed from the east, at least one of the turbine blades would be visible beyond the Manor and its rotation would exacerbate the adverse impact of its presence and the degree of visual distraction (CD12.2H VP Hb). The change in setting would harm the significance of Knightcote Manor to a minor extent but as such this harm would fall within the range of less than substantial.

Church of St. Peter and St. Clare, Fenny Compton (Grade II*)

- 6.57 The significance of the Church of St Peter and St Clare, Fenny Compton, derives both from its architectural and historic interest and from its setting. The architectural and historic interest inherent in the fabric of the building is not affected by the development rather the harm is to its setting. The immediate setting is the Fenny Compton CA, the church being positioned on raised ground within the settlement, with restricted views over some of the roofs of nearby cottages. The setting affords a tranquil environment devoid of

any visual or audible intrusion from any large-scale modern or industrial development (Doc 40 Appendix 2 Photograph 4; CD12.2H VP Ea).

- 6.58 At least one of the blades would be visible over the roofs of the cottages when viewed from the churchyard, and this presence and visual distraction would be exacerbated by its rotation (CD12.2H VP Eb). In addition to the impact on views out of the CA, there would be some impact to the contribution that the existing setting makes to the significance of the Listed Building. The change in setting would harm the significance of the Church of St Peter and St Clare to a minor extent but as such this harm would fall within the range of less than substantial.

Conclusion on Cultural Heritage

- 6.59 The introduction of four 125m high wind turbines in the settings of the Beacon Tower, Fenny Compton CA, Knightcote Manor and the Church of St Peter and St Clare would result in visual competition and distraction from the manner in which they are presently experienced and appreciated. Although the development is for a period of 25 years and could be reversible and the landscape restored, allowing a development of this nature in this location would establish a precedent whose weight cannot be determined 25 years into the future. Moreover, given the scale of the development and the functional requirements of a wind farm it is hard to identify measures that would meaningfully reduce the harm.

Noise

- 6.60 It is necessary to distinguish between Amplitude Modulation (AM) that ETSU-R-97 (CD8.1) recognises, described as higher frequency rapidly diminishing/swishing, and accounted for when setting noise limits and the lower frequency, "longer range", thumping EAM which it did not. That ETSU did not purport to take it into account is clear not only from a proper reading of pages 12 and 68 of the document, but also from the Hayes McKenzie report (CD8.11 pages 57-59 & 68) and subsequent Inspectors' reports and policy. The lpa acknowledges that, here, AM is not an issue.

Past position

- 6.61 In the Spaldington appeal decision (CD5.12) the case in favour of EAM relied upon (i) a recognition of its existence in the Hayes McKenzie report, (ii) criticisms of the Salford Report, which had concluded it was of very limited occurrence based on the material (primarily limited to written EHO response forms) and (iii) limited and somewhat fragmented evidence of complaint and assessment at other windfarms. The response was, as many but not all Inspectors' decisions show, that there was insufficient evidence to overcome the endorsement in policy terms of the Salford report and so controls were not justified.

The current position

- 6.62 In various papers produced since the Spaldington decision, several academic acousticians independent of the lpa's noise witness have suggested that there is a clear need for assessment of AM. Siponen's paper (CD8.16) identifies AM, with low frequency noise, as the main source of complaint and comments

that *"No estimation of ... amplitude modulation is being made in immission point, thus greatly increasing the risk of noise annoyance and adverse health effects from noise on residents living near wind turbines"*. Di Napoli indicates that a conservative approach indicating that assessing wind turbine noise in complex terrain cases is needed (CD8.29). That is leaning in favour of full assessment rather than limited assessment.

- 6.63 However, here, as Broadview candidly accepts, there was no assessment of AM at all; it was never tested for. In respect of all the noise evidence Broadview assessed, it was agreed that it would not be apparent whether it was there or not because of the time over which it is recorded and averaged²⁷. Broadview's case is (a) to rely on Government guidance and (b) to criticise the lpa's evidence. Broadview has provided no evidence or academic papers since Salford to support its stance. However, the lpa acknowledges that whilst it is not for Broadview to do so it notes that if there is such evidence they have nothing to counter it with.
- 6.64 The IoA PG expressly recognises at 7.2.1 that the evidence on AM is evolving though as ETSU deals with AM it would not need to be dealt with by further conditions. As the lpa's witness confirmed without contradiction, the IoA working party which produced the Guidelines did not consider EAM or that evolving evidence other than to note the position that it was evolving i.e. it reached no conclusions on it. Not only are they correct to so observe, and the lpa detects reluctance by Broadview to accept anything new of real significance but since then, matters have continued to evolve.

What does the lpa rely upon?

- 6.65 First, it relies upon the peer reviewed paper by Lee and Lee, which provides the theoretical justification for the claim that all turbines produce AM (CD8.30). Broadview's position on this appears to be contradictory. When cross examining the lpa's witness this submission did not appear to be substantially in dispute. However, Broadview's evidence appears to challenge this. That approach is, in itself, revealing.
- 6.66 Broadview suggests, and the lpa accepts, that Lees' modelling was based on well-known mathematical formula. That, on its own, does not take the debate too far. What the Lee paper does is that, for the first time, it took that formula and applied it to a specimen wind turbine. This provided results directed at the existence of EAM in the far field. Here, in that far field there are dwellings that could be affected. Whilst Broadview point to work by Olermans, who has used the formula to predict close turbine noise he did not use it to identify far field noise effects. Whilst, as Broadview suggests, some attempts have been made to apply formula to the production of noise it could not identify one paper where it had been applied to investigate and no papers were put to the lpa to counter this point.
- 6.67 As a matter of fact Broadview highlights that the turbine chosen to model was of a different size, not just in its power output but also its dimensions. However, what Broadview failed to demonstrate is why different size turbines might provide a different pattern of results, i.e. why turbines of the size

²⁷ X-Examination of Mr Arnott.

modelled by Lee and Lee demonstrated EAM but others would not. Whilst no doubt the actual values produced by different turbines would differ that is a point of detail not principle. Moreover, Lee and Lee's paper did not itself limit its conclusions to the one turbine. Thirdly, the evidence of the lpa's noise witness is that, applied appropriately in the field and based on his extensive subsequent investigations of a variety of turbine makes/size/manufacture and a re-evaluation of previous investigations supported out Lees' theories. Moreover, it was not suggested by Broadview that this would make a difference. The same points apply to wind speeds. Of course a specimen wind speed was chosen, but Broadview offered no basis for different results dependant on the wind speed.

- 6.68 Although Broadview suggested that Lees' Figure 2(a) (CD8.30) was inconsistent with the IoA PG figures (CD8.13 page 22), it conceded that one included wind impact (IoA) and one did not (Lee's), which wholly undermines the point. All Broadview could rely on was a suggestion that it was not clear whether that difference accounted for the full difference. However, nothing was put to the Inquiry to show that it is not a complete explanation for the differences between the 2 documents. Furthermore, read properly and in context, Lees' Figure 2a is just recording the AM levels, not overall sound power output levels. Moreover, the lpa's evidence was that the directional impact of wind is an important factor. This is demonstrated by the lpa's zones exercise, which is not inconsistent with Lee's paper (Doc 32). Indeed, this zones exercise demonstrates both the strength and the limitations of the Lees' paper. By excluding all other factors such as wind etc, Lee has pinpointed in pure fashion the cause of EAM. However, the lpa acknowledges that it requires to be applied in the field and what the zones exercise shows is that it is now much easier and demonstrates it in practice.
- 6.69 Broadview is correct that many of the papers on AM are old. However, the point is that the importance of the Lees' paper was the mathematical proof it provides and not any comments on previous papers, which are only background to identify the problem. Broadview, accurately, point out that the Lees did not deal with, amongst other things, refraction, reflection and synchronicity. However, the value of Lees' work is that they have excluded all other such factors which may change i.e. wind shear, wind speed, atmospheric refraction and background noise levels and demonstrated that EAM is still present. It has to be noted that Lees' work is not meant to be and was never advanced as being capable of direct, in field application. That needs the application of professional judgement, which the lpa's witness has done and Broadview has not. The existence of EAM having been established, it does not matter whether the other factors are described as causing it, in a strict sense as being an independent origin of the modulation, or exacerbating it, in a wider sense still causing it when considered from the viewpoint of the receptor.
- 6.70 Broadview submit that Lees' Figure 2(b) adds nothing. Whilst others may have identified that EAM was greatest neither directly upwind or downwind, no-one had provided a mathematical explanation for that phenomenon and that it would apply to every turbine. Whilst Broadview point to the fact that Lees' Figure 3 was not new, as illustrated by a New Zealand publication, again that is not the point (CD8.22, front cover). The importance of Lee's Figure 3 is not to demonstrate that noise is produced by the blade passing

through the air and may emanate from only parts of the cycle but to demonstrate that different parts of the blade produce the dominant influences depending on the position and distance of the receptor and that it varies with distance. What Figure 3 does is that it assists in demonstrating the variability of instances of AM.

- 6.71 Broadview's witness suggested that Lees' paper is not a useful tool and is not supported by field observations. However, Broadview's witness unequivocally agreed that he had never made any field observations or even attempted to test the paper and could not point to evidence where anyone else had tried. There was simply no basis for this evidence or for him to give a view one way or other and it conflicts with the evidence of the lpa. In this regard, not only is there the paper produced by the lpa's witness (Doc 43 Appendix 4) but also the growing body of other evidence from Japan, Sweden and Finland that EAM is exceptional not by its presence but by its absence. EAM is controlled in New Zealand (CD8.22) and controls are proposed in South Australia. Finally, there is the evidence of the lpa's witness that in all the wind farms he has investigated he has found EAM. Broadview submit that his sample is skewed because there have been complaints. However, that is refuted and it must be noted that his examples include cases where the evidence was led and accepted that the likelihood of EAM would be low i.e. in line with the Salford report. Broadview accepted a sample of 15 out of 140 to 160 wind turbines with likely issues is statistically significant. The question is how many more schemes would to have been tested before Broadview's witness would accept that the problem was universal.
- 6.72 The 2013 Tachibana paper provides a useful test of Broadview's approach (Doc 43 Appendix 5). Broadview maintains that where Tachibana refers to AM it did not necessarily include EAM. However, when paragraphs 4.3, 7.2 and 8(9) are read together and in straightforward manner it is beyond doubt that the paper refers to and is primarily if not wholly referring to low frequency AM, i.e. as defined above. If there is any doubt, paragraph 2 dispels it – *"in the problems of WTN, the effect of low frequency component including"* (but not limited to) *"infrasound is an important matter of controversy ..."* Broadview simply do not want to accept the evidence.
- 6.73 As to Broadview's other criticisms, it is important to note that the lpa did not rely upon Tachibana's paper for mechanisms/metrics etc. What this paper does support is, first, the presence of AM in nearly all wind turbine noise i.e. it accepts, as does the lpa's witness, that in some cases AM may not be discernible and it is noted that 5 sites were discounted due to the impact of location by the sea. The paper explains that 36 sites were investigated concerning 34 windfarms with 18 control sites and the one for which some information is given was a 2.5MW site in mountainous terrain (Doc 43 Appendix 5 paragraph 5.1). The paper suggests that annoyance occurs when there is a modulation of 2dB or more, a figure derived from laboratory testing and not field testing. As to the Dam metric referred to and criticised by Broadview, the lpa does not suggest that there is only one metric just that the one it suggests is, on the evidence, a reasonable one to use.
- 6.74 The position has moved on since the Spaldington decisions (CD5.12), there is now a peer reviewed paper providing the theoretical justification for a finding that AM is occasioned by all wind turbines (CD8.30) and that is backed up by

field observation (CD8. 43 Appendices 2 &5). In addition there are some other material differences, now it is no longer suggested that extraneous noises undermine the proposed AM condition and it is common ground that extraneous noises have to be excluded (Doc 43 Appendix 5 paragraph 4.2).

- 6.75 It is reasonable to conclude that all turbines produce AM and there is no dispute as to the aggravating factors or influences i.e. Broadview agreed them all: wind speed, it is agreed that at high wind speeds AM is unlikely; wind shear, it is agreed it is a factor, although Broadview is doubtful as to the extent of its impact; time of day/night, it is agreed that it is more prevalent at night time; wind angle to the blade; turbulence, it is agreed the less the turbulence the more likely AM may occur and synchronicity. Similarly, there is no dispute that background noise is relevant, i.e. whilst not exacerbating AM a high background noise level masks it. That factor is quite consistent with the Lees' paper i.e. that the highest modulations are found at locations where the sound power levels are not the strongest.
- 6.76 In this case the lpa submits that the issue is not whether or not there is AM, but the likely impact of it. That depends on 2 main factors, likely frequency and impact of frequency.

Likely Frequency

- 6.77 It is agreed that the likely serious impact would be focused at night time. It can, as Broadview's noise witness confirmed from his one personal experience of it, occur during the day but that is less likely. However, the impact at night time is potentially the most intrusive. Broadview acknowledged that those suffering this noise would be unfortunate and it would be unreasonable. A property would have to be in a high noise zone, i.e. for a property to be affected it would need to be (i) downwind in the arc 60 degrees either side of downwind and (ii) within 1.5km of the turbine. Here, depending on the wind direction, there are many such properties (Doc 32).
- 6.78 Then, there would have to be high wind shear conditions. In this case Broadview only provide evidence of average wind shear, it has not assessed the site for AM and provided no evidence of likely high wind shear late at night. The lpa's witness explains why it is considered that high wind shear conditions would occur regularly i.e. not only did every site he has examined have periods of high wind shear but due to the bowl effect and the size of the turbines there was site specific reasons for considering it would arise here in addition to what otherwise might be expected. Moreover, it is common ground that ESTU was deficient in providing for wind shear and until the recent IoA PG, experts applied a method set out in an IoA bulletin. That is an example of a deficiency in ETSU being accepted by both experts and Inspectors and remedial action being taken. The continued endorsement of ETSU by recent policy guidance does not remedy the defect but nor does such endorsement provide any grounds for suggesting that there was no deficiency in the first place.
- 6.79 Next, there would have to be low nocturnal background noise levels. Here, the lpa's witness considers the background noise levels were sufficiently low throughout the night. Reference to the noise data shows that there were

significant periods regularly occurring during the night-time when background noise levels at all locations were below 30dBA (Doc 14 Appendix 1, Locations H1 to H7). In some cases, background noise levels were as low as some 20dBA. Regular instances of very low background noise levels are exhibited at all properties, although their frequency varies from site to site, going even below 20dBA at Location H7.

- 6.80 On noise masking, the only positive evidence, as opposed to commentary or cross examination, on this issue is from the lpa. At most of the receptor locations, motorway noise masking would be limited based both on experience elsewhere and examination of the characteristics here and its relationship to the motorway and receptors.
- 6.81 In summary, this is a location that is likely to be susceptible to AM and has the clear potential to give rise to intrusive noise effects.

Impact of Effects

- 6.82 There does not appear to be a dispute that the effect could be serious. The lpa's evidence is that serious impacts would occur, particularly if modulations exceeded 3dBA, although there could be significant effects below that. That evidence is consistent with evidence from elsewhere (Doc 43 Appendices 2 & 5). The only criticism of the lpa's list of where EAM complaints were suggested (Doc 42 page 62) was in respect of Causeymire and even then, Broadview acknowledged that the complaint could have arisen independent of the Council's EHO upon whom it based its evidence.
- 6.83 As to dose response whilst, for example, there is dose response evidence for transport sources as seen in the WHO guidelines (CD8.34) there is no evidence before the Inquiry that this is available, except through laboratory experiments, for other sources of noise with special characteristics as identified in this case. The SoS should note that the Japanese have conducted these experiments and indicate a very low dose (2dB) in their method leads to adverse response. It is not the case that noise controls are only provided or instituted where there is evidence of dose response, e.g. motor sports. In the case of wind farm noise, in addition to the Japanese work, the findings in the Hayes McKenzie study and work by van den Berg (CD8.18) there is the evidence of the lpa's witness who has considerable experience of the levels at which AM causes complaints, derived from both personal experience and measurements correlated to complaints.
- 6.84 Broadview points out and the lpa accepts that, depending on the factors listed above, that AM is variable. However, that is no reason to ignore the issue. The reality is that here, there is a significant risk that local residents will experience AM on a regular basis. The lpa's witness's experience is that it is inappropriate to leave control to the statutory nuisance regime. Broadview's witness accepted that he did not have current statutory nuisance experience and acknowledged the lpa's witness had a greater knowledge of the realities of seeking to enforce that way.
- 6.85 Broadview cite examples of 3 appeal decisions where Inspectors declined to impose an AM condition. In 2010 in the Cotton Farm case whilst the Inspector had concerns about AM, he concluded that given the small number of sites where excess AM was proven, the odds were very much against a

problem (CD5.19 paragraph 89). In addition the Inspector expressed misgivings about the use of statutory nuisance procedures to address the issue should it occur (paragraph 90). However, on the basis that all wind turbines can produce AM those poor odds are now a racing certainty particularly when there are dwellings within 1.5km and without any unusual terrain conditions.

- 6.86 The Chipflow and Jacks Lane case is a good example of the paucity of the evidence the lpa's witness had previously to argue his case (CD5.2 paragraph 162). There the Inspector concluded that the risk of AM was low. Further, the criticism of the condition in that case (i) no quantifiable metric and (ii) not tested (paragraph 165) does not apply in this case. The lpa's evidence provides such a metric, a method and has shown accurate measurements at a significant quantity of wind farms.
- 6.87 The 2012 Woolley Hill case is a good example of a discussion of the historical lack of consensus as to the trigger for AM and then there is consideration of variables, but without any discussion as to how they might affect the particular location (CD5.3 paragraph 184). Here, there is no indication of any material over and above the Hayes McKenzie, Salford and critique of the Salford reports. The Inspector concluded that the necessity for a condition was a "*matter of fine balance*" and that the test of necessity was not "*fully met*" (paragraphs 191 & 192). On the workability of the condition, which appears akin to that proposed here, he considers it is sufficiently precise (paragraph 194) but counts the issue of other noise, which is not raised by Broadview in this case, against it (paragraph 195). Paragraph 196 refers to the existing allowance made for AM by ETSU, which as the lpa here shows relates to higher frequency AM, not lower frequency which is what is at issue. The Inspector's overall conclusion is at paragraph 202. Broadview submit that there is no significantly further information as to cause, experience and measurement which overcomes the concerns the Inspector raised in that case. It should be noted that at Woolley Hill, the Inspector does not suggest that there may not be a problem, just a lack of evidence. Here, the lpa provides that evidence.
- 6.88 In the Batsworthy Cross case, the Inspector firstly accepted that AM was not recognised and taken into account in ETSU, which supports the lpa's submissions here and, secondly, that it could not be controlled by an ordinary ETSU condition and, thirdly, there is a recognition of the lower frequency element (CD5.21 paragraphs 158 & 160). However there is still a finding that it is not common (paragraph 161). In terms of factors mentioned at paragraph 163, it is now possible to reproduce the phenomenon under laboratory conditions, measure it and gauge the human response that provide an objective metric to describe it. (Doc 43, Appendices 2 & 5). The test for the condition was whether harm was likely to occur and it is the lpa's submission that that test is passed here. There is no need to rely on a precautionary approach, the lpa's evidence is clear that a large number of wind farms cause complaints and those which do are primarily related to EAM. This agreed with the previous work of Pederson and even Broadview's witness agreed the impact of EAM was unacceptable.
- 6.89 Broadview attaches significant weight to an extract from work by Bowdler, which might surprise both the editor and authors of that section (CD8.7).

The chapter starts with the statement that people are more sensitive to modulated noise than steady noise and so they suggest that AM is a major factor in the perception of wind turbine noise. They indicate that there were a number of possible causes or contributory factors but did not have the advantage of Lees' paper. However, as to synchronicity they indicate that it is not a "*rare event, but in fact very probable in a stable atmosphere*". Although they refer to continuing research, there have been significant developments since then with the Lees', Tachibana and Stigwood papers/test.

ETSU

- 6.90 ETSU is just policy and does not bind the decision maker who, in any particular case if the evidence warrants it, is entitled to look beyond ETSU compliance. That is not to undermine its importance but to place it properly in context as evidenced by the Den Brook case (CD8.35 & CD4.11). Whilst it is clear that the Court of Appeal was not making a policy judgment or an assessment of the Inspector's views of the merits, if the AM condition was legally flawed, whether by drafting or by being perverse or that there was no evidence upon which it could reasonably be based, one would have expected it to have been set aside. The submission which was rejected was that the condition was unenforceable, imprecise and did not achieve its objective (CD4.2 paragraph 33). If it was thought that there was insufficient evidence to justify the condition as a matter of law, no doubt that challenge would have been made too. No significant distinctions have been identified between the Den Brook condition and the lpa's now proposed condition in the terms of the legality of the decision. Whilst the lpa's proposed procedure is much more detailed than that at Den Brook, which just required the submission of a scheme, these are matters of detail. If that is correct, the issue here is not the legality of the lpa condition as Broadview contends, but whether it is justified on the evidence. Moreover, there is no application to remove this condition at Den Brook.
- 6.91 The procedure the lpa suggests requires either repeated incidents of EAM measured over an hour period or a prolonged period occurring. There are similar approaches to control noise with the most common metric as set out in BS4142 1997 for industrial noise that uses a 5 minute period at night (Doc 42 paragraph 7.24). The approach here is not dissimilar and the evidence is that wind farm noise is more annoying than industrial noise. The lpa's evidence that it was less onerous than the New Zealand Standard was not challenged and it is clear it was within the range identified in the Hayes McKenzie report of 2-5dB(A) and similar to the findings of the Japanese which was published post the analysis carried out by the lpa's witness. Evidence of a relationship to sleep disturbance was not challenged and has been identified by Hayes McKenzie and Van Den Berg.
- 6.92 The lpa submits that there is now compelling evidence that the ambit of the problem is much wider than first thought, that whilst there will be further discovery/refinement it is clear that it can be a problem in every location and that there is good reason to consider it will be a significant problem in this location and as such a condition is fully justified. The proposed condition is sufficiently certain and workable and can be relied upon to afford a reasonable level of protection to residents. Broadview's suggestion that the funding consequences of such a condition trump the impact on local residents

of not having one demonstrates a disregard for local residents. The need for this modest windfarm is not such as to come close to outweighing such interests and the real threat of significant AM.

Other Noise Issues

- 6.93 The Council submits that Conditions 11, 29, 30 are important and should be imposed. In particular, as to Condition 29, the lack of assessment of any turbine above 2.05MW in terms of noise means that there should be a corresponding limit. It is simply not good enough to say that the noise limits will not change as there has been no assessment of how this would impact on headroom or any difference in other effects. In short, a 3MW machine will take more power from the wind than a 2MW machine and that it is likely, if not inevitable, that it will cause more noise and noise of a different character. In the case of construction noise, the BS 5228 and the management plan referred to by Broadview does not set noise levels or times for control which can only properly be formulated when the full information needed to assess noise impact is available.
- 6.94 As to the conflicts on the noise levels, the most important one relates to background noise measurements. IoA PG advises measurements to be taken so as to be typical of the low levels in the vicinity of a dwelling (CD8.13 paragraphs 2.5.1 and 2.5.2). Current guidance is that it is an overriding consideration that there are no other suitable locations where background noise levels would be expected to be consistently lower than the selected position. The lpa's evidence is that there are such locations. This is based on the lpa's witness's assessment of the locations in this case and secondly his measurements in another location which showed a difference between measurements closer and further away, which measurements were both correlated to the same wind speeds. Broadview appears to accept that if guidance had not been followed then the appeal should fail. The lpa suggests that failure could be reasonably reflected in the terms of the condition. It is important to recognise that this is a second stage, the first being whether there is an issue or not. The lpa's case remains that the limits should be raised in accordance with the levels given for the reasons advanced.
- 6.95 As to night time limits alone, the second factor, step wise changes, can be demonstrated by drawing a 43dBA line on the graphs in Broadview' Document 14 Appendix 2 and then comparing that limit with the actual background levels. The step changes would be apparent.
- 6.96 On cumulative concern the IoA PG at section 5.7 is a relevant factor and should be taken into account. Whilst other large scale wind turbines are unlikely, smaller scale ones can be envisaged.

Response to Inspector's request comments on RenewableUK publications relating to Wind Turbine Amplitude Modulation.

- 6.97 EAM is a frequent and common occurrence that affects dwellings around wind farms and outside the UK there is a greater acceptance that EAM is common. Controls to limit exposure to EAM have been implemented in New Zealand and Australia and are proposed in Finland. The adverse impact clearly arises once levels have reached 3dB(A) peak to trough and this trigger level for control is strongly supported by more recent research than that conducted by

ReUK. Indeed this support includes the ReUK research and its proposed condition which also uses a 3dB trigger point. Thus, a standalone condition limiting the level of EAM permitted is necessary and the most appropriate is a variation of the Den Brook AM condition with some additional points to improve control (Doc 83 Section 2).

- 6.98 Identifying such an “impact level” of adverse EAM is not related to the existence of EAM. The lpa’s evidence shows that impact occurs over a wide range of sound energy levels and is unrelated to total noise dose. This is confirmed in the Japanese research and, arguably, also by the ReUK research (Doc 1 page Fig 1). There is some acknowledgement in the ReUK work indicating that adverse impact can increase in quieter environments when the total noise dose is lower (Doc 2). This is logical, as impact relates to a comparison with the noise environment within which the noise arises i.e. it is context based effect as identified in BS4142 1997. It should be noted that whilst the ReUK research argues there is a noise dose relationship, a proper examination reveals this is not the case and impact must be considered in context to the level of any comparative noise. Impact increases with modulation depth increase whether levels are at 25dB LAeq or 40dB LAeq (Doc 2 & Doc 1 Fig 4). Unfortunately the testing to human response in the ReUK package B2 did not test impact in context. The Japanese research confirmed the lack of relationship to noise dose (Doc 83 Appendix E).
- 6.99 The appropriate control mechanism remains the Den Brook metric (Doc 83 paragraphs 4.7 to 4.24). The lpa has shown and Broadview expressly accepted that this condition, as referred to in several previous appeal decisions, is not invalidated by being potentially falsely triggered. Unfortunately, the ReUK research perpetuates the out of date argument that the Den Brook condition is falsely triggered, which is probably a function of the age of the research dating back to 2012 (Doc 3 page 69).
- 6.100 The Den Brook metric avoids complex data processing procedures introduced by ReUK in their proposed AM condition mechanism. Whilst ReUK aim to create a semi-automated AM recognition mechanism this fails due to the need to resort to human assessment of extraneous noise and the source of noise.
- 6.101 The proposed ReUK condition does not implement controls that are equivalent to the impact identified in their study and in particular ReUK uses an averaging process such that extreme levels of EAM would remain permitted. Thus, even EAM events identified independently by the local EHO as a nuisance, such as with the Kessingland Wind Farm, would not be controlled by the ReUK condition. This is confirmed by an analysis of data for all the extreme periods of EAM found where none were prevented or curtailed by the ReUK condition metric (Doc 83 page 23). Thus, the ReUK condition permits all forms of EAM, to continue without control. This includes the most extreme levels of EAM with modulation depths (peak to trough values) of up to 13dB.
- 6.102 Whilst the ReUK publications present some additional information with regards to AM the majority of this was available prior to the publication in the form of other research and measurement data but which is post previous inquiry decisions looking at EAM, for example the Japanese research.
- 6.103 Given that it would not stop any forms of EAM thus far recorded, however extreme, the proposed ReUK AM condition is seriously flawed. Even when a

penalty is triggered this is so small that the adjusted levels still fall substantially below ETSU-R-97 derived limits permitting the noise impact to continue unhindered (Doc 83 Appendix C). This finding is entirely understandable and expected as research shows EAM occurs at times when the LA90 index, which measures the troughs in the noise, does not rise because EAM modulates and that it arises under relatively calm conditions. Another important finding is that as impact increases, due to the erratic nature of the AM, the ReUK approach reduces its penalty (Doc 83 Section 5).

- 6.104 The greatest response proportionately to sound energy in the ReUK research is arguably at the lowest sound energy level tested (25dB LAeq). As the ETSU-R-97 limits are derived from LA90 readings and these reflect the troughs in EAM sound, the levels causing impact are unrelated to sound energy in any event. EAM does not need to reach levels of 45dB LAeq at night to have a serious adverse effect. This 45dB LAeq value is recognised by ReUK as the upper limit or likely most serious level of any EAM impact and yet their condition does not propose to start to apply any control until this level is exceeded. It can confidently be concluded that adverse EAM identified by listening tests conducted by the Japanese, ReUK and MAS would not be curtailed or controlled by the ReUK condition. This 45dB LAeq value is recognised by ReUK as the upper limit or likely most serious level of any EAM impact and yet their condition does not propose to start to apply any control until this level is exceeded.
- 6.105 The ReUK condition suffers from a lack of transparency as shown in the Cotton Farm examples where the results of analysis over a 6 hour period of EAM and separately a shorter period are presented (Doc 83 Appendix C). These show a period of the worst case varying EAM at night on 1 and 2 October 2013 with modulation depths up to 10dBA and leading to community complaints attracted a penalty of 3.2dB when applying the ReUK procedure. The average LA90 value during this period, whether related to wind speed or otherwise was 39dB. As the lower limit under ETSU-R-97 at night is 43dB LA90 this provides a minimum headroom of 4dB and the penalty of only 3.2dB requires no cessation of impact. In contrast to the ReUK procedure the Den Brook method and the Japanese procedure for identifying excess AM both identify the impact as unacceptable. Analysis of the graphs and comparing actual EAM with the adjusted ReUK value and also the Japanese procedure reveals how much the ReUK understates impact.
- 6.106 The ReUK method cannot address periods of lost synchronicity where peaks occur between other peaks giving a more intrusive impact or erratic type noise but which lead to a much lower value applied using the ReUK procedure. This is one of several serious flaws.
- 6.107 A noise expert subcontracted to the Institute of Sound and Vibration Research has issued evidence cautioning against adopting the ReUK condition (Doc 83 Appendix F page 149). Analysis of measurements at Swaffham, Kessingland and Cotton Farm, all cases of serious noise impact from EAM, are cases where none of the impact measured would be prevented by the ReUK condition. The recommended condition for control of EAM remains that prescribed by the Den Brook metric which is further supported by the ReUK research that confirms it is set at an appropriate trigger point.

Other Considerations

Wind Turbines (Minimum Distances from Residential Premises) Bill [HL] 11

- 6.108 This Bill in its early stages of the passage through the House of Lords aims to make provision for a minimum distance between wind turbines and residential premises according to the size of the wind turbine. However, when considered in the context of the Ministerial Statement which mentions impacts on local amenity, they demonstrate that there is an increasing concern with regard to the close proximity and adverse impact of wind turbines on residential properties. However, it is accepted that the Bill would only attract limited weight. However, if the Bill became law in its current form it is worth noting that the turbines specified at 125m high on the appeal site would have to be sited a minimum of 2km away from any residential properties. The closest turbine to a residential property on the appeal site is T2 at 831m from Lower Spring Farm.

Regional Energy Targets

- 6.109 Compared to other regions the West Midlands region has limited capacity due to its geographical location for the deployment of some of the currently most cost effective technologies, such as off shore wind. The West Midlands Regional Energy Strategy sets targets for reducing carbon emissions by sector along with a regional target for renewable energy equivalent to 5% of regional electricity consumption by 2010 (CD6.3). The West Midlands Renewable Energy Capacity Study assessed the renewable energy potential in the region. It identified that the West Midlands region has a significant potential accessible capacity renewable resource, with an overwhelming majority of the potential renewable energy resource comprising wind (71%). The findings were disaggregated to local authority level, and revealed that Stratford-on-Avon District has potential capacity of 3547 MW for commercial wind and 211MW from smaller schemes. However, the study strongly emphasised it was important to understand from the outset that West Midlands Renewable Energy Capacity Study provides an assessment of the technical renewable energy potential and not the deployable renewable energy. The study should be viewed as a starting point. In line with the CAMCO study, it recommended that further work should be undertaken into landscape sensitivity, cumulative impact and overall environmental impact.

Planning Policy

- 6.110 There is very limited dispute as to the applicable policy, whether strictly planning or renewable energy. Indeed, it is quite noticeable that there was no detailed or indeed any real criticism of the planning officer's report as to what was included or excluded (CD12.3), which is, it is suggested, unusual. Whilst this may have been the Ipa's first windfarm application the planning officer's report was full, fair and balanced, that appropriate external expert advice was sought and received, that appropriate regard was had to all relevant benefits. The members' decision made against such an ably produced report is soundly based. Matters having been fairly set out, their judgment on impact in their area is important.

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- 6.111 The case does not turn on policy; it turns on the appreciation of the impacts. If the turbines would be overbearing in respect of any of the 3 dwellings identified by the lpa that would lead to refusal. If there is conflict with the landscape and visual impact policies, permission should also be refused. That conclusion would be reinforced by the adverse impact on cultural heritage grounds but it is acknowledged that it is not dependent on such support.
- 6.112 The first area of dispute concerns the impact of the Ministerial Statement (2.3) and new PPG on Renewable and low carbon energy (2.17). In the lpa's view, the impact should not be, and has not been, overstated but neither should it be ignored, which is the effect of the Broadview's "no change" position. Whilst no new factors are identified by the Statement, taken together there is a clear change of emphasis, with at least a suggestion that not all previous decisions gave appropriate weight to local environmental factors. The absence of recognition of a need at least to reconsider matters is indicative of the Broadview's overall approach, as evinced by its witnesses, of downplaying the potential of adverse impacts to the environment and local residents.
- 6.113 There is nothing in the material to suggest that there is any lessening of the weight to be given to environmental factors notwithstanding the increase in targets. Secondly, there is cultural heritage. Strictly interpreted, arguably the LP policies do not accord with the Framework, but interpreted in context and as applied there was no failure to carry out a proper balancing exercise so, which as Broadview agrees²⁸, the real difference between the parties is their assessment of impact and if lpa's assessment is accepted one would arrive at the same conclusion as evinced by RfR4.
- 6.114 There was considerable mention of the regional picture, indicative of Broadview's reluctance to fully accept that regional targets have gone. Such material has limited relevance to this site as opposed to broader development plan process. There is agreement that the contribution the windfarm would make would be modest although significant. However, compared to the ES calculation, that contribution is now more modest, given a 20% reduction in the number of turbines. Moreover, the actual contributions have slipped considerably – by over a further 20% in terms of numbers of households that would be provided for. All the lpa wishes to avoid, as far as benefits are concerned is double counting or reference to irrelevant factors. That object achieved, the level of benefit – significant though it may be – needs to be contrasted with the level of harm.
- 6.115 As to the Development Plan, there is no dispute as to the relevant policies (Doc 45, Doc 19 & Doc 1 paragraph 3.3). In terms of the landscape policies, it is agreed that they have full weight and that if the assessment gives rise to conflict with the development plan no case has been mounted that material considerations indicate that permission should still be granted. That must be the case if the balancing exercise taking into account the benefits has been undertaken to determine compliance or otherwise the policy requirements. The main policies are LP Policies DEV1, PR6, PR1 and EF1.

²⁸ X-Examination of Mr Bell.

- 6.116 LP Policy DEV.1 which deals with layout and design and requires development to have regard to the character and quality of the local area through the layout and design of new buildings. The ES conclusion of significant adverse effects which cannot be mitigated confirms that this scheme conflicts with this policy requirement.
- 6.117 LP Policy PR.6 states that according to the scale and nature of the scheme proposals will be considered, amongst other things, against, (a) the development would not have a detrimental effect on the environment and character of the local area including visual impact and generation emissions. The ES assessment confirms that the proposal would have a significant adverse effect on the character of the local area and no supporting information has been submitted to demonstrate satisfactory mitigation.
- 6.118 LP Policy PR.1 requires developments where possible, to enhance the quality and character of the area. Given the ES's assessment of significant adverse effects across a wide area and to the inward facing slopes of the basin, this proposal would not enhance the quality and character of the area and conflict with the objectives of the policy.
- 6.119 LP Policy EF.1 which deals with the AONB requires that the special qualities of those parts of the AONB within the district will be protected and, where opportunities arise, enhanced. Whilst the AONB is located some 5.5km to the south-east of the closest turbines, the significant adverse impact on views towards the elevated slopes of the AONB and the CP outside the AONB from public areas to the west and south-west of Bishop's Itchington including the elevated public footpath link to Piper's Hill are harmful to the setting and scenic beauty of the AONB. The AONB Management Plan 2008-13 highlights the Cotswold Escarpment as a special quality (CD7.14 page 24). The plan in the Key Issues identifies that the surroundings of the AONB are also important to its landscape character and quality (CD7.14 page 26). Thus, views out of the AONB and into it from surrounding areas can be very significant and need to be carefully assessed to ensure that they conserve and enhance the natural beauty and landscape character of the AONB. Views 'to' as well as from the Cotswold AONB should therefore be given a high level of importance in their effects on the setting and scenic beauty of this nationally designated landscape. The AONB Management Board has recently produced a new Cotswold AONB Management Plan 2013-18, which the Council is in the process of endorsing (CD7.15). This plan states that the Special Qualities include the Cotswold escarpment and views to and from it (CD7.15 page 8, bullet point 2). This plan places greater emphasis on views to the Cotswold escarpment than the previous Management Plan.
- 6.120 When Broadview's planning witness was asked if he accepted that if the lpa's assessment was applied to these policies (Doc 36 paragraphs 5.8 & 5.9) there would be conflict with the development plan: the answer was "yes, ... *might give a different conclusion but have not done this exercise*". This is consistent with the lack of cross examination of the lpa's landscape and planning witnesses on accordance with policy. What is important is that Broadview does not mount a positive case that one could have the lpa's landscape witness's evidence accepted but still have conformity with the development plan; i.e. if the LVI assessment accords more with that of the lpa landscape witness rather than Broadview's landscape witness the appeal

should be refused. If there is conflict with the development plan no case is mounted that permission should still be given.

- 6.121 In relation to cultural heritage there would be an adverse impact on the settings of all 4 HAs which conflicts with the objectives LP Policies EF.13 and EF14. The lpa accepts that the harm it identifies falls short of the substantial harm referred to in paragraph 133 of the Framework and it accepts that this harm would not, on its own, justify a reason to dismiss the appeal. However, the adverse impact would be significant and adverse and as such weighs heavily against permitting the scheme when considered in the overall planning balance. In addition although LP Policies DEV.1 a, b, c, d and h and PR6 (a) focus more on the character of the local area they are relevant in that the adverse impact on the historic environment would have a resultant impact on the general character of the area.
- 6.122 In landscape and visual terms the proposal is contrary to the objectives NPS EN-1 (CD6.1). Paragraph 5.9.9 states "*National Parks, the Broads and AONBs have been confirmed by the Government as having the highest status of protection in relation to landscape and scenic beauty*". The paragraph goes on to say that the conservation of the natural beauty of the landscape and countryside should be given substantial weight in deciding on applications for development consent in these areas. At paragraph 5.9.12 there is reference to the duty to have regard to the purposes of nationally designated areas which applies to schemes outside the boundaries of these areas which may have impacts on them. The aim should be to avoid compromising the purposes of designations. The siting of the turbines clearly cause harm to the setting and scenic beauty of the AONB when viewed from elevated land in the north-west and is therefore contrary to these objectives.
- 6.123 Paragraph 5.9.15 refers to consideration of whether the project has been designed carefully, taking account of environmental effects on the landscape and siting, operational and other constraints, to minimise harm to the landscape, including reasonable mitigation. Here it is evident from the ES/FEI that the turbines would be seen from over a wide area and their position towards the middle of the basin would emphasise their presence, particularly when viewed from the surrounding elevated land from which little in the way of mitigation is possible.
- 6.124 Weight is an elusive concept. For example, how do you give weight to reversibility? Although Broadview is critical of the lpa's planning evidence²⁹ it volunteered that the lpa's approach was "acceptable"³⁰. Surprisingly, Broadview could not point to where it had given specific attention to it in the context of landscape and visual evidence. The proper approach is to ensure that all witnesses have had regard to a relevant factor and understood it – as quite clearly both the lpa's landscape and planning witnesses had and did in terms of reversibility – and then test their judgement. It is another factor amongst many to be weighed in judgement.
- 6.125 Whilst representing the lpa's emerging policy position, CS policies are not adopted planning policy and have not been subject to Examination. Moreover

²⁹ Evidence-in-Chief of Mr Bell.

³⁰ X-Examination of Mr Bell.

as to Policy CS2, the lpa acknowledges that PPG indicates that lpa's should not rule out otherwise acceptable renewable energy development through inflexible rules on separation distances. However, it is important in showing the direction of travel in terms of considering the impact of turbines on the living conditions and ensuring that appropriate weight is given to environmental considerations. Moreover, the policy reflects the approach expressed by the Government in recent Ministerial Statements, which stress the importance of taking into account local opinion.

The Planning Balance

- 6.126 Broadview submits that this scheme would provide substantial benefits in terms of: reduced CO² emissions of between 9,131 and 9,944 tonnes per annum and it would accord with the aims of national and international policies aimed at addressing climate change. In addition the scheme would add to renewable energy generation capacity and it would be in line with the Government's aim of safeguarding the reliability of our energy supplies. The estimate is that the annual electricity generated by the scheme would be equivalent to the annual domestic needs of approximately 6,435 to 7,007 average households in Britain, based on a maximum rated output of 8-12MW which is based on the ReUK recommended average annual UK household electricity consumption, 3,300 KWh. However, Broadview states that the energy capture, capacity factor and therefore, the figure for the equivalent number of homes whose domestic needs would be met by the scheme may change as further site specific information is gathered and advance in wind technology are made. Accordingly, Broadview has therefore given no indication of actual expected output, which would depend upon the wind resource and other factors. This is a factor to take into consideration in assessing the overall balance.
- 6.127 The level of energy generated would represent a relatively small contribution to the national target for installed renewable energy generation. However, it would in turn contribute towards the Government's aims of decarbonising the production of energy in the UK and increasing the security of Britain's energy supplies through reducing the demand for fossil fuels such as coal and gas. The UK Renewable Energy Roadmap sets out actions that are intended to accelerate the delivery of renewable energy including onshore wind. The lpa acknowledges that these aims weigh in support of the planning application. Wider economic and environmental benefits attached to all renewable energy schemes are significant material considerations that also have to be given substantial weight in support of the proposal in the overall planning balance.
- 6.128 Residents consider that Broadview's figures for CO² reduction and energy output are significantly exaggerated. Whilst the lpa does not include this concern as part of its case weight must be given to such considerations. Paragraph 98 of the Framework makes it clear that lpa's should not require applicants to demonstrate the overall need for renewable energy and to recognise that small-scale projects provide a valuable contribution to cutting greenhouse gas emissions. The lpa recognises that any savings which can be achieved in the short to medium term, are to be welcomed and given due weight in support of the proposals in the overall planning balance.

- 6.129 PPG continues the emphasis given in Ministerial Statements that action is needed to deliver the balance expected by the Framework on onshore wind and that sufficient weight is given to environmental considerations like landscape, heritage and local amenity to ensure that any adverse impact from wind farm development is addressed satisfactorily. In addition PPG seeks to ensure that communities have a greater say over proposed onshore wind farm development.
- 6.130 The lpa acknowledges that, based on current national, regional and local planning policy and guidance, the principle of deploying onshore wind farms is supported, subject to satisfactory compliance with other relevant policies and due regard to other material planning considerations. The national and international benefits of the proposals need to be weighed against any adverse impacts, including landscape and visual impacts, cultural heritage, noise, aviation safety and residential amenity. There is a clear national and regional need for renewable energy which weighs in favour of the development and is supported by Government, and the development plan. The UK is legally obliged by the European Council to provide 15% of its energy requirements through renewable sources by 2020 and the Renewable Energy Strategy of 2009 (restated in UK Renewable Energy Roadmap Update 2012) also requires 30% of electricity to be supplied by renewable resources by 2020. Onshore Wind Farms are the most mature form of renewable technology, and will therefore inevitably play a substantial role in meeting these required targets. However, the Government's intention is not that all renewable energy schemes should be supported irrespective of the harm they might cause. This stance has been given added weight by the recent Ministerial Statement when dealing with onshore wind farms, as is the case here. The benefits of producing renewable energy and assisting in meeting national obligations, aspirations and helping to reduce the impact of climate change have to be considered against any identified harm.
- 6.131 The lpa acknowledges that any wind farm is likely to bring a change to the landscape. However, the lpa agrees with the ES that the scheme would create a new wind farm landscape character close to the turbines and, beyond this, new landscape sub-types with wind turbines. This change in character is significant and harmful to the established character and appearance of the locality and would be viewed from many landscape and recreational receptors, including the popular Burton Dassett Hills CP and many of the public rights of way in this attractive landscape. The proposal would also have a harmful impact on views to the nationally AONB. The proposal would not safeguard or enhance the character or appearance of the site or its surroundings and in landscape terms is inappropriate and significantly harmful. This significant detrimental impact could not be satisfactorily mitigated. In addition there would be the potential for cumulative impact with the proposed Stoneton wind farm, approximately 6km to the east. Whilst the Stoneton wind farm application has not yet been determined, the potential cumulative impacts of this scheme is however a material consideration that attracts due weight to in respect of this appeal. The significant landscape character change and associated significant visual harm to the character and appearance of the locality weighs against the proposal.
- 6.132 Wind farms change the outlook from many homes and that would certainly be the case here. At 3 properties, Lower Spring Farm, Trotters and Bungalow

Farm, the lpa agrees with Broadview that the impacts on these properties would be significant and adverse. The lpa says that the turbines would be present in such number, size and proximity that they would represent an unpleasantly overwhelming and unavoidable presence in the main views from the house and garden and therefore would convert the property into an unattractive place in which to live as set out in the threshold of acceptability as defined by "The Lavender Test" and subsequent decisions by the SoS. This harm could not be satisfactorily mitigated and weighs heavily against the proposal. Due weight must be given to this conclusion in the overall planning balance.

- 6.133 Although the lpa does not introduce noise issues as a new or separate reason for refusal, consideration must also be given to the impacts of noise upon residential amenity. The lpa considers that noise impacts will only be satisfactorily addressed by the imposition of appropriate conditions addressing, amongst others, EAM. The failure to agree on the imposition of satisfactory conditions in relation to noise impacts would have a detrimental impact on the amenity of surrounding residential properties and weighs heavily against the proposal.
- 6.134 The proposal would be particularly harmful to 4 HAs within 5km of the site. These are: Burton Dassett Beacon Tower (Grade II and Scheduled Monument), Knightcote Manor (Grade II), Church of St Peter and St Clare, Fenny Compton (Grade II*) and Fenny Compton Conservation Area. Whilst narrowly failing to reach the level of "substantial" harm required to trigger paragraph 133 of the Framework, the harm to these HAs would be at a level which would require this to be weighed most carefully in the balance against public benefit, in line with paragraph 134 of the Framework. The detrimental impact cannot be satisfactorily mitigated and weighs against the proposal.
- 6.135 In respect of issues relating to highway safety/traffic generation, flooding, health and safety (including shadow flicker) and ecology, the lpa acknowledges that any negative impacts could be satisfactorily addressed by the imposition of planning conditions. The lpa has also taken into account that in respect of ecology the impact would be neutral.
- 6.136 Overall, taking into account all the positive benefits along with national and international targets and guidance and all of the negative impacts of the scheme, the harm is significant and demonstrable and the benefits do not outweigh such harm. The lpa having carried out the balancing exercise and giving due weight to all the material planning considerations including that the development would be in situ for up to 25 years and is reversible and the presumption in the Framework in favour of sustainable development conclude that the proposal is unacceptable that the appeal should be dismissed.

7 The Cases for Feldon Residents Against Wind Turbines (FRAWT), Bishops Itchington Parish Council (BIPC) and Burton Dassett Parish Council (BDPC).

The material points are: -

Introduction

- 7.1 FRAWT was established to represent local objectors and in Coalition with the BIPC and BDPC Parish Councils strongly objects to this scheme. The principal concerns of the Coalition relate to the significant and unacceptable impacts on: landscape and visual amenity; residential amenity in terms of outlook and noise; commercial and recreational equine interests and cultural heritage.
- 7.2 The Coalition accepts that it is Government policy to encourage generation of electricity from appropriately sited renewable resources. However, the Coalition believes that after properly calibrating the benefits and weighing these against the adverse impacts listed above, the inescapable conclusion must be, that the unacceptable harm to local interests is not outweighed by the benefits and the appeal must be dismissed.

Landscape and Visual Impact

- 7.3 Wind turbines necessarily seek conspicuous sites open to the force of nature they exploit, thus raising uniquely challenging visual issues. The issue is not just whether turbines are intrinsically unsightly or aesthetically pleasing in the abstract, or whether they are permanent or temporary. It is simply whether, in the planning balance, they are acceptable in terms of location, design and context. Acceptability hinges on the sensitivity of the receptors involved, and whether the size and characteristics of the turbines are appropriate in relation to landscape character, the purpose of recognised designations, and the presence of cherished views.

Proposed Turbines

- 7.4 In addition to height, the blade-sweep area is an indication of the potential a turbine has for creating adverse visual impact. Each turbine would have a rotor area of some 6,720 sq. m (Doc 57 page 10). Although it would be possible to see the landscape behind the rotating blades, their movement would produce a significant area of visually impaired space. This approach has been reflected in an appeal decision which said, "*I give little weight to the idea that because the distant landscape can be seen 'through' a turbine, that their visual impact is somehow diminished; although more transparent than a building, the moving blades would be a significant distraction in appreciating the landscape beyond a turbine.*" (CD5.61). Here, although the area has sub-optimal wind speeds, the turbines could be rotating for 70 to 80% of the time resulting in unacceptable visual distraction and landscape impact.

The Project in Context

- 7.5 At 125m these are Very Large Turbines with a blade-swept area towards the upper end of that group. While Very Large Turbines are becoming more common, they are not a feature of the landscape around Stratford-on-Avon. The ES identifies only 2 existing single 90m turbines within a 30km radius

and both are on brownfield sites. The projects consented, proposed and in scoping are entirely limited to the 180° arc to the east of Starbold, and only one project, currently at scoping, is closer than 12km.

- 7.6 The lack of similar developments nearby means that the public are unlikely to appreciate the landscape and visual impact of Very Large Turbines in this area. A good example of likely impact is the four 125m turbines at Low Spinney, north of Lutterworth. Whilst there are certain similarities, i.e. similar sized turbines, a location in settled countryside near to villages and isolated houses, there is one subtle but important difference between this example and Starbold. The Low Spinney turbines are sited on gently rising ground with many properties looking away from the turbines.
- 7.7 Here, the turbines would be sited in the Vale of Feldon and low down in a gentle basin. Here, primary views from nearby houses would focus down into the site. Therefore, in most residential views the turbines would have topographical emphasis, rather than dilution. Medium-distance views from surrounding hills and slopes, particularly the Burton Dassett Hills CP, are a series of grandstand panoramic views. Thus, the turbines would be seen from an elevated position nearer to the blades and seen as an interruption to existing vistas rather than as a discordant feature in the sky. The 6,720 sq. m blade sweeps correspond to 0.68ha of sky, which means that the turbines would be significantly more visible and intrusive than those at Low Spinney.

Receptors (People) and Usage

- 7.8 Despite its rural character, this area is moderately well-populated and used actively and passively by those who live in and around it. Residents of nearby properties and settlements are prime receptors, whether enjoying direct views across the open countryside of the site, appreciating it as part of their rural environment, especially from key viewpoints such as the Burton Dassett Hills, or when going about their daily lives. Of the 3 key long-distance public rights of way in the area, The Centenary Way is a sequential receptor, running from the crest of the Burton Dassett Hills in the south to the elevated ridge at Christmas Hill in the north.

The Landscape and Visual Impact Assessment Process

- 7.9 The purpose of FRAWT's analysis is to show the likely significant impacts of a development on the baseline and specifically to predict its magnitude of effect combined with the sensitivity of both the landscape and the visual receptors involved. Published guidance and advice on carrying out this task sets out general principles of analysis with the detail of the method left to professional judgement. This results in considerable variations between practitioners in the assessment of the sensitivity of landscapes or visual receptors and the magnitude of effect.
- 7.10 The key elements FRAWT's methodology are: describing landscape character and sensitivity; assessing visual receptor sensitivity; the Visual Resource; defining the zone of theoretical visibility (ZTV); identifying representative viewpoints in the ZTV; assessing the magnitude of change and determining the significance of effects on residents, other users and resources (Doc 58 Appendix D). In this approach, assessments are made using a 5-point

symmetrical ranking system with equal provision above and below a central Moderate position and transitional categories.

Defining the ZTV

- 7.11 Whilst the ZTV shows where general effects may be experienced, it has to be interpreted with due caution in areas such as this, where trees and woodland frequently frame or exclude views, either for all or part of the year. The tip height ZTV includes any extent of visibility from the merest tip to full turbines, and hub height incidence means that at the very least, the upper half of blade rotations would be seen. It is best that both sets of data are used together. The ES at Figures 7.5 to 7.8 contains a series of tip height and hub-height ZTVs focusing down from a 30km radius for the wider context to a local scale of 5km. The ZTVs clearly show the concentration of visibility contained by the rim of relatively high ground.

Describing Landscape Character and Sensitivity

- 7.12 Landscape sensitivity combines concepts identified in terms of “quality” and “value” to reflect landscape character, and expresses them in terms of sensitivity to turbines. FRAWT uses a 5-point gradation applied to the existing independent assessments at a viewpoint or locality (Doc 57 page 22). As with other 5-point scales, the concept is balanced around a central 3-point core with provision for uncommon extremes at each end i.e. Negligible at the bottom and Very High at the top of the scale. As views are not necessarily confined to one uniform character area, or may be located close to the borders of others, adjustments may need to be made, and combined or modified grades are used. Sensitivity grades are applied to convey variation within a Character Area, or modified to reflect intermediate categories.
- 7.13 The ES uses a 3-point gradation of Low, Medium and High, which broadly corresponds to the central 3 points in FRAWT’s methodology. Broadview’s 3-point scale does not provide for the 2 extremes which is relevant for landscapes that may be considered transitional between High and Very High, e.g. the Burton Dassett Hills. As such the landscape quality of these hills is not adequately served by the common ES “High” category.
- 7.14 In November 2006 the UK ratified the European Landscape Convention (Doc 58 Appendix F). This Convention is a statement of vital and fundamental principles, linking landscape to a wide range of other issues, all potentially affected by proposals of this nature. The Convention is a material consideration for decision-makers, elevating landscape and all derived impacts to a higher and more conspicuous plane than hitherto.

Assessing Visual Receptor Sensitivity

- 7.15 FRAWT’s range of visual receptor sensitivity is based on examples in the GLVIA (Doc 57 page 23). Apart from the provision for extremes at each end of the scale, it is similar to the 3-point system frequently used. However, a key feature of FRAWT’s approach is the use of transitional categories especially Medium/High in the case of views from local roads in areas of recreational or scenic importance. Similarly, the sensitivity of recreational

attractions and public rights of way may vary from Medium/High to above High. The ES only recognises the central 3 categories and fails to cater for receptors on the Burton Dassett Hills, who are of greater sensitivity than the normal High Sensitivity applied to residents or most footpath users. Moreover, the ES does not distinguish road users as anything other than Medium Sensitivity.

The Visual Resource

- 7.16 Paragraphs 2.13 to 2.15 of the GLVIA Second Edition stress that both landscape and visual aspects are, *"separate, although linked, procedures"*. At paragraph 2.15 it states that *"Visual effects relate to the changes that arise in the composition of available views as a result of changes to the landscape, to people's responses to the changes, and to the overall effects with respect to visual amenity"*. This requires sensitivity to be assessed for the receptors concerned, but also for the sensitivity of the actual landscape, as previously assessed separately, to be brought into the equation. While it is necessary to describe impacts on the landscape resource spatially, and independently of receptors, it is entirely artificial and restricting to consider effects at the representative viewpoints solely in terms of the sensitivity of the relevant receptors. That renders the landscape irrelevant at the viewpoints. Therefore, FRAWT uses the term "Visual Resource" to combine the sensitivity of both the landscape and the visual receptors who experience it at specific locations. In addition to a rating for the receptors themselves, this includes a landscape sensitivity dimension relevant to individual viewpoints that is derived from independent landscape character assessments. In this way, the 2, initially separate, processes are linked and configured according to views at the representative viewpoints.
- 7.17 Whilst seemingly complex, and novel, the concept of the Visual Resource produces a more conservative, rounded and reliable indication of the sensitivity of the representative viewpoints than would otherwise be recorded by the use of receptor sensitivity alone. Indeed, to exclude the landscape dimension at the viewpoints results in an exercise that does little more than assess the sensitivity of different types of receptor. The result then becomes a stepping stone to be used in conjunction with the magnitude of effect to assess the overall significance of effect.

Assessing the Magnitude of Change

- 7.18 FRAWT's assessment follows established advice and practice in defining systematically how its terms relate to both landscape and visual receptor aspects (Doc 58 Appendix D paragraph 4.4). This 5-tier classification, covering the full spectrum of magnitude, provides symmetry of decision-making opportunities with equal provision both above and below the Moderate classification and Intermediate categories are created if necessary. The classification derives mainly from that suggested by Scottish Natural Heritage in *"Visual Assessment of Wind Farms: Best Practice"* (CD7.81 Table 18) and the 5-tier system shown as Example 1, and some of the helpful definitions used in parts of Example 4 Option 2 in Appendix 6 of the GLVIA Second Edition pages 138 and 145.

- 7.19 FRAWT's approach differs from the 4-tier approach used in the ES (Tables 7.1 & 7.4). Although the ES uses the same terms, FRAWT considers it to be mistaken because in providing only one tier above Moderate (as opposed to FRAWT's 2 below) it is intrinsically imbalanced and removes the opportunity to differentiate close or multiple impacts. As a result the ES classifies "total loss" of key landscape elements (Table 7.1) and "complete change" (Table 7.4) within its Substantial tier rather than creating a separate higher grade (Doc 57 page 25).

Determining Significance of Effects

- 7.20 EIA Regulations require the identification of significant effects as the basis for establishing whether an EIA is required. Once underway, it is necessary to calibrate further whether and how such effects will occur, to make a reasoned evaluation of their extent and nature, and to consider what other effects might also be necessarily brought into the planning consideration. As a result, an important distinction arises between significance "in EIA terms" and significance "in planning terms", when the effects of the project "as a whole" are assessed, and weighed in the balance by the decision maker. The inevitable consequence is that all representative effects should be given appropriate weight on a continuum scale, so that decision makers may make an overall appraisal of a proposal.
- 7.21 The accepted process of defining significant and other effects is by correlating Magnitude with the Sensitivity of both the landscape and visual receptors. There is no specific or universal guidance to direct practitioners as to how they synthesise a conclusion on the overall significance of a proposal's impacts. The GLVIA 2nd Edition stresses that "*significance is not absolute*" and should be determined in the course of each assessment. The conventional significance threshold is usually set at Moderate/Major and may be reached by various combinations of Magnitude and Sensitivity, expressed in the form of a matrix diagram. FRAWT's matrix diagram is based on a 5-point scale of Magnitude and Sensitivity of the receptor (Doc 57 page 26).
- 7.22 The defining point in a matrix, or its foundation, is demonstrated by the combination of what is termed "middling sensitivity" and "middling magnitude". From that central position, significance categories should, as in FRAWT's matrix, logically form diagonal bands that follows the generally accepted pattern and terminology used by most landscape and visual consultants (Doc 57 page 26). It is from that point that further judgements may be made, however, the creation of the matrix in the first place must be comprehensive and consistent.
- 7.23 While there is a nominal threshold for determining significant impacts it is essential to give proportionately increasing weight to those which considerably exceed it and appropriate, though declining weight to those which narrowly fall below it. Only then can the overall impacts be assessed and the extent of any conflict with planning policy fairly and comprehensively considered. This position is supported in a 2006 DCLG Consultation Paper "*Environmental Impact Assessment – A Guide to Good Practice and Procedures*", which recognises that significance, should be assessed as a matter of degree rather than surmounting a simple threshold (CD2.19).

- 7.24 FRAWT's assessment adopts the concept of "progressive significance" in planning terms and advances the proposition that the threshold is chiefly a device "in EIA terms" for defining those Moderate/Major effects which are, in their own right, clearly significant. The effects should be independently recognised as significant, but with additional weight being given to those above. Moderate effects should not be disregarded, but assessed as contributing proportionately to the weight of impacts, with those below that level given a diminishing but tangible ancillary weight. The shaded bands in FRAWT's matrix reflect these indications of appropriate weight (Doc 57 Page 26). This approach was accepted in a 2009 appeal decision where the Inspector said that he accepted the point, *"...that values below a threshold, because they form part of a continuum of effects, should not be disregarded"* (CD5.64 paragraph 34).
- 7.25 The use of any threshold has the danger creating a "sheep and goats" phenomenon. Practitioners can be tempted to focus on whether effects exceed or fall below the threshold, rather than ascribing appropriate and variable weight to them. Those effects not judged to be "Significant", even if "Moderate" and thus just below the threshold, tend to be discarded or given insufficient weight. Correspondingly, there tends to be no in-built mechanism for reflecting and weighting effects which are considerably over the threshold.
- 7.26 Significance, described as "importance" in the ES is considered in the context of the familiar matrices although limited by the more restricted 3 and 4-tier gradations of magnitude and sensitivity (CD 12.2C pages 70 & 71 & Tables 7.2 & 7.5). Whilst the ES discusses the concept as a threshold in terms of the EIA Regulations it does not have the necessary flexibility provided by FRAWT's progressive significance approach.

Residential Receptors

- 7.27 To assess visual impacts at representative viewpoints, occupiers of properties are treated conventionally as high sensitivity receptors (Doc 57 page 23). Self-evidently the magnitude of local views enjoyed by residential receptors lies on a sliding scale that depends on their proximity, their outlook, and the way they use and enjoy their surroundings and the purpose and frequency of journeys they make in or through their surroundings. Direct views from principal rooms or main amenity areas must weigh most heavily. Nevertheless, rural residents use their gardens, come and go, and generally enjoy the rural amenities within and around their houses. They, and others, may also enjoy the amenity of their locality as walkers, riders or cyclists and are acutely aware of the surrounding rural environment. They will also be road users with repetitive views, whether driving out for pleasure or making routine or functional journeys. In these cases they are separately assessed at viewpoints or under specific topics.
- 7.28 Whilst closer properties should be assessed for individual impacts, it is useful to consider effects on settlements in more general terms. Direct views may be confined to houses on outer edges which look towards the turbines, but communal views along streets aligned towards the development, from key recreational or leisure spaces, or from locally important buildings or open spaces such as churchyards are also material. The concept that occupiers or owners of properties who are financially involved should not be subject to

general concerns about residential amenity is not universally accepted by Inspectors (CD5.58 paragraphs 16.34 & 16.35).

- 7.29 The use of terms in Inspectors' reports to describe the most extreme visual amenity impacts on residential occupiers, such as "*overwhelming*" and "*overbearing*" comes from the 2009 Enifer Downs decision and widely referred to as "The Lavender Test" (CD5.41). Whilst this is a necessary concept, it must not be forgotten that it is also what might be called a "tip of the iceberg test" to deal adequately and decisively with the greatest of impacts through a very severe test which only a small number of properties may fail, or may need to fail, to make a project unacceptable. The Lavender Test is not a substitute for considering other impacts. Other Inspectors routinely scope-in such considerations (CD5.36 paragraphs 65 to 67; CD5.65 paragraph 129).
- 7.30 This approach has led to the mistaken notion that it is only these severe individual impacts that need to be assessed or given weight by decision-makers, with lesser levels of impact subsumed into a generalised coverage of visual effects through a selection of viewpoints representing residential properties. Certainly, such close properties and the possibility of such comprehensive impacts should be given special attention and the greatest weight, but the occurrence of considerable numbers of lesser-affected properties should also be investigated and taken into the balance.
- 7.31 Whilst no properties may fail the extreme test, it does not follow that numbers of others when looked at collectively are insufficient for a proposal to cause adverse residential impacts of sufficient importance to become a factor in the planning balance. Some of these may pass "The Lavender Test" by no more than a whisker. The corollary is that consideration of residential impacts should not be confined to those properties or candidate properties sufficiently close to the turbines to fail "The Lavender Test" on visual amenity but should be included in a systematic survey within an appropriate wider radius within which effects are assessed in more conventional EIA terms. This is an approach that was applied by the Inspectors at Bicton (CD5.66) and Baumber (CD5.65).
- 7.32 The purpose of Broadview's RVAS is to search for any "*adverse unacceptable effects on living conditions*" which it assumes are "*not likely to arise beyond about 800m from the nearest turbine*" (CD12.2D Appendix B, 7.4). It quotes the 2010 Carland Cross Inspector citing again the question of "*an unpleasantly overwhelming and unavoidable presence in main views*" (CD5.41). The RVAS also quotes the Inspector in the Burnthouse Farm decision who considered whether the outlook from properties would be "*unpleasant, overwhelming and oppressive*" (CD5.4). This lexicon of impact develops the very severe Lavender or Living Conditions test and is applied in the ES exclusively and terminally to residential impacts. In other words, if properties do not fail this test, then there is no issue. That is manifestly illogical, but it is worth considering the threshold implied in the ES, which is self-evidently not enshrined in terms of distance alone. The Inspector at Enifer Downs decision also commented "*Separation distance is not, in itself, a decisive factor in judging policy compliance or the associated standards of environmental quality, but it provides a broad context for consideration of*

amenity impacts in this particular case which I find notable for proposing turbines of the size proposed as close neighbours to places of habitation".

- 7.33 The RVAS correctly lists a number of factors to be considered, and it is important that distances cited from other cases are tempered by the fact that the Burnthouse Farm decision applied to flat fenland landscapes and to turbines of only 100m, the same size as those proposed at Carland Cross and that here, receptors are looking at 125m turbines from an elevated position nearer to the blades. Additionally, there is no mechanism to assess impacts, either individually or collectively, on those properties that do not fail "The Lavender Test". The ES embarks on an over-detailed trawl of often distant settlements to consider more generalised effects. The RVAS notes that *"there is no published guidance available on the assessment of the effects on views from dwellings and the distance that should be defined for detailed study"* but in the Methodology Section claims that the RVAS has been based on the GLVIA. The document is not configured for wind turbine proposals, which are much more visible than other forms of development. The many other receptors, often of lower intrinsic sensitivity, which are considered either topically or from viewpoints in the ES are not limited to distance and are found to have substantial magnitude and significant adverse impacts at considerably greater distances. It is therefore not only illogical but quite wrong to bring in or imply some kind of guillotine at the point where properties pass a Lavender-type test.
- 7.34 Coupled with improved detail and procedure in assessing visual impacts on residential receptors, a trend has developed for other effects to be considered under the heading of "living conditions". This was originally only a descriptive context for conventional analysis (CD5.36 & CD5.58), but the Enifer Downs Inspector's use of the phrase *"the combined effects"* demonstrates that the concept should also involve multiple and potentially inter-active considerations, though consisting of visual amenity at its core. These include noise, unmitigated shadow flicker, or even private water supplies. Ultimately the phenomenon is a composite one, even if primarily experienced in visual amenity terms.
- 7.35 Sometimes planners dismiss objections made by anxious householders, if they are claiming that visual, amenity, and possibly noise impacts of the proposal would adversely affect not only their living conditions but the value of their property, or its saleability. There is general, but often anecdotal, evidence for this, though in tandem with historically rising house values it is difficult to isolate a reduction in the rate of increase rather than an outright fall. However, while price effects, in themselves, should not be a material consideration, the fact that they exist or are perceived to exist should be interpreted as a reflection of valid planning issues such as visual amenity, enjoyment of the countryside, and Human Rights such as peaceable enjoyment of possessions. Thus, devaluation is a barometer of underlying planning issues, which should be identified and given weight, especially where multiple concerns assume a community dimension.

Photographic and Illustrative Issues

- 7.36 Commentators have repeatedly noted the limitations of photography to convey the true visual impacts of turbine installations and the need to use

photographs and visualisations as a guide to be taken to the actual viewpoint used. The various issues include size of image and appropriate viewing distance, the need to curve composite images to replicate their extended field of view, apparent vertical compression, and the need to avoid screening or distracting objects (Doc 58 Appendix G). Highland Council rejects wider angle views, requiring single frame A3 images 240mm high x 360mm wide, taken with a 50mm or 75mm lens giving a field of view of 40° or less images, and viewed at 350mm.

Assessment of Landscape and Visual Impacts

- 7.37 The most relevant assessment of landscape character is contained in the combination of LCTs and LCAs and superimposed on the 30km blade tip ZTV (ES Figures 7.3 & 7.8 CD12.2G). The landscape attributes are described in ES Appendices 7.1 and 7.2 (CD12.2D), and assessed in terms of effects of the development at ES 7.10.1-4 (CD12.2E). However, the further away these LCTs and LCAs are from the turbines, the less pertinent are their attributes.
- 7.38 Document 57, page 34 is a comparison of the sensitivity ratings given to each of the main LCTs/LCAs in the ES and FRAWT's assessment of sensitivity based on the 5-point scale. FRAWT agrees that the areas selected in ES Appendix 7.2 (CD12.2D) are the most pertinent ones. The ES uses a single sensitivity rating for each area or type and represents an attempt to simplify a wide range of attributes. However, it is a very broad measure that should not be used or re-assessed too rigidly. Nevertheless, FRAWT accepts that it has the advantage of being supported by a wide range of sub-topics, which can be individually weighted in relation to the types of development proposed. FRAWT's assessment of the remaining LCTs/LCAs is guided by ES Appendix 7.1 (CD12.2D).

Viewpoints and Visualisations (CD 12.2H - ES Volume 3 Version 2)

- 7.39 The photographs are on the whole of excellent clarity and have been taken in good lighting conditions. Depiction of turbines in the montages is also mostly good. FRAWT believes that a few positions need fine-tuning and overall the sequence is well up to standard. Document 57 page 37 contains FRAWT's comments on the individual VPs.
- 7.40 FEI Table 7.8 (CD12.2E) is a summary of the landscape and visual effects at each location based upon a detailed viewpoint analysis or re-analysis at Appendix 7.3 (CD12.2F). The outcome of the landscape analysis is a conclusion as to whether a new *"landscape sub-type has been created"*, which in turn is considered to be significant or not. There is an assessment of the Visual Effect which is classed *"significant yes/no"*. Thus, for each VP whilst Landscape and Visual Effects are assessed separately but then are finally concluded by a threshold analysis of significance. FRAWT's methodology is to combine the 2 into a Visual Resource and grade the results in a ranking of Progressive Significance (Doc 57 page 26). In FRAWT's VP assessment of the degree of Magnitude or the Sensitivity of Receptor may differ from that stated in the ES as a result of: differences in the classification, especially for greater impacts; differences in criteria for each

grade; differences in judgement between assessors; changes in visibility or receptors as the viewing location is adjusted.

Landscape Sensitivity

- 7.41 The assessment contained in the Table at Document 57 pages 37/38 augments that on landscape character, noting that views tend to cross LCAs, and that perceived character is specific to the location and aspect of viewpoints. It also makes a more specific finding of Sensitivity in relation to the landscape contained in the view, which does not necessarily conform to the generic level shown on the Table at Document 57 page 34. This assessment shows the landscape sensitivity at 7 of the original 18 VPs is the same as the overall ranking of their host LCT in the ES; 3 are one step above, and one, the view from the Burton Dassett Hills, is 2 steps above. Three VPs are one step below, leaving 4 more distant viewpoints without any ES assessment. A similar pattern is apparent for VPs 19-25.

Visual Receptor Sensitivity

- 7.42 The ES considers more than one set of receptors as appropriate to each viewpoint, but correctly assigns the level of sensitivity to the highest ranked. FRAWT is broadly in agreement with most of the Sensitivity rankings. However, at 6 of the 18 VPs FRAWT considers that the receptor sensitivity is one step greater than in the ES based on the nature of the user or the nature of the VP (Document 57 Page 39). A similar pattern is apparent for VPs 19 to 25. It is unreasonable to assess users of local roads as of only Medium Sensitivity, i.e. the same used for commercial traffic on the M40. The ES has no category of Sensitivity above 'High' and as such is unable to reflect the undoubted extra sensitivity of visitors to the CP.

Sensitivity of the Visual Resource

- 7.43 This is a combination of the levels given to the Sensitivity of the Receptor based on the 5-point scale (Doc 57 page 23) and to the Sensitivity of the Landscape as represented in the view (Doc 57 pages 37/38) to give an overall level of the Sensitivity of the Visual Resource (Doc 57 page 40).
- 7.44 The ES considers landscape impacts at each VP at FEI Table 7.8 (CD12.2E) but rather than assessing effects on the relevant view, it considers whether or not a new landscape sub-type has been created. Whilst a useful and valid exercise it means that the assessment of impact significance at the VPs has been conducted solely on the basis of visual impacts on receptors. FRAWT regards this as a serious flaw and a missed opportunity to consider impacts in the round. However, the ES rankings of landscape sensitivity at the VPs (CD12.2 Appendix 7.2) with its visual receptor sensitivity ranking (Table 7.8 CD12.2E) can be combined to produce Combined Landscape and Visual Index that is broadly compatible with FRAWT's ranking of Sensitivity of the Visual Resource (Doc 57 page 41). FRAWT accepts that it uses the ES material in ways that it was not intended to be used. However, this approach provides a mechanism whereby a fairer and more comprehensive comparison can be made between the impacts recorded in the ES and FRAWT's assessment.
- 7.45 For each viewpoint the Combined Landscape and Visual Index and FRAWT's Visual Resource are compared and a plus or minus numerical value is

allocated to the difference in the ranking (Doc 57 page 42). This analysis results in a position where the ranking of receptor sensitivity in the Combined Landscape and Visual Index and FRAWT's Visual Resource is the same for 14 VPs (2, 6 to 8, 10, 12 to 18, 21 & 24). At most of the closer and more important VPs, FRAWT's ranking is greater (1, 3, 4, 11, 19 & 20, 22 & 23 and 25). In the case of the key view from the Burton Dassett Hill, VP 9, the ranking of difference is much greater.

Magnitude of Effect

- 7.46 The assessment is based on the 5-tier classification to cover the full spectrum of magnitudes (Doc 57 pages 24 & 25). Document 57 page 43 sets out the comparison of Magnitude between Broadview and FRAWT and a numerical value is allocated to the difference.
- 7.47 The differences in assessment of Magnitude are relatively small, but persistent. There would be greater levels of impact at 15 of the 25 VPs (1, 6, 8, and 9 -18 & 22-24). Moreover, FRAWT's assessment shows the inability of the 4-point system to recognise the greatest impact at the closest viewpoints and FRAWT's results recognise Substantial magnitude for greater distances than does Broadview. It is also apparent that the ES introduces Negligible magnitude at a much closer distance than does FRAWT's assessment (VPs 16, 17 & 18). This is because the range of possible results is configured to the relatively small distance range of the VPs, while the FRAWT system is accustomed to being applied to views at 20-25km where the lower grading come more naturally into play. Certainly, blade movement is readily apparent for Very Large turbines well beyond 15km, at which point Slight magnitude is a more appropriate rating. In simple terms, the ES is incapable of reflecting magnitude at the closest range and incorrect in under-rating it at distances beyond 7km and underestimates the physical impact of the scheme.
- 7.48 Reductions in magnitude from that assessed for the 5-turbine proposal have been made in the FEI for 5 VPs while FRAWT have only reduced the level in one. FRAWT consider that the removal of T1 has made little difference to the magnitude previously assessed, because the 5 turbines were well within the range, rather than near the margin.

Significance of Effects

- 7.49 To produce a comparative assessment of the Significance of the effects, Document 56, page 45, combines Broadview's finding for Magnitude with FRAWT's reworking of the Broadview results i.e. Combined Landscape and Visual Sensitivity (Document 57 page 42) and compares this to FRAWT's Visual Resource. In this table, rather than introduce a numerical value to highlight the difference, FRAWT use + symbol for "fine tuning". Moreover, Broadview's FEI does not assess close views from the edge of site i.e. The Old Salt Road. Here, based on FRAWT's methodology, the Sensitivity of the Visual Resource would be Medium-Medium/High. Given the close proximity of the turbines to the road and the fact that it runs between the turbines, magnitude would be Very Substantial. This would equate to a significance of effect of Major+.

- 7.50 Significance should not be regarded as simply a matter of rising above or falling below a notional threshold. Impacts should not be discounted just because they may fall below the threshold, and need not be given extra weight if they rise considerably above it. The threshold exists to provide a fixed point in a spectrum at and above which impacts should be considered independently significant. Proportionately greater weight should be attached to those rising above, while those falling below should also be given some weight, diminishing according to their position in the spectrum.
- 7.51 In terms of significance Broadview's FEI viewpoint findings are not apparently dissimilar to those in FRAWT's assessment. Rather than the 9 of the 25 viewpoints, found by Broadview to be above the nominal threshold of Moderate/Major, FRAWT assess there to be 12 in the "Independently Significant" sector of the Table (Doc 57 page 48). However, as shown diagrammatically, and assisted by the use of the symbol "+" for fine-tuning, it can readily be seen that, in FRAWT's assessment, those 12 VPs occupy a position much higher up the table, demonstrating a greater level of impact. A similar pattern emerges in respect of those VPs that fall into the "Contributory Significant Effects" sector. As a result of the re-grading introduced in FEI following the deletion of Turbine 1, the difference between FRAWT's assessment and the FEI has widened. In the FEI, Broadview has reduced the magnitude of impact at 5 of the VPs closer to the deleted turbine, while FRAWT has only reduced the magnitude of impact at one.
- 7.52 Key features of the ES are that: it fails to record the striking landscape and visual sensitivity of the Burton Dassett Hills (VP 9), fails to record the close impacts as The Old Salt Road approaches and threads through the site and in general under-estimates impacts at both ends of the spectrum. Cumulatively, this results in a pervasive under-estimate of impact sufficient to refute Broadview's claim that the scheme is acceptable on the basis of the viewpoint assessment alone.

Cumulative Effects

- 7.53 The ES concludes that even if all other projects in its assessment were built there would be no merging of impact and each would have its own independent area of impact. This is purely a static visual appraisal and takes no account of the incremental or sequential effect that would be created. Rather, there would be a pervasive incremental impact appreciated sequentially. The proximity of the proposal in scoping at Stoneton near Wormleighton would combine with this scheme such that the 2 individual windfarm landscapes would coalesce. However, FRAWT acknowledges that, given the stage these projects have reached in the process, only limited weight can be given to cumulative impacts. However, their existence suggests that the reasons for refusing consent here should be given greater emphasis, as there is no case that Starbold is the only opportunity in the surrounding area for contributing to the renewable energy need, and that subsequent applications could then be assessed on their merits.

Other Visual & Related Impacts on Receptors

Visual Amenity of Residential Receptors

- 7.54 The RVAS, where one would expect to find only the supporting detail rather than the resultant conclusions, reads: *"...The survey has also considered the potential for overbearing or unacceptable visual effects on living conditions. Taking the adverse stance, the survey concludes that in no case would the potential effect of the Starbold wind farm proposal be such as to give rise to turbines [sic] which would be "... present in such numbers, size and proximity that they represent an unpleasantly overwhelming and unavoidable presence in the main views from a house or garden" and thereby convert any property into an "unpleasant or unattractive place to live" as set out in the threshold of acceptability as defined by Inspector Lavender..."*
- 7.55 The RVAS applies a very severe and explicit variant of The Lavender Test, and concludes that no property fails it. However, this conclusion is not repeated in the main body of the ES which simply states that: *"All of the 16 dwellings within a 1km radius would experience significant major or major/moderate visual effects which are assumed to be adverse"* (CD12.2C page 108). This is a conventional EIA test and FRAWT does not disagree.
- 7.56 Document 53 and Document 57 pages 53 to 55 identifies the properties FRAWT considers to be affected by the scheme. The first part of the Tables contain the material set out within the ES for those dwellings it considers as candidates for passing or failing The Lavender Test within a radius of 900m. The second part contains those properties described in rather less detail in the ES at up to the 1km radius. FRAWT adds own reasoning, indicating dwellings which fail the visual impact part of The Lavender test. The final Table presents the results of the FRAWT's reconnaissance survey beyond 1km radius. These Tables taken together are FRAWT's assessment of the visual effects from residential properties that should be considered as part of the proposal's overall environmental impacts on residential receptors.

Comparative and Additional Assessments of Magnitude

- 7.57 Given that receptor Sensitivity is High in all cases, comparisons between the FRAWT and Broadview assessments are shown only for Magnitude of effect to give a Significance level. FRAWT's assessments reflect both curtilage and property views, ES information and surveys. For the dwellings within 900m FRAWT agrees with the ES conclusions for 13 of its 16 core properties assessed, and records greater impacts at the Substantial/Very Substantial level for 3 dwellings, Lower Spring Farm, Trotters and Meadow Farm/Bungalow Farm. These dwellings fail The Lavender Test on visual grounds. Although the ES finds that all the dwellings it assesses pass the test, this is in the context that its ES has no category higher than Substantial, which clearly compromises its ability to reach such a conclusion.

Effects on the Character of Settlements

- 7.58 FRAWT generally agrees with Broadview's assessments. At Knightcote, turbines would be visible entering and leaving from the open roads and the effect would be Moderate-Major as turbines would be visible entering and

leaving from open roads. At Northend, views would be focussed down the broad axis of Bottom Street with an overall Moderate-Major effect. Other than on the southern fringes, large parts of Bishop's Itchington would have no views where the overall effect would be Moderate. FRAWT accepts that whilst the impact on settlements beyond 5k is of little specific reference it would single out Kinton, where effects would be encountered from the upper fringes of the village; and Wormleighton, where partly-filtered views from some individual properties should be noted. In neither case, however, would there be impacts affecting the character of the settlements.

Motorists and Other Road Users

- 7.59 FRAWT agrees with much of Broadview's assessment (CD12.2C paragraph 7.11.3). However, given the differing sensitivity of users and the fact that not in every case does it offer an assessment of effects, Document 57 page 57 summarises FRAWT's its assessment of Sensitivity, Magnitude and Significance where impacts should be considered in terms of progressive significance. In the case of the M40, shown to have a Medium Sensitivity and Moderate Magnitude some explanation of Sensitivity is required. The intrinsically lower sensitivity of commercial users in particular, is partially offset by the clear visibility from elevated sections and the greater sensitivity of other users. The resultant Medium sensitivity on the M40 is still lower than that suited to users of most other rural roads other than fast trunk roads. Magnitude has to reflect the speed of traffic and shortened viewing exposure, but is tempered by the large number of users.
- 7.60 In relation to the minor routes such as The Old Salt Road, and the routes to Northend and Gaydon, the level of Sensitivity of Receptors would be Medium/High and Magnitude would be Very Substantial for The Old Salt Road and Substantial for the other 2, resulting in a Significance level of Major-Major/Extreme for The Old Salt Road and Moderate/Major-Major for the rest.

Shadow Throw

- 7.61 Predicted Shadow Flicker (CD12.2F Appendix I Figure 14.1), would correspond to Shadow Throw on the ground and would extend for 2.5km along the length of The Old Salt Road. The importance and reality of this impact may be appreciated from Broadview's Low Spinney development, where the same phenomenon exists on the road from Gilmorton to Ashby Magna (Document 59 Appendix J). Sweeping and irregularly-moving shadows were readily apparent moving along the road surface in summer 2011. Allowing for greater sensitivity of horse-riders, and the distance for which impacts could endure, the effects are Major/Extreme, the most severe combination produced by the proposal.

Railway Passengers

- 7.62 The section of railway affected would be some 5.5km long. Parts are elevated on embankments and train passengers sit higher in the carriages than their equivalent in a car. Sensitivity would be Medium/High, Magnitude would be Moderate/Substantial, resulting in a Moderate/Major Significance.

Recreation Route Receptors

- 7.63 FRAWT endorses Broadview's recognition that *"Outdoor recreation and enjoyment of the landscape are important pursuits in the study area, and are relevant to the tourist industry which is important to the economic prosperity of the parts of Warwickshire, Oxfordshire, Gloucestershire and Northamptonshire over which the study area extends"* (CD12.2C). On the Centenary Way the magnitude of effect would Moderate-Substantial and in parts locally substantial. On the Macmillan Way, the impact would be Locally Moderate. On the Oxford Canal Walk and the Grand Union Canal Walk, impacts would be Moderate-Major and Minor-Moderate respectively. On the Jurassic Way impact would be Minor Moderate. On the extensive local network around Christmas Hill the impact would be Moderate/Major-Major.

Burton Dassett Country Park

- 7.64 Although Broadview recognises the CP as a regionally important recreational asset it dilutes the magnitude of views by reference to the wide panorama in which the turbines would be seen. In a view of this nature, this is a misconception because it is the breadth of the view that contributes to its appeal. Were the turbines not such a discordant vertical feature, they could in part be lost or absorbed in the view. However, as evident from VP 9 their discordance is a factor in their magnitude. The claimed diluting effect of the M40 is another misconception. The road is seen as a thin linear feature that, while incongruous, lacks the vertical contrast and type of aerial movement provided by the turbines. FRAWT do not agree with the magnitude as Moderate/Substantial from the northern end of the CP, which is the natural focus of most views. Magnitude is certainly Substantial and receptors are greater than the typical High sensitivity accorded to footpath users. Here, Receptor Sensitivity is High/Very High and the effects from this important and iconic location should be considered as Major-Major-Extreme and represent the single most important adverse impact of this ill-sited proposal.

Noise

- 7.65 Sleep is critical to our wellbeing and contributes to good health. The forward of the World Health Organisation (WHO) Night Noise Guidelines for Europe – Wind Energy Impacts and Issues defines health as *"a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity, and recognises the enjoyment of the highest attainable standard of health as one of the fundamental rights of every human being. Environmental noise is a threat to public health, having negative impacts on human health and well-being"* (CD8.33).
- 7.66 The WHO report concludes that noise and health are inextricably linked and makes comments when considering night time noise: At levels between 30 to 40dB, the report notes, *"A number of effects on sleep are observed from this range...The intensity of the effect depends on the nature of the source and the number of events. Vulnerable groups (for example children, the chronically ill and the elderly) are more susceptible."* Whilst it says that these effects are, at worst, modest, in the range of 40 to 55dB the evidence is that, *"Adverse health effects are observed among the exposed population. Many people have to adapt their lives to cope with the noise at night."*

- 7.67 The WHO guide summarises that "... 40 dB should be the target of the night noise guideline (NNG) to protect the public, including the most vulnerable groups such as children, the chronically ill and the elderly. A night outside value of 55 dB is recommended as an interim target for the countries where the NNG cannot be achieved in the short term for various reasons, and where policy-makers choose to adopt a stepwise approach. These guidelines are applicable to the Member States of the European Region." (CD8.33). In this context the ES misquotes WHO and is misleading CD12.2D Appendix G paragraph 2.5.11).
- 7.68 The WHO makes reference to the ideal noise level at the ear of 21dB and the *attenuation* from outside to inside of the "*slightly opened*" window at 15dB which supports the general view that an external noise of 36dB with the window slightly open would meet all criterion. However the caveat regarding the level and frequency of noise events recorded in the report with the comment on page 105 needs to be noted which states, "A recent study suggests that high background levels (motorways) with low numbers of separate events can cause high levels of motility". This would be equally applicable to wind turbines, when operating, that have a near continuous contribution to the background noise level.
- 7.69 Wind farm noise is assessed using ETSU and described as "a framework for the measurement of wind farm noise and gives indicative noise levels thought to offer a reasonable degree of protection to wind farm neighbours, without placing unreasonable restrictions on wind farm developers or adding unduly to the costs and administrative burdens on wind farm developers or local authorities." (CD8.11). ETSU was arrived at by negotiation and compromise and neither replaces Government Guidance nor British Standard BS 4142:1997, which is a technical means of assessing whether complaints are likely and is relevant in court when considering whether or not a nuisance exists. Both methodologies are not without shortcomings and have been the subject of professional criticism.
- 7.70 ETSU discounts the use of BS 4142 due to its limitations, i.e. it is intended for urban settings, it precludes situations where background noise is less than 30dBA and wind speeds exceed 5m/s but does not dismiss its relevance entirely. Nevertheless, comparable outputs from each methodology produce dramatically different conclusions largely due to the mean regression used in the ETSU methodology and blanket addition of 5dB or adoption of the 43dBA night time level. The essence of this comparison highlights that the ETSU methodology agenda is demonstrably first and foremost in the interests of developers and not in the avoidance of likely complaints.
- 7.71 This agenda is further highlighted by the various ETSU supplementary statements quoted throughout the application documents. This typically is, "the planning system must therefore seek to control the environmental impacts from a wind farm whilst at the same time recognising the national and global benefits that would arise through the development of renewable energy sources and not be so severe that wind farm development is unduly stifled". Reading this, one might imagine that the ETSU methodology was indeed adopted planning guidance. NPS EN-3 and PPG refer to use of the ETSU-R-97 methodology (CD6.2). However, it should be noted that NPS EN-

- 3 was specifically designed for proposals greater than 50MW. And the ETSU methodology provides for more generous noise levels than BS 4142.
- 7.72 The 2010 DECC analysis of the application of ETSU by developers and Ipas concluded that the methodology was inconsistently applied and recommended better guidance on best practice. This has led to the recently published and adopted IoA Good Practice Guide May 2013 (CD8.13) which states. *"...the noise limits in ETSU-R-97 have not been examined as these are matters for Government"* and that *"assessing these factors (limits and thresholds) do not represent an acoustic consideration but ultimately a planning consideration, and therefore difficult for noise consultants to fully determine."* Significantly, in PPG, the IoA report is recognised as current industry good practice and endorsed as a supplement to ETSU.
- 7.73 The original ES noise assessment data analysis for the upper and lower limits at the 7 receptors for day and night conditions is set out at Appendix G, Table 5.3. In the September 2012 FEI appendix a similar table is published for the downwind conditions. The assumption would seem that the downwind condition is the worst case scenario although comparing the published upper and lower limits the worst case lower limits have increased in all but one case 4 of which are significant increases. The upper day limits have varied less with 4 readings remaining the same and 3 decreasing slightly. This would indicate that none of the excluded (filtered) downwind readings had a general reducing trend of the overall noise spectrum. There are more instances of less background noise on a 360 degree assessment than the narrower downwind figures.
- 7.74 These readings would have little or no bearing on the night time criterion in accordance with ETSU which simply reverts to 43dB for all figures less than 43dB. It is of interest, but again no bearing, that the more recent regression analysis appears to be shown as straight line and not polynomial as recommended by the IoA which would have a tendency to reduce the mean noise at lower air speeds.
- 7.75 The use of this limited statistical analysis naturally discounts the greater than 50% number of occasions when the background noise is less than the calculated mean. With predicted turbine noise levels at 35 to 40dBA at 5m/s normalised at 10m height there would be a significant number of occasions when the turbine noise at the receptor exceeds the background noise and, being of consistent level lacking in noise events, will be more intrusive than the existing background noise spectrum. It is noteworthy that the 4 turbine noise sources have a mean sound power in excess of 100dB and would have an additive impact similar to at least one combine harvester, which can be heard working through the night in harvest weather, which, although it keeps residents awake, the duration is finite and is tolerable.
- 7.76 Tolerance to noise is a function of physiology, age, health and expectation. Local residents and surrounding dwellings have sought to live their lives by purchasing property in this tranquil rural setting and have a rightful and even lawful expectation consistent with its rural setting. The statement that the calculated outcomes are satisfactory in the context of a weighted methodology represents an unacceptable risk to those with the largest stake. The argument so far has concerned the residential amenity of the operational

aspect with particular regard to night time. However, no consideration has been offered in respect of the amenity in proximity to the proposed development and the noise levels created by the operation and construction to the enjoyment of the paths and surrounding countryside and lanes.

- 7.77 The Coalition adopts the compelling noise evidence presented by the Ipa, who uses widely available basic mathematical modelling to predict the prospect of EAM and then confirms this by actual measurements which confirmed the robustness of the predicted outcome. The existence of AM at all wind turbines is not in question, but the phenomenon of EAM has been dismissed as spurious largely due to the uncertainty over conditions of propagation. However, uncertainty in scientific circles is not acceptable and until consensus is achieved the argument can be sustained. This is no different to the uncertainty over climate change and rates of change.
- 7.78 The Ipa's noise witness presented new field evidence adding flesh to the theoretical frame. In the absence of any contrary evidence from Broadview, the 100% test record the Ipa's witness presented cannot be ignored. The adverse effects of EAM on Knightcote, and surrounding settlements resulting of the predominant south-westerly winds would be unimaginable.

Archaeology and Cultural Heritage (Docs 59 & 60)

- 7.79 The Burton Dassett outcrop is one of the most historically sensitive skylines in Warwickshire. When seen from the north, particularly from The Old Salt Road³¹ there is, in terms of scale and separation, a comfortable human and visual relationship with the landscape. This view contains the visible chronology of a rich history stretching back over 2,000 years. The discernable features include Grendenton Hill - a listed Iron Age hill fort; Harts Hill - an earthwork with rampart; Pleasant Hill - the site of an Anglo Saxon warrior burial ground; historic ridge and furrow pastures and the Beacon Tower - a former mill (Doc 60 Figure 1). Whilst the turbines would not result in direct physical damage to these features, the size and movement of the blades would harm their setting and significance and the ability to read and enjoy these landscape features.
- 7.80 The site is within an area of historic ridge and furrow permanent pasture. Although recent farming activity on the site has removed these features, the Warwickshire Landscape Guidelines (CD7.11) highlights the need to conserve such landscapes. Set either side of The Old Salt Road, the turbines would be incongruous and dominating features that would adversely affect its setting, historic context and significance.
- 7.81 From the south, the turbines would be seen either side of the Beacon Tower, the only surviving secular building of the former settlement of Chipping Dassett, and All Saints Parish Church at Burton Dassett, a Grade 1 Listed Building. The Parish Church standing almost alone on the hills and known locally as "The Cathedral on the Hills" is regarded as one of the finest churches in South Warwickshire and makes a unique and significant contribution to the landscape of the area. Both buildings are signposts to the long history of the hills and their significance and setting would be harmed.

³¹ A historic east/west Anglo Saxon salt route.

Equine Issues

- 7.82 There are several equestrian and livery businesses in the area. In winter, when trotting and fast riding on the heavy clay soils is almost impossible, riders need to use local roads. The B4451, Bishop's Itchington to Gaydon Road, is a main route to and from Junction 12 on the M40 and is a very busy road making it unsuitable for the majority of riders. A Warwickshire County Council survey identified that between 06:00 and 10:00 hours there were on average 4.7 vehicles per minute using this road and vehicles generally exceeded the speed limit (Doc 63 paragraph 1.4 & Appendix A). The Old Salt Road, which provides access to the long distance Centenary Way Bridleway, is one of the few tarmac roads free from high levels of traffic and is used regularly by professional and amateur riders.
- 7.83 Horses taken on The Old Salt Road may react adversely to shadows cast by the rotating blades, the visible movement of blades and noise from the blades and rotors. These concerns are supported by a 2012 BHS survey of riders' experiences (CD6.32). The BHS identified that nearly 30% of horses reacted adversely on approach to turbines and 22% of riders had difficulty controlling the reaction; there was a correlation between the increased severity of reaction of horses and proximity to turbines, particularly within 200m and most riders avoided turbines because of the risk.
- 7.84 As a starting point, the BHS recommends that a separation distance of 4 times the overall height of a turbine should be the target for National Trails and Ride UK routes; and a distance of 3 times overall height from all other routes, including roads, with 200m should be the minimum. That a road should be accorded the same treatment as bridleways and trails is confirmed by a 2009 appeal decision³² where the Inspector said: *"The position with regard to equestrian interests is not, however, entirely a visual one, because matters of public safety and business interests also arise. To my mind the Companion Guide must logically extend to any route used by horses where riders and their mounts might be endangered by the presence of turbines, so I include the local roads... in this as well as "permissive routes" made available by private land owners and which riders and the public in general are thus able to use."*
- 7.85 Whilst there are no bridleways within 600m of the turbines, the separation distance to The Old Salt Road would be between 130m and 150m. With such limited separation horses and riders and their horse would be at severe risk of injury if the horse was spooked by the rotation of the turbines. Whilst some horses may get used to turbines, it is only when they live close to and amongst them on an almost permanent basis. Moreover, many of the yards that use The Old Salt Road would not be that close to the turbines that the horses would get used to them.
- 7.86 The separate submissions made by Spring Paddocks Equine are fully supported and endorsed by BIPC (paragraphs 8.1 to 8.23).

³² APP/L2630/A/08/2084443

Project Benefits

- 7.87 Electricity production and the potential displacement of CO² are material considerations. However, their contribution has to be correctly calculated before they can be offset against any harm. Paragraph 38 of the 2013 Practice Guidance³³, notes that the energy contribution made by a proposal is useful information when a decision is finely balanced. In this case, the energy contribution in terms of MWh per annum, the number of homes theoretically served and levels of CO² displacement set out in the FEI over-estimate the benefits of the scheme.
- 7.88 Here, at some 6.2m/s wind speeds are low and represent a sub-marginal resource. A 2.5MW turbine with a load factor of 25% would provide some 17,958MWh of electricity per annum. Based on this, the FEI estimate of an energy contribution of between 21,235MWh and 23,126MWh per annum and CO² reductions of 9,131 to 9,944 tones per annum are over estimates of some 18 to 29%³⁴ (Doc 57 paragraphs 2.3.8 & 2.3.9). Moreover, if the more realistic DECC West Midlands regional load factor of 14.5% is used, the estimates provided by Broadview appear even more significantly exaggerated (Doc 62 paragraph 1.10 & CD6.32).
- 7.89 As to the theoretical number of homes served, the FEI uses a figure of 3,300KWh per annum referred to as the RenewableUK recommended figure for average UK household electricity consumption. On this basis Broadview estimates the scheme would meet the approximate domestic needs of between 6,435 and 7,007 average households. However, 3,300KWh is a median figure not an average figure and is substantially below the estimated average domestic consumption of 5,186KWh for Stratford-on-Avon in 2011 produced by DEEC (Doc 58 Appendix C & CD6.32). If this, more realistic, local figure is used the number of dwellings theoretically served is exaggerated by some 111%.

Other Issues

- 7.90 As a general concern, BIPC consider that Broadview failed to carry out appropriate public consultation or engage in meaningful dialogue with objectors and Parish Councils (Doc 61 Section 2). Whilst public meetings were held in Knightcote, population 170, and despite a request by BIPC for a meeting in the larger village of Bishop's Itchington, population 1,322, no response was forthcoming and no meetings were held. No public meetings were held in the nearby Parishes of Fenny Compton and Gaydon. Moreover, Broadview's refusal to undertake assessments on several residential properties and its preparation of some appeal documents before the Ipa had made its decision demonstrates a reluctance to engage properly with community and its elected representatives.
- 7.91 The appeal site and surrounding land was part of a Countryside Stewardship Scheme grant because of, and to enhance, its biodiversity. However, there is concern that agricultural activity on the site prior to the ES being prepared resulted in its temporary ecological impoverishment which may be reflected

³³ The 2013 PPG has been superseded by the publication on 6 March 2014 of the on-line Planning Practice Guidance.

³⁴ Inspector's Note. These figures have been rounded to the nearest whole number.

in the biodiversity surveys, which gives a false impression of the biodiversity of the site.

- 7.92 The Framework is the core guidance underpinning national and local planning policy. It refers in the ministerial foreword to sustainable development being about *"change for the better"* and *"planning must be a creative exercise in finding ways to enhance and improve the places in which we live our lives; this should be a collective enterprise"*. It goes on to suggest that achieving this should *"reflect the community's needs and supporting its health, social and cultural wellbeing; contributing to protecting and enhancing our natural, built and historic environment"*.
- 7.93 The Framework core planning principles include:
- empowering local people to shape their surroundings;
 - take account of the differing roles and character of different area,
 - recognising the intrinsic character and beauty of the countryside and supporting thriving rural communities within it;
 - Conserve heritage assets in a manner appropriate to their significance, so that they can be enjoyed for their contribution to the quality of life of this and future generations;
 - take account of and support local strategies to improve health, social and cultural wellbeing for all;
 - create jobs and prosperity.
- 7.94 In promoting healthy communities engagement, involvement and communication is embodied in the statements that the objective should be to:
- Create a shared vision with communities and that local Planning Authorities should aim to involve all sections of the community in the development of local plans and in planning decisions;
 - Local communities through local and neighbourhood plans should be able to identify, for special protection, green areas of particular importance to them, protecting and enhancing valued landscapes; the aim should be to minimise pollution and other adverse effects on the local natural environment;
 - Planning policy decisions should aim to avoid noise from giving rise to significant adverse impacts on health and quality of life as a result of new development.
- 7.95 This scheme is clearly contrary to: LP Policies PR.6 and PR.1; emerging CS Policy CS1 and the objectives of the Framework. Moreover, the scheme conflicts with local public opinion that are the primary stakeholders in this landscape and the amenity in which they have invested and enjoy. The risks to health and welfare of people are all too apparent and assessment by statistical probability ignores the cumulative impact of the visual, acoustic and mass intrusion into their space.
- 7.96 PPG clearly states that there is no quota of low carbon energy which a local plan has to deliver and that a Landscape Character Assessment will assist in assessing appropriate technology for a location. PPG states that calculation of a Capacity Factor for wind turbines in a particular location will also assist in

considering their potential energy output. Given the importance of the Feldon landscape character and the typical South Warwickshire/West Midlands Capacity Factor of less than 20%, it would seem clear that the proposed wind farm is the wrong technology in the wrong location and has no local support.

8 The Cases for Interested Persons

- 8.1. *Mr Brook* is a director of and the principal veterinary surgeon at Spring Paddocks Equine, an equine practice with an active client list of some 6,462 with some 26,665 horses (Doc 66). Spring Paddocks is also Mr Brook's home. Habitable rooms and external amenity areas face the site and would be subject to unacceptable visual impact and noise. The Practice employs 6 veterinary surgeons, 4 office staff, 2 stable-hands and 2 part-time helpers and is the largest employer in the Parish of Bishops Itchington.
- 8.2. Located in the north-eastern corner of the property, the clinic has full diagnostic facilities (radiography, ultrasonography and endoscopy); a laboratory; an operating theatre; a recovery box, obstetrics area/stocks, providing intensive and standard nursing facilities. On the south-western boundary is a grassed area used to despatch horses that are beyond treatment. In addition there are several paddocks for grazing/exercise and a dedicated trot-up track and circle for gait analysis.
- 8.3. A horse is an unpredictable animal and abnormal sights or sounds can cause it to behave in a dangerous and unpredictable way. It is not unknown for a horse that has seen or experienced a situation on a daily basis without any problem to suddenly experience the "fear and flight response". Most of the horses treated by the Practice are very fit, highly strung and unpredictable competition horses. They arrive injured and in an already highly stressed state. Weighing on average some 500kg, they are a significant risk to their handlers and themselves. The Practice has experience of situations where members of staff have been injured.
- 8.4. The turbines would be located just over a 1km to the south-east of where horses are unloaded and enter the clinic (Doc 66 Appendix C). The configuration of the yard/clinic is such that the position of these areas cannot be changed. Any sight or sound that these horses have not experienced before would significantly increase the risk of injury, putting the horse and the handlers in an unacceptable situation and placing the veterinary surgeon, responsible for all health and safety aspects of a horse's treatment, in an indefensible position. The Practice's Health and Safety Consultants have advised that the siting of these turbines would increase the risk of harm to the staff and their clients (Doc 66 Appendix D).
- 8.5. Horses admitted for lameness assessment and diagnosis are walked and trotted up the trot-up track and circle, both of which would be in direct line of sight of the rotating blades. As the veterinary surgeon is constantly assessing for subtle abnormalities anything that alarms the animal would make assessment impossible. Horses admitted for several days, as well as the family horses, need regular ridden exercise. The Old Salt Road is the only access to the various bridleways to the south-west. This lane passes between turbines whose fall-over distance is less than the BHS recommended 3 times the overall height of the turbines. During autumn, winter and spring the roadside foliage would not screen parts of the turbines and in the summer the blades would still be visible. Winter also has the added problem that the sun's declination is at its lowest angle so reflected light would exacerbate the situation and sound would not be insulated by the reduced foliage.

- 8.6. The turbines would have a direct adverse effect on the viability of the business. Any accident which could, in any way, be attributed to the presence of turbines would be followed by litigation and bad publicity. Those clients who know about the proposal already have a perception of the potential risks and would take action to avoid them by taking their horse elsewhere. These include the Clinic's high profile clients who have very valuable horses (Doc 66 Appendix D). A reduced client base and turnover would at best result in redundancies and at worst closure. Similar concerns have been raised elsewhere by experienced equine professionals (Doc 66 Appendix E & CD 5.70).
- 8.7. *Mr Chaddock* (Doc 67) and the *Stratford-on-Avon Friends of the Earth* (Doc 68) highlighted: the general scientific consensus that the consumption of fossil fuels is a major contributor to climate change, that climate change will have widespread and serious effects globally and that these effects can be mitigated by the increased exploitation of a mix of renewable energy resources/developments. Both highlighted that the environmental impact of a small wind farm would be temporary and minimal in terms of its land take compared to other forms of energy generation.
- 8.8. *The Campaign to Protect Rural England – Warwickshire Branch* consider that the turbines would significantly harm an exceptionally beautiful area of countryside and the setting of several HAs contrary to the objectives of LP Policies, DEV.1, PR.1, PR.6, and CTY.1; draft CS Policies, CS.2, CS.8, CS.9 and CS.13 and paragraphs 17, 28 and 109 of the Framework (Doc 69). The turbines would rise above the well used Burton Dassett Hills and CP, damaging views to the north across the tranquil Feldon Vale and dominate local villages. The site is located within an historic landscape and would harm the settings of: The Beacon, Iron Age Forts on Grendenton and Nadbury Hills and the Grade 1 Listed Parish Churches of All Saints at Burton Dassett and St Peter at Wormleighton. The harm to the landscape and HAs would make the area less attractive harming the local tourist industry.
- 8.9. *Mr Smith* owns Northend Farm which occupies land between the Burton Dassett Hills and the site. The turbines would be visible, obtrusive and within topple-over distance of his land. The M40 was put in a cutting to minimise its impact on the landscape whereas the turbines would be obtrusive and visible from a substantial area, particularly the CP.
- 8.10. *Mr Kirk* and his neighbour, *Mrs Horne*, object to the proposal on the grounds that it would unacceptably affect views across the Feldon Vale from the elevated properties and public footpaths on Christmas Hill and the ruin tranquil rural character of the area (Doc 70). Access tracks to the turbines would be prominent and scar the landscape. The Old Salt Road would be a dangerous and inadequate access to such a substantial development.
- 8.11. *Mr Tuffrey* lives on the edge of Knightcote and the nearest turbines would be some 900m from his property. The turbines would be seen and heard from the main living and bedrooms on the rear of the property dominating and destroying the setting and enjoyment of his home and garden as well as significantly devaluing the property (Doc 71). A substantial number of residents of Knightcote and surrounding villages have objected and to allow the development would be inconsistent with Localism.

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- 8.12. *Mr Burgess* occupies Trotters; located some 807m and 761m from the turbines. Panoramic views of the Burton Dassett Hills are obtained from most rooms and the garden. His quality of life, the right to a peaceful existence and the value of the house would be devastated by the development. The concrete foundations and roadways coupled with the loss of hedgerows would have an adverse effect on wildlife and exacerbate flooding.
- 8.13. *Mrs Houlder* occupies Lower Spring Farmhouse and estimates that the nearest turbine would be some 830m from the rear elevation of the property and some 789m from the garden boundary³⁵ (Doc 72). With micro-siting, this separation could be further reduced by some 30m. Mrs Houlder reiterated and supported the concerns raised regarding the adverse effect of the proposed turbines on equine businesses, recreational horse riding, the wider landscape, the CP, heritage/archaeological assets and the adverse impact of construction traffic on road safety. Based on concerns expressed by local Doctors, she highlighted that noise, AM and shadow flicker generated by the turbines would have a very severe and debilitating adverse effect on her health and those with particular medical conditions.
- 8.14. All 4 turbines would be visible on the approach to Lower Spring Farmhouse, all the principal living and bedrooms lit by floor to ceiling windows are located to the rear of the house and the rear boundary is formed by a low fence/hedgerow. Thus, there would be a constant awareness of and direct and uninterrupted views of the turbines obtained from virtually every room. Family life and health would be so miserable and the effects so overbearing that they could no longer live in the property. This harm and that to the area as a whole is not outweighed by the limited renewable energy contribution.
- 8.15. *Mr Curtis* reiterated concerns about adverse landscape and visual impacts and public safety relating to crop fires arising from a turbine catching fire and ice or blade throw affecting users of The Old Salt Road (Doc 73).
- 8.16. *Mrs Pearson* supported the objections raised by others and expressed concern about the inefficiency of the turbines given the low wind speeds prevalent in the Feldon Vale and the need to maintain back-up energy resources (Doc 74). She estimates the turbines would, at best, have an output of some 25% of their rated capacity and a carbon footprint payback period of about 3 years. Based on these factors, the benefits of productive energy would be at best about 3 years of the proposed 25-year lifespan of the turbines. This very limited contribution of renewable energy would not outweigh the harm to the local economy and the landscape and visual impact.
- 8.17. *Mr Ellis* acknowledges the need for renewable energy developments but suggests that the site selection process is inadequate and there are more credible alternative sources that can make a contribution (Doc 75). He identifies that when deciding on the suitability of a site the public need for renewable energy has to be balanced against any negative impacts. Part of considering suitability should include the amount of energy that can be generated. Here, the wind resource is marginal and the amount of energy generated would not outweigh the significant adverse effects this

³⁵ The Residential Visual Amenity Survey & Assessment carried out for the ES estimates the separation to the rear elevation at 831m and to the curtilage boundary as 791m.

development would have on the local environment and residents. Positioning large and abnormal structures close to Junction 12 of the M40, where existing planned expansion of the Jaguar Land Rover factory will increase traffic flows would introduce a significant additional risk to highway safety. The Old Salt Road has a history of closure through flooding, which could be exacerbated by the impact of extensive concrete foundations on the flood plain.

- 8.18. *Mr Wood* submits that the scheme would destroy the landscape and tranquillity of the Feldon Vale, particularly the popular and attractive views to and from the Burton Dassett Hills, the Beacon and the AONB scarp slopes (Doc 76). The Parish Councils, the Ipa and the majority of residents in surrounding villages oppose this scheme which, given recent Government advice, must attract substantial weight (Doc 75 Appendices 1 & 2).
- 8.19. The visualisations significantly under-estimate the visual impact the turbines would have on the landscape and residents' living conditions (Doc 75 Appendix 3). Turbine noise particularly AM exacerbated by the natural amphitheatre of the Feldon Vale, and shadow flicker would adversely effect residents. These adverse impacts would unacceptably reduce the quality of life that residents enjoy, have an adverse effect on their health and significantly reduce house prices in the wider area (Doc 75 Appendix 5).
- 8.20. The Royal Academy of Engineers and Dutch research suggests that turbines are inefficient and erratic, producing limited energy outputs and CO² reductions and they require back-up generation. Here, the wind resource is poor and the amount of renewable energy generated would not outweigh the significant and adverse harm to the area and residents (Doc 75 Appendix 4).
- 8.21. *Cllr Jackson*, member for the Burton Dassett Ward, submitted that this scheme would be an incongruous and alien feature in the flat, low lying landscape of the Feldon Vale (Doc 77). Some 150m of native hedgerow would be lost and the infrastructure required to support the development would cover 2ha of open countryside and farmland. With commissioning and decommissioning, the development would have a life of more than 25 years creating a wind farm landscape detrimental to the intrinsic character of the area that would not be outweighed by the purported benefits.
- 8.22. The scheme conflicts with the objectives of LP Policies PR1, PR6, DEV1 & EF1, which are all consistent with the Framework, and emerging CS, Policies CS2, CS6 and CS8 and CS9 and the reintroduction of a SLA incorporating the Feldon Parkland and Ironstone Hills extending to the Burton Dassett CP. National guidance, whilst supportive of renewable energy schemes, is not a licence to install turbines where the environment would be severely compromised, where there is a high level of public concern and where the benefits would be marginal. In this context, recent Ministerial Statement is highly relevant and must be afforded significant weight.
- 8.23. *Mr Kettle* owns Pipers Hill, and the equestrian business at Pipers Hill Farm (Doc 78). Built in 1909, Pipers Hill was designed by Harry Lakin, a student of Edward Lutyens, and the gardens designed by Thomas Mawson a leading practitioner of the emerging profession of Landscape Architecture. The house is built on an exposed promontory standing out from the front of the "Blue Lias" ridge and faces the Burton Hills with its focus on the Beacon. Pipers Hill Farm Cottages, to the south-west where the equestrian business is located

has a similar orientation. NE describe the landscape as "*a smaller-scale landscape following the Lias limestone ... it has a varied, undulating landform with a clearly defined pattern of smaller, geometric, well-hedged fields, creating a greater sense of enclosure. Views are often curtailed and longer views are usually framed by low hills and hedges*".

- 8.24. The siting and orientation of Pipers Hill and the gardens are arranged to maximise the impact of this special landscape. The views from Pipers Hill are channelled straight toward the Burton Dassett Hills and the AONB and into a natural amphitheatre framed by the hills around the Beacon, the AONB and the Gaydon and Weddington Hills to west and east. The perpetually moving turbines would be central to the view from every main room and puncturing the well defined skyline in front of the house.
- 8.25. There are extensive panoramic views from: the well used CP where some 60,000 visitors per annum enjoy superb panoramic views across the Warwickshire countryside, the AONB, the public footpath that traverses Christmas Hill from Bishops Itchington to Gaydon, the Blue Lias Ridge and from various houses including the Grade 2* listed Voysey Cottage in Bishops Itchington, Manor Farm, Elm Farm, Pipers Hill and Christmas Hill. There are no landscape features in front of these sites/buildings that would disguise the turbines and nothing could be done to mitigate the impact. The turbines would interrupt and detract from these views by placing tall, man made moving structures in the rural landscape. Contrary to what Broadview suggests, this area does not have a low population density. Combined with the topography the site and its immediate surroundings being a large amphitheatre, surrounded by settlements and farmhouses, the impact of the proposed application on the local population will be very significant, as the large number of local objections reflect.
- 8.26. Several Inspectors have indicated that although a useful tool, photomontages cannot reflect the movement of blades, which tend to draw the eye and that they can underestimate the size and scale of the actual structures in the landscape. Similar caution has to be applied when applying separation distances to individual properties and landscape impact. It is suggested that Pipers Hill passes the "Lavender Test" as it would be more than 800m from the turbines. However, in the North Dover appeal decision the Inspector said that 800m is a "*typical*" distance and was not a "*maximum*" (CD5.41). It is clear that the Inspector by using the word typical could not under any interpretation have meant maximum. It is the impact on an individual property that is relevant, a fact that other Inspectors have taken care to emphasise; distance can be immaterial. Similarly, in terms of landscape and visual effects and the effect on HAs, Inspectors have emphasised³⁶ that in assessing the impact, distance is not a restriction.
- 8.27. Pipers Hill has an established commercial equestrian enterprise comprising several stables, cross-country schooling facilities; a ménage and a horse-walker. Pipers Hill hosts Pony Club training rallies for children aged 6 to 14. These are riders at an early stage of their riding career and unfamiliar

³⁶ APP/R1038/A/09/2107667 and APP/P1045/A/09/2108037

features unsettle both horse and rider. A jockey's nervousness may often trigger a reaction in a pony or horse.

- 8.28. One of the activities at Pipers Hill is the breaking and backing of young horses. These horses come from a variety of backgrounds and are intended to become high performance competition horses. Horses stay for a short period of time and often it will be the first time they may have been away from their place of birth. The manège where most of the early work is done is in direct line of sight of the turbines. Breaking a horse can be dangerous and falls are inevitable. The presence of the turbines would place additional stress on these young horses increasing the risk to horse and rider.
- 8.29. During late autumn, winter and spring the wet heavy clay soils of the Feldon Vale makes anything other than walking exercise almost impossible. There are no local all-weather gallops or other off-road facilities for the daily work needed to get older competition horses fit. Because of heavy traffic flows the B4451 is heavily trafficked and unsafe; Pipers Hill and other local equestrian businesses use the remainder of the local road network on a daily basis to exercise horses and to allow younger horses to get used to roads. From Pipers Hill access to The Old Salt Road can be obtained from the farm and currently provides a circular route. Effectively, The Old Salt Road is an all-weather surface and a valuable local facility. In addition, The Old Salt Road also provides access to the Centenary Way, part of the National Riding Trail.
- 8.30. Horses may react adversely to shadows cast by the rotating blades, the visible movement of blades and noise from the blades and rotors. These concerns are supported by responses to a 2012 BHS survey of riders' experiences (CD6.32). This identified that nearly 30% of horses reacted adversely on approach to turbines and 22% of riders had difficulty controlling the reaction; there was a correlation between the increased severity of reaction of horses and proximity to turbines, particularly within 200m and the majority saw the risk as too great to continue riding in the vicinity.
- 8.31. The BHS recommends, as a starting point, a separation distance of 4 times the overall height should be the target for National Trails and Ride UK routes; and a distance of 3 times overall height from all other routes, including roads, with 200m being seen as the minimum. That a road should be accorded the same treatment as bridleways and trails is confirmed by a 2009 appeal decision³⁷ where the Inspector said: "*The position with regard to equestrian interests is not, however, entirely a visual one, because matters of public safety and business interests also arise. To my mind the Companion Guide must logically extend to any route used by horses where riders and their mounts might be endangered by the presence of turbines, so I include the local roads... in this as well as "permissive routes" made available by private land owners and which riders and the public in general are thus able to use.*"
- 8.32. The distance to the nearest turbine from The Old Salt Road at 130m would be much less than that of the separation to the off-road gallops referred in the Grise appeal report (CD5.70). This would create a situation where horses and riders would be put at severe risk of injury by horses being spooked by the

³⁷ APP/L2630/A/08/2084443

rotation of the turbines. These risks would deter local yards and recreational riders from using it and thus deprive them of a valuable local facility.

WRITTEN SUBMISSIONS

- 8.33. Twenty six individual written objections were submitted (Doc 80). These cover: a reduction in property values of between 20 and 50%; the effect of noise on living conditions and health; adverse landscape and visual impacts; shadow flicker and shadow throw; flooding on The Old Salt Road; traffic concerns; adverse effect on public safety including driver distraction, ice and blade throw; the impact on horse riders and equine businesses; the impact on wildlife and the fact that the serious harm the development would cause would not be outweighed by the limited amount of renewable energy generated from under-performing turbines located in a low wind speed area.
- 8.34. The planning officer's report (CD 12.3) refers to 1,459 letters of objection and 12 letters of support received in relation to the original application for 5 turbines and a further 97 letters of objection received when the application was amended to 4 turbines.

COTSWOLD CONSERVATION BOARD (Doc 79)

- 8.35. The AONB, whose statutory purpose is to conserve and enhance the natural beauty of the area, was designated in 1966 and extended in 1990 to include the area near to the appeal site (Doc 79 Appendix 1). The concept of Natural Beauty is not exhaustively defined in the legislation and a factor identified in published guidance contributing to landscape quality is scenic quality (Doc 79 Appendix 2). Thus, the conservation and enhancement of the scenic quality of the AONB is part of the purpose of designation. The AONB Management Plan 2013-18 identifies that one of the special qualities of the AONB is "*the Cotswolds escarpment, including views to and from it*" (Doc 79 Appendix 4). Therefore, the conservation and enhancement of the natural beauty of the AONB requires that views of the escarpment are not harmed. Introducing tall, vertical elements with moving rotor blades into views of the Cotswold escarpment would not conserve and enhance the landscape and scenic beauty of the AONB (Doc 79).
- 8.36. The part of the AONB in the vicinity of the site lies mainly within the Escarpment LCT whose component is the Edge Hill (2G) LCA (Doc 79 Appendices 6 & 7). This part of the AONB does have the character and appearance of the Cotswolds Escarpment, views of which are an identified special quality of the AONB to be conserved and enhanced.

Relevant Policies

- 8.37. In addition to Framework, NPSs and LP policy, the AONB Management Plan Policy LP1 indicates to ensure that "*the key characteristics, principal elements, and special qualities (including tranquillity), which form the natural beauty of the Cotswolds landscape are conserved and where possible enhanced.*" The Management Plan identifies "*the Cotswold escarpment, including views to and from it*" as a special quality of the AONB. Thus, there is both national and local planning policy support for the impact of a development proposal on views of the Cotswolds escarpment being a material

consideration in the determination of an application. This conclusion is reinforced by Inspectors' appeal decisions (Doc 79 Appendices 9 & 10).

Assessment

- 8.38. VP 1 shows the Cotswolds escarpment in the Edge Hill area forming part of the horizon together with the Burton Dassett Hills (which lie outside the AONB (Doc 79 Appendix 11). On the approach from the footpath to Bishops Itchington, the turbines would be seen breaking the skyline of the escarpment and as the path is walked, the interference by the turbines with views of the AONB scarp would become more pronounced. The turbines would be a discordant vertical feature in this predominantly horizontal landscape, including the skyline of the escarpment. The upper parts of the turbines and the rotating blades would appear to breach this skyline. Users of the public footpath would have their attention drawn to this view by the rotating blades where their scale would contrast adversely with the more static qualities of the landscape. As an AONB this landscape is of high value and footpath users would be highly susceptible to landscape change. The change caused by the introduction of these large, uncharacteristic and intrusive turbines would be highly adverse.
- 8.39. Broadview's VP 6 is to the east of VP 1 (Doc 79 Appendix 12). In VP 6, the AONB is less pronounced compared to the Burton Dassett Hills, and there is no assessment of the impact on the AONB. However, LVIA indicates that *"Footpath users and residents are considered to be of high sensitivity and the significance of the effect on visual amenity is considered to be major to major/moderate, which represents a significant effect."*

9. Conditions

- 9.1. Conditions 1 to 10 and 12 to 28 in Documents 8 and 33 contain the Suggested Conditions (SCs) agreed between by the lpa and Broadview.
- 9.2. Lpa SC 11 relates to the control of construction noise, SC 29 and SC 30 relate to turbine type and installed capacity and SCs 31 and 32 relating to operational turbine noise and AM (Doc 33). These are objected to by Broadview. I will return to the disputed conditions later.
- 9.3. Given the longer lead-in times generally associated with wind farm schemes in terms of obtaining approval of conditions precedent and obtaining the turbines, SC 1 amends the standard time limit for implementation of a full planning permission from 3 years to 5 years. Given that during the life of the application, the number of turbines was revised and reduced from 5 to 4, SC 2 ties the permission to the revised scheme. SC 3 provides that the development would have a lifespan of 25-year from the date of the first export of electricity to the grid. SCs 4 and 5 provide for removal of the turbines and restoration of the site after the 25 years or if any turbine fails to generate electricity for a continuous period of 9 months.
- 9.4. SCs 6, 7, 8 and 9 provide for the submission and approval prior to commencement of (a) details of the access to the B4452, (b) a Construction Traffic Management Plan relating to construction traffic routing, timing and control, (c) a Construction Method Statement and (d) a pre-commencement survey to identify potential damage to the highway network. SC 10 and 12 provide for the control of the timing of construction works and delivery vehicles.
- 9.5. SC 13 limits the total height of each turbine to 125m and the rotation of the blades. SCs 14 and 15 provide for prior approval of the colour and finish of the turbines, meteorological mast and transformer units, the dimensions and external finish of the electricity substation. SC 16 provides for all cabling within the site to be underground. SCs 17 and 18 provide for the submission and prior approval and implementation of a Biodiversity Mitigation Plan and an Environmental Enhancement and Management Plan.
- 9.6. SCs 19, 20 and 21 provide for the submission and prior approval and implementation of scheme to mitigate the impact of shadow flicker and mitigate the operation of the turbines on radio links and television reception. SC 22 provides for notification of the commencement of construction and completion of the development to NATs and the MOD. SC 23 provides for the fitting of MOD accredited warning lights on the turbines. SCs 24 and 25 provide for the submission, approval and implementation of a scheme to mitigate the impact of the scheme on the operation of Coventry Airport. SCs 26 and 27 provide for the submission, approval and implementation of schemes for archaeological investigation and mitigation of the impact of the development on known remains. SC 28 provides for a micro-siting allowance of 30m.
- 9.7. The lpa submits that SC 11 which seeks to control construction noise is necessary in the interests of protecting residential amenity and reflects good practice contained in British Standard advice. Broadview submits that a

specific condition relating to construction noise was unnecessary as this matter could be controlled under other legislation.

- 9.8. Lpa SC 29 seeks a condition requiring the submission of details for approval of the make, model, dimensions, and micrositing of the proposed turbines and in particular the turbine operational settings which would include, where available, an example of the Supervisory Control and Data Acquisition (SCADA) settings. The lpa submit that precise details of the make and model are necessary because of variations in the noise characteristics between different models albeit they may have the same power output. Similarly, SCADA information is necessary because different turbine models collect different information and have different settings. Knowledge of these settings and the information would be important in relation to potential enforcement if there were adverse impacts from operation of the turbines. Broadview consider this condition was unnecessary given that details of the turbines and micrositing were dealt with under other conditions, SCs 13, 14 and 28. As to SCADA data did not relate to a planning matter and would not serve a planning purpose. The control available to the lpa relates to a breach of the conditioned noise levels. Seeking prior approval of SCADA settings could provide the lpa with an unnecessary veto that could be used to prevent development.
- 9.9. Lpa SC 30 would limit each turbine to a maximum rated capacity of 2.05MW. This is suggested on the basis that this was the capacity of the turbine assessed. Whilst a larger capacity turbine could comply with the noise limits set by an operational noise condition, it could introduce changes that were not previously assessed and have different noise characteristics. Without this condition, the lpa would have no control over potential changes in noise character. Broadview pointed to Chapter 5 of the ES (CD12.2C) and the SOCG (CD14.1) both of which identify that the development applied for was for turbines with a maximum generating capacity of 2 to 3MW each.
- 9.10. SC31 is the lpa's suggested condition relating to the control of EAM. For the purposes of the condition, EAM is defined as a change in the measured $L_{Aeq, 100 \text{ milliseconds}}$ turbine noise level of more than 3dB (represented as a rise and fall in sound energy levels each of more than 3dB) occurring within a 2 second period. The change identified above shall not occur less than 5 times in any one minute period provided that the $L_{Aeq, 1 \text{ minute}}$ turbine sound energy level for that minute is not below 28dB and the changes identified above shall not occur for fewer than 6 minutes in any hour. The background to this SC, the lpa's reasons for the condition and Broadview's response has been rehearsed with their respective cases.
- 9.11. Lpa SC 32 relates to operational noise. Apart from minor differences in the wording of the guidance notes, the key differences between the parties relate to Tables 1 and 2, the day and night time noise immission levels. Table 1 sets immission levels between 07:00 and 23:00 hours for 7 properties. Of these, the proposed levels at 2, H1 - Lower Spring Farm and H7 - Knightcote are agreed. For the others, H2 - Upper Spring Farm, H4 - Lower Farm and H6 - Gaydon Fields Farm the lpa suggest reducing Broadview's proposed levels by 2dB and 3dB at H3 - Glebe Farm Bungalow and H5 - Bungalow Farm. The reductions are suggested on the basis that at properties H2 to H6 the noise monitoring locations were some distance from the property. The

IoA guidance indicates that the monitoring position should be within 20m of the dwelling, and no closer than 3.5m (CD8.13 paragraph 2.57). Experience would suggest that background noise levels nearer the dwelling would be 2 to 3dBa lower and as such levels proposed in lpa SC32 are proposed as a precautionary adjustment. (Doc 42 paragraphs 8.7 to 8.10).

- 9.12. For night time, the recommended levels allow up to 43dBa which is a sudden step change from the lower day time limit of 35dB to 43dB particularly at a time when residents are most likely to be attempting to go to sleep. The lpa suggest that ETSU never envisaged this sudden step change. Moreover, ETSU considers noise impact on a cumulative basis and applies the limit however many wind farms operate. Where a wind farm is permitted to generate noise to limits higher than predicted levels this would constrain any nearby development. Accordingly, it is reasonable to constrain emission levels closer to predicted levels thereby not restricting other developments (Doc 42 paragraphs 8.15 & 8.16). In light of the above factors, the lpa has suggested basing the night time limits on a threshold value of 38dB to reflect a 3dB reduction for cumulative capacity of other wind farms and 2dB lower to avoid the step change increases in noise. This approach would involve a reduction in Broadview's proposed immission levels by 1dBa to 5dBa, with the 5dBa reductions occurring at the lower wind speeds at dwellings H3 to H7.
- 9.13. In Broadview's submission, the noise assessment was carried out in accordance with ETSU guidance and best practice guidance. The background noise monitoring locations were selected, in conjunction with the lpa and the Environmental Health Officer, to obtain representative background noise levels. The noise assessment demonstrates that noise levels would fall within the relevant limits of acceptability for all locations, at all wind speeds and directions, at all times. Broadview's SC32 (Doc 8) is identical to those employed previously and which have been tested in the High Court. The lpa's tables relating to the noise condition is a subjective "pick and mix" exercise, reducing levels by applying differing grades of penalty wholly without support from any element of guidance or policy, he had purported to apply. The lpa's approach should be rejected; either the background noise assessment is reliable, which Broadview says it is and should be used or it is not and planning permission would ultimately have to be refused.

10. Inspector's Conclusions

The numbers in [] brackets refer to earlier paragraphs in this report or relevant documents.

Main Considerations

- 10.1. At the start of the Inquiry, the Ipa and Broadview agreed that matters relating to aviation safety, archaeology and telecommunications links could be addressed by imposing planning conditions [1.2]. Having reviewed the evidence submitted, I have no reason to disagree with those conclusions.
- 10.2. In light of the above and having regard to the potential for reversibility of the scheme, I consider the main considerations to address are:
- the effect on living conditions with particular reference to visual impact and noise;
 - the effect on HAs;
 - landscape and public visual impacts;
 - the effect on equine activities;
 - the planning balance.
- 10.3. Before dealing with the above considerations and noting the submissions made by The Coalition, I consider it appropriate to explain the role the photographs of the existing landscape context, the photomontages and wireframe drawings contained within the ES have played in my consideration of and conclusions on this scheme [CD 12.2H]. In using this material, I was conscious of the advice contained in the 3rd Edition of the GLVIA [CD7.3] and Scottish Natural Heritage guidance [CD7.9] that visualisations have technical limitations. Accordingly, whilst I consider the photographs and photomontages are of good quality and representative of potential views, I have used them only as an aide memoir to inform my site visits and subsequent appraisal of the merits of this scheme.

Living Conditions

Outlook

- 10.4. A Residential Amenity Survey, based on an appropriate methodology has been undertaken [7.2]. This study assessed the impact of the turbines on dwellings up to 2km and settlements up to and beyond 10km from the site and concludes that the turbines would have a significant visual effect albeit the magnitude of effect would decrease with distance.
- 10.5. Whilst in some situations the protection of private interests may coincide with the public interest, PPG³⁸ reiterates the long-standing tenet that the planning system does not exist to protect the private interests of one person against the activities of another. As recognised by NPS EN-3, the erection of four 125m high turbines would result in significant visual effects that would change the outlook of dwellings over an area extending up to several

³⁸ ID: 21b-008

kilometres. In this context, the identification of a significant change, or indeed a significant change in the outlook of a substantial number of dwellings, is not, on its own, necessarily harmful. Therefore, in deciding whether, in the public interest, there is a case to resist this scheme the assessment of the impact on residential visual amenity has gone beyond that of identifying significant impact in EIA terms.

- 10.6. The parties agree that the visual component of residential amenity should be assessed "in the round". This assessment takes into account factors such as: separation distance; orientation; the size and layout of the dwelling including internal circulation, division between primary and secondary rooms, garden and other amenity space; arc of view occupied by the turbines; views through the turbines and the availability of screening [5.82, 6.27, 6.28 & 7.27]. Once these factors are assessed, the question to answer is, would the presence of the turbines be so unpleasant, overwhelming and oppressive, that the dwelling would become an unacceptably unattractive place in which to live. Whilst this approach to engaging the public interest test is not formalised in NPPs, the Framework or PPG, it is one that has been adopted by the SoS, appellants, Ipas and Inspectors. In my view, it is an approach that strikes the right balance between the objective of ensuring adequate protection for communities and the deployment of renewable energy developments (5.14, 5.81, 6.27 & 6.28).
- 10.7. The visual amenity RfR refers to significant and unacceptable effects at 3 properties (Lower Spring Farm, Trotters and Meadow Farm), which the Ipa says would fail the public interest test. Both the Ipa and Broadview treat these as representative properties for engaging with the public interest test. Having viewed these dwellings and several others in the wider area, I consider it is reasonable to treat these as representative properties for undertaking the public interest test. Moreover, I agree with Broadview's submission that when viewed objectively, if any single property were to be rendered an unattractive place in which to live then that would be sufficient reason to dismiss the appeal and that no amount of benefits flowing from the wind farm would outweigh the harm [5.3].
- 10.8. Lower Spring Farm is a substantial 2-storey, modern detached house [Doc 37 Appendix 4]. All 4 turbines would be visible from the main habitable rooms located to the rear of the property, the full width patio and from most of the garden. The gap to the nearest turbine, T2, would be some 831m with the remaining 3 located at between 1km and 1.3km away (CD12.2H VP R1). I accept that this degree of separation would be consistent with other sites where turbines of a similar height have been permitted [5.83]. However, whilst degree of separation is an important determining factor, it is only one of several that have to be considered objectively "in the round".
- 10.9. All the ground floor rooms are served by floor to ceiling French Doors that open out on to the full-width patio and the first-floor bedrooms are served by large picture windows. In terms of the principal living rooms and the large kitchen/diner it appeared that the rooms were arranged to take advantage of the views out to the garden and beyond. In terms of the garden area, virtually all the garden is to the rear of the house with limited screening of the panoramic views towards the appeal site. In addition, most of the

approach to the house comprises a long, shared driveway from where all of the turbines would be visible over the roof.

- 10.10. The turbines would appear well spaced with the overall composition generally well balanced. However, with all of the views from the rear of the property taking in the broad sweep of the landscape and given the layout of the principal rooms, their orientation, the lack of screening and potential for introducing screening, I consider that, despite occupying a relatively small arc of the overall view, the turbines would appear unacceptably dominant and overbearing [6.34]. These adverse effects would be exacerbated by the rhythmic rotation of the blades which would occupy a significant area of sky, and would draw the occupiers' attention away from the wider landscape [6.37 & 7.7]. Given the nature of the access to the house and the layout of the rooms, there would be no opportunity for the occupiers to obtain relief from these adverse effects. Accordingly, I consider that in the views from Lower Spring Farm, the turbines would appear unpleasant, overwhelming and oppressive, which would unacceptably affect the living conditions of its occupiers. As a result this property would become an unacceptable and unattractive place in which to live.
- 10.11. Meadow Farm is a small bungalow set in a large plot to the east of the turbines. The degree of separation to the nearest turbine, T5, would be some 965m with the other 3 located between 1km and 1.4km away [Doc 37 Appendix 4]. All 4 turbines would be visible from the rear elevation and garden and to either side of the dwelling on the approach along the driveway. Given the limited screening along the rear garden boundary, the turbines would be visible from the principal habitable rooms on the rear/side of the property comprising an almost fully glazed conservatory, the living room with double, floor to ceiling French Doors and the master bedroom. Whilst there are rooms that would face away from the turbines these are rooms that are generally used less often i.e. kitchen, dining room and secondary bedroom (6.39). Moreover, it struck me that the principal rooms and garden were arranged to maximise the availability of sunlight and the aspect. Thus, whilst, in theory, occupiers of Meadow Farm would have an opportunity to mitigate the impact of the turbines through the rearrangement of their living accommodation, given the arrangement and nature of the rooms, in practice such an arrangement would reduce the attractiveness of Meadow Farm as a place to live.
- 10.12. At Meadow Farm, I consider that, despite occupying a relatively small arc of the overall view, the turbines would appear dominant and overbearing. This effect would be exacerbated by the extensive sweep and rhythmic rotation of the blades, which would draw the occupiers' attention away from the wider landscape and which, given the nature and layout of the dwelling, there would be little realistic opportunity for relief [6.37 & 7.7]. Taking all these matters into account, the occupiers of Meadow Farm would suffer a significant reduction in the quality of their living conditions where the turbines would appear unpleasant, overwhelming and oppressive and consequently this property would become an unacceptably unattractive place in which to live.
- 10.13. Trotters, is a large single-storey dwelling whose rear elevation and garden faces towards the appeal site. The windows to the rear elevation serve a kitchen and bedrooms. The gap to the nearest turbine, T2, would be 837m

with the other 3 located between 1km and 1.38km away [6.32]. The ES identifies the impact on Trotters to be significant. However, the occupiers do have the opportunity to use primary rooms where the turbines would not be in view, i.e. a living and dining room (6.39). Moreover, whilst the turbines would be seen on the approach along the shared driveway with Lower Spring Farm, the main door to the dwelling is off an enclosed courtyard where views of the turbines would be screened by the buildings. The common boundary with Lower Spring Farm is formed by a tall and substantial hedge that significantly filters views. Taking the above into account, it struck me that the garden of Trotters would be the area most affected by the presence of the turbines. Whilst the effect would be significant, I consider it would not be such that, taken in the round, Trotters would become an unacceptably unattractive place to live in.

- 10.14. My attention was also drawn to the impact that the turbines would have on dwellings on the side of Christmas Hill/Pipers Hill and on the western edge of Knightcote [8.10; 8.23-8.24]. The ES acknowledges that these residents would experience significant visual effects. However, in each of these cases, having visited many of the properties and carefully assessed their potential relationship with the turbines and their internal and external layouts, I conclude that the change would not be such as to make those dwellings unacceptable and unattractive places in which to live.

Shadow Flicker

- 10.15. The incidence of shadow flicker can be calculated with reasonable certainty and the turbine controls programmed to ensure that at the appropriate time they can be switched off thereby eliminating the problem. The ES includes an assessment of the potential for shadow flicker and significant effects were not predicted. I have no reason to disagree with that conclusion. Consistent with PPG advice, a planning condition is suggested and agreed which would provide for a shadow flicker protocol to govern the operation of the turbines at those times of the year when shadow flicker could occur. Similarly, problems with reflected light could be acceptably mitigated by the imposition of a condition relating to choice of blade colour and finish.

Noise

- 10.16. The Framework³⁹ says that the decision maker should aim to avoid noise resulting from new development giving rise to significant adverse impacts on health and quality of life and mitigate and reduce to a minimum other adverse impacts on health and quality of life arising from noise from new development, through, amongst other things, the use of planning conditions. The basis on which noise forms part of the assessment of a wind farm is set out at pages 74 and 75 of NPS EN3, which also refers back to guidance in NPS EN1 and more recently PPG and the IoA Good Practice Guide. The Ipa, subject to the imposition of conditions, has no objection to the scheme on noise grounds.
- 10.17. The Ipa highlighted that it was necessary to distinguish between the type of AM that ETSU recognises, described as higher frequency rapidly

³⁹ Paragraph 123.

diminishing/swishing, and accounts for when setting noise limits and the lower frequency, "longer range", thumping EAM which it did not. The Ipa acknowledged that here, ETSU AM is not an issue (6.60). EAM is a particular phenomenon that is known to occur with some wind farm schemes and has been subject to debate and on-going academic and practical research. Whilst the Ipa believe that there is the potential for EAM to occur here it is a matter that could be controlled by imposing an appropriately worded planning condition.

- 10.18. NPS EN3 says that, taking account of the latest industry good practice, ETSU-R-97 *"The Assessment and Rating of Noise from Wind Farms"* should be used to assess and rate the noise from wind energy developments. PPG confirms that ETSU should be used and refers to IoA good practice guidance. The May 2013 IoA guidance sets out current good practice in the application of ETSU and has been endorsed by the DECC as a supplement to ETSU. NPS EN3 reiterates that the Government is satisfied on the balance of subsequent scientific research that the key conclusions of ETSU and the limits it recommends remain a sound basis for planning decisions.
- 10.19. The Coalition refer to the differences between ETSU and BS4142 particularly that ETSU provides for more generous noise levels [7.72] and favours the interests of developers and not the avoidance of likely complaints (7.71). Paragraph 1 of the Executive summary sets out what ETSU is i.e. *"...a framework for the measurement of wind farm noise and gives indicative levels thought to offer a reasonable degree of protection to wind farm neighbours, without placing unreasonable restrictions on wind farm development or adding unduly to the costs and administrative burdens on wind farm developers or local authorities"*. As to BS4142, my understanding is that it relates to audibility; illustrates and quantifies degrees of change which provides an indicator of the likelihood of complaints. This is an approach different from the aims of the Framework, NPSs and PPG which does not seek to ensure a turbine should be inaudible or, as PPG reiterates that there should be a minimum separation distance to any dwelling. Rather, the policy practice approach promoted through the application of the framework set out by ETSU is that turbines should be located and designed so that increases in ambient noise levels around noise sensitive developments are kept to acceptable levels in relation to existing background noise levels i.e. a threshold beyond which there would be an unacceptable change to a resident's living environment. The Government's position, on which there have been numerous opportunities for change, is that ETSU is currently the basis on which the noise impact of wind turbines is to be assessed. Therefore, using BS4142 would not only conflict with unambiguous Government guidance but on the basis that it is an audibility test rather than a threshold test, it would unnecessarily constrain wind energy development.
- 10.20. The ES assessment of background noise and the predictive tools used at that time was carried out in accordance with ETSU guidance and IoA good practice at the time of the surveys. Whilst the IoA has updated guidance on good practice, there is nothing in that guidance which would lead me to conclude that the noise assessment undertaken for the ES, including the choice and position of the noise monitoring locations, which were agreed with the EHO, is not a sound basis for determining this appeal. The noise assessment demonstrates that noise levels would fall within the relevant limits of

acceptability for all locations, at all wind speeds and directions, at all times [5.138].

- 10.21. Paragraph 2.7.59 of NPS–EN3 says that, *“Where the correct methodology has been followed and a wind farm is shown to comply with ETSU-R-97 recommended noise limits, the IPC may conclude that it will give little or no weight to adverse noise impacts from the operation of the wind turbines.”* [CD6.2]. The Coalition is correct that NPSs were developed to provide guidance on decisions relating to Nationally Significant Development Projects, which in relation to wind energy development involved schemes over 50MW [7.72]. However, the implication of that submission, i.e. that the guidance in the NPS is therefore not relevant to a scheme of up to 12MW is not tenable. The Framework at paragraph 3 indicates that NPSs *“...form part of the overall framework of national planning policy, and are material considerations in decisions...”*. Moreover, Footnote 17 to Framework paragraph 97 says, *“...in determining planning applications for such developments⁴⁰, planning authorities should follow the approach set out in the National Policy Statement for Renewable Energy Infrastructure...”*. The significant role that NPSs have in planning for renewable energy is reiterated in recent PPG.
- 10.22. Some residents, drawing on concerns raised by local GPs and various papers on the health impacts of wind turbines expressed concern regarding the impact of turbine noise on general health [8.13]. Amongst others, these concerns relate to sleep disturbance, irritability, headaches, nausea, and heart related problems. Collectively, these issues are generally referred to as Wind Turbine Syndrome or Vibro-Acoustic Disease (VAD). Although many of the studies purport to provide compelling evidence of harm from wind energy developments, they have not as far as I am aware been subject to scientific review, some are based on what appear to be very small and or self-selected samples and some are based on these studies. As such, a link between the operations of wind turbines and serious health problems continues to be unproven. Whilst I do not seek to downplay the seriousness of this concern, there is nothing of substance to justify departing from Government advice on health matters relating to the operation of wind farms.

Amplitude Modulation

- 10.23. The Ipa acknowledges that ETSU and the levels it suggests take into account what has been described as “normal” AM i.e. blade swish and that it has no objection to the scheme in this regard. However, it is concerned that research and experience of other operational wind farms suggests that here there is the potential for EAM to occur here and that properties, particular to the north-east and east could be affected [Doc 32]. EAM is a particular phenomenon that has resulted in complaints from residents up to 2km from some wind farms. Characteristic of EAM is that it contains higher levels of low frequency noise, the thumping type noise, and is more likely to propagate through walls and is experienced downwind when background noise levels are low and wind shear is high. In this situation the Ipa has suggested 3 planning conditions (SC) [Doc 33 Nos. 29, 30 and 31].

⁴⁰ Wind Energy Developments.

- 10.24. A considerable body of research was referred to at and after the Inquiry which when distilled indicates that: there is no universally accepted definition of AM; what causes EAM is not fully understood and as its occurrence is dependent on a number of interacting factors that are specific to a location thus it is not feasible to reliably predict the likelihood of EAM occurring at any particular wind farm and where EAM has been reported occurrences may be relatively infrequent. Some research suggests that the nature of the turbine itself may influence the incidence of EAM. Factors referred to include the nature of the blades and the way air interacts with, passes over and flows of the blade; the angle of attack of the blade into the wind, yaw errors, synchronisation between turbines or phasing and “stubby” towers. ReUK research suggests that minimising the onset of blade stall could minimise the occurrence of EAM. Some of these factors i.e. angle of attack, rotor speed, the yaw system and minimising blade stall are factors that SCADA allows the wind farm operator to remotely control. It is in this context that I understand the lpa’s SC 29 is proposed.
- 10.25. The pre-commencement detail required by this condition covers tower height, blade dimensions, precise micrositing of the turbines and SCADA information. The location of the turbines and micrositing is dealt with in agreed SC 27 and the SCADA details referred to in the lpa’s SCs 29, 32 (H) and Guidance Note 1D is the same as that contained in Broadview’s suggested operational noise condition 28 (H) and Guidance Note 1D. If this is the only SCADA information that the lpa requires then this part of SC 29 duplicates other conditions; if details of other settings are required then the condition is vague.
- 10.26. That leaves turbine make and model, tower height and blade dimensions, which are not matters that are covered by agreed conditions 13 and 14, which only relate to overall ground to blade tip height, colour and finish. However, in the situation where current research reiterates the position that EAM cannot be reliably predicted or the factors that might influence it can be identified and isolated, the question that comes to mind is “what is the lpa going to do with this information more importantly how is it to assess it?” For example, “stubby” towers are a factor that has been considered to influence the incidence of EAM but that turbines mounted on high towers is not considered to be an influencing factor. Whilst I can understand the philosophy behind this condition, given the state of current research into EAM, I consider it to be vague and could provide an unnecessary veto that could frustrate the deployment of a renewable energy scheme that might be acceptable in all other respects [9.8].
- 10.27. I can understand the philosophy behind the lpa’s SC 30, which would restrict the installed capacity of the turbine to 2.05MW on the basis that the noise study was carried out. However, the application as submitted is for turbines of between 2MW and 3MW, noise immission levels are proposed based on a candidate turbine which, if higher rated turbines were to be installed they would have to meet. Whilst I note the suggestion that a higher rated turbine might introduce changes to the character of the noise that were not previously assessed, that is speculative. In my view, had the lpa particular concerns relating to the nature of the turbines this is something that could and should have been dealt with at the time the application was submitted. Accordingly, I consider the lpa’s SC to be unreasonable.

- 10.28. The lpa's SC 31 seeks to set out a metric that would determine when complaints relating to the operation of the wind farm were the result of EAM. ReUK, following its work, has proposed a condition, based on a variation of the model condition relating to operational noise set out in the IoA Good Practice Guide. This indicates that where EAM is considered to occur, a penalty based on a sliding scale where there is a rise and fall in turbine noise between 3 and 10 dB. Whilst the lpa and Broadview recognise that in a recent appeal decision the ReUK condition has been imposed, both are extremely critical of the ReUK condition, its proposed metric and its ability to deal with the potential issue of EAM. In particular, the lpa believe that the ReUK condition is seriously flawed [6.103] and, through the process it adopts, would allow EAM to continue unchecked [6.101]. The lpa's suggested condition includes a similar modulation depth range of 3dB but introduces some qualifications to determine when EAM issues would occur. Unlike the ReUK condition, the lpa suggested condition does not include penalties to be applied to the noise immission levels, rather it requires a scheme to be introduced that requires EAM to be ameliorated such that it stays below 3db [5.163].
- 10.29. Clearly the setting of a threshold at which a problem is deemed to occur and when a scheme of mitigation is required to be implemented is appropriate. However, in this situation whilst the 3db modulation range does appear to have some basis in ETSU where "normal" AM is described in the range of 2 to 3dB, I have reservations about this approach and the choice of level, given that ReUK research indicates that there was no evidence of a clear onset of increased annoyance at any particular modulation depth. The lpa's condition requires a scheme to be implemented to ensure that levels remain below 3dB. However, ReUK research suggests that to date there is no clear case of successfully mitigating EAM short of switching the turbines off [5.164 & 5.165]. Current government advice relating to wind turbine noise is that ETSU should be used to assess and rate noise from wind energy developments and that the IoA good Practice guidance represents current industry good practice and is to be used as a supplement to ETSU⁴¹. The IoA good practice guide indicates that evidence in relation to EAM is developing and that at the time of publication, May 2013, it was not good practice to assign a planning condition to deal with AM. Notwithstanding the publication of ReUK advice in December 2013 I am not aware that the IoA guidance has altered or that notwithstanding the imposing of AM conditions in the Turncole Farm and Dunsland Cross appeal decisions that the ReUK approach has been endorsed by the Government as current good practice.
- 10.30. In such circumstances, I am not convinced that the SC proposed by the lpa would pass the tests of precision and reasonableness as set out in PPG. In the absence of a specific condition, a resident affected by EAM would rely on the statutory nuisance regime. Whilst I have noted the concerns raised by the lpa in the implementation of this regime, in the absence of any other appropriate mechanism, it remains the current process by which noise problems can be mitigated.

⁴¹ PPG ID5-015.

- 10.31. Lpa SC 32 relates to operational noise and apart from minor and, in my view, non-material differences in some of the wording in the guidance notes, is the same bar the lpa seeks reduced levels at several properties during the night and day time periods. The proposed changes suggested by the lpa relate to concerns about some of the noise monitoring locations and a potential underestimate of background noise levels and the suggestion that the night-time noise level of 43 dB results in a sudden step change from the lower day time limit at a time when residents would be attempting to go to sleep.
- 10.32. Relating to wind turbine noise, the Government's unchanged position is that ETSU should be used to assess and rate noise from wind energy developments and that the IoA good Practice guidance represents current industry good practice and is to be used as a supplement to ETSU. In this case, I have no reason to conclude that the noise study on which the noise immission levels contained within Broadview's SC 32 are not based on an ETSU compliant assessment. In these circumstances, I consider the lpa's suggested changes would not be consistent with the advice in ETSU and would therefore be unreasonable.

Heritage Assets

- 10.33. Section 66 (1) of the Planning (Listed Buildings and Conservation Areas) Act 1990 requires the decision maker to have special regard to the desirability of preserving the building or its setting or any features of special architectural or historic interest which it possesses. LP Policy EF.14 indicates that development proposals will not be permitted where they would adversely affect the character or appearance of a Listed Building or its setting.
- 10.34. Paragraphs 132 and 134 of the Framework indicate that when considering the impact of a development on the significance of a HA great weight should be given to its conservation. The significance of a HA can be harmed through alteration or destruction of the asset (physical harm) or development within its setting (non-physical or indirect harm). Substantial harm to or loss of a Grade II Listed Building should be exceptional and substantial harm to a HA of the highest significance, i.e. a SAM or Grade I and II* Listed Buildings should be wholly exceptional.
- 10.35. Framework Paragraph 133 says that where development would lead to substantial harm to the significance of a HA, permission should be refused unless that harm is necessary to achieve substantial public benefits that outweigh the harm. Paragraph 134 says that where a development would lead to less than substantial harm to significance, the harm should be weighed against the public benefits of the proposal.
- 10.36. The lpa's RfR concentrates on the impact of the scheme of 4 HAs, Burton Dassett Beacon Tower a SAM and a Grade II LB; Knightcote Manor a Grade II LB; the Church of St Peter and St Clare in Fenny Compton a Grade II* LB and the Fenny Compton CA. Given the separation of the turbines from each of these assets, it is common ground that the potential for harm in this case arises from the positioning of the turbines within their setting i.e. non-physical harm.
- 10.37. As to the effect of this scheme on the settings of Knightcote Manor, the Church of St Peter and St Clare and the Fenny Compton CA, the conclusions

of the lpa and Broadview are very similar. The lpa identify the effect on these as: Fenny Compton CA - Minor but noticeable [6.55]; Knightcote Manor – Minor [6.56]; Church of St. Peter and St. Clare –Minor [6.58]. Broadview's assessment of effect is: Fenny Compton CA - Negligible; Knightcote Manor – Slight; Church of St. Peter and St. Clare – Negligible [5.18].

- 10.38. In terms of describing the potential effect of the turbines on any of these HAs, I consider the terms used by the lpa (minor) and Broadview (negligible) to describe the effect on significance are the same. Having visited the sites of these 3 HAs and viewed their potential relationship with the turbines from a variety of locations, I have no reason to disagree with the conclusions that the potential impacts on the significance of each of these HAs would be minor and for the purposes of the balancing exercise required by paragraph 134 of the Framework the effects would be less than substantial. Similarly, I have no reason to disagree with Broadview's conclusion that there would be no impact on the significance of the remains of the Roman rural settlement at Windmill Hill Farm [5.133], the possible Iron Age hill fort on Grendenton Hill [5.134] the Norbury Camp hill fort [5.135] or the earth works at Harts Hill and the Anglo Saxon burial ground at Pleasant Hill [7.80].
- 10.39. Although the former function or functions of the 15th Century Burton Dassett Tower are unclear [6.45] it is a SAM and a Grade II Listed building and as such is a HA of the highest significance. Whatever, its former function, I agree with the lpa that the majority of the Tower's significance revolves around its relationship with the surrounding landscape, principally the Feldon Vale to the north and views to and from the Tower. Although set almost on the edge of the Burton Dassett Hills, at some 6m high, I agree with Broadview that the views that contribute to its significance are restricted to those within about 3km of the Tower [5.129]. Thus, a substantial part of the setting of the Tower would fall within the area I consider would comprise a wind farm landscape where the turbines would be the defining feature. Beyond this distance, the Tower becomes a progressively less recognisable feature. In relation to views out from the Tower it is the panoramic nature of these views which relate to its significance [CD12.2H VP 9 & 5.128].
- 10.40. Introducing four, tall 125m high turbines each with extensive blade sweep areas with the nearest turbine at a distance of some 2.8km into this landscape would impact on the setting and thus the significance of the Tower as a SAM and Listed Building. That impact would be exacerbated by the rotation of the blades and would be a distraction in appreciating any feature or landscape beyond it. In this context, I disagree with Broadview's assessment that there would no impact on the significance of the Tower. Rather, I prefer the lpa's assessment, which concludes that there would be a moderately harmful impact on the setting of the Tower and its significance as a HA, but that impact, in terms of the balancing exercise required by the Framework, would be less than substantial.

Landscape and Public Visual Impact

- 10.41. Before dealing with my conclusions on this matter, I deal with the approach to the assessment of landscape and public visual impact adopted by The Coalition. I acknowledge that the Landscape Institute guidelines for landscape and visual impact analysis are not prescriptive and do allow scope

for the authors of any particular study to adjust their approach to suit the circumstances and characteristics of the study area. Here, whilst I appreciate the philosophy and principles that underpin The Coalition's approach its assessment of landscape and visual impact, as a tool to assess the acceptability of this scheme, I found it an overcomplicated approach, which at times was difficult to understand and in places unduly subjective and inconsistent particularly in terms of its calibration of magnitude and significance of effect [7.3 to 7.65].

- 10.42. In terms of landscape and visual impact NPS EN3 recognises that modern on-shore wind farms comprise large structures and there will always be significant landscape and visual effects for several kilometres. Here, the proposed wind farm has generally even spacing between the turbines resulting in a balanced composition that has sought to minimise the landscape and visual impact of the scheme.
- 10.43. NCA 96 Dunsmore and Feldon is an extensive largely flat landscape with an extensive skyline where long views to a wide horizon are possible. Typical examples of these are VPs 1 to 4. Apart from the AONB some 5.5km to the south, the area around the site is not the subject of any particular landscape designations.
- 10.44. In this southern part of the NCA 96, the flat landscape is partly enclosed by higher ground to the south, east and west creating a long and widening shallow bowl to the north. The longest views across the NCA are obtained from the higher ground particularly northwards from the Burton Dassett Hills, VPs 9 and 11. Although there would be a significant landscape effect measured in EIA terms, given the broad scale of the landscape and skyline as reflected in the typical viewpoints above, I consider that the wider NCA 96 landscape would be capable of absorbing these 4 substantial turbines without significant harm to its landscape character.
- 10.45. At the more localised level, Broadview acknowledges that there would be significant landscape change in an area that extending out to about 700m from the turbines. Here a "wind farm landscape" where the turbines would be the defining element of the landscape would be created [5.30-5.35]. Although this development is well composed with limited potential for the stacking of blades, I believe Broadview's assessment to be overly cautious and that the area where significant change and a wind farm landscape would be created would be more extensive and extend up to 2km from the site [CD12.2H VPs 1 through to 6]. This area includes the settlement of Knightcote, would extend up to the edge of Northend, include several public footpaths in particular a substantial stretch of The Centenary Way running from Northend in the south to and along the upper slopes of Christmas Hill in the north-west.
- 10.46. Public visual impacts would be felt most by drivers/pedestrians using local highways, particularly those using The Old Salt Road, the B4451 to the west, the Bishops Itchington to Knightcote Road to the east and Pimple Lane/Long Lane to the south-west. VPs 1, 2, 3, 4 and 5 are typical of these. In terms of public rights of way, walkers on The Centenary Way as it runs from Knightcote across the flat landscape before rising up Christmas Hill would experience significant visual impact. VP 1 represents a typical example of

these views. Similarly walkers on Christmas Hill approaching from the north-west would have more restricted views, limited by blocks of planting, of the turbine against the backdrop of the Burton Dassett. However, where views would be obtained they would be focussed by the various blocks of planting. Typical views are represented by VPs 6, 21 Figure 7.1 Document 11. In all these views the visual impact of the turbines on walkers and drivers would be very significant and adverse [6.15].

- 10.47. On the above basis, the extent of the area where a "Landscape with Wind Farms" would be created would extend materially further than that assessed by Broadview or the lpa [5.32; 6.11]. In my view, this more extensive area would extend out to some 4km from the site to include the settlements of Bishops Itchington and Fenny Compton and the Burton Dassett Hills Country Park [CD12.2H Figure 7.2]. Again, consistent with the general guidance in NPS EN3, the landscape and visual impacts would be significant with typical views represented by VPs 8 and 21.
- 10.48. In terms of public visual impact, the most significant impacts would be experienced from elevated viewpoints particularly those on the Burton Dassett Hills to the north, and especially from the Country Park around The Tower and the viewing point on Magpie Hill. This is a very popular and well used area that plays host to a variety of active and passive recreational activities [5.60, 8.25]. The Centenary Way crosses from south to north; there is a signed viewpoint on Magpie Hill and extensive car parking where those who just want to sit and take in the landscape can obtain extensive views across the Feldon Vale. The key views are to the north and I have no doubt that the ability to take in these views with relative ease is one of the major reasons why people are attracted to this area.
- 10.49. The landscape to the north and north-west is not untouched by man-made influences, i.e. the M40, the Jaguar Land Rover complex and the MOD Depot. Whilst extensive features, they have a limited vertical emphasis and do not intrude significantly into public views or detract from the tranquillity of the landscape and the views. In contrast, whilst the grouping of the turbines is well balanced, the turbines would have a very strong vertical emphasis exacerbated by the rotation of the blades that would draw the eye and the attention of the viewer and disturb the visual tranquillity of the views. Whilst the turbines might only occupy a few degrees of the panorama, the human eye does not see in cones of vision but takes in the sweep of the landscape. Here, exacerbated by the elevated position of the viewpoint where, given the varied topography of the area around The Beacon, some viewers would be at almost eye level with or not far above the nacelles, the turbines would become a major and dominant feature of the views [CD12.2H VP 9]. From my visits to the Country Park and the representations by residents, I am in no doubt that this is a much valued facility and that the dramatic and significant impact the turbines would have, would materially and unacceptably reduce the amenity value of this area and the public's enjoyment and use of it.
- 10.50. The AONB is an area of the highest sensitivity to change and views to and from the Edge Hill escarpment form part of the landscape value and special quality of the designated area [5.39, 8.35]. In terms of views into the AONB, it struck me that the area from where the turbines and the scarp slope would

be seen together would be limited to the area around Bishops Itchington. However, given the degree of separation between the viewer and the turbines i.e. some 4km to the turbines and some 10km to the escarpment and scarp slopes that the landscape and visual impact would be moderate; VP 21 is typical of these views [5.39 to 5.45; 6.21]. In terms of views out from the AONB, I agree with Broadview, that the main effect would be on views from the north-west facing scarp slope of Edge Hill [5.43]. However, these views would be limited and largely filtered by vegetation. Given, their height and dynamic nature, the turbines would be noticeable and have a moderate but not unacceptably harmful effect. In this context, whilst the overall effect on the AONB would be moderately adverse it would not unacceptably detract from the character and appearance of the AONB or significantly affect its special qualities.

Cumulative Landscape and Visual Impact

- 10.51. I have no reason to disagree with the lpa's conclusion that in relation to other operational and consented turbines within 30km of the site there would be no unacceptable cumulative landscape and visual effects [6.23]. In terms of proposed schemes, planning permission is being sought for the Stoneton Wind Farm comprising nine 125m high turbines some 6km to the east of the appeal site on land to the north-east of Fenny Compton and Wormleighton [CD12.h Figure 7.9a]. Based on my conclusions that the appeal scheme would result in the creation of "Landscapes with Wind Farm" in an area of up to and beyond 5km from the site, there would be the potential if both schemes were permitted to have a more substantial area of Landscapes with Wind Farms with a consequent more significant and adverse landscape and visual impact [6.25].

Equestrian Activity

- 10.52. Concerns relate principally to the impact the scheme would have on the use of The Old Salt Road by horses and their riders and the potential impact on equestrian businesses at Spring Paddocks Equine and Pipers Hill Farm both of which are located to the north-east of the wind farm site. Horses, like human beings, have varying levels of tolerance to events and can be unpredictable. Indeed, I have witnessed a horse quite happily passing close to an operational turbine but then stopping and refusing to pass a discarded mattress lying at the side of the road. Horses that may react to the presence and operation of a turbine are just as likely to react to any sudden event be it an animal darting from a hedge, a swooping bird, a plastic bag caught in a hedge or a passing shadow.
- 10.53. All riders whether on the highway or off-road have to be aware of their own capabilities, the temperament of their mount, recognise that there will always be a risk and exercise the appropriate degree of caution. Turbines do not start suddenly and I was not aware of locations where turbines might suddenly appear in a view to distract a horse. Thus, it appears to me that there is nothing inherent in a wind farm that would result in it creating a greater level of risk. Most operational wind farms and turbines are located in the rural area where the majority of equestrian activity/businesses are located. Although reference was made to BHS surveys regarding the impact of turbines on riding habits and safety, no evidence was produced to show

that commercial wind turbines were inherently unsafe and posed an unacceptable risk to horses and their riders.

- 10.54. The only bridleway within 5km of the site is The Centenary Way which at its closest is some 600m to the west. It appears to me that in terms of accessing The Centenary Way, horse riders located to the west of the site would only have to use a short length of The Old Salt Road at distances in excess of the minimum separation distance of 400m sought by the BHS for a national trail. Horse riders to the east of the site would, depending on their location, more than likely access the bridleway either to the north or south of the site through Bishops Itchington or Northend. There is nothing in the submissions to suggest that these roads are unsuitable for horses and their riders.
- 10.55. In terms of riders who might use the full length of The Old Salt Road for hard surface exercising or at times of the year when off-road tracks are heavy underfoot they would pass within 130m of the turbines. Whilst this is below the suggested distance of 300m sought by the BHS for all other routes, this guidance is not a statutory requirement and nothing was put to me that would justify applying this figure rigidly. Moreover, it strikes me that if there was a tangible and unacceptable risk to horses and their riders in terms of setting a minimum separation distance from either a bridleway or a public highway, this is a matter that would be addressed in national planning guidance. The Old Salt Road, whilst a narrow country road, is well used by traffic to and from the north-east of the area to link with the M40. Given my conclusions about the general unpredictability of horses this is a road where riders already need to exercise caution. Moreover, The Old Salt Road is not the only available road in the area that riders would be able to use [5.187].
- 10.56. Regarding Spring Paddocks and Pipers Hill Farm these are some 1km and 1.5km respectively from the nearest turbine and as such would be more than 2 to 3 times the greatest distance sought by the BHS. In the case of Spring Paddocks, it struck me that reasonable changes and precautions could be introduced relating to assessment of animals and the unloading of horses such that the risks associated with the handling of highly strung and injured performance horses would not be materially changed. Similarly in relation to the exercise ring at Pipers Hill Farm given the degree of separation and my conclusion that there is nothing inherent in the presence of a wind turbine that increases the risk of a horse reacting adversely, there is nothing in the submissions that convince me that the scheme would unacceptably affect the operation of the business.
- 10.57. Reference was made to the appeal decision at Grise where concerns regarding the impact on equestrian enterprises were a factor in the recommendation, and the SoS's subsequent decision, to dismiss the appeal [CD5.71]. I am familiar with that case and the relationship of the equestrian businesses to the scheme, the closest being some 500m and the scale of the development. In that case, the combination of circumstances was significantly and materially different to the situation here. Accordingly, I consider that no material parallels can be drawn or that the Grise decision can be used as a basis to suggest that permission should be withheld in this case.

Other Considerations

Drainage

- 10.58. The application was accompanied by a Flood Risk Assessment (FRA), which shows the site located within Zone 1, a low risk area. The FRA has been examined by the Environment Agency and Warwickshire County Council neither of whom have, subject to the imposition of appropriate conditions, an objection to the scheme. Moreover, any works that would affect a watercourse would require further consents under the Land Drainage Act.

Ecology

- 10.59. The ES undertook a proportionate assessment of the potential impact of the scheme on local ecology, concluding that there would be no adverse effects. In consultation with various interested bodies, the lpa undertook what I consider to be a rigorous appraisal of the ecological impact of the scheme and concluded that subject to the imposition of appropriate conditions relating to mitigation and enhancement, the scheme would be acceptable and that appropriate regard had to the Natural Environment and Rural Communities Act 2006 [CD12.3]. Having reviewed the ES and the various responses received from interested bodies, I have no reason to disagree with the ES and the lpa's conclusions.

Public Safety

- 10.60. Turbines of the scale proposed are no longer an unusual feature in the landscape so as to distract drivers. As such, road users, particularly those on the M40 would not be surprised or distracted by their presence or activity. In terms of deliveries to the site, particularly the abnormal loads associated with the erection of the turbines themselves these can be planned and monitored via the Construction Traffic Management Plan and the Construction Method Statement so as to mitigate any adverse impacts. The Highways Agency and the Highway Authority have no objections to the scheme on highway safety or operational transport grounds [5.193].
- 10.61. Whilst it is not unknown for ice to form on a turbine blade or for a turbine to collapse, shed a blade or piece of a blade, these events are rare and where they have occurred there are no recorded examples of any injuries. Where the potential for icing may exist, turbines are fitted with vibration sensors that detect imbalance caused by icing which would prevent their operation. On balance, it appears to me that the risk of total or partial collapse would be low and as such the development would not represent an unacceptable hazard to public safety.

Property Values

- 10.62. The concern expressed by residents is understandable. However, it is not for the planning system to protect the private interests of one person against the activities of another. Therefore, it is not whether a development would cause financial loss to neighbouring owners, but whether it would have detrimental effects on the locality generally and on amenities that ought to be protected in the public interest. Thus, concerns relating to the impact on the value of an individual's property are a private matter and not one of public policy and as such it is not generally a material consideration. Other than assertion, there

was no evidence before me to conclude that here, in relation to property values, there is a wider public interest that should be protected.

Tourism

- 10.63. There are several holiday lets within the immediate area and, given the location of the site close to the AONB, the Cotswolds and Stratford-on-Avon and the attractiveness of the Burton Dassett Hills, I have no doubt that the area does attract visitors. Whilst visitors would note the presence of the turbines there is no evidence to suggest that they would adversely affect visitor numbers and spend to an unacceptable level. The Core Documents contain details of various surveys relating to the economic impact of Onshore wind generally [CD11.3] and on tourism in particular [CD11.2]. Taken together, the results of these studies appear inconclusive and generally reflect the wide variety of opinions relating to wind turbines. These range from a highly positive view through to a highly negative view. However, what is striking is the very small number of people who said they would not return to an area because of wind farm developments [CD11.2 page 9]. Moreover, my experience is that in areas where turbines have been developed over a longer period, including close to National Parks and AONBs, tourist numbers continue to rise.

Public Consultation

- 10.64. I have noted the concern was expressed regarding the consultation process undertaken by Broadview prior to the planning application being submitted and subsequently amended [7.90]. However, whilst with hindsight there is always something more that could be done, looking at the totality of the process from pre-application publicity/consultation to the closure of the Inquiry, I consider that residents were not disadvantaged.

Planning and Energy Policy

- 10.65. The development plan is the starting point for decision making; development that accords with an up-to-date LP should be approved, and development that conflicts should be refused unless other material considerations indicate otherwise (Framework paragraph 12). With that as the starting point, the Framework, at paragraph 215, goes on to say that due weight should be given to relevant policies in existing plans according to their degree of consistency with the Framework. NPSs are part of the overall framework of national planning policy and, as with the Framework and PPG, are material considerations in deciding planning appeals (Framework paragraphs 3 & 13).
- 10.66. Following revocation of the RSS and saved policies in the Warwickshire Structure Plan, the development plan in this case comprises saved policies in the Stratford-on-Avon District Local Plan Review (1996-2011). The relevant policies identified by the parties are:
- PR.1 – Landscape and Settlement Character;
 - PR.5 – Resource Protection (a) and (d);
 - PR.6 – Renewable Energy (a), (c) and (d);
 - EF.1 – Cotswolds AONB;

- EF.11 and 11A – Archaeological Sites;
 - EF.13 – Conservation Areas;
 - EF.14 – Listed Buildings and
 - DEV.1 – Layout and Design (a), (b), (c), (d), (e) and (h) [3.21 to 3.27].
- 10.67. RfR 1, 2 and 4 refer to Policy DEV.1 – Layout and Design which sets out the principles against which proposals will be assessed. Whilst some of the policy text is couched in general terms, i.e. development proposals will be required to have regard to the character and quality of the local area; the principles against which proposals are considered are directed to the layout and design of buildings. Given the nature of wind turbines in terms of their scale, design and layout and given the qualifications in the policy, I conclude that Policy DEV.1 is not relevant to the determination of this proposal.
- 10.68. Having regard to the objectives of the Framework as a whole and specifically the guidance in paragraph 215, I have no reason to disagree with the submissions that the relevant parts of Policies PR.1, PR.5, PR.6 and EF1 are consistent with the Framework [5.10 & 6.114].
- 10.69. Policies EF11, EF11A, EF13 and 14 are inconsistent with the guidance contained at paragraphs 132 to 134 of the Framework. These policies do not require the decision maker to balance the potential degree of harm to a HA i.e. "*substantial*" or "*less than substantial*" against the public benefits of a proposal. Therefore, in line with the guidance at Framework paragraph 215, the weight attached to these policies in the Planning Balance is reduced.
- 10.70. The emerging CS is at a very early stage [3.29]. The Framework, paragraph 216, advises that weight can be attached to relevant emerging plans according to the stage of preparation, the extent of unresolved objections and the degree of consistency with Framework policies. The lpa considers that the weight to be attached to relevant policies in the emerging CS is very limited [5.11]. Whilst noting the direction of travel of the emerging policies, given the early stage this plan has reached in the examination process and the conflict between CS Policy CS.2 with regard to minimum separation distances from standalone wind energy development and PPG advice, I have no reason to disagree with the lpa's conclusion that limited weight should be attached to these policies in the Planning Balance.
- 10.71. Paragraphs 3.1 to 3.11 and paragraphs 3.12 to 3.18 of this report summarise national energy and planning policy as it relates to renewable energy, protection of the landscape, visual amenity, noise and HAs and I do not intend to rehearse it here. However, what is clear is:
- that the commitment to tackling climate change, our transition to a low carbon future and meeting binding national and international targets relating to our energy mix and security remains unchanged and is one of the Coalition Governments key objectives [3.1, 3.10];
 - that to meet the binding targets for greenhouse gas emissions and CO² reduction and to achieve an increase in the share of renewables in the energy mix a step change in our rate of progress is required [3.2 & 3.4];

- the delivery of renewable and low carbon energy and associated infrastructure through the planning process is central to the economic, social and environmental dimensions of sustainable development;
- that, notwithstanding concerns raised regarding efficiency, carbon footprint and carbon payback, appropriately sited onshore wind energy schemes where the correct weight has been given to the various environmental considerations (i.e. conserving and enhancing the natural environment, conserving HAs and seeking a good standard of amenity for residents), are one of the most cost effective and proven renewable energy technologies currently available for large scale deployment [3.7, 3.11 & 5.7];
- that whilst onshore wind is the biggest single contributor to the pipeline of new renewable energy capacity and the pipeline of new projects is thought to be healthy, not all of the approved projects will be commissioned and there is still an urgent need for new projects to come forward [3.6];
- that small-scale projects provide a valuable contribution to cutting greenhouse gas emissions.

Planning Balance

- 10.72. In the same way that issues relating to aviation safety, archaeology and telecommunications came off one side of the weighing scales [5.1], the absence of harm relating to equestrian interests, noise, ecology, drainage, highway and public safety are not added to the other. Thus what is left in terms of the planning balance is weighing the benefits of this scheme against the landscape/visual impacts and cultural heritage impacts.
- 10.73. There would be harm to the character of the Vale Farmlands (Feldon), Lias Village Farmlands (Feldon) Ironstone Fringe (Feldon) and the Plateau Redlands and Edge Hill (Cotswolds) LCAs. In LCAs up to 2km the scheme would create a wind farm landscape where the turbines would be the dominant and most significant feature of the local landscape resulting in significant harm. Beyond 2km and in the LCAs up to some 5km of the site, the turbines would result in a landscape with wind farms sub-type with turbines resulting in some moderate harm, particularly in the elevated areas. Similarly, there would be moderate harm to the setting and qualities of the AONB. There would be significant harm to public visual amenity in terms of the use of public footpaths, particularly The Centenary Way and very significant harm to public enjoyment of the Burton Dassett Hills Country Park and landscape views from it.
- 10.74. The proximity, scale and dynamism of the turbines would unacceptably affect the living conditions of the occupiers of Lower Spring Farm and Meadow Farm to the extent that these dwellings would become unattractive places in which to live.
- 10.75. There would be some harm to the setting of designated HAs, in particular the significance of the Beacon Tower, but in all cases that harm would be less than substantial.

- 10.76. Whilst the predicted contribution to the reduction in CO² levels and the amount of renewable electricity supplied to the grid would be less than anticipated by the ES/FEI, the resultant savings and energy contributions over the life of this scheme would be very valuable and contribute to the urgent need for new renewable energy generating projects. These benefits must therefore attract significant weight.
- 10.77. In terms of weight to be applied to the above factors, 4 elements have to be applied in the balancing process. Three relate to the approach to HAs and the fourth relates to the time-limited nature of the proposal i.e. reversibility.
- 10.78. Given the harm that has been identified to the HAs, the proposal would conflict with development plan Policies EF 13 and 14. However, given that these policies are inconsistent with the Framework and having regard to the guidance contained at paragraph 215 of the Framework the weight attached to the conflict with the development plan in this regard is reduced. Notwithstanding this position, paragraph 134 of the Framework requires that I balance the less than substantial harm that would occur to these HAs against the public benefits of the scheme. Moreover, S.66 (1) of the Planning (Listed Buildings and Conservation Areas) Act 1990 places a duty on me to have special regard to the desirability of preserving the setting of a Listed Building. This means that, in carrying out the planning balance, where there is harm to the setting of a Listed Building, the desirability of preserving the setting of the building is to be accorded considerable importance and weight [5.122].
- 10.79. NPS EN-3, paragraph 2.7.17, indicates that the reversible nature of wind farms is likely to be an important consideration when assessing impacts such as landscape and visual effects and potential effects on the settings of HAs. Such judgements should include consideration of the period of time sought for the generating station to operate and the extent to which the site will return to its original state may also be a relevant consideration. EH regards the reversibility of wind energy developments as an important feature in terms of the long term protection of the setting of HAs [CD9.2]. However, the NPS does not suggest the degree of weight to be attached to reversibility; that is for the decision maker to determine.
- 10.80. At the end of 25 years, the turbines would be removed and the landscape and visual effects and the potential effects on the setting of the HAs, particularly Beacon Tower would be removed. However, whilst 25 years is a relatively short period in the time that the landscape or a HA has existed, it is very substantial, a generation, in terms of an individual's appreciation of these elements and particularly their use and enjoyment of their homes. Therefore, whilst in carrying out the balancing exercise, I have had the potential for reversibility in mind, the weight I have attached to it is limited.
- 10.81. The scheme would contribute to targets for the production of renewable energy, which the Framework (paragraphs 97 and 98) makes clear that even small scale projects can provide a valuable contribution to cutting greenhouse gas emissions. The proposal offers a considerable benefit in terms of addressing the need for renewable energy and in helping to meet relevant targets for the generation such energy. I attach significant weight to these public benefits. However, the harm that this scheme would cause in terms of

landscape and visual impact, particularly the harm to the living conditions of nearby residents, which Broadview acknowledges would be sufficient to warrant dismissing the appeal [5.3] and the harm to the setting of the HAs, particularly The Beacon Tower, which S.66 (1) requires considerable weight to be attached to, are not outweighed by the scheme's benefits.

- 10.82. Accordingly, I conclude that the proposal would conflict with LP Policies PR.1; PR.5; PR.6 and EF.1 and as such I recommend that the appeal should be dismissed.

Conditions

- 10.83. Should the SoS disagree with my recommendation and planning permission is granted, the permission should be subject to the following conditions. The bulk of suggested conditions were discussed and agreed between the main parties. For the reasons I have set out earlier in my consideration of potential noise impacts, I consider the SCs proposed by the Ipa would fail the test of precision and reasonableness set out in PPG and that the operational noise condition suggested by the appellant would provide reasonable protection for residents.
- 10.84. Conditions are necessary to provide for the implementation of the permission and to provide for micro-siting (1, 2 & 27); to provide for decommissioning and restoration of the site at the end of the 25-year lifespan and the removal of any turbine that fails to produce electricity for a continuous period of 12 months (3, 4 & 5). Conditions relating to details of the access, traffic movements and works to the highway and a Construction Method Statement (6, 7, 8, & 9), are necessary to minimise the impact of the development during the construction period. Conditions are necessary to minimise landscape and visual impact (12, 13, 14 & 15); to mitigate the effect on the living conditions of residents (10, 11, 18, 20 and 28); to minimise the ecological impact and to safeguard wildlife (16 & 17) and mitigate any impact on archaeological remains on the site (25 & 26). Conditions are necessary to protect aircraft safety (21, 22, 23 & 24) and to prevent interference with the radio link infrastructure (19). Where necessary, in the interests of precision and enforceability, I have reworded some of the suggested conditions.

Recommendation

- 10.85. I recommend that the appeal be dismissed and that planning permission be refused.

George Baird

Inspector

ANNEX A - SUGGESTED PLANNING CONDITIONS

Time Limits and Site Restoration

1. The development hereby permitted shall be commenced before the expiration of 5 years from the date of this permission. Written confirmation of the commencement of development shall be provided to the local planning authority no later than one week after the event.
2. The development hereby permitted shall be carried out in accordance with the following approved plan: Figure Number 5.1. Volume 3 of the Further Environmental Information titled Figures & Visualisations [Version 2] dated October 2012.
3. The development hereby permitted shall be removed in accordance with the scheme(s) approved by the local planning authority as required by condition 4 below after a period of 25 years from the date when electricity is first exported from any of the wind turbines to the electricity grid (First Export Date). Written notification of the First Export Date shall be given to the local planning authority no later than 14 days after the First Export Date.
4. Not later than 12 months before the end of this permission, a decommissioning and site restoration scheme shall be submitted for the written approval of the local planning authority. The scheme shall make provision for:
 - (a) the removal of the wind turbines and associated above ground works approved under this permission;
 - (b) the removal of each turbine foundation to a depth of at least 1m below the ground;
 - (c) details of the management, phasing and timing of any works;
 - (d) a traffic management plan to address likely traffic impact issues during the decommissioning period;
 - (e) the location of material lay-down areas;
 - (f) an environmental management plan to include details of measures to be taken during the decommissioning period to protect wildlife and habitats;
 - (g) a cultural heritage plan to include details of measures to be taken during the decommissioning period to protect buried archaeological remains where works would involve excavation below 300mm on land previously undeveloped and on the site of the Romano British farmstead to the south and west of Upper Spring Farm (in accordance with the principles of the Headland Archaeology report - Starbold Wind Farm, Warwickshire, Proposed Access Track: Impact Assessment and Mitigation Plan commissioned by Broadview Energy Limited, September 2013); and
 - (h) details of the site restoration measures;
 - (i) a Decommissioning Method Statement in accordance with the general principles of the Construction Method Statement required at condition 8, save for where such principles are covered in (a) to (f) above.

The approved scheme shall be fully implemented in accordance with the approved timetable and within 18 months of the expiry of this permission.

5. If any wind turbine generator hereby permitted ceases to export electricity to the grid for a continuous period of 9 months, unless otherwise agreed in writing with the local planning authority, then a scheme shall be submitted to the local planning authority for its written approval within 3 months of the end of that 9 month period for the repair or decommissioning of that wind turbine generator. In the event that repairs are required then the scheme shall include a programme of remedial works. In the event that decommissioning of the turbine is required then the scheme shall make provision for elements (a) to (i) as stated in Condition 4 above. The scheme shall thereafter be implemented in accordance with the approved details and timetable.

Construction Traffic Management Plan and Construction Method Statement

6. No development shall take place until details of the proposed construction, materials and surfacing of the site access road and its junctions with public highways of the B4451 and Knightcote Bottoms Road (D6396) have been submitted to and approved in writing by the local planning authority. These details shall include: -
 - (a) details of visibility splays in both directions along the B4451 & D6396;
 - (b) details of proposed boundary treatments (including any gates);
 - (c) swept path diagrams for turbine delivery vehicles using the site entrance; and
 - (d) reinstatement of the land after decommissioning of any part of the development hereby approved.

The development shall thereafter be carried out and maintained in accordance with the approved details.

7. No development shall take place until a Construction Traffic Management Plan (CTMP) has been submitted to and approved in writing by the local planning authority. The CTMP shall include all construction traffic including concrete pours and abnormal loads and shall include details of or proposals for:
 - a) Routing of construction traffic;
 - b) Details of swept paths available at all roundabouts and points of potential conflict along the Strategic Road Network along with details and timings of any works required to the highway to facilitate safe passage of construction traffic;
 - c) Details and timings of any works required to bridges along the agreed construction traffic route as detailed within the CTMP to facilitate safe passage of construction traffic;
 - d) Scheduling and timing of movements including nature and number of vehicles;
 - e) The management of junctions to and crossings of the public highway and other public rights of way;
 - f) Details of escorts for abnormal loads;
 - g) Temporary warning signs;

- h) Temporary removal and replacement of highway infrastructure/street furniture;
- i) Reinstatement of any signs, verges or other items displaced by construction traffic;
- j) Details of the site access and banksman/escort details.

The approved CTMP any agreed improvements or works to accommodate construction traffic where required along the route, shall be carried out as approved.

8. Prior to the commencement of development, a Construction Method Statement shall be submitted to and approved in writing by the local planning authority. Thereafter the construction of the development shall only be carried out in accordance with the approved Construction Method Statement. The Construction Method Statement shall include:

- a) Details of the temporary site compound including temporary structures/buildings, fencing, parking and storage provision to be used in connection with the construction of the development;
- b) Details of the proposed storage of materials and disposal of surplus materials;
- c) Dust management;
- d) Pollution control measures in respect of: (i) Water courses and ground water; (ii) Bunding of storage areas and (iii) Foul sewerage;
- e) Details of temporary site illumination during the construction period including proposed lighting levels together with the specification of any lighting;
- f) Details of the phasing of construction works;
- g) Details of surface treatments and the construction of all temporary hard surfaces and tracks to include their decommissioning and subsequent reinstatement of the land;
- h) Details of emergency procedures and pollution response plans;
- i) Siting and details of wheel washing facilities;
- j) Cleaning of site entrances, site tracks and the adjacent public highway and the sheeting of all HGVs taking spoil or construction materials to/from the site to prevent spillage or deposit of any materials on the highway;
- k) A site environmental management plan to include details of measures to be taken during the construction period to protect wildlife and habitats;
- l) Areas on site designated for the storage, loading, off-loading, parking and manoeuvring of heavy duty plant, equipment and vehicles;
- m) Details and a timetable for post construction restoration of the land associated with the temporary working areas and the construction compound;
- n) Working practices for protecting nearby residential dwellings, including measures to control noise and vibration arising from on-site activities shall be adopted as set out in British Standard 5228 Part 1: 2009;
- o) Details of surface water drainage from the access roads, hardstandings and turbine bases.

- 9 No development shall take place until a scheme to identify potential damage caused to the carriageway of the highways which form the route to be used by

construction traffic accessing the site in the CTMP approved pursuant to Condition 7 has been submitted to and approved in writing by the local planning authority. The scheme shall: -

- (a) identify the length of carriageways to be surveyed;
- (b) set a timetable and methodology for surveying the carriageways prior to the commencement of construction;
- (c) set a timetable and methodology for surveying the carriageways at the completion of construction of the turbines and associated infrastructure;
- (d) recommend a programme and timetable for the identification, completion, inspection and final approval of any repair works required to the carriageway following completion of the development including any consequential repair works arising from such inspection.

Development shall be carried out in accordance with the approved scheme and timetable.

Construction Hours

- 10. Construction work shall only take place between the hours of 0700 – 1900 hours Monday to Friday inclusive and 0700 – 1300 hours on Saturdays with no such work on a Sunday or Public Holiday. Works outside these hours shall only be carried out (a) with the prior written approval of the local planning authority or (b) in the case of an emergency, provided that the local planning authority is notified by telephone and writing as soon as reasonably practicable (and in any event within 48 hours) following the emergency first being identified, such notification to include both details of the emergency and any works carried out and/or proposed to be carried out.
- 11. The delivery to the site or removal from the site of any materials, construction materials, plant or equipment (excluding abnormal loads and vehicles delivering concrete to the site) relating to the preparation of the site for development or the construction of the development, shall be restricted to between the hours of 09:00 to 19:00 on Mondays to Fridays inclusive and between the hours of 08:00 to 16:00 on Saturdays and at no other times including Sundays and Public Holidays unless otherwise approved in writing by the local planning authority, having been given a minimum of 5 working days notice of the proposed delivery or removal from the site.

Appearance

- 12. The blades of all wind turbines generators shall rotate in the same direction. The overall height of the wind turbines shall not exceed 125m to the tip of the blades when the turbine is in the vertical position as measured from natural ground conditions immediately adjacent to the turbine base.
- 13. Prior to the erection of any wind turbine, external transformer unit or the meteorological mast, details of the colour and finish of the towers, nacelles and blades of any turbines and the colour and finish of any external transformer units and the colour and finish of the meteorological mast shall be submitted to and approved in writing by the local planning authority. No name, sign, or logo shall be displayed on any external surfaces of the wind turbines

or any external transformer units or the meteorological mast other than those required to meet statutory health and safety requirements. The approved colour and finish of the wind turbines and any external transformer units and the meteorological mast shall thereafter not be changed. The development shall be carried out in accordance with the approved details.

14. Prior to commencement of the construction of the electricity substation, details of the design and the external appearance, dimensions and materials for the substation and any associated compound or parking area and details of surface drainage from the substation building shall be submitted to and approved in writing by the local planning authority. The development of the substation building and any associated compound or parking area shall be carried out in accordance with the approved details
15. All electrical cabling between the individual turbines and between the turbines and the electricity substation on site shall be installed underground.

Ecology

16. No part of the development hereby permitted shall be commenced nor shall any site preparation or clearance works take place until a Biodiversity Mitigation Plan has been submitted to and approved in writing by the local planning authority. The Biodiversity Mitigation Plan shall provide for the following:
 - (a) a pre-commencement site survey for badger setts;
 - (b) a pre-commencement survey of trees, which would be felled or lopped, for the presence of bat roosts;
 - (c) a protocol for pre-works checks for the presence of nesting birds for any construction works or clearance of vegetation between 1 March and 31 August;
 - (d) a method statement detailing any required mitigation measures with respect to:
 - great crested newt;
 - reptiles;
 - common toad;
 - nesting birds;
 - bat roosts in trees (if found to be present) and
 - badger setts (if found to be present)
 - a timetable for the implementation of any such mitigation measures.

All surveys would be undertaken by a qualified ecologist, and the programme of mitigation work shall be implemented as approved under the supervision of a qualified ecologist. A copy of the approved Biodiversity Mitigation Plan shall be held on site for reference during the course of the construction phase.

17. No part of the development hereby permitted shall be commenced until an Environmental Enhancement and Habitat Management Plan has been submitted to and approved in writing by the local planning authority. The

scheme shall include a programme, timetable for implementation and details of the following:

- (a) new tree and hedgerow planting (at least 300m cumulatively in length);
- (b) enhancement of existing hedgerows;
- (c) hedgerow creation and enhancement to be planted with native species of local provenance;
- (d) management of the land around the base of the turbines;
- (e) enhancement of at least two existing ponds;
- (f) creation of two reptile/amphibian refugia;
- (g) creation of at least 250m of field margins for use by birds;
- (h) creation of dedicated wild bird cover.

The total area of habitat creation made up to the elements listed above (excluding element (d)) would be at least 1.5ha in area. The Plan shall include details of measures to secure replacement planting for trees and plants which become diseased or are destroyed or die within five years of the date of planting. The Plan shall include a detailed management regime for the above listed features which will apply for as long as the site is operational.

Shadow Flicker

18. Prior to erection of the first turbine hereby permitted a written scheme, known as the Wind Farm Shadow Flicker Protocol (WFSFP) shall be submitted to and approved in writing by the local planning authority setting out a protocol for the assessment of shadow flicker of the wind farm in the event of any complaint to the local planning authority from the owner or occupier of a dwelling (defined for the purposes of this condition as a building within Use Class C3 or C4 or the Use Classes Order) which lawfully exists or had planning permission at the date of this permission. The written scheme shall include mitigation measures to alleviate any shadow flicker attributable to the development. Operation of the turbines shall take place in accordance with the approved WFSFP and any remedial measures that have been agreed in each case where it has been identified in the WFSFP that a dwelling is affected by Shadow Flicker attributable to the development.

Radio Link Infrastructure

19. No development shall take place until a Coordination Report and Mitigation Report (if required) to determine the requirement for mitigation of a telemetry link operated by Western Power Distribution between Berkswell and North End Pump Pole Mounted Re-closer has been submitted to and approved in writing by the local planning authority. The Coordination Report and Mitigation Report (if required) shall be produced by the Joint Radio Company Limited in consultation with Western Power Distribution and shall set out a scheme for the implementation of any relevant mitigation measures. The Mitigation Report shall include the arrangements for the implementation of the scheme. The development shall not be brought into use until the scheme has been implemented in accordance with the approved Mitigation Report.

Television Interference

20. Prior to the First Export Date a scheme providing for a baseline survey and the investigation and alleviation (including clarification of who will bear the costs of such alleviation) of any electro-magnetic interference to terrestrial television caused by the operation of the turbines hereby permitted shall be submitted to and approved in writing by the local planning authority. The scheme shall provide for the investigation by a qualified independent television engineer of any complaint made to the local planning authority of interference with television reception at a lawfully occupied dwelling (defined for the purposes of this condition as a building within Use Class C3 and C4 of the Use Classes Order) which lawfully exists or had planning permission at the date of this permission, where such complaint is notified to the company operating the turbines by the local planning authority within 12 months of the First Export Date. Where impairment is determined by the qualified television engineer to be attributable to the wind farm, mitigation works shall be carried out in accordance with the scheme which has been submitted to and approved in writing by the local planning authority

Aviation Safeguarding

21. Prior to the erection of any wind turbine, written confirmation shall be provided to the local planning authority, the Civil Aviation Authority, NATS and the Ministry of Defence of the anticipated date of commencement of and completion of construction; the height above existing ground level of each turbine and the meteorological mast and the position of each wind turbine and the meteorological mast in latitude and longitude.
22. Ministry of Defence accredited 25 candela omni-directional aviation lighting or infra-red warning lighting with an optimized flash pattern of 60 flashes per minute of 200ms to 500ms duration shall be installed at the highest practicable point of each turbine. Each turbine will be erected with this lighting installed and the lighting will remain operational on each turbine throughout the duration of this permission with the exception of any lighting on a turbine that has been decommissioned and removed.
23. No turbine hereby permitted shall be erected until a scheme to mitigate the impact of the development on civil aviation interests at Coventry Airport (the Mitigation Scheme) has been submitted to and approved in writing by the local planning authority.
24. No turbine hereby permitted shall become operational until the Mitigation Scheme approved pursuant to condition 23 has been implemented. Thereafter, the approved Mitigation Scheme shall be complied with throughout the lifetime of the development and during the time that any wind turbine hereby permitted is operational.

Archaeology

25. A) No development shall commence until a programme of archaeological work

including a Written Scheme of Investigation has been submitted to and approved by the local planning authority in writing. The scheme shall include an assessment of significance and research questions; and:

1. The programme and methodology of site investigation and recording;
 2. The programme for post investigation assessment;
 3. Provision to be made for analysis of the site investigation and recording;
 4. Provision to be made for publication and dissemination of the analysis and records of the site investigation;
 5. Provision to be made for archive deposition of the analysis and records of the site investigation;
 6. Nomination of a competent person or persons/organisation to undertake the works set out within the Written Scheme of Investigation.
- B) No development shall take place other than in accordance with the Written Scheme of Investigation approved under section (A).
- C) Prior to the First Export Date, the site investigation and post investigation assessment shall be completed in accordance with the programme set out in the Written Scheme of Investigation approved under part (A) and the provision made for analysis, publication and dissemination of results and archive deposition has been secured
26. No part of the development hereby permitted shall commence, nor any site clearance or site preparation works take place until a scheme (to include detailed plans and relevant cross sections) for the preservation in situ of the buried archaeological remains of the Romano British farmstead to the south and west of Upper Spring Farm including:
- (a) the design of the access track (in accordance with the design philosophy and principles of the Headland Archaeology report Starbold Wind Farm, Warwickshire. Proposed Access Track: Impact Assessment and Mitigation Plan commissioned by Broadview Energy Limited, September 2013). The construction of the access track and drainage shall be no greater in depth than 300mm below existing ground level and no greater in height than 750mm above existing ground level and no conducting media or cabling shall have a direct impact on the known archaeological remains of the Romano British farmstead to the south and west of Upper Spring Farm;
 - (b) a detailed methodology statement and timetable for the construction of the access track, associated drainage and the insertion of conducting media (in accordance with the principles of the Headland Archaeology report Starbold Wind Farm, Warwickshire. Proposed Access Track: Impact Assessment and Mitigation Plan commissioned by Broadview Energy Ltd, September 2013;

has been submitted to and approved in writing by the local planning authority. Such approved scheme shall thereafter be implemented in accordance with the approved timetable and the access track retained unless decommissioned in accordance with the requirements of Condition 4 of this permission.

Micrositing

27. The turbines and meteorological mast hereby permitted shall be erected at the following grid co-ordinates:

T2	438394	255157
T3	438799	255170
T4	438382	254756
T5	438776	254746
Met Mast	438390	254530

Notwithstanding the terms of this condition, the turbines, meteorological mast, access tracks, construction and storage compound and the control building, hereby permitted may be micro-sited within 30m subject at all times to compliance with the Micrositing Plan Figure 5.9.3 of the Further Environmental Information. A plan showing the position of the turbines and tracks established on the site shall be submitted to the local planning authority within one month of the First Export Date.

Operational noise

28. The rating level of noise immissions from the combined effects of the wind turbines hereby permitted (including the application of any tonal penalty), when determined in accordance with the attached Guidance Notes, shall not exceed the values for the relevant integer wind speed set out in or derived from Tables 1 and 2 attached to these conditions and:
- (A) Prior to the First Export Date, the wind farm operator shall submit to the local planning authority for written approval a list of proposed independent consultants who may undertake compliance measurements in accordance with this condition. Amendments to the list of approved consultants shall be made only with the prior written approval of the local planning authority.
 - (B) Within 21 days from receipt of a written request of the local planning authority, following a complaint to it alleging noise disturbance at a dwelling, the wind farm operator shall, at its expense, employ an independent consultant approved by the local planning authority to assess the level of noise immissions from the wind farm at the complainant's property in accordance with the procedures described in the attached Guidance Notes. The written request from the local planning authority shall set out at least the date, time and location that the complaint relates to. Within 14 days of receipt of the written request of the local planning authority made under this paragraph (B), the wind farm operator shall provide the information as requested in writing by the local planning authority logged in accordance with paragraph (H) to the local planning authority in the format set out in Guidance Note 1(e).
 - (C) Where there is more than one dwelling at a location specified in Tables 1 and 2 attached to this condition, the noise limits set for that location shall apply to all dwellings at that location. Where a dwelling to which a complaint is related is not identified by name or location in the Tables attached to these conditions, the wind farm operator shall submit to the

local planning authority for written approval proposed noise limits selected from those listed in the Tables to be adopted at the complainant's dwelling for compliance checking purposes. The proposed noise limits are to be those limits selected from the Tables specified for a listed location which the independent consultant considers as being likely to experience the most similar background noise environment to that experienced at the complainant's dwelling. The submission of the proposed noise limits to the local planning authority shall include a written justification of the choice of the representative background noise environment provided by the independent consultant. The rating level of noise immissions resulting from the combined effects of the wind turbines when determined in accordance with the attached Guidance Notes shall not exceed the noise limits approved in writing by the local planning authority for the complainant's dwelling.

- (D) Prior to the commencement of any measurements by the independent consultant to be undertaken in accordance with these conditions, the wind farm operator shall submit to the local planning authority for written approval the proposed measurement location identified in accordance with the Guidance Notes where measurements for compliance checking purposes shall be undertaken. Measurements to assess compliance with the noise limits set out in the Tables attached to these conditions or approved by the local planning authority pursuant to paragraph (C) of this condition shall be undertaken at the measurement location approved in writing by the local planning authority.
- (E) Prior to the submission of the independent consultant's assessment of the rating level of noise immissions pursuant to paragraph (F) of this condition, the wind farm operator shall submit to the local planning authority for written approval a proposed assessment protocol setting out the following:
 - (i) the range of meteorological and operational conditions (the range of wind speeds, wind directions, power generation and times of day) to determine the assessment of rating level of noise immissions.
 - (ii) a reasoned assessment as to whether the noise giving rise to the complaint contains or is likely to contain a tonal component.

The proposed range of conditions shall be those which prevailed during times when the complainant alleges there was disturbance due to noise, having regard to the information provided pursuant to the written request of the local planning authority under paragraph (B), and such others as the independent consultant considers necessary to fully assess the noise at the complainant's property. The assessment of the rating level of noise immissions shall be undertaken in accordance with the assessment protocol approved in writing by the local planning authority and the attached Guidance Notes.

- (F) The wind farm operator shall provide to the local planning authority the independent consultant's assessment of the rating level of noise

immissions undertaken in accordance with the Guidance Notes within 2 months of the date of the written request of the local planning authority made under paragraph (B) of this condition unless the time limit is extended in writing by the local planning authority. The assessment shall include all data collected for the purposes of undertaking the compliance measurements, such data to be provided in the format set out in Guidance Note 1(e) of the Guidance Notes. The instrumentation used to undertake the measurements shall be calibrated in accordance with Guidance Note 1(a) and certificates of calibration shall be submitted to the local planning authority with the independent consultant's assessment of the rating level of noise immissions.

- (G) Where a further assessment of the rating level of noise immissions from the wind farm is required pursuant to Guidance Note 4(c) of the attached Guidance Notes, the wind farm operator shall submit a copy of the further assessment within 21 days of submission of the independent consultant's assessment pursuant to paragraph (F) above unless the time limit for the submission of the further assessment has been extended in writing by the local planning authority.
- (H) The wind farm operator shall continuously log wind speed at a height of 10 metres and wind direction and rainfall data where available at the permanent meteorological mast erected in accordance with this consent and shall continuously log SCADA (Supervisory Control and Data Acquisition) information as approved in writing by the local planning authority including power production and nacelle wind speed, nacelle wind direction and nacelle orientation, blade rpm and pitch, at each wind turbine all in accordance with Guidance Note 1(d) of the attached Guidance Notes, where available. Where available the data from each wind turbine and the permanent meteorological mast shall be retained for a period of not less than 5 years. The wind farm operator shall provide this information in the format set out in Guidance Note 1(e) of the attached Guidance Notes to the local planning authority on its request within 14 days of receipt in writing of such a request.

For the purposes of this condition, a "dwelling" is a building within Use Class C3 or C4 of the Use Classes Order which lawfully exists or had planning permission at the date of this consent.

Note to Tables 1 & 2: The geographical coordinates references set out in these tables are provided for the purpose of identifying the general location of dwellings to which a given set of noise limits applies.

Table 1**Quiet Daytime (Between 07:00 & 23:00 hours) Noise level dB L_{A90}, 10-minute**

Location (easting, northing grid Coordinates)	Wind speed measured at 10 metres height (m/s) within the site averaged over 10 minute periods											
	L _{A90} Decibel Levels											
	1	2	3	4	5	6	7	8	9	10	11	12
H1 Lower Spring Farm (437707, 255548)	44	45	47	48	49	50	51	52	53	53	53	53
H2 Upper Spring Farm (438140, 255982)	47	48	48	48	49	49	50	50	51	51	51	51
H3 Glebe Farm Bungalow (439177, 256229)	41	42	43	44	45	46	47	48	49	49	49	49
H4 Lower Farm (439326, 255724)	39	41	42	43	44	45	46	47	49	49	49	49
H5 Bungalow Farm (439752, 254807)	42	43	44	45	46	47	48	48	49	49	49	49
H6 Gaydon Fields Farm (437481, 254377)	39	41	42	43	44	45	46	47	49	49	49	49
H7 Knightcote (439674, 254491)	40	41	42	43	45	46	47	48	49	49	49	49

Table 2**Night-time (Between 23:00 & 07:00 hours) Noise level dB L_{A90}, 10-minute**

Location (easting, northing grid Coordinates)	Wind speed measured at 10 metres height (m/s) within the site averaged over 10 minute periods											
	L _{A90} Decibel Levels											
	1	2	3	4	5	6	7	8	9	10	11	12
H1 Lower Spring Farm (437707, 255548)	43	43	43	43	43	44	45	46	47	47	47	47
H2 Upper Spring Farm (438140, 255982)	43	43	43	43	44	45	46	47	48	48	48	48
H3 Glebe Farm Bungalow (439177, 256229)	43	43	43	43	43	43	44	46	47	47	47	47
H4 Lower Farm (439326, 255724)	43	43	43	43	43	43	45	46	48	48	48	48
H5 Bungalow Farm (439752, 254807)	43	43	43	43	43	43	44	45	47	47	47	47
H6 Gaydon Fields Farm (437481, 254377)	43	43	43	43	43	43	45	46	48	48	48	48
H7 Knightcote (439674, 254491)	43	43	43	43	43	43	43	43	44	44	44	44

Guidance Notes for Noise Condition

These notes are to be read with and form part of the noise condition. They further explain the condition and specify the methods to be employed in the assessment of complaints about noise emissions from the wind farm. The rating level at each integer wind speed is the arithmetic sum of the wind farm noise level as determined from the best-fit curve described in Note 2 of these Guidance Notes and any tonal penalty applied in accordance with Note 3 with any necessary correction for residual background noise levels in accordance with Note 4. Reference to ETSU-R-97 refers to the publication entitled "The Assessment and Rating of Noise from Wind Farms" (1997) published by the Energy Technology Support unit (ETSU) for the Department of Trade and Industry (DTI).

Note 1

- (a) Values of the $L_{A90,10\text{-minute}}$ noise statistic should be measured at the complainant's property (or an approved alternative representative location as detailed in Note 1(b)), using a sound level meter of EN 60651/BS EN 60804 Type 1, or BS EN 61672 Class 1 quality (or the equivalent UK adopted standard in force at the time of the measurements) set to measure using the fast time weighted response as specified in BS EN 60651/BS EN 60804 or BS EN 61672-1 (or the equivalent UK adopted standard in force at the time of the measurements). This should be calibrated before and after each set of measurements, using a calibrator meeting BS EN 60945:2003 "Electroacoustics – sound calibrators" Class 1 with PTB Type Approval (or the equivalent UK adopted standard in force at the time of the measurements) and the results shall be recorded. Measurements shall be undertaken in such a manner to enable a tonal penalty to be calculated and applied in accordance with Guidance Note 3.
- (b) The microphone shall be mounted at 1.2 - 1.5 metres above ground level, fitted with a two-layer windshield or suitable equivalent approved in writing by the local planning authority, and placed outside the complainant's dwelling. Measurements should be made in "free field" conditions. To achieve this, the microphone shall be placed at least 3.5 metres away from the building facade or any reflecting surface except the ground at the approved measurement location. In the event that the consent of the complainant for access to his or her property to undertake compliance measurements is withheld, the wind farm operator shall submit for the written approval of the local planning authority details of the proposed alternative representative measurement location prior to the commencement of measurements and the measurements shall be undertaken at the approved alternative representative measurement location.
- (c) The $L_{A90,10\text{-minute}}$ measurements should be synchronised with measurements of the 10-minute arithmetic mean wind speed and wind direction data rain data and with operational data logged in accordance with Guidance Note 1(d).
- (d) To enable compliance with the conditions to be evaluated, the wind farm operator shall continuously log anemometry at the meteorological mast, to include arithmetic mean wind speed in metres per second (m/s) and arithmetic mean wind direction in degrees from north and rainfall data in each successive 10-minutes period at any permanent meteorological mast erected in accordance with the planning permission on the site. Each 10 minute arithmetic average mean wind speed data shall be measured at a height of 10

metres. It is this measured 10 metre height wind speed data which is correlated with the noise measurements determined as valid in accordance with Note 2(b), such correlation to be undertaken in the manner described in Note 2(c). The wind farm operator shall continuously log SCADA information as approved in writing by the local planning authority including arithmetic mean nacelle anemometer wind speed, arithmetic mean nacelle orientation, arithmetic mean wind direction as measured at the nacelle blade rpm and pitch and arithmetic mean power generated during each successive 10-minutes period for each wind turbine on the wind farm where such data is available. All 10-minute periods shall commence on the hour and in 10-minute increments thereafter synchronised with Greenwich Mean Time and adjusted to British Summer Time where necessary.

- (e) Data provided to the local planning authority in accordance with paragraphs (F) (G) and (H) of the noise condition shall be provided in comma separated values in electronic format.
- (f) A data logging rain gauge shall be installed at the property in the course of the independent consultant undertaking an assessment of the level of noise immissions. The gauge shall record over successive 10-minute periods synchronised with the periods of data recorded in accordance with Note 1(d). The wind farm operator shall submit details of the proposed location of the data logging rain gauge to the local planning authority prior to the commencement of measurements.

Note 2

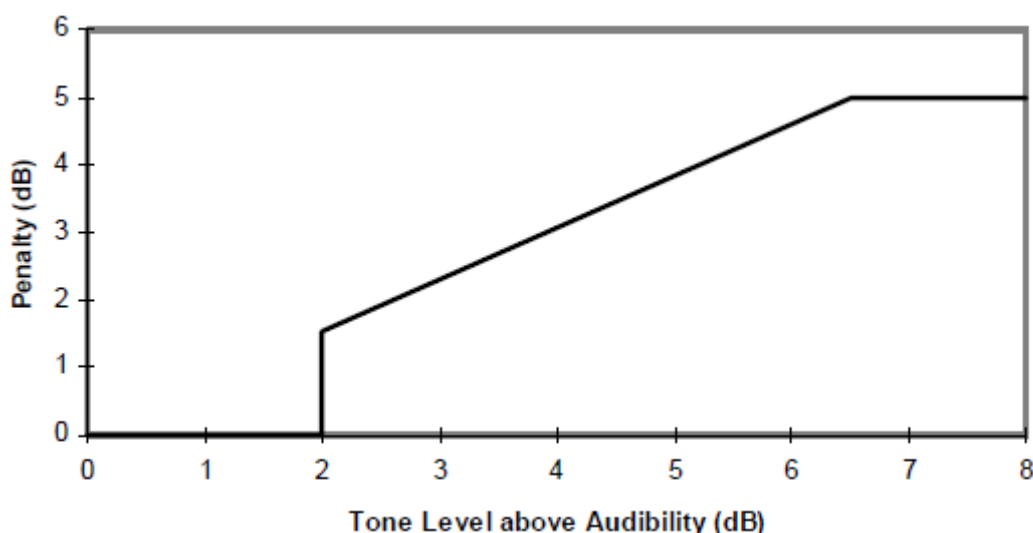
- (a) The noise measurements should be made so as to provide not less than 20 valid data points and not more than 40 valid data points as defined in Note 2 paragraph (b) for each compliance assessment period. The data points shall be aggregated on a contiguous basis.
- (b) Valid data points are those measured during the conditions set out in the assessment protocol approved by the local planning authority under paragraph (E) of the noise condition but excluding any periods of rainfall measured in accordance with Note 1(f).
- (c) Values of the $L_{A90,10\text{-minute}}$ noise measurements and corresponding values of the 10-minute measured ten metre height wind speed for those data points considered valid in accordance with Note 2(b) shall be plotted on an XY chart with noise level on the Y-axis and wind speed on the X-axis. A least squares, "best fit" curve of an order deemed appropriate by the independent consultant (but which may not be higher than a fourth order) shall be fitted to the data points to define the wind farm noise level at each integer speed.

Note 3

- (a) Where, in accordance with the approved assessment protocol under paragraph (E) of the noise condition, noise immissions at the location or locations where compliance measurements are being undertaken contain or are likely to contain a tonal component, a tonal penalty shall be calculated and applied using the following rating procedure.
- (b) For each 10-minute interval for which $L_{A90,10\text{-minute}}$ data have been determined as valid in accordance with Note 2, a tonal assessment shall be performed on noise immissions during 2-minutes of each 10-minute period. The 2-minute

periods should be spaced at 10-minute intervals provided that uninterrupted uncorrupted data are available ("the standard procedure"). Where uncorrupted data are not available, the first available uninterrupted clean 2-minute period out of the affected overall 10-minute period shall be selected. Any such deviations from the standard procedure shall be reported.

- (c) For each of the 2-minute samples the tone level above audibility shall be calculated by comparison with the audibility criterion given in Section 2.1 on pages 104 -109 of ETSU-R-97.
- (d) The tone level above audibility shall be plotted against wind speed for each of the 2-minute samples. Samples for which the tones were below the audibility criterion or no tone was identified, a value of zero audibility shall be substituted.
- (e) A least squares "best fit" linear regression shall then be performed to establish the average tone level above audibility for each integer wind speed derived from the value of the "best fit" line fitted to values within ± 0.5 m/s of each integer wind speed. If there is no apparent trend with wind speed then a simple arithmetic mean shall be used. This process shall be repeated for each integer wind speed for which there is an assessment of overall levels in Note 2.
- (f) The tonal penalty is derived from the margin above audibility of the tone according to the figure below derived from the average tone level above audibility for each integer wind speed.



Note 4

- (a) If a tonal penalty is to be applied in accordance with Note 3 the rating level of the turbine noise at each wind speed is the arithmetic sum of the measured noise level as determined from the best fit curve described in Note 2 and the penalty for tonal noise as derived in accordance with Note 3 at each integer wind speed within the range set out in the approved assessment protocol under paragraph (E) of the noise condition.
- (b) If no tonal penalty is to be applied then the rating level of the turbine noise at each wind speed is equal to the measured noise level as determined from the best fit curve described in Note 2.
- (c) If the rating level at any integer wind speed lies at or below the values set out in the Tables attached to the conditions or at or below the noise limits

approved by the local planning authority for a complainant's dwelling in accordance with paragraph (C) of the noise condition then no further action is necessary. In the event that the rating level is above the limit(s) set out in the Tables attached to the noise conditions or the noise limits for a complainant's dwelling approved in accordance with paragraph (C) of the noise condition, the independent consultant shall undertake a further assessment of the rating level to correct for background noise so that the rating level relates to wind turbine noise immission only.

- (d) The wind farm operator shall ensure that all the wind turbines in the development are turned off for such period as the independent consultant requires to undertake the further assessment. The further assessment shall be undertaken in accordance with the following steps:
- i. Repeating the steps in Note 2, with the wind farm switched off, and determining the background noise (L_3) at each integer wind speed within the range set out in the approved noise assessment protocol under paragraph (E) of this condition.
 - ii. The wind farm noise (L_1) at this speed shall then be calculated as follows where L_2 is the measured level with turbines running but without the addition of any tonal penalty:

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

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

If the rating level after adjustment for background noise contribution and adjustment for tonal penalty (if required in accordance with note (iii) above) at any integer wind speed lies at or below the values set out in the Tables attached to the conditions or at or below the noise limits approved by the local planning authority for a complainant's dwelling in accordance with paragraph (C) of the noise condition then no further action is necessary. If the rating level at any integer wind speed exceeds the values set out in the Tables attached to the conditions or the noise limits approved by the local planning authority for a complainant's dwelling in accordance with paragraph (C) of the noise condition then the development fails to comply with the conditions.

Annex B

APPEARANCES

FOR BROADVIEW ENERGY LIMITED

Mr D Hardy LL.B (Hons), B.C.L. (Hons) (Oxon) Partner, Eversheds LLP, instructed by Broadview Energy Limited.

He Called:

Mr B Denney BA (Hons), DIP LA, CMLI, CENV, MIEMA.
Environmental Planning Director, Pegasus Group.

Dr. S Carter
Senior Consultant, Headland Archaeology Limited.

Mr S Arnott BSc (Hons), MIOA.
Principal Associate Director, TNEI Services Limited.

Mr D Bell BSc (Hons), Dip UD, MRTPI, MIHT.
National Director, Jones Lang Lasalle.

FOR THE LOCAL PLANNING AUTHORITY

James Findlay QC and Paul Cairnes of Counsel instructed by Leenamari Aantaa-Collier, Principal Solicitor, Stratford-on-Avon District Council.

They Called:

Mr B Chinn BA, Dip LA, CMLI.
Principal, Barry Chinn Associates, Landscape Architects.

Mr M Stigwood MIA, CIEH, RSPH.
Principal, MAS Environmental.

Mr A Firth BSc, MSc (Statistics), PGDip TP, MSc & PhD (Historic Conservation).

Mr N Hempstead BA (Hons) MPhil, MRTPI.
Senior Planner, Stratford-on-Avon District Council.

FOR BISHOPS ICHINGTON PARISH COUNCIL

Mr C Kettle, Chairman.

FOR BURTON DASSETT PARISH COUNCIL

Mr A Wolstenholme, Chairman.

FELDON RESIDENTS AGAINST WIND TURBINES

Mr G Sinclair
Environmental Information Services.

Mr Bolton.

INTERESTED PERSONS

Mr J Brook BVM&S, MRCVS, Spring Paddocks Equine.
Mr Chaddock.
Mr R Bearman, Stratford Friends of the Earth.
Mr N Bulter, Council for the Preservation of Rural England.
Mr Kirk.
Mr Tuffrey.
Mrs Houlder.
Mr Curtis.
Mrs Pearson.
Mr Ellis.
Mr Wood.
Cllr. Jackson.
Mr Smith.
Mr Kettle.
Mr Burgess.

DOCUMENTS

Documents Submitted by Broadview Limited.

Doc 1	-	Opening Submissions.
Doc 2	-	Judgement in the High Court of Justice, Bedford Borough Council v Secretary of State for Communities & Local Government and Nuon UK Limited [2012] EWHC 4344 (Admin).
Doc 3	-	Copies of Emails dated 8 to 13 August 2013 re Causymire Wind Farm.
Doc 4	-	Summary of Energy Contribution.
Doc 5	-	Note on energy payback.
Doc 6	-	Note on Heightened Noise Zones – Response by Mr Arnott.
Doc 7	-	Closing Submissions.
Doc 8	-	List of suggested conditions.

Mr Denney (Landscape and Visual Impact)

Doc 9	-	Summary proof of evidence.
Doc 10	-	Proof of Evidence.
Doc 11	-	Appendices 1 to 7, Volumes 1 & 2.

Mr Arnott (Noise)

Doc 12	-	Summary proof of evidence.
Doc 13	-	Proof of Evidence.

Doc 14 - Appendices 1 and 2.

Mr Carter (Heritage)

Doc 15 - Summary proof of evidence.

Doc 16 - Proof of evidence.

Doc 17 - Appendices 1 to 3.

Mr Bell (Planning/Energy Policy)

Doc 18 - Summary proof of evidence.

Doc 19 - Proof of evidence.

Doc 20 - Appendices 1 to 11.

Doc 21 - Rebuttal proof of evidence with Appendix A.

Mr Kimber (Archaeology)

Doc 22 - Summary proof of evidence.

Doc 23 - Proof of evidence.

Doc 24 - Appendices 1 to 10.

Mr Riddick (Aviation)

Doc 25 - Summary proof of evidence.

Doc 26 - Proof of evidence.

Mr Spaven (Aviation)

Doc 27 - Summary proof of evidence.

Doc 28 - Proof of evidence.

Doc 29 - Appendices 1 to 7.

Doc 30 - Rebuttal proof of evidence

Documents submitted by the Local Planning Authority

Doc 31 - Opening Submissions.

Doc 32 - Extent of AM Heightened Noise Zones.

Doc 33 - Lpa's list of suggested conditions.

Doc 34 - Letter of notification and list of persons notified.

Mr Chin (Landscape and Visual Impact)

Doc 35 - Summary proof of evidence.

Doc 36 - Proof of evidence.

Doc 37 - Appendices 1 to 4.

Mr Firth (Heritage)

Doc 38 - Summary proof of evidence.

Doc 39 - Proof of evidence.

Doc 40 - Appendices 1 to 3.

Mr Stigwood (Noise)

- Doc 41 - Summary proof of evidence.
- Doc 42 - Proof of evidence.
- Doc 43 - Appendices 1 to 4.

Mr Hempstead (Planning Policy)

- Doc 44 - Summary proof of evidence.
- Doc 45 - Proof of evidence.
- Doc 46 - Appendices 1 and 2.

Ms Stocks (Archaeology)

- Doc 47 - Summary proof of evidence.
- Doc 48 - Proof of evidence.

Mr Cool (Aviation)

- Doc 49 - Summary proof of evidence.
- Doc 50 - Proof of evidence.
- Doc 51 - Appendices A to H.

Documents submitted by FRAWT/Bishops Itchington Parish Council & Burton Dassett Parish Council (The Coalition).

- Doc 52 - Opening submissions on behalf of the Coalition.
- Doc 53 - Comparative Residential Survey of Properties between 1 & 2km.
- Doc 54 - Closing submissions on behalf of the Coalition.
- Doc 55 - Closing submissions on behalf of BIPC.

Mr Sinclair (Landscape, Visual Impact and Planning Policy)

- Doc 56 - Summary proof of evidence.
- Doc 57 - Proof of evidence.
- Doc 58 - Appendices A to J.

Mr Bolton (Heritage)

- Doc 59 - Proof of evidence.
- Doc 60 - Appendices A to C.

Mr Kettle (Miscellaneous Issues, Energy and Equine Matters)

- Doc 61 - Proof of evidence, Miscellaneous issues.
- Doc 62 - Proof of evidence, Energy.
- Doc 63 - Proof of evidence and Appendices A.

Mr Wolstenholme

- Doc 64 - Summary proof of evidence.
- Doc 65 - Proof of evidence.

Statements submitted by Interested Persons Appearing at the Inquiry

- Doc 66 - Mr Brook Proof of Evidence and Appendices A to E.
- Doc 67 - Mr Chaddock.
- Doc 68 - Mr R Bearman, Stratford Friends of the Earth.
- Doc 69 - Mr N Bulter, Council for the Preservation of Rural England.
- Doc 70 - Mr Kirk.
- Doc 71 - Mr Tuffrey.
- Doc 72 - Mrs Houlder.
- Doc 73 - Mr Curtis.
- Doc 74 - Mrs Pearson.
- Doc 75 - Mr Ellis.
- Doc 76 - Mr Wood.
- Doc 77 - Cllr. Jackson.
- Doc 78 - Mr Kettle.

Written Statements

- Doc 79 - Mr Watt BSc, CMLI, MRTPI, FArborA. Cotswolds Conservation Board. Proof of evidence and Appendices 1 to 12
- Doc 80 - Bundle of written representations.

Documents submitted after the close of the Inquiry at the request of the Inspector and documents added by the Inspector

- Doc 81 - Copy of letter to the parties requesting comments on RenewableUK research on AM.
- Doc 81a - Wind Turbine Amplitude Modulation: Research to Improve Understanding as to its Cause and Effect". This comprises several work packages denoted WP A-WP F relating to the Phase 1 research and a further section detailing the Phase 2 work.
- Doc 81b - Template Planning Condition on Amplitude Modulation: Noise Guidance Notes;
- Doc 81c - The Development of a Penalty scheme for amplitude modulated Wind Farm Noise: Description and Justification.
- Doc 81d - Summary of Research into Amplitude Modulation of Aerodynamic Noise from Wind Turbines: Research to Improve Understanding as to its Cause and Effect", Temple Group for RUK;
- Doc 81e - Wind Turbine Amplitude Modulation: Research to Improve Understanding as to its Cause and Effect- Brief Summary.
- Doc 81f - Review of ReUK's Research into Amplitude Modulation, Temple Group for ReUK.
- Doc 82 - Further comments by the Ipa relating to consideration of RenewableUK research on Amplitude Modulation.

- Doc 83 - Broadview's response on further comments by the lpa relating to consideration of RenewableUk research on Amplitude Modulation.
- Doc 84 - BIPC comments on RenewableUk research on AM.
- Doc 85 - Lpa comment on the implication of the Barnwell Manor Court of Appeal Decision.
- Doc 86 - Broadview comment on the implication of the Barnwell Manor Court of Appeal Decision.
- Doc 87 - BIPC comments on the implication of the Barnwell Manor Court of Appeal Decision.
- Doc 88 - Broadview response to lpa comments on the implication of the Barnwell Manor Court of Appeal Decision.
- Doc 89 - LPA response to a request for comment on the introduction of Planning Policy Guidance 6 March 2014.
- Doc 90 - Broadview response for comment on the introduction of Planning Policy Guidance 6 March 2014.

Annex C

Core Document List

		Document
1 Adopted Development Plan Documents		
SDC	1.1	Saved policies of the Stratford-on-Avon District Local Plan Review 1996 - 2011
2 Planning Policy and Companion Guides and Legislation		
BEL	2.1	DCLG: National Planning Policy Framework (March 2012)
BEL	2.2	Government Response to the Communities and Local Government Select Committee Report: NPPF
BEL	2.3	Written Statement to Parliament, Local Planning and Onshore Wind, The Rt Hon Eric Pickles MP, DCLG, 6 June 2013
BEL	2.4	Written Statement to Parliament, The Rt Hon Edward Davey NIP, DECC, 6 June
SDC	2.5	National Planning Policy Framework March 2012 Technical Guidance Note
BEL	2.6	Companion Guide to PPS22: Renewable Energy (2004) (Extract – Technical Annex on non wind matters excluded)
BEL	2.7	Practice Guide to PPS 5 for the Historic Environment (2010)
BEL	2.8	Circular 01/2003 - Safeguarding Aerodromes
SDC	2.9	Circular 02/99: Environmental Impact Assessment
SDC	2.10	Circular 11/95: The Use of Conditions in Planning Permissions
SDC	2.11	Town and Country Planning (Environmental Impact Assessment) (England and
SDC	2.12	Town and Country Planning (Environmental Impact Assessment) (Amendment)
SDC	2.13	Town and Country Planning (Environmental Impact Assessment) Regulations
SDC	2.14	Town and Country Planning (Development Management Procedure) (England) Order 2010
SDC	2.15	The Planning System: General Principles (ODPM 2005)
SDC	2.16	Wind Turbines (Minimum Distance from Residential Premises) Bill [HL] 2012-13
BEL	2.17	DCLG: Planning Practice Guidance for Renewable and Low Carbon Energy, July 2013
TC	2.18	DCLG: Note on Environmental Impact Assessment

TC	2.19	DCLG: Environmental Impact Assessment Guide to Good Practice and Procedures 2006 (Extracts)
3		Other Local Planning Authority Documents and Documents re: Regional Spatial Strategies
BEL	3.1	Letter dated 6 July 2010 from the SoS for Communities and Local Government to all Chief Planning Officers
BEL	3.2	CAMCO Warwickshire and Solihull Renewable and Low Carbon Energy Resource Assessment and Feasibility Study - April 2010
SDC	3.3	Statement of Community Involvement 2006
SDC	3.4	Corporate Strategy 2011-2015
SDC	3.5	Sustainable Community Strategy 2009
SDC	3.6	Intended Submission Core Strategy 2013
SDC	3.7	Fenny Compton Parish Plan 2009
SDC	3.8	Bishops Itchington Parish Plan 2008
SDC	3.9	Fenny Compton Village Design Statement 1998
SDC	3.10	Burton Dassett Village Design Statement 2003
SDC	3.11	Knightcote Village Design Statement 2000
BEL	3.12	Extract from Renewable and Low Carbon Energy Resource Assessment and Feasibility Study April 2010 - Figure 25 "Zones of varying constraint within study area" with Site overlaid
BEL	3.13	Representations to the draft Core Strategy made on behalf of Broadview Energy
4		High Court Decisions
BEL	4.1	Derbyshire Dales District Council v SoS for Communities and Local Government [2009] EWHC 1729
BEL	4.2	R (Hulme) v SoS for Communities and Local Government [2010] EWHC 2386
BEL	4.3	R (Lee) v SoS for Communities and Local Government, Maldon District Council, Npower Renewables [2011] EWHC 807 (Admin)
BEL	4.4	Michael William Hulme v SoS for Communities and Local Government and RES Developments Limited [2011] EWCA Civ 638
BEL	4.5	Sea & Land Power & Energy Ltd v SoS for Communities and Local Government, Great Yarmouth Borough Council [2012] WHC 1419 (Admin)
BEL	4.6	(1) South Northamptonshire Council (2) Deidre Veronica Ward v (1) SoS for Communities and Local Government (2) Broadview Energy Developments Limited [2013] EWHC 11 (Admin)

BEL	4.7	(1) East Northamptonshire District Council (2) English Heritage (3) National Trust v (1) Sos (2) Barnwell Manor Wind Energy Limited [2013] EWHC 473 (Admin)
BEL	4.8	Coleman v Secretary of State for Communities and Local Government and others [2013] EWHC 1138 (Admin)
BEL	4.9	Gerald David Bayliss v SoS Communities and Local Government, Purbeck District Council, Purbeck Windfarm LLP [2013] EWHC 1612 (Admin)
BEL	4.10	Tesco Stores Ltd v Dundee City Council [2012] 2 P&CR 162
SDC	4.11	Hulme v SoS for Communities and Local Government [2011] EWCA Civ 638
5 Various Wind Farm Appeal Decisions and Section 36 Electricity Act Decisions		
BEL	5.1	Nun Wood (decision of Inspector Cookson December 2011 APP/K0235/A/11/2149434, APP/H2835/A/11/2149437 and APP/Y0435/A/11/2140401)
BEL	5.2	Chiplow (APP/V2635/A/11/2154590) and Jack's Lane (APP/V2635/A/11/2158966)
BEL	5.3	Woolley Hill (APP/H0520/A/11/2158702)
BEL	5.4	Burnthouse Farm (Decision Letter and IR conclusions) (APP/D0515/A/10/2123739 and APP/D0515/A/10/2131194)
BEL	5.5	Cleek Hall (APP/N2739/A/12/2172629)
BEL	5.6	Carland Cross (APP/D0840/A/09/2103026)
BEL	5.7	Airfield Farm, Podington (APP/K0235/A/09/2108506) 23/2/2010 and 13/8/2012
BEL	5.8	Chelveston (APP/K0235/A/11/2160077 and APP/G2815/A/11/2160078)
BEL	5.9	Lilbourne (APP/Y2810/A/11/2164759)
BEL	5.10	Winwick (APP/Y2810/A/11/2156527)
BEL	5.11	Kelmarsh (APP/Y2810/A/11/2154375)
BEL	5.12	Spaldington (APP/E2001/A/10/2137617 and APP/E2001/A/10/2139965)
BEL	5.13	Kiln Pit Hill (APP/R2928/A/08/2075105)
BEL	5.14	Middlemoor (ELEC/2005/2004 - GDBC/001/00245C) (s36 consent) (Extracts)
BEL	5.15	Carsington Pastures (APP/P1045/A/07/2054080)
BEL	5.16	Fraisthorpe (APP/E2001/A/12/2179233)
BEL	5.17	Thacker Bank/Gayton le Marsh (APP/D2510/A/12/2176754)

BEL	5.18	Yelvertoft (APP/Y2810/A/10/2120332)
BEL	5.19	Cotton Farm (APP/H0520/A/09/2119385)
BEL	5.20	Alaska Wind Farm (APP/B1225/A/11/2161905)
BEL	5.21	Batsworthy Cross (APP/X1118/A/11/2162070)
BEL	5.22	Sober Hill (APP/E2001/A/09/2101421)
BEL	5.23	Crook Hill (IR Extracts and Decision Letter) (APP/P4225/A/08/2065277)
BEL	5.24	Earls Hall Farm (APP/P1560/A/08/2088548)
BEL	5.25	Swinford (Inspector's Report and Decision Letter) (APP/F2415/A/09/2096369/NWF)
BEL	5.26	Low Spinney (APP/F2415/A/09/2109745)
BEL	5.27	Hemphall (APP/L2630/A/08/2084443)
BEL	5.28	Den Brook (APP/Q1153/A/06/2017162) dated 11 December 2009
BEL	5.29	Little Linton Farm (APP/W0530/A/09/2108277)
BEL	5.30	Bradwell (APP/X1545/A/06/2023805) dated 25 January 2010
BEL	5.31	Frodsham (s36 consent) (IR Extracts and Decision Letter)
BEL	5.32	Fullabrook Down (GDBC/003/00024C) (s36 consent) (Inspector Report Extracts and Decision Letter)
BEL	5.33	North Forest (APP/A4710/A/11/2166509)
BEL	5.34	Wadlow (APP/W0530/A/07/2059471) (Extracts)
BEL	5.35	Ellands Farm (APP/G2815/A/06/2019989)
BEL	5.36	Brent Knoll (APP/V3310/A/06/2031158)
BEL	5.37	Bickham Moor, Kirkton Lane, Oakford, Devon (APP/Y1138/A/08/2084526)
BEL	5.38	North of Goveton, Sandy Lane End, Kingsbridge, Devon (APP/K1128/A/08/2072150)
BEL	5.39	Little Cheyne Court (GDBC/003/00004C-02) dated 13 May 2005 (Extracts)
BEL	5.40	Bradwell (APP/X1545/A/06/2023805) dated 10 September 2007
BEL	5.41	Enifer Downs/North Dover (APP/X220/A/08/2071880)
BEL	5.42	See CD 5.36
BEL	5.43	Sixpenny Wood, East Riding of Yorkshire (APP/E2001/A/09/2101851)
BEL	5.44	Shooters Bottom (APP/Q3305/A/05/1181087)

BEL	5.45	Biggleswade (APP/P0240/A/11/2150950)
BEL	5.46	Watford Lodge (APP/Y2810/A/11/2153242/NWF)
BEL	5.47	Langford (APP/P0240/A/11/2150950/NWF)
BEL	5.48	East Youlstone Farm (APP/W1145/A/12/2167981)
BEL	5.49	Common Barn (APP/H0520/A/12/2188648)
BEL	5.50	Hill Lane, Oldbury on Severn (Stoneyard Lane) (APP/P0119/A/11/2154175)
BEL	5.51	Stinchcombe (APP/C1625/11/2155923)
BEL	5.52	Departments of Communities and Local Government and Transport, Decision
BEL	5.53	Land at Coventry Airport South: Inspector's Report (APP/T3725/A/05/1151760 &
TC	5.54	Shipdham (APP/F2605/A/08/2089810)
TC	5.55	Mynydd y Gwrhyd (APP/Y6930/A/05/1189610)
TC	5.56	Silloth (Parkhead Farm) (APP/G0908/A/08/2073524)
TC	5.57	Mynydd James (APP/X6910/A/09/2107007)
TC	5.58	Llethercynon (APP/T6850/A/03/1122720)
TC	5.59	Sillfield (APP/M0933/A/09/2099304)
TC	5.60	Poplar Lane (APP/L3245/A/08/2088742)
TC	5.61	Foxton (APP/X1355/A/11/2164483)
TC	5.62	Wogaston (APP/N6845/A/00/1050866)
TC	5.63	Guestwick (APP/K2610/A/05/1180685)
TC	5.64	Armistead (APP/M0933/A/08/2090274)
TC	5.65	Baumber (APP/D2510/A/10/2121089)
TC	5.66	Bicton (APP/H0520/A/11/2146394)
TC	5.67	Beech Tree Farm, Lamerton (APP/Q1153/A/04/1170234)
TC	5.68	Holderness (APP/E2001/A/99/1028074 & 1029745)
TC	5.69	Bedlay Colliery (PPA-320-2048)
	5.70	Grise Wind Farm APP/H0928/A/09/2093576
6 Planning Renewable Energy and Climate Change Documents		
BEL	6.1	DECC NPS Overarching Energy EN1 (July 2011)
BEL	6.2	ECC NPS, Renewable Energy EN3 (July 2011)

BEL	6.	West Midlands Regional Assembly, Advantage West Midlands & Government
BEL	6.4	Energy White Paper - 'Meeting the Energy Challenge' (2007) (Extracts)
BEL	6.5	DECC: The UK Renewable Energy Strategy (UKRES), July 2009
BEL	6.6	DECC: The UK Low Carbon Transition Plan, (LCTP) White Paper in (July 2009) (Executive Summary)
BEL	6.7	Letter to Lord Turner re 'Increasing the Target for Energy from Renewable Sources' dated 29 July 2010 and Letter to Rt Hon Chris Huhne 'The Level of Renewable Energy Ambition to 2020' 9/11/2010
BEL	6.8	The Coalition Government: "Our Programme for Government" (2010)
BEL	6.9	The Renewable Energy Review, Committee on Climate Change (2011)
BEL	6.10	UK Renewable Energy Road Map (July 2011)
BEL	6.11	Electricity Market Reform White Paper (July 2011)
BEL	6.12	National Infrastructure Plan (November 2011)
BEL	6.13	The Carbon Plan: Delivering Our Low Carbon Future (December 2011)
BEL	6.14	See CD 6.13
BEL	6.15	The Annual Energy Statement (2012)
BEL	6.16	Renewable Energy Roadmap Update (December 2012)
BEL	6.17	Natural England, "Making Space for Renewable Energy" (2010)
BEL	6.18	Natural England, "Sustainable Energy Policy" (2008)
BEL	6.19	Natural England, "Position on Wind Energy" (2009)
BEL	6.20	Natural England, "All Landscapes Matter" (2010)
BEL	6.21	Natural England "Climate Change Policy" (2008)
BEL	6.22	Natural England, "Future Landscapes - draft policy for consultation", (2009)
BEL	6.23	Cotswold Conservation Board Position Statement: Renewable Energy Projects
BEL	6.24	DECC, June 2012, 'Special Feature - renewable energy in 2011
BEL	6.25	DECC 'Energy Trends' Report of March 2013
BEL	6.26	See CD 3.2
BEL	6.27	SQW, Renewable Energy Capacity Study for the West Midlands, A Final Report to Telford & Wrekin Council, (March 2011)

BEL	6.28	DECC - Renewable Electricity in Scotland, Wales, Northern Ireland and the regions of England in 2011', Special Feature Renewable Electricity (September 2012)
SDC	6.20	DECC - Onshore Wind Call for Evidence: Government Response to Part A (Community and Engagement and Benefits) and Part B (Costs) Department of Energy and Climate Change June 2013
BEL	6.30	DECC, Digest of UK Energy Statistics (DUKES) July 25 2013
TC	6.30	Renewable UK State of the Industry Report 2012 (Extracts)
BEL	6.31	British Horse Society Scottish Wind Farm Advice Note
BEL	6.32	British Horse Society English Advisory Advice on Wind Turbines
TC	6.32	DECC Sub-regional electricity Consumption Statistics 2011 (Extracts)
BEL	6.33	Next steps on Electricity Market Reform - Securing the Benefits of Low-Carbon Investment (May 2013)
BEL	6.34	DECC: Press Notice 'Government Agreement on Energy Policy sends clear, durable signal to investors' (November 2012)
BEL	6.35	Annual Energy Statement - Oral Statement by Edward Davey (29 November 2012)
BEL	6.36	DECC, Electricity Market Reform: Policy Overview (November 2012)
7 Landscape and Visual (including public perception) Documents		
SDC	7.1	Council of Europe, "European Landscape Convention", 2000
BEL	7.2	The Landscape Institute, Institute of Environmental Management and Assessment, 2002 'Guidelines for Landscape and Visual Impact Assessment', second edition.
BEL	7.3	The Landscape Institute, Institute of Environmental Management and Assessment, 2013 'Guidelines for Landscape and Visual Impact Assessment', third edition.
BEL	7.4	Landscape Character Assessment: Guidance for England and Scotland(The Countryside Agency and Scottish Natural Heritage 2002)
BEL	7.5	Landscape Character Assessment Topic Paper 6 - Techniques and criteria for judging Capacity and Sensitivity (Countryside Agency # and Scottish Natural Heritage 2003)
BEL	7.6	Siting and designing Wind farms in the landscape, Version 1 (Scottish Natural Heritage December 2009)
BEL	7.7	Photography and Photomontage in Landscape and Visual Assessment, Landscape Institute Advice Note 01/2011 (2011)
BEL	7.8	VisualAssessment of Wind Farms: Best Practice (prepared by University of Newcastle 2002)

BEL	7.9	Visual Representation of Wind Farms: Good Practice Guidance (Scottish Natural Heritage 2006)
BEL	7.10	Scottish Natural Heritage, "Guidance Assessing the Cumulative Impact of Onshore Wind Energy Developments" Version 3, (March 2012)
SDC	7.11	Warwickshire Landscape Guidelines - Avon Guidelines 1993
SDC	7.12	Stratford on Avon District Design Guide 2002
SDC	7.13	Cotswolds AONB Partnership, Cotswold AONB Landscape Character Assessment (2004) prepared by LDA Design
SDC	7.14	Cotswolds Conservation Board: The Cotswold AONB Management Plan 2008-2013
SDC	7.15	Cotswolds Conservation Board: The Cotswold AONB Management Plan Adopted (Pre-Publication) 2013-2018
SDC	7.16	Cotswolds AONB Partnership: The Cotswolds AONB Landscape Strategy and Guidelines (2008) Prepared by LDA Design - Number 2
BEL	7.17	National Landscape Character Areas - Countryside Character Volume 5: West Midlands, published by former Countryside Agency Character Area 96: Feldon
SDC	7.18	Stratford-on-Avon District Special Landscape Areas Study June 2012
BEL	7.19	Campaign to Protect Rural England - Tranquillity Mapping, 2007
BEL	7.20	Department of Energy and Climate Change, "DECC Public Attitudes Tracker - Wave 1", July 2012
BEL	7.21	Ipsos Mori, "Wind Power Omnibus Research", April 2012
BEL	7.22	Cotswold Conservation Board Position Statement: Development in the setting of the Cotswolds AONB (2011)
BEL	7.23	Cotswold Conservation Board Position Statement: Tranquillity and Dark Skies (2010)
BEL	7.24	'Public Attitudes to Wind Farms' Scottish Executive 2003
BEL	7.25	'Green on Green Public Perceptions of Wind Power in Scotland and Ireland, Nov
BEL	7.26	'Review with Requests for Additional Information - Landscape and Visual Impact Aspects of the Planning Application submitted by Broadview Energy Developments' Barry Chin Associates on behalf of Stratford-on-Avon District
BEL	7.27	See CD 6.31
TC	7.27	Highland Council - Visualisation Standards for Wind Energy Developments
BEL	7.28	See CD 6.32

SDC	7.28	Stratford on Avon District Special Landscape Areas Study June 2012 – Executive Summary
8 Noise		
BEL	8.1	ETSU_R-97 The Assessment and Rating of Noise from Wind Farms, 1996, ETSU
BEL	8.2	Prediction and assessment of wind turbine noise - agreement about relevant factors for noise assessment from wind energy projects. D. Bowdler, AJ Bullmore,
BEL	8.3	Cooper, .J, Evans, T. Comparison of predicted and measured wind farm noise levels and implications for assessments of new wind farms, Proc Acoustics 2011, 2-4 November, Gold Coast, Australia
SDC	8.4	ISO 9613-2:(1996(E) Acoustics - Attenuation of sound during propagation outdoors - Part 2: General Method of calculation, International Standards Organisation, Geneva
BEL	8.5	Knopper and Olson, Health Effects and Wind Turbines, a Review of the Literature, Environmental Health 2011, 10:78 Available from http://www.ehjournal.net/content/10/1/78
BEL	8.6	International Electrotechnical Commission (2002) Wind Turbine Generator Systems - Part 11: Acoustic noise Measurement techniques
BEL	8.7	Bowdler, R., Leventhall, G. (Ed), Wind Turbine Noise, Chapter 5, Multi Science Publishing Limited, Essex 2011 (Extract)
BEL	8.8	Research into Aerodynamic Modulation of Wind Turbine Noise: Final Report, July 2007, Contract no NANR233
BEL	8.9	Government statement on the findings of the Salford University report into Aerodynamic Modulation of Wind Turbine Noise, Department for Business, Enterprise and Regulatory Reform, July 2007. URN 07/1276
BEL	8.10	Keele University Rejects Renewable Energy foundation's Low Frequency Noise Research claims
BEL	8.11	The Measurement of Low Frequency Noise at Three UK Wind Farms URN No: 06/1412, Berr, 2006
BEL	8.12	Crichton. F et al, Can Expectations Produce Symptoms From Infrasound Associated With Wind Turbines? Health Psychology 0278-6133/13, American Psychological Association
SDC	8.13	The Institute of Acoustics Good Practice Guide to the application of ETSU-R-97
SDC	8.14	An Underpinning methodology to derive stand-off distances from a wind farm ICSV20 Bangkok 7-11 July 2013

SDC	8.15	A proposed metric for assessing the potential of community annoyance from wind turbine Low-frequency Noise Emissions - Kelly 1982
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SDC	8.17	Effects of industrial wind turbine noise on sleep and health, 2012 Nissenbaum, Aramini and Hanning
SDC	8.18	An overview of residential health effects in relation to wind turbine noise WTN Conf. 2011 Frits van den Berg
SDC	8.19	Variations of sound from wind turbines during different weather conditions Internoise 2012 Larsson and Ohlund
SDC	8.20	Problems Measuring Low Frequency Sound Levels Near Wind Farms H.H.O Bakker (1) and B.I.Rapley (2) Proceedings in Acoustics 2011
SDC	8.21	Low-frequency noise from large wind turbines Henrik Mollera and Christian Sejer Pedersen 2011
SDC	8.22	New Zealand Standard NZS6808:2010 and Précis
SDC	8.23	Learning from evidence of sound experienced from wind turbines William K.G. Palmer 2011
SDC	8.24	Why is wind turbine noise noisier than other noise? Frits van den Berge 2009
SDC	8.25	National Assembly for Wales Petitions Committee Control of Noise from Wind Turbines May 2012
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SDC	8.27	Long Distance Amplitude Modulation of Wind Turbine Noise - Di Napoli WTN 2011
SDC	8.28	Perception-based protection from low-frequency sounds may not be enough Inter.noise 2012 Salt, Lichtenham
SDC	8.29	Human response to wind turbine noise - Perception, annoyance and moderating factors - Eja Pederson Goteborg 2007 and precis
SDC	8.30	S., & Lee, S. (2013). Numerical modeling of wind turbine aerodynamic noise in the time domain. Journal of the Acoustical Society of America , 133 (2), EL94- 100
SDC	8.31	Double Arches Quarry Wind Turbine Amplitude Modulation Condition Andy McKenzie 4th June 2013
SDC	8.32	Renewable Energy Foundation - The Den Brook Amplitude Modulation Condition 2011
BEL	8.33	Farm Animals and the Environment: Clive Phillips and David Piggins (Eds) 1992 - Auditory Perception by H E & R S Heffner (Extract)
SDC	8.33	Extract of Evidence of Dr Lee Hoare to Bradwell Inquiry (APP/X1545/A/06/2023805) regarding the Salford Report

TC	8.33	World Health Organisation (WHO) 'Night Noise Guidelines for Europe – Wind Energy Impacts and Issues
SDC	8.34	Executive Summary of WHO Community Noise Guidelines 1999
SDC	8.35	Journal of Planning and Environmental Law Issue 3 2013 - Noise from wind turbines and ETSU-R-97 Annabel Graham Paul
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BEL	9.2	English Heritage - Wind Energy and the Historic Environment (2005)
BEL	9.3	English Heritage - Conservation Principles: Policies and Guidance for Sustainable Management of the Historic Environment (2008)
BEL	9.4	English Heritage - The Setting of Heritage Assets. English Heritage Guidance (2011)
BEL	9.5	PPS5 Planning for the Historic Environment: Historic Environment Planning Practice Guide (2010)
BEL	9.6	Starbold Wind Farm Archaeological Evaluation, Headland Archaeology Ltd (October 2012)
BEL	9.7	The Geophysical Survey produced by Headland Archaeology and Bartlett Clark Consultancy
BEL	9.8	Hodgson, N 2011 "The contribution of commercial archaeology to the study of Roman Warwickshire" p17-30 in Transactions of the Birmingham and Warwickshire Archaeological Society 115.
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SDC	9.12	Seeing the History in the View: A Method for Assessing Heritage Significance Within Views (English Heritage, May 2011)
TC	9.13	Victoria County History. County of Warwick Vol 5 Ed.1949 (Extracts)
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TC	9.15	Warwickshire Anglo-Saxon Charter Bounds: Studies in Anglo-Saxon History Dr. Della Hooke, The Boydell Press, 1999 (Extracts)
10 Aviation and Telecommunications		
BEL	10.1	CAP 32 (United Kingdom Integrated Aeronautical Information Package) (extracts)
BEL	10.2	CAP 168 (Licensing of Aerodromes)
BEL	10.3	CAP 393 (Air Navigation Order) (extract)
BEL	10.4	CAP 493 (Manual of Air Traffic Services Part 1) (extracts)

BEL	10.5	CAP 670 (ATS Safety Requirements)
BEL	10.6	CAP 738 (Safeguarding of aerodromes)
BEL	10.7	CAP 760 (Guidance on the Conduct of Hazard Identification, Risk Assessment and the Production of Safety Cases)
BEL	10.8	CAP 764 (Guidelines on Wind Turbines) 5 th Edition June 2013
SDC	10.9	Wind Energy and Aviation Interest Interim Guidelines
SDC	10.10	CAA, AOA & GACC advice note on the Safeguarding of aerodromes
SDC	10.11	Joint ODPM, DfT NAFW Planning Circular 1/2003 guidance on Safeguarding Aerodromes, Technical Sites and Military Explosives Storage Areas
SDC	10.12	ICAO EUR DOC 015
SDC	10.13	Eurocontrol Guidelines on How to Assess the Potential Impact of Wind Turbines on Surveillance Sensors
SDC	10.14	Coventry Airport Aerodrome manual Part B (Aerodrome Management & Safety)
BEL	10.15	White Paper on Air Transport Policy 2003
BEL	10.16	CAA Statistics
BEL	10.17	Secretary of State for Transport, Aviation Policy Framework, March 2013
11	Tourism	
BEL	11.1	See CD 7.21
BEL	11.2	The Scottish Government 2008 -The economic impacts of wind farms on Scottish Tourism.
BEL	11.3	DECC - Onshore Wind: Direct and Wider Economic Impacts May 2012
12	Planning Application Documentation	
BEL	12.1	Planning application and supporting documents (provided in the Appeal Bundle)
BEL	12.2	Environmental Statement (provided in the Appeal Bundle)
SDC	12.3	Officer Report to Planning Committee dated 12 February 2013 and appendix
SDC	12.4	Update to Officer Report to Planning Committee dated 12 February 2013
SDC	12.5	Decision Notice dated 13 February 2013
SDC	12.6	Consultation Responses received by SDC (provided in the Appeal Bundle)
SDC	12.7	Third Party Comments received by SDC (provided in the Appeal Bundle)
13	Post Application Documentation	

BEL	13.1	Archaeology Protection Access Track Construction, Donaldson Associates Limited
BEL	13.2	Proposed Access Track: Impact Assessment, Headland Archaeology Limited (May 2013)
BEL	13.3	Track Mitigation Plan
14 Appeal Documents		
SDC	14.1	Statement of Common Ground
SDC	14.2	SDC Statement of Case
BEL	14.3	Broadview Statement of Case
SDC	14.4	FRAWT Statement of Case
SDC	14.5	Bishops Itchington Parish Council Statement of Case
SDC	14.6	Burton Dasset Parish Council Statement of Case
SDC	14.7	SDC Response to Ministerial Statement dated 21 June 2013
SDC	14.8	Eversheds Response to Ministerial Statement dated 25 June 2013
SDC	14.9	Bishops Itchington Response to Ministerial Statement dated 28 June 2013
SDC	14.10	Burton Dassett Response to Ministerial Statement dated 26 June 2013



Department for Communities and Local Government

RIGHT TO CHALLENGE THE DECISION IN THE HIGH COURT

These notes are provided for guidance only and apply only to challenges under the legislation specified. If you require further advice on making any High Court challenge, or making an application for Judicial review, you should consult a solicitor or other advisor or contact the Crown Office at the Royal Courts of Justice, Queens Bench Division, Strand, London, WC2 2LL (0207 947 6000).

The attached decision is final unless it is successfully challenged in the Courts. The Secretary of State cannot amend or interpret the decision. It may be redetermined by the Secretary of State only if the decision is quashed by the Courts. However, if it is redetermined, it does not necessarily follow that the original decision will be reversed.

SECTION 1: PLANNING APPEALS AND CALLED-IN PLANNING APPLICATIONS;

The decision may be challenged by making an application to the High Court under Section 288 of the Town and Country Planning Act 1990 (the TCP Act).

Challenges under Section 288 of the TCP Act

Decisions on called-in applications under section 77 of the TCP Act (planning), appeals under section 78 (planning) may be challenged under this section. Any person aggrieved by the decision may question the validity of the decision on the grounds that it is not within the powers of the Act or that any of the relevant requirements have not been complied with in relation to the decision. An application under this section must be made within six weeks from the date of the decision.

SECTION 2: AWARDS OF COSTS

There is no statutory provision for challenging the decision on an application for an award of costs. The procedure is to make an application for Judicial Review.

SECTION 3: INSPECTION OF DOCUMENTS

Where an inquiry or hearing has been held any person who is entitled to be notified of the decision has a statutory right to view the documents, photographs and plans listed in the appendix to the report of the Inspector's report of the inquiry or hearing within 6 weeks of the date of the decision. If you are such a person and you wish to view the documents you should get in touch with the office at the address from which the decision was issued, as shown on the letterhead on the decision letter, quoting the reference number and stating the day and time you wish to visit. At least 3 days notice should be given, if possible.