

Item No. 6

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| APPLICATION NUMBER | CB/13/02916/FULL |
| LOCATION | The RSPB Reserve, Potton Road, Sandy, SG19 2DL |
| PROPOSAL | Erection of one wind turbine, with a maximum overall height of up to 100m together with access tracks, crane pad area, electricity sub-station, temporary construction compound and amended vehicular access on land at the RSPB Reserve, near Sandy. |
| PARISH | Sandy |
| WARD | Sandy |
| WARD COUNCILLORS | Cllrs Aldis, Maudlin & Sheppard |
| CASE OFFICER | Samantha Boyd |
| DATE REGISTERED | 28 August 2013 |
| EXPIRY DATE | 23 October 2013 |
| APPLICANT | The Royal Society for the Protection of Birds and Sandy Wind Turbine Ltd |
| AGENT | Ecotricity (Next Generation) Ltd |
| REASON FOR COMMITTEE TO DETERMINE | Cllr Call In - Cllr Aldis |
| RECOMMENDED DECISION | Full Application - Approval Recommended |

Reason for Recommendation

National and Adopted Local Planning Policies support the installation of renewable energy projects provided there is no unacceptable adverse impact. The proposed 100m wind turbine is considered to have an impact on the landscape and the nearby heritage assets. However in accordance with Policy CS13, DM1 and the National Planning Policy Framework, the impact is not considered to be unacceptable that it would outweigh the benefits of harnessing wind power.

The proposal would not have an adverse negative impact on biodiversity or ecology or an adverse impact on the residential amenity of neighbouring properties and is acceptable in terms of highway safety.

Therefore by reason of its size, design and location, the proposal is in conformity with Policies CS13, DM1, CS15, DM13, DM3, DM14 and DM15 of the Core Strategy and Management Policies, November 2009; and The National Planning Policy Framework

Introduction

This application was brought to the Development Management Committee meeting on 5th December 2014. At the meeting Members voted to defer the application as a

late objection to the proposal had been received from Cambridge City Airport and the MOD due to potential interference with the Air Traffic Control radar. Both objections have since been withdrawn.

Also since the December 5th Meeting, following concerns from residents, a Television Reception Impact Assessment has been carried out by GTech Surveys Limited. The results of the survey will be discussed in Section 7 below.

Further, the Council was made aware that there were missing pages in the Ecology section of the Environmental Report that is available on the Council's website. A revised report has been received and reconsultation with the Ecology Officer and Natural England has taken place.

Site Location:

The Royal Society for the Protection of Birds (RSPB) nature reserve has been located at The Lodge in Sandy for some 50 years. It is located approximately 2km to the South East of Sandy and occupies around 180 hectares of woodland, heath and grassland. At the entrance to the reserve, off the B1042 the Entrance Lodge provides office space and a shop that is open to the public along with the reserve footpaths and woodlands.

In the area closest to the access point there is a public car park, a number of storage buildings and garages, and a separate customer toilet block. Further towards the south of the reserve, The Lodge and its associated office buildings provides the location for the RSPB headquarters.

The field where the proposed development would be located is to the north east of the main headquarters building. It currently comprises grazing land and is bound by the B1042 Potton to Sandy road to the north and the remainder of the reserve on all other boundaries. Potton lies approximately 2km to the east of the site however there are isolated residential properties in closer proximity to the site and the small cluster of properties at Deepdale, to the east of the site. The closest properties are Warren Farm (636m) and Warren Farm Cottages (948m) to the south east.

The application site is within the vicinity of Galley Hill and Sandy Lodge Scheduled Monuments, the listed buildings and the Site Special Scientific Interest that are located within the reserve boundaries. There are also listed buildings in the surrounding landscape which have views of the application site.

The Application:

Planning permission is sought for a single wind turbine with a maximum overall height of up to 100m together with access tracks, crane pad area, electricity sub station, temporary construction compound and amended vehicular access.

The exact location of the turbine is approximately 120m from the B1040 on land to the eastern most part of the nature reserve and adjacent to a pipeline installation depot.

The indicative turbine model is an Enercon E53 800kW three bladed turbine with a hub height of 73.3m and a blade length of 26.5m. These turbines are variable speed turbines which are mounted on a steel tower with a clockwise rotation.

On site access will be provided via a new access point off the B1040. The existing access will remain during the construction period to enable emergency access to the nearby MoD facility but not be required once construction works are complete.

RELEVANT POLICIES:

Core Strategy and Development Management Policies - North 2009

CS3 Healthy and Sustainable Communities
CS4 Linking Communities
CS11 Rural Economy and Tourism
CS13 Climate Change
CS15 Heritage
CS16 Landscape and Woodland
CS18 Biodiversity and Geological Conservation
DM1 Renewable Energy
DM4 Development within and Beyond Settlement Envelopes
DM14 Landscape and Woodland
DM15 Biodiversity

National Planning Policy

National Planning Policy Framework (March 2012)
Planning Policy Statement 22: Renewable Energy Companion Guide

National Policy Statements for Energy EN-1 and EN-3 (2009)
The UK Renewable Energy Strategy (2009)
The UK Low Carbon Transition Plan (2009)

Supplementary Planning Guidance

Design in Central Bedfordshire: A Guide for Development (2010)

Mid Beds Landscape Character Assessment (August 2007)

Wind Energy Development in Central Bedfordshire : Guidance Note 1 (2012)

Planning History

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| CB/12/01860/Full | Temporary Meteorological mast 70m in height. Granted 05/07/12 |
| CB/12/02158/SCN | Screening Opinion for 100m Wind turbine EIA not required. |

Representations: (Parish & Neighbours)

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| Sandy Town Council | No objections |
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| Adjacent Parishes: Biggleswade Town Council | No comments to make. Noted that the RSPB invited members to attend a drop in |
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Potton Town Council
Everton Parish Council

information session.
Support application
No comments received

Neighbours

59 letters of support - comments summarised:
Commendable of RSPB
Positive moves towards addressing climate change
They have done a thorough assessment of impact on birds and bats.
Cannot see any detrimental impacts
Shows Central Beds supports Renewable Energy
A single turbine will not result in harm
Loss of visual amenity trivial against pylons
Abroad turbine are an acceptable part of landscape
Renewal energy is good for future of wildlife/habitat protection
Wholeheartedly in favour
Millions more birds killed by traffic
RSPB would not undertake endangering birds - they have done their homework
Any harm to birds/bats far less dangerous than threat of climate change to the species
Very few individual bird strikes
Would not look out of place against the mast
Council policy supports renewable energy
RSPB are addressing their carbon emissions
No valid concerns for refusal
Support
Can see the site from window - no objections to the view
Credit to RSPB
Climate change is greatest threat to birds, not turbines

65 letters objecting to the application
Concerns summarised -
Adverse visual impact on Greensand Ridge
Blighting views from listed buildings
No justification for providing to turbine
It will never produce enough energy
Studies show turbines kill birds and bats
Blot on the skyline
Interruption to TV/Radio signals
Noise from turbine blades and flicker impact detrimental to neighbouring properties
Spoil views of countryside
Object to RSPB killing birds
Detrimental to Bats and birds

Monstrosity in a bird reserve
Only benefit to RSPB pockets
Capacity of Greensand Ridge met
Natural England raised concern about impact on bats,
Nearby BAP priority habitat has not been mentioned; it is 50m from the site,
Irresponsible of RSPB
Turbine should be sited elsewhere, nearer to mast or closer to Deepdale.
No benefit to community

Additional comments have been received since the preparation of the previous December committee report -

Concern for wildlife. The area is a good area for bats. A mitigation scheme is proposed with a cut off wind speed in summer months and plans to monitor the damage to bat population by searching for bat carcasses.

The met mast found that risk to bats would be acceptable, however no lights were fitted to the mast and the MOD have now requested aviation lighting should be fitted to the mast. The lighting will attract insects, which will in turn attract bats. This will result in danger to bats while blades are turning. The data collected by RSPB is therefore not meaningful.

Cut in speed mitigation should be precisely specified in conditions and adhered to.

The application is out of date and underestimates environmental impact.

The RSPB are performing their own analysis on bird death from wind turbines which shows they have concerns over accuracy of existing views.

Concerns for Ravens and Ospreys: these are not mentioned in the report.

There is no data on wind reports, one can only surmise that the results are less than convincing.

Consultations/Publicity responses

Application advertised in press 13/09/13

External consultation responses

Arquiva

Arquiva is responsible for providing BBC and ITV's transmission network. There is no objection to this application. Arquiva has a link between Sandy Heath and Whipsnade that is very close to the proposed turbine. This proposal is on the edge of acceptability and if the turbine is moved further south./east of its current position then Arquiva will need to raise an objection. If the location of the turbine is changed Arquiva will need to be notified.

London Luton Airport

The proposed single wind turbine development has been examined from an aerodrome safeguarding aspect and does not conflict with safeguarding criteria. Accordingly, London Luton Airport Operations Ltd has no objections to the proposal.

MOD Wind Energy
CAA

No objections.
No specific comments made. References to consultation with NATS and MOD and any nearby aerodromes

Cranfield Airfield
Shuttleworth Airfield
NATS
Health and Safety Executive
Ofcom

No comments received
No comments received
No comments received
No comments received
No specific comments, refer to Joint Radio Company and BBC website.

Natural England

Natural England satisfied that there would be no adverse affect on the SSSI.
No further objections raised. Reference made to various documents offering standing advice.

English Heritage

In summary -
Concerns raised about the impact of the turbine on a range of heritage assets within the vicinity of the proposed turbine. In particular the impact upon the setting of the Scheduled Monument of Galley Hill, as well as the Grade I listed Moggerhanger House and the Grade II* house known as Hazells. A number of other assets including the scheduled monument known as Sandy Lodge promontory fort and the Grade I listed churches of Everton and Potton are also affected. We have concluded that the erection of the turbine will harm the setting of the highly designed assets.

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| CPRE Beds | Letter received requesting clarity of Draft Renewable Energy Guidance which states Capacity of Greensand Met and Landscape Character Assessment which states in Appendix 2 there is scope to site a single turbine. |
| Butterfly Conservation Group | No comments received |
| Bat Conservation Trust | No comments received |
| British Horse Society | No comments received |
| Garden History Society | No comments received |
| The Wildlife Trust | No comments received |
| Ivel and Ouse Project | No comments received |
| EDF Energy | No comments received |
| British Telecommunications | No comments received |
| Joint Radio Company- WindFarms | JRC do not foresee any potential problems based on know interference scenarios. |
| Bt Cellnet | No comments received |
| Orange | No comments received |
| Virgin Mobile | No comments received |
| Cable & Wireless | No comments received |
| Vodafone | No comments received |
| O2 Group | No comments received |
| T Mobile | No comments received |
| Cambridge City Airport | No objections |

Internal Consultation responses

Archaeology

The proposed development is within an area containing archaeological features identified from aerial photographs, comprising an enclosure and a number of linear features (HER 1660). These features are presently undated but are likely to represent later prehistoric or Roman settlement and other activity. Finds of prehistoric flint artefacts from Sandy Warren suggest that occupation of Mesolithic, Neolithic or Bronze Age date exists within the area. These represent locally identified heritage assets with an archaeological interest as defined by the National Planning Policy Framework (NPPF). The proposed development is also within the setting of two designated heritage assets: the Scheduled Monuments of Galley Hill (HER 445 SM 27164) an Iron Age hillfort overlying an earlier, Bronze Age enclosure and Sandy Lodge (HER 1164 SM 27163) Iron Age promontory fort. Both Monuments are located on the crest of the Greensand Ridge scarp to the south west of the proposed turbine.

The Planning Statement and Environmental

Report submitted with the application both deal with archaeology and the cultural heritage. They identify two main areas of impact on archaeology and cultural heritage likely to arise from the proposed development: direct physical effects on heritage assets and effects on the setting heritage assets.

The main impact on the setting of heritage assets is identified as occurring in the operational phase of the development. From an archaeological perspective it is the two Scheduled Monuments: Galley Hill and Sandy Lodge, that will be most affected as the turbine will be within and will affect the setting of the Monuments and thus have an impact on their significance. The locations of the two hillforts on the crest of the Greensand Ridge scarp emphasises their defensive function with extensive views out over the Ivel Valley. Seen from the valley the Monuments would have an obvious dominant position in the landscape. It should not be forgotten, however, that the hinterland of the hillforts, which provided access and resources for them, was the plateau behind the scarp so this area would have been just as important when the hillforts were occupied and is certainly part of their setting. The turbine will be visible as a back drop to the monuments when their location is seen from the valley to the west and will also be visible from within the Monuments, particularly Galley Hill. Although the turbine may appear shorter than the nearby Sandy transmitter, the turbine blades will give it a much wider appearance and it will be more noticeable because the blades will be turning, emphasising the turbines existence and location. The insertion of the turbine in to the landscape will affect the setting of the two Scheduled Monuments, introducing a substantial, modern and industrial element to their setting. This impact will affect the appreciation and understanding of the Monuments and so result in some loss to their significance. In my opinion, though, as it will still be possible to appreciate and understand Galley Hill and Sandy Lodge in their setting in spite of the affect of the proposed turbine in the setting, will lead to substantial harm to the significance of the designated heritage assets (Paragraphs 132-134 of the NPPF). Therefore, I do not object to this application on grounds of its impact on the setting of the Galley Hill and Sandy Lodge designated heritage assets.

In discussing the direct physical effects the Environmental Report identified construction works within the application site as having the potential to affect known heritage assets within site and other “currently unrecorded archaeological features” (4.90). In particular The Report notes the cropmarks that lie to the west of the proposed turbine location (HER 1660), which probably represent later prehistoric or Roman settlement. A possible Roman road (HER 738) running along the north side of the application site is also noted, however, further research has shown that the proposed line of this road is of no great antiquity or coherence; the features identified as the Roman road are in fact post-medieval boundaries and road/track alignments. Therefore, there will be no features associated with the "Roman road" within the turbine site. However, although the Report (4.42) acknowledges that there is evidence of Mesolithic and Neolithic activity from Sandy Heath, this facet of the archaeological potential of the site is not identified in the section on impacts.

In paragraph 4.91 the Report says that as it is not known precisely what archaeological remains will be affected by the proposed development, the impact is likely to be on isolated prehistoric or Roman features which are of low sensitivity. I think this down plays the significance of the predicted archaeological deposits that may be affected by the development. Developing a basic understanding of the location, character and extent of Mesolithic settlement within the landscape has been identified as a regional research topic (Austin 2000, 7; Oake 2007, 9 and Medlycott 2011, 7-8) as has the study of Neolithic to Iron Age and Roman settlement patterns (Brown and Murphy 2000, 9-10; Going and Plouviez 2000, 21; Oake 2007, 9-11 and Medlycott 2011, 20). In my opinion, therefore, any archaeological deposits likely to be affected by the development are likely to be of medium sensitivity and the impact of construction of moderate significance.

Paragraph 141 of the NPPF states that Local Planning Authorities should require developers to record and advance understanding of the significance of heritage assets before they are lost (wholly or in part) in a manner proportionate to their importance and the impact, and to make this evidence (and any archive generated) publicly

accessible (CLG 2012). Policy 45 of the Development Strategy for Central Bedfordshire (pre-submission version, January 2013) echoes this and also requires all developments that affect heritage assets with archaeological interest to give due consideration to the significance of those assets and ensure that any impact on the archaeological resource which takes place as a result of the development is appropriately mitigated.

The application area lies within an area containing evidence of prehistoric and Roman activity, with further potential for as yet unidentified archaeological remains. The proposed development will have a negative and irreversible impact upon any surviving archaeological deposits present on the site, and therefore upon the significance of the heritage assets with archaeological interest. This does not present an over-riding constraint on the development providing that the applicant takes appropriate measures to record and advance understanding of the heritage assets. This will be achieved by the investigation and recording of any archaeological deposits that may be affected by the development. The scheme of works will also include the post-excavation analysis of any archive material generated and the publication of a report on the works. In order to secure this, please attach the following condition to any permission granted in respect of this application.

“No development shall take place until a written scheme of archaeological investigation for an open area excavation followed by post excavation analysis and publication, has been submitted to and approved in writing by the Local Planning Authority. The said development shall only be implemented in full accordance with the approved archaeological scheme.”

Reason: To record and advance understanding of the heritage assets with archaeological interest which will be unavoidably affected as a consequence of the development.

This request is in line with the requirements of Chapter 12 of the NPPF and policy 45 of the Development Strategy for Central Bedfordshire (pre-submission version, January 2013).

2013 and the list of bullet pointed issues from the consultation with Paul Salmon, I still have concerns regarding the movement of the wind turbine to the site. Apart from the possibility that it may cross third party land at Moon Corner, that may require the removal of boundary walls and excavation of gardens, the routes to the site uses roads that have major on street parking and there is the possibility that these roads will have to be closed due to the transporter and turbine width, and the on street residential parking displaced elsewhere, which will cause a great deal of disruption.

The applicant has stated that the route has been a desk top survey and that they have not undertaken an on ground survey to visualise the issues of on street parking, lack of manoeuvrability and height of any overhead cables. This aside, the majority of these issues within the highway can be dealt with by the construction/traffic management plan, although this will not cover third party land mitigation.

Earlier comments :

I wanted to make the following points and will list them as you requested.

- St Neots Rd Sandy is now traffic calmed with tables and cushions
- Sandy High Street is narrow and also has raised features including a raised zebra crossing
- Sandy has several areas of on street parking which narrows the carriageway width further
- Sandy railway bridge is subject to a weight limit, however this could be an allowed route but has any dialogue been had with our structures team and the rail structures team to see if the bridge is even capable of taking the weight of the vehicles and loads
- What is the weight of the vehicles and loads?
- The route from Sandy is all uphill and narrow and has several tight bends where traffic often straddles both carriageways, how will this potential conflict with on-coming vehicles be managed, this also

goes for the entire proposed route

- Is there any Police assistance planned or requested
- What is the proposed time and dates for this
- The A6001 is a traffic sensitive street which has restrictions on closures, etc
- Are any closures required, proposed or perhaps needed?
- Has the entire route been assessed and actually visited by the company, not just part of it?
- Figure 9.11 states that the company has been to site and measured that enough space is available to make the turn, the diagram just shows two stages, it does not show the full swept path or provide any information on how it would be controlled or how traffic would be controlled or if an obstacle was there on the day how would that be dealt with. There is not enough detail.
- Has any consideration been made for telegraph poles, cables, etc
- Figure 9.10, even with the removal of street furniture, this turning is very very tight for two cars to pass, let alone a vehicle of this size, I am not convinced it can make the turn, there is also another small junction at this location that needs to be considered, again how will traffic be controlled when they have no powers to stop traffic?
- Has the Highways Agency been contacted regarding the A1?

Public Protection

Conservation Officer

No objection subject to recommended conditions relating to overall noise and amplitude modulation. The Lodge, together with the complex of listed buildings nearby, their immediate settings- & the wider context of the site, including Galley Hill & the hill forts (Scheduled Monuments)- make this a sensitive site, in terms of impact & potential harm to designated heritage assets. As is inevitable with almost any 100m tall wind turbine, the visual impact will be significant & considerably beyond

what can be considered as the setting of The Lodge & the other nearby heritage assets. The advice provided in *Wind Energy and the Historic Environment* (English Heritage, October 2005) states that turbine towers in excess of 60m may have a zone of visual influence of more than 10km radius.

Within the 2km radius of the site of the proposed wind turbine, beyond the RSPB reserve- i.e. the areas most likely to be directly affected- there are a number of Grade II listed buildings together with **Hazells Hall- Grade II*** listed & the Registered Park & Garden, The Hazells. **St Swithun's Church- Grade II***- is just beyond the 2km distance. These higher graded & more important heritage assets should be given great weight in the consideration of the impact of the proposed turbine on their settings (NPPF para. 132).

However, taking the broader view- the application site is relatively isolated within the 1km radius. Overhead power lines cross the RSPB reserve (north-west to south-east) between the entrance lodge & the application site. Trees, landform/ topography & buildings conceal the wind turbine site from much of Sandy, Potton, Biggleswade, Sutton Blunham, Tempsford, Caldecote & Everton- the closest towns & villages. But- as shown on the submitted Zones of Theoretical Visibility- distant views will be possible aswell- up to 10km & further.

In terms of the criteria of NPPF para. 134, *less than substantial harm* would, it is considered, result from the proposed wind turbine, to the significance of designated heritage assets. For those relatively close to the wind turbine the harm could seem considerable. From Figure 3.6b (Chapter 3- Landscape & Visual) it would appear that there will be no apparent inter-visibility from Hazells Hall or from St Swithun's Church. It might, therefore, be considered that, in a balanced judgement, harm to the setting of these most important listed buildings would be limited & any impact restricted- in the weighing up of *public benefits* that may result from the proposed wind turbine.

Ecology

I have read through the Environmental Report and the bat and bird reports. Providing all mitigation as proposed in the bat and bird surveys and ecology and ornithology chapters of the environmental

report I am satisfied that there will be no detrimental impact on protected species or habitats.

Equally through the habitat enhancement measures proposed the development should result in a net gain for biodiversity in line with NPPF requirements. Figure 5.6 indicates biodiversity enhancements though a formal habitat management plan is not evident whilst I have every confidence that the RSPB will provide such enhancements it would be useful to have a formal management plan to show proposed tasks and timing.

Future post construction monitoring of bats will be required and this should be undertaken in line with BCT recommendations for 2 yrs to assess mortality rates and amend cut in speeds if necessary.

If development does not commence within 2 yrs then further protected species survey updates may be required.

Further comments on Revised Ecology report.

06/03/13, missing pages checked, no further comments to add.

Strategic Landscape Officer

1. Introduction

The Application is for a single 100m turbine, situated on the Greensand Ridge to the east of Sandy. The Greensand Ridge is a highly sensitive landscape, with a distinctive undeveloped skyline. Whilst the actual location of the turbine is in an area partially disturbed by pylons and close to the grassed fuel storage tanks, the overall landscape quality is high. As the turbine would be sited on the elevated Ridge, it will be clearly seen over a wide area - beyond the CBC boundary to the north, west and east. The turbine is around half the height of the nearby Transmitter - but whilst this is much taller, it is a very narrow, static feature. The greatest visual intrusion will be experienced by users of The Lodge and the many public rights of way in the vicinity and the communities of Potton and Sandy. There will also be a major change in the view for residents of Blunham, Moggerhanger, Chalton, Everton, Sutton and Dunton, particularly in terms of their experience of their local area.

The proposed turbine is within 5km of the Langford Windfarm : the cumulative impact of this major development with the proposed turbine at Sandy and the operational turbine at Gamlingay is a significant issue.

Policy for Landscape Protection

The Greensand Ridge long been valued as a landscape feature, being protected as an “Area of Great Landscape Value” in Mid Bedfordshire Local Plans and County Structure Plans. The emerging CBC Development Strategy emphasises importance of , and the need to respond to the guidance within the LCA , requiring **new development to respect landscape character , including tranquillity.**

Policy 58 extract

Elsewhere (ie outside the AONB) landscapes will be conserved and enhanced in accordance with the Landscape Character assessment . Proposals that have an unacceptable impact on the landscape quality of an area will normally be refused. In particular proposals will be refused that have an adverse impact on important landscape features or highly sensitive landscapes.

The Applicant’s LVA states that the site is not within a “recognised or valued “ landscape as it does not have a formal designation. (LV3.143). This is misleading as outside of an AONB, it is not expected that the wider landscape has another tier of designation. CBC has heeded Government guidance to replace local landscape designations (PPS7) and follow the landscape character approach, which assesses all landscapes according to their components and qualities. The strategic importance of the Greensand landscape – with it’s historic interest, ecological importance and scenic quality is clear. The Greensand Ridge is currently subject to a Heritage Lottery “Landscape Partnership “ funding bid to secure resources to conserve and manage this landscape as it is considered under threat from recreational pressures, habitat decline and inappropriate development.

CBC’s Wind Energy Guidance identifies the Greensand Ridge as an area of High Sensitivity to wind development, the evidence for this is summarised later. This does not mean that a wind development is totally unacceptable, but that the Applicant must be able to demonstrate how the scale and design mitigate the potential impacts. The RSPB have selected Sandy as a potential site for generating energy as their headquarters has the greatest electricity demand. However, it is important to assess whether one environmental

gain outweighs damage to another interest, namely the requirement to safeguard a regionally significant landscape recognised as having great importance to Central Bedfordshire in terms of local distinctiveness and highly valued countryside. Local communities and visitors enjoy the tranquil, rural qualities of the local heaths and woodland and the unspoiled views of the Ridge at Sandy as seen from the nearby towns and villages, public paths and roads.

The RSPB is a major landowner throughout Britain – it would have been helpful to know greater detail of the site selection process. It is accepted that the energy generated would be utilized at The Lodge, but there may be other locations with a more open and larger scale landscape where the introduction of one or more turbines would be more acceptable in terms of landscape impact and efficiency.

2 Landscape Character Assessment – Guidance relevant to this Application :

2.1 Impact on Landscape Character - although the turbine is located on the Everton Heath section of the Greensand Ridge, the visual impact extends over the Lower Ivel Valley, the Dunton Clay Vale Eastern Marston Vale, Biggin Wood and Cockayne Hatley Character areas. All but the later of these Character Areas are judged to be in decline and in need of renewal or enhancement . A particular concern to all these areas is urban encroachment and the impact of development on traditional landscapes. (Mid Beds LCA) The visual impact of a turbine urbanises the location in short distance views but also changes the character of the wider setting ie of the escarpment at Sandy.

The Greensand Ridge is a unique landform in mainland England - the distinctive narrow escarpment is a focus for recreation and renowned for it's historic landscape. The turbine would have an urbanising influence on the setting and Gardens of the Lodge (a listed building) and be seen from the Repton parkland at Hazells Hall, a Registered Park and Garden. A repeated message within the LCA is the need to " *conserve the undeveloped skylines of the Greensand Ridge* " . The existing pylons are already an intrusive feature which detract from the skyline. The TV mast is an accepted feature in views and is appreciated as a landmark. In daylight, the mast is

quite a recessive feature ,becoming a more dominant feature when lit at night. The introduction of the turbine, with it's moving blades at a point half the height of the mast will create a discordant feature, detracting from the familiar landmark.

Landscape change within the Ivel Valley is particularly significant, with the extensive growth of residential and industrial development at Sandy and Biggleswade (within the 5km radius of most visual impact), and additional urban extensions at growth within 10km at Stofold and Arlesey. (within 10km where visual impact will still be highly noticeable)

The Langford Windfarm is under construction - there will be considerable intervisibility between the Langford turbines and the proposed Sandy turbine. In many locations eg from Biggleswade, Northill, and Potton , there will be views of these turbines and a view to the single turbine at Gamlingay.

In addition, when travelling on the A1, there will be sequential views to the Coton Windfarm near St Neots.

The “rural gap “ between Biggleswade and Sandy is becoming urbanised with a sequence of varied development including retail and leisure use, such as the Golf Driving Range. Visually, these detract from the setting of the towns and the urban fringe countryside which is important for recreation and conveys a poor image for Central Bedfordshire. Increased “visual clutter “ on the Ridge will add to this detrimental urbanisation of the countryside.

2.2 The LCA provides extensive guidance on landscape sensitivity:

Everton Heath Greensand Ridge : Elevated landscape separated from the rest of the Ridge by the Ivel Valley. The land cover has a distinctive pattern of plantation and deciduous woodland, arable land and heath, particularly as a result of management work by the RSPB at The Lodge. Historic estates are characteristic eg Hazells Hall, Woodbury Park and Everton Park as well as the Lodge. Landscape Character sensitivity is HIGH - the following key sensitivities create a strong sense of place:

The prominent landform creating a distinctive skyline and horizon . Any change on the Ridge would impinge on valued views.

The mosaic of woodland and heathland is an important visual as well as ecological resource. Historic estates imparting a strong designed character

Iron Age hillforts

The Greensand Ridge Walk

Conserve the site and setting of historic features

Visually the landscape is considered to have a moderate sensitivity to change- although the elevated wooded ridge as the backdrop to the Vale and the reciprocal views to and from the Vale heightens visual sensitivity.

Development guidelines include :

Conserve the essentially undeveloped wooded and open ridgeline in views from the adjacent vales

conserve the setting and views to landmark churches and other features which act as distinct focal points in the landscape (ie Mast)

conserve the recreational value of the landscape

conserve panoramic views from the ridge and the role of the ridge in providing a strong wooded backdrop and horizon.

Lower Ivel Clay Valley : farmland and river corridor to south of Sandy, including Bigglewade and A1 corridor. A landscape in decline, yet crucial in terms of amenity for communities. Both landscape character and

visual sensitivity are considered moderately sensitive to change , in view of urbanisation and impact of the A1 road corridor. ***The relationship with the wooded Greensand Ridge is important in providing rural views at the north of the area and development of tall structures on this ridge would have significant impacts on the character of the Lower Ivel Clay Valley.***

Landscape character is considered weak .

East Marston Vale :the *clear views to the Greensand Ridge* is a key visual sensitivity.

Biggin Wood Clay vale - Tempsford area . Specifically mentions the *clear views across the landscape to the Everton Heath Greensand Ridge and panoramic views from the ridge back over the vale* as a key landscape sensitivity.

In our view - the introduction of a moving structure on the Greensand Ridge is unacceptable

he increase in urbanising features within the Ivel Valley - or in views from the Ivel Valley - is also unacceptable.

Dunton Clay Vale :farmland and settlements to east of Greensand Ridge - open arable landscape with little woodland. Views to west include the new development at Biggleswade and the windfarm at Langford.

Cockayne Hatley Clay Farmland : land east of Potton. Elevated landscape, tranquil but with little landscape structure able to contain longdistance views. Development guidelines: *avoid development of structures which could lead to cluttering on the skyline.*

3. Guidance from Guidance Note 1 - Wind Energy Development in Central Bedfordshire

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The landscape guidance has been derived from advice given in the LCA and assessment made in the field by CBC's landscape officers.

National guidance (Natural England) identifies landscapes where there is a lesser ability to accommodate wind energy – these would contain:

- *human scale indicators - eg trees ,hedges, farm buildings*

- *presence of strong topographical variety or distinctive landform features*

distinctive, undeveloped skylines

-skylines that are highly visible over large areas or exert a large influence on landscape character.

-physically or perceptually remote

-valued recreational use.

- absence of modern development

In contrast, landscapes with a greater ability to accept wind energy tend to have a larger scale of field pattern, ,lack features ,be convex or flat, contain contemporary features ,infrastructure or industry . Skylines which are fragmented and be in an area of low public access.

It also contains a regional landscape perspective - the ARUP Report " Placing Renewables in the Eastern Region . This accords the highest sensitivity rating to the Greensand Ridge (Medium to High) across the landscapes of Cambridgeshire, Bedfordshire , Suffolk and Essex

.

The Report concludes that *The medium to small-scale of the landscape and distinctive narrow escarpment increase the areas sensitivity to wind*

development.

The maximum size of windfarm was considered to be 3 turbines, preferably only 2.

The capacity of the Ridge (without causing unacceptable landscape impact) was considered to be 2 turbines . With a turbine operational at Gamlingay and the consented turbine at Double Arches pit, the conclusion drawn in the CBC guidance is that the capacity for this landform has been met.

At the local level - Guidance Note 1 contains detailed comparisons of the landscape character types across CBC. The eastern section of the Greensand Ridge has been included within the "Eastern Claylands " assessment area , although it is also relevant to refer to the Greensand Ridge and Valley sensitivity assessment.

These assessments emphasise the need to protect the integrity of the wooded horizons of the Greensand Ridge:

careful siting required to avoid conflict with undeveloped skylines and cumulative impact with other vertical features.

The sensitivity of the Greensand escarpment means that location of even a single turbine would be difficult to achieve without significant landscape impact.

The proposed turbine at Battlesden was withdrawn largely because of landscape impact.

Tranquility – reference has been made to the CPRE Tranquility map, as a turbine would impact both visually and with localised noise. Sandy is classed as being highly disturbed in view of the A1 and built environment, but with a sharp transition to a more tranquil environment. It is important to conserve the tranquil and rural qualities of the landscape between Sandy and Potton, as this is an important rural gap.

4 Applicant's Landscape and Visual Impact assessment

The Landscape and Visual Assessment provides detailed text on landscape character but draws a different conclusion in terms of acceptability. Quotes from the Mid Beds LCA have been highly selected but do not describe all the relevant characteristics and sensitivities.– eg

3.63 – the description infers the site is acceptable as it is not on the key north facing slope of the Ridge :

The slope defining the south of the ridge is less dramatic than that to the north, forming a subtle transition to the Clay Vale

The turbine is on the plateau top of the Ridge, not a more subtle dip slope eg as at land at Northill.

Also Table 3.2 : Sensitivity of Landscape Elements – using this table , the Greensand Ridge would be evaluated as having a *low tolerance to change* and to be of *High Sensitivity*.

The detailed computer generated studies of the theoretical zones of visual influence have been helpful in terms of assessing cumulative impact. It is accepted that woodland will limit the full visibility of the turbine in some short and mid distance views and that there are very few properties with a direct view. However, the nature of a turbine is that it draws the eye and although not the tallest type, it will still stand clear of the woodland canopy and be seen over a wide panorama as illustrated. The photomontages illustrating the visual impact are less helpful - the majority of the photographs were taken on a dull day, when there is less contrast between the turbine and the sky. This tends to underestimate the visual impact of both the column and the blades. When light reflects on the blades , or when a turbine is seen silhouetted against the sunset (as would be the case from Potton and Dunton, there will be greater visual impact. As the turbine is on elevated ground, it will have a major impact in the view from the lower ground at Deepdale and the view from the Potton-Sandy road.

Cumulative Impact : extensive areas between Blunham – Sandy – Biggleswade and Stotfold would be able to see open views of the Langford turbines and the Sandy turbine.

A further single turbine may be progressed at Langford.

From more elevated ground there will also be views to the Gamlingay turbine.

There is a serious risk that the landscape character of the Ivel Valley will become dominated by the sequential view of turbines, rather than just having the Langford windfarm as a landmark.

It was disappointing that certain aspects of the LVA had not been updated, in particular the

information on the status of windfarms in the vicinity. Also , since the Application was finalised, the Langford windfarm has been under construction. With hindsight, a VI photomontage should have been requested to illustrate the combined view.

5 Conclusion

Acceptability in terms of landscape : the issue is very simply whether the site on the Greensand Ridge is an acceptable location for an intrusive structure.

In our view, the impact would damage the integrity of the Greensand Ridge . The introduction of another large vertical structure ,particularly with moving blades would detract from the skyline ,further cluttering a landscape valued for it's undeveloped horizons. It would also set a precedent for further change.

In our view, the turbine would have an unacceptable visual impact when seen from viewpoints/receptors in Sandy and Potton. The views from public rights of way would experience a moderate - severe change. This visual impact is significant as paths include The Greensand Ridge long distance path and other locally promoted circular walks. The change in views from Chalton/ Moggerhanger are also significant as properties would have clear views from windows looking east. In our view, the photomontages underestimate the visual impact from this location. Communities such as Biggleswade will experience cumulative impact of this turbine and the Langford Farm, with some additional views of the Gamlingay turbine.

The movement of the blades is of particular consequence, and this cannot be illustrated in a photo.

LDF Team
Rights of Way Officer

No comments received
No comments received

Sustainable Growth/Climate
Change Officer

The proposed development of wind turbine is supported by the UK national planning guidance on sustainable development and renewable energy set in the National Planning Policy Framework.

The proposed development is supported by the national energy Strategy as set in the Energy White Papers: 'Meeting the Challenge' (2007) and

'Planning our electric future: a White Paper for secure, affordable and low-carbon electricity' (2011).

The project would contribute towards achieving UK's renewable energy generation and carbon emission reduction targets set in the UK Renewable Energy Strategy (2009).

The proposed development is supported by the Councils policies: CS13 on Climate Change as it would contribute to reducing carbon emissions and DM1 on Renewable Energy which encourages renewable energy developments.

The applicant, RSPB is planning to use the turbine as an informal educational tool for local schools, residents and businesses to raise awareness of role renewable energy plays in achieving the UK Government's commitment to carbon reductions, helping to provide UK energy security and benefiting people and business.

In summary, the development is in conformity with the UK Government's and Central Bedfordshire's policy on renewable energy; it contributes to decarbonisation of electricity production and I am in favour of this development to be granted planning permission.

Determining Issues

The main considerations of the application are;

1. Policy considerations
2. The impact of the development on the character of the landscape
3. Cultural heritage and archaeology considerations
4. Impact on public rights of way
5. Ecology Considerations (including bats and birds)
6. The Effect on Residential Amenity of Nearby Residents (including Noise, Shadow Flicker, and visual amenity)
7. Telecommunication and Aviation considerations
8. Traffic generation and access
9. Hydrology, Geology, Flood Risk, Contamination
10. Decommissioning
11. Comments on Representations received (summary)
12. Conclusion

Considerations

1. Policy considerations

The National Planning Policy Framework (NPPF) superseded Planning Policy Statement 22: Renewable Energy, however the Companion Guide that accompanied PPS22 which provides technical advice has not yet been revoked. The Guide makes reference to specific impact that may arise from renewable energy proposals, the primary impacts being visual and noise impacts.

The NPPF carries a presumption in favour of developments for renewable energy and states that in order 'to help increase the use and supply of renewable energy and low carbon energy, local planning authorities should recognise the responsibility on all communities to contribute to energy generation from renewable or low carbon sources'.(paragraph 97). Further advice at Paragraph 98 states that 'when determining planning applications, local planning authorities should,' ...approve the application if its impacts are (or can be made) acceptable.'

The Core Strategy and Development Management Policies Development Plan Document 2009 takes a positive approach to renewable energy developments in line with guidance set out in the NPPF and the Companion Guide to PPS22.

Policy DM1 states that the Council will consider favourably proposals for renewable energy installations, provided that they fit the following criteria:

- Have good accessibility to the transport network;
- Not be harmful to residential amenity, including noise and visual amenity;
- Be located and designed so as not to compromise the landscape and scenic beauty of the Chilterns AONB;
- In other areas identified through the Landscape Character Assessment as having high sensitivity, be located and designed so as to respect the character of the landscape.

In terms of the above criteria:

- The site is close to the transport network;
- The impact on residential amenity shall be assessed later in the report;
- The site is not located so as to compromise the landscape and scenic beauty of the Chilterns AONB;
- The Mid Bedfordshire District Landscape Character Assessment (August, 2007) characterises the landscape as the Everton Heath Greensand Ridge (6c). The overall landscape character sensitivity is considered to be high. In terms of visual sensitivity, the Assessment notes that the landscape is considered to have a moderate to high sensitivity to change. The impact on the character of the landscape shall be assessed later in the report.

CBC Renewable Energy Guidance was adopted by Executive in March 2013 as technical guidance for development management purposes. However the document is not formally adopted as a Supplementary Planning Document because it relates to the emerging Development Strategy rather than the current adopted Core Strategy. While the guidance is material in considering the application, the weight attached to the document is less than the current adopted policies and guidance.

In terms of policy considerations, the proposal is considered to be acceptable as

a matter of principle both at a national and local level, subject to there being no significant harm on other relevant material considerations as discussed below.

2. Impact of the development on the character of the landscape

All proposed wind turbines are likely to have visual effects on the landscape. It will need to be judged whether the visual effect is harmful, and if so, if that harm would outweigh the benefits of the project. The Government makes it clear in national planning policy that renewable energy production is to be encouraged and that most landscapes without special protection should be capable of accommodating this type of development.

The application site is not specifically designated as a national character area ie: Green Belt or Area of Outstanding Natural Beauty, is however a local landscape character which has been assessed in the Mid Beds Landscape Character Assessment (LCA). The site area is towards the top of the Bedfordshire Greensand Ridge which is described in the LCA as an elevated landscape running SW to NE across the county. This particular landscape is identified as 6c: Everton Heath and Greensand Ridge forming the most eastern part of the ridge and continues across the boundary into Cambridgeshire. There are prominent views of the ridge from the surrounding low lying landscapes and this a characteristic of the area.

In terms of landscape sensitivity, the immediate area surrounding the site is partially covered by extensive woodland and heathland all of which are considered to be important for biodiversity, recreation and as a visual resource. There are historic parklands such as Hazells Hall, the Lodge and RSPB reserve, Iron Age hillforts (Sandy Lodge and Galley Hill), nature conservation at the SSSI (located within the reserve grounds) and the Greensand Ridge Walk. These elements result in a landscape that is judged in the LCA to have a high sensitivity. In visual terms the landscape is considered to have a moderate to high sensitivity to change given the widespread views from the low lying landscape to the elevated ridge.

The applicant has submitted a comprehensive Landscape and Visual Assessment (LVA) which includes a Zone of theoretical Visibility map (ZTV) showing the theoretical views of the turbine from specified grid squares. A ZTV assumes bare ground with no screening by intervening buildings or vegetation. Also included with the application are photomontages of various viewpoints within a 25km radius of the application site as requested by CBC landscape Officers at pre-application stage.

A turbine of this scale will undoubtedly be visible from the surrounding landscape, in particular from a north easterly direction, given that the turbine would be sited on the northern side of the ridge. The submitted LVA shows the most prominent views of the turbine in the photomontage viewpoints and these appear to be from Potton and Everton and the eastern side of Biggleswade. Where there are views from afar, the impact is significantly reduced due to the distance, land topography and vegetation.

It is of note that views of the turbine will be seen in conjunction with the Sandy Heath Transmitter. The transmitter is located to the north of the turbine and at approximately 250mm in height, forms a local landmark which can be seen from

great distances within the landscape. Electricity pylons of 55m in height also run from southwest to north west crossing the top of the elevated ridge, just west of the proposed turbine. This existing development results in a somewhat urbanising effect within the landscape and the turbine would be viewed within this context.

There have been many letters received from local residents and members of the RSPB. Generally there appears to be mixed feelings on whether the turbine would be visually detrimental to the landscape. Below a section of this report will deal specifically with the comments received.

CBC's Strategic Landscape Officer has objected to the proposal. It is felt that the turbine would damage the integrity of the Greensand Ridge by introducing another vertical structure with moving blades, cluttering the landscape and setting a precedent for further development. There would also be a cumulative impact from the wind turbines at Langford and Gamlingay. These concerns are noted and the issues carefully considered in terms of the harm that would result from the wind turbine against the benefits of renewable energy sources.

Cumulative effects

The Langford Wind farm is now operational. The wind farm comprises 10, 110m turbines approximately 6km to the south of the proposed turbine. Gamlingay Community wind turbine is approximately 5km to the east and smaller in scale. While the turbines would be visible together from certain points in the surrounding landscape, given the separation distances and the scale of these developments, their cumulative impact is not considered to result in significant impacts on the landscape and therefore not visually unacceptable. In addition, the visual impact of the turbines together is lessened by existing wooded areas and the topography of the land.

There is also wind turbine under construction at the Marston Vale Community Forest, however given the distance of this turbine from the proposal at the RSPB and the topography of the land, where the turbines can be viewed together from within the landscape, their cumulative impact is not considered to be harmful.

Policy DM1 advises that where areas identified as having a high sensitivity to change, the development shall be sited and designed to respect the landscape.

National Policy EN-1 highlights that outside nationally designated areas there are local landscapes that may be highly valued. Where a local development plan has policies based on landscape character assessment, these should be paid particular attention. However local landscape designations should not be used to refuse consent as this may unduly restrict acceptable development.

CBC's Renewable Energy Guidance identifies area 6c as having scope to accommodate a single turbine, without significant adverse change to the landscape character and value. The document notes that, at the time of its preparation, a single turbine at the RSPB HQ is Sandy is in the planning process (pre-application stage). However it is also noted further into the document, that 2- 3 turbines may be acceptable on the Greensand Ridge, but no more than 2 is suggested (table 3). The report takes into account the permitted turbine at Double Arches Quarry in Heath and Reach to the west of the ridge, and the

operational Community turbine at Gamlingay to the eastern edge of the ridge in Cambridgeshire. It concludes that the capacity of the Greensand Ridge has been met. While this conclusion is noted, the Heath and Reach turbine is a significant distance from the Sandy turbine, and the Gamlingay turbine is smaller in scale than the proposal. For this reason the proposed turbine in Sandy is not considered to result in unacceptable development over and above the suggested capacity for wind development in the vicinity of the Greensand Ridge.

The proposed turbine would cause a strong visual change to this part of the local landscape. There would be views of it on the horizon from some viewpoints however it would be screened to some extent by the Ridge itself and trees. It would also be seen in the context of other landscape intrusions, such as the overhead power lines and the Sandy Heath Transmitter.

The main impact would be limited to the immediate area, particularly from a north easterly direction where turbine would be visible at full height, as from a distance the visual perspective of the turbine would be smaller and therefore the impact limited.

The provision of the new access and the necessary ground works would not be readily visible from within the landscape. They would be sited close to the existing earth mounds and paraphernalia, such as the barrier fencing etc, that is associated with the adjacent pipeline installation depot. As such their presence is not considered to result in harm to the character of the area.

While it is accepted that there would be some visual harm to the landscape, the siting of the turbine is not considered to result in significant harm, therefore the benefits of harnessing wind power is considered to outweigh the harm to the landscape and as such the proposal is considered to comply with Policy CS13 and DM1 of the Core Strategy and the NPPF.

3. Cultural heritage and archaeology

Section 132 of the NPPF advises that when considering the impact of a proposed development on the significance of a designated heritage asset, great weight should be given to its conservation. The more important the asset the greater the weight should be. Where development results in substantial harm to a grade II listed building, park or garden, planning permission should only be granted in exceptional circumstances and where there is substantial harm to a Scheduled Monument, grade I and II* buildings and registered parks, planning permission should only be granted in wholly exceptional circumstances. Where a proposal will lead to substantial harm, the harm should be weighted against the public benefits of the proposal.

The proposal will be visible from a number of heritage assets namely Galley Hill, an Iron Age fort within the RSPB reserve, Sandy Lodge, Hazells Hall an Grade II* listed house and Park, the Listed Churches of Potton and Everton and a number of nearby conservation Areas from where the turbine would be visible.

It is inevitable that the turbine would be visible from various heritage assets. The advice provided in Wind Energy and the Historic Environment (English Heritage, 2005) states that turbines in excess of 60m may have a zone of visual influence of more than 10km radius.

Galley Hill and Sandy Lodge are designated Scheduled Ancient Monuments (SAM) within the RSPB reserve. The hillforts are on the crest of the ridge with extensive views over the valley beneath. The turbine will be visible from the SAM's, particularly Galley Hill which will result in some harm, however it will still be possible to appreciate the historic value of the heritage assets in their setting therefore the proposal would not lead to substantial harm.

Located within a 2km radius of the site, Hazells hall and it's Registered Park and Garden would be affected by the proposal and therefore consideration should be given to any resulting harm. However from Hazells Hall, which is not open to the public, views of the turbine would be limited given the topography of the site and the wooded areas between the heritage asset and the actual site of the turbine. It is therefore considered that any harm would be less than substantial.

Broader views of the turbine could be seen from the conservation areas and many listed buildings of Sutton, Potton, Biggleswade, Blunham and Tempsford, however given the land form, trees and buildings, the turbine would be fairly well concealed from those areas closest to the site. Views of the turbine, while prominent from some heritage assets, is not considered to result in significant harm to the heritage assets given the distances involved.

The Conservation Officer has commented on the proposal and raised no direct objections. Harm to the setting of important listed buildings would be limited and any impact restricted in the weighing up of public benefits that may arise from the proposed turbine.

English Heritage have raised an objection to the proposal particularly the impact on Galley Hill. They are concerned that the turbine will be visible from the fort and will be a modern intrusion serving as an unwelcome detraction given the moving blades of the turbine. The proposal would also be visible from the balcony of Moggerhanger House which may result in some harm. English Heritage are also concerned that the turbine will be visible from Hazells Hall and its surrounding parkland interfering with the park's privacy and intimacy, with views from key rooms in the house. There are also concerns that the turbine has the potential to impact on nearby listed churches, buildings and conservation areas.

Moggerhanger House is located some distance from the application site therefore views of the turbine would be limited and as such is not considered to result in harm to the integrity and historic setting of the House and parkland.

These comments have been considered carefully, however as advised earlier, while there will be views of the turbine, and some harm to heritage assets will result, it is not considered to be substantial harm that would outweigh the benefits of the proposal.

In terms of Archaeology, the application site is within an area containing evidence of prehistoric and Roman activity. However this does not present an overriding constraint of the development. The Council's Archaeology Officer has commented on the proposal and has no objections provided that the applicant undertakes an investigation of the site which can be secured by a condition.

While the proposal would have an impact on designated heritage assets within the

vicinity, it is considered that any resulting harm would not be so substantial that it would outweigh the public benefits of the wind turbine, therefore in terms of heritage and archaeology the proposal is considered acceptable.

4. The impact on public rights of way

Throughout the RSPB reserve there are many footpaths and bridleways. There are also public rights of way within close proximity to the reserve. The turbine would be visible from some locations within the footpath network however, it would only be those close to the turbine, ie: those within the reserve grounds, that would be most affected by the proposal. From the wider surroundings, the turbine is not considered to have a significant impact upon the rights of way network.

No response to the proposal was received from Rights of Way Officers and the British Horse Society.

5. Ecology considerations

Detailed surveys have been undertaken as part of the environmental report that accompanies the application. One of the reasons for the erection of temporary Met mast that currently occupies site was to collect data on Bat and Bird activity in the area in order to make an informed decision on the final location of the turbine.

The RSPB is a responsible organisation and is a statutory consultee for the Council on many ecological matters. It is therefore felt that the applicant would take seriously any unacceptably high risk that the proposed turbine would have to birds and/or bats and any other protected species.

There is no evidence to suggest that the site would present an unacceptable impact on protected species or a significantly high risk of bird strike. Although it is accepted that there may be some impact, as the risk is low, the benefit of wind energy is considered to outweigh this risk. The environmental report does identify that there would inevitably be some bat and bird strikes, however the mitigation measures proposed are considered to reduce this impact. The NPPF makes it clear that planning authorities should approve renewable energy projects where their impact can be made acceptable.

Approximately 600m to the south west of the site, Sandy Warren is designated as a Site of Scientific Interest (SSSI) for its botanical features. There are no other statutory designated sites within the area of the turbine.

There will be some loss to habitat at the construction site which may have an impact on UKBAP protected species such as the Brown Hare and the Hedgehog. However the surrounding area is heathland and woodland therefore habitat would not be completely lost with the area involved being relatively small. The RSPB are committed to preserving and creating habitat for protected species therefore where mitigation measures have been identified, such measures will be provided. Through habitat enhancement measures the proposal would result in a net gain for biodiversity in line with the NPPF requirements. It is therefore considered appropriate to include a condition requiring the submission of a Habitat Management Plan.

Natural England were involved in pre-application discussions with the RSPB and

have been consulted on the proposal and have not raised any objection on ecological and biodiversity grounds providing the mitigation measures proposed in the Environment Report are adhered to.

The Council's Ecology Officer also raises no objections to the proposed turbine subject to the proposed mitigation measures outlined in the report.

The proposed turbine is not considered to have a significant impact upon biodiversity and ecology in accordance with the NPPF and Policy DM15 of the Core Strategy.

6. The effect of the development on the amenity of nearby neighbours

The main impacts on amenity are likely to arise from noise, flicker effect and the visual impact of the turbine.

Noise

The companion guide to the former PPS22 states in paragraph 42 that '*there are two quite distinct types of noise source within a wind turbine. The mechanical noise produced by the gearbox, generator and other parts of the drive train; and the aerodynamic noise produced by the passage of the blades through the air*'. The paragraph concludes by saying '*Aerodynamic noise from wind turbines is generally unobtrusive - it is broad-band in nature and in this respect is similar to, for example, the noise of wind in trees*'.

The applicants have submitted a noise assessment within the environmental report and its methodology based on the recommendations of ETSU-R-97. Noise assessments were undertaken from the three nearest noise sensitive receptors, those being Warren Farm. Snowhill in Deepdale and Hazells Lodge.

The Council's Public Protection team have been consulted on the application with respect to noise issues and have no objections to the proposal subject to a condition that aims to control amplitude/aerodynamic modulation (AM) noise and the level of noise emissions.

Excess Amplitude Modulation is commonly referred to as blade swish. It would involve the control of noise that might occur over and above the normal level of blade swish noise. In allowing an appeal in relation to the Langford Wind Farm development, the Inspector stated that '*Amplitude Modulation (AM) or "blade swish" is an aspect of the aerodynamic noise from wind turbines that can be particularly noticeable or insistent but which is still not fully understood*'.

It is also of note that during the Public Inquiry evidence was presented by MAS Environmental on a number of noise issues in relation to the application. One of these included the need for a EAM condition. MAS Environmental raised concerns at the Inquiry and during the application process that there is a particular risk of EAM at Langford and that if the appeal proposal were approved it should be controlled by condition. The Inspector's decision discussed this in detail in paragraph 56 of his decision stating that '*although the Council's acoustic witness contended that there was a general acceptance that EAM occurred at 10-16% of wind farms nationally, no cogent evidence was advanced to support that figure*'. The Inspector goes on to emphasize that there is not any real evident reason why

the appeal site should be particularly prone to EAM. MAS Environmental suggested it was likely to be common in flat eastern parts of the country and could be exacerbated by wind shear and linear layout or particularly spacing of turbines. The Inspector states that the assertions made by the Council's witness were not supported by evidence.

The Inspector in the Langford case concludes that *'as I am not convinced that there is a real possibility of EAM at the site I consider that the Council's suggested condition to control it does not pass the test of necessity in Circular 11/95. If there is no clear need for it, it cannot be justified on a precautionary basis or because to impose it would "cause no harm"...I also have doubts as to whether the condition would meet the Circular tests of enforceability and precision in that, despite what the Council's acoustic witness said about being able to identify EAM and distinguish it from other noise, this would appear to depend so heavily upon individual judgment as to render the approach unsafe'*.

In other recent appeal decisions Planning Inspectors have continually dismissed the use of such a condition. AM is considered to be a perceived nuisance and no evidence has been put forward to suggest its presence in this location, therefore should it arise, it is generally felt (and endorsed by Planning Inspectors) that statutory nuisance powers are best placed to deal with the issue.

The National Planning Policy Framework states in paragraph 206 that planning conditions should only be imposed where they are necessary, relevant to planning and to the development to be permitted, enforceable, precise and reasonable in all other respects. This guidance reflects the advice set out in Circular 11/95. Given the above considerations, it is not felt necessary or reasonable to include a condition relating to the control of AM.

Given that the turbine is relatively isolated and some distance from the nearest properties, there is unlikely to be any adverse impact on neighbouring amenity, in terms of noise nuisance, as a result of the turbine.

Shadow flicker

Turbines cast long moving shadows on clear days when the sun is low in the sky causing what is known as the flicker effect to properties with east and west facing windows, and within close proximity to the turbine. This effect is normally limited to certain times of the day and year and depends on the orientation of the sun and the position of the turbine.

Guidance on shadow flicker is included in Planning for Renewable Energy, A Companion Guide to PPS22, which states that 'only properties within 130 degrees either side of north, relative to the turbines can be affected by these latitudes in the UK - turbines do not cast long shadows on their southern side' Further afield, the effect is diffused. The Companion Guide also notes that 'Flicker effects have been proven to occur only within ten rotor diameters of a turbine'.

Guidelines published in the Irish DoE document Wind Energy Development Guidelines(2006) advises that shadow flicker in neighbouring dwellings within 500m should not exceed 30 hours a year or 30 minutes per day. Based on current guidance, the environmental report assessment on shadow flicker has been calculated to a distance greater than 10 rotor diameters. The only property within

this distance is Warren Farm, some 636m away. This property may be affected by shadow flicker and has the potential to receive a maximum of 10- 20 hours of shadow flicker a year. However this is dependent on there being 100% sunshine in daylight hours and property windows directly facing the turbine. Should complaints be received, if shadow flicker is established as occurring, the turbine can be automatically shut down during flicker times to mitigate any adverse impact and a planning condition can secure such provisions.

Visual amenity

The turbine is sited some distance from neighbouring properties but would be most visible from those in the direction of Deepdale and Potton. Given that the structure is approximately 1.5 - 2km from these properties, the turbine would not be overbearing. Properties to the south of the turbine, in Stratford Road, would not have views of the turbine given that it is located on the opposite side of the ridge. Equally those properties in Everton Road and Carthage Road would have limited views, if any, due to the land form and the siting of the turbine.

Given that most neighbouring properties are some distance from the turbine, any views from the properties would not be overbearing and therefore not considered to be unacceptable.

Based on the above considerations, the proposal is considered to accord with Policy DM1 and DM3 of the Core Strategy and the NPPF.

7. Telecommunication and Aviation considerations

Large turbines have the potential to affect electromagnetic transmissions by blocking or deflecting line of sight radio or microwave links thereby causing 'clutter' for air traffic control services and telecommunication systems.

Consultations with the relevant bodies have confirmed there are no objections to the turbine on aviation or communication grounds. The applicant has undertaken pre-application consultations with various bodies in order to identify any constraints. Original objections from Cambridge City Airport and the Ministry of Defence have since been removed as their earlier concerns regarding impact on radar systems have been resolved.

The turbine is located to the south of the Sandy Heath Transmitter. Arqiva are responsible for providing the BBC/ITV transmission networks and have no objection to the siting of the turbine in this location. BBC Guidance notes suggest that wind turbines are placed at least 500m from the viewer to reduce the likelihood of any interference and this distance has been adhered to.

A Television Reception Impact Assessment has been submitted with the application which determines the potential effects on digital terrestrial television (freeview) and digital satellite television. No adverse impacts have been identified for satellite tv signals or terrestrial signals due to the lack of population in theoretical signal shadow zones and theoretical impact areas, the location and height of the proposed structure and the excellent existing coverage provided by the Sandy Heath Transmitter. As no impacts are predicted, no mitigation measures are required.

8. Traffic and access

The applicant has provided tracking diagrams of the larger vehicles being used to deliver the turbine. There are two routes to be used both from the A1. The first which the majority of the traffic will be using is through Sandy, the other, to avoid the weight restriction railway bridge at Sandy is through Potton via Moon Corner.

However both these routes have major problems with width restriction due to residential on street parking. There is also a certain amount of over run caused by the larger vehicles and street furniture will also need to be removed. The over run and street furniture will need to be re-instated after installation and again after deconstruction of the turbine.

The route at Moon Corner in Potton may not be possible. The tracking diagrams are precise and best fit, but in reality on the ground this may not be the case. There is also a gap between the vehicle turning at Moon Corner and then further along the road, where the tracking diagram is not indicated.

Apart from the possibility that it may cross third party land at Moon Corner, that may require the removal of boundary walls and excavation of gardens, the routes to the site uses roads that have major on street parking and there is the possibility that these roads will have to closed due to the transporter and turbine width, and the on street residential parking displaced elsewhere, which will cause a great deal of disruption.

The applicant has stated that the route has been a desk top survey and that they have not undertaken an on ground survey to visualise the issues of on street parking, lack of manoeuvrability and height of any overhead cables. This aside, the majority of these issues within the highway can be dealt with by the construction/traffic management plan.

The applicant has been made aware of these potential issues and they have suggested that a Traffic Management Plan will be prepared which would identify the above concerns and offer mitigation measures if required.

9. Hydrology/geology/flood risk/ contamination

The construction of the new access road, base station and foundations will reduce permeability in this location, however additional run off would be directed onto the surrounding land where the soil is sandy and free draining.

The construction of the foundations will involve excavation of materials to a depth of 2.5m. However the works are localised and there are no geological features of particular importance in this location.

The site is not within an area considered to be at risk of flooding.

No concerns have been raised regarding contaminated land issues and the site is not listed as being potentially contaminated under Part 2A of the Environmental Protection Act 1990.

The proposed wind turbine is not considered to have any adverse affects on

hydrology and geology and there are no risks in terms of flood risk and contamination.

10. Decommissioning

Importantly, the visual effects of wind energy developments can be reversed following decommissioning.

The wind turbine will be designed with an operational life of at least 25 years. Following this the turbine will be dismantled, removed and the site reinstated to its pre-development use.

11. Representations received

It is clear there are mixed feelings from the general public in relation to this form of renewable energy. Of over 100 letters received, almost half of those letters offer support for the proposal whilst the remainder cite objections such as visual impact, no community benefits, efficiency of wind turbines, impact on tv reception, noise and flicker, harm to birds, harm to bats and a general dislike of the structures.

Visual impact

The proposal has been assessed against adopted Policy DM1 and the Landscape Character Assessment. A wind turbine of this scale would have a visual impact on the landscape, however it is important to assess whether this harm is significant and whether the benefit of the proposal would outweigh the harm to the landscape in accordance with Policy CS13 and DM1 of the Core Strategy and the NPPF.

There would be no benefit to the local community

Comments received mention that the turbine would not bring any benefits to the local community, and that only the RSPB stand to benefit.

The proposal does not include any contributions towards local infrastructure nor does it intend to ensure that the community will receive a proportion of the benefit derived from the project. Having assessed the impacts of the proposal in accordance with adopted policy, given that only one single turbine is proposed, while there would be some impact on the locality, in planning terms it is not considered to be significant and therefore it would not be necessary for the proposal to contribute towards the local community.

Efficiency of the turbine

Some objectors have questioned the efficiency of turbines stating that one turbine would make no difference to climate change and the amount of electricity generated would not outweigh the harm caused. Government planning policy advises that even limited contributions are valuable and proposals should not be rejected because the level of output is small. Wind power is regarded as an important component of national renewable energy policy.

Impact on TV/Radio communications

Many objection letters draw attention to the possible impact the turbine would have on tv signals, and interruptions with the signal strength at the Sandy Mast.

As discussed about wind turbines can affect electromagnetic systems. However consultations with operators have not identified any objections or potential

problems with transmissions in this area.

Impact on neighbours through noise and shadow flicker

The proposal has been assessed for noise nuisance and shadow flicker in the above section of this report. The wind turbine has been sited to reduce any impact on nearby neighbours to an acceptable level.

Harm to birds and bats

The majority of objection letters received mention the harm a wind turbine would cause to birds and bats, resulting in injury or death. Many find it absurd that a Wildlife charity would wish to endorse the use of wind turbines.

The environmental report has identified that there is a risk to bird and bat species, however the risk is considered to be low provided mitigation measures are imposed where necessary. Whilst some of the pages of the report were originally missing, further consultation has taken place on the missing information and as noted above, neither Natural England or the Ecology Officer have objected to the proposal.

Dislike of wind turbines

The subject of wind turbines raises much debate. However the proposal has to be assessed based on national and local policies both of which offer support for renewable energy installations provided that the impacts of the proposal would not be harmful. All of the likely impacts have been covered in this report and while it is accepted that some individuals have a dislike of turbines, this in itself cannot be a justifiable reason for refusal.

12. Conclusion

National and Adopted Local Planning Policies support the installation of renewable energy projects provided there is no unacceptable adverse impact. The proposed 100m wind turbine is considered to have an impact on the landscape and the nearby heritage assets. However in accordance with Policy CS13, DM1 and the National Planning Policy Framework, the impact is not considered to be unacceptable that it would outweigh the benefits of harnessing wind power.

The proposal would not have an adverse negative impact on biodiversity or ecology or an adverse impact on the residential amenity of neighbouring properties and is acceptable in terms of highway safety.

Therefore by reason of its size, design and location, the proposal is in conformity with Policies CS13, DM1, CS15, DM13, DM3, DM14 and DM15 of the Core Strategy and Management Policies, November 2009; and The National Planning Policy Framework.

Recommendation

That Planning Permission be granted subject to the following:

RECOMMENDED CONDITIONS / REASONS

- 1 The development hereby approved shall be commenced within three years of the date of this permission.

Reason: To comply with Section 91 of the Town and Country Planning Act 1990 which is designed to ensure that a planning permission does not continue in existence indefinitely if the development to which it relates is not carried out.

- 2 The permission is for a period not exceeding 25 years from the date on which electricity is first exported to the electricity grid (the operational date). Written notification of the operational date shall be given to the Local Planning Authority within one month of that date. No later than 12 months after the expiry of the permission all elements of the development at and above ground level shall be removed and the site restored in accordance with a decommissioning scheme previously submitted to and approved in writing by the Local Planning Authority.

Reason: In the interests of visual amenity and landscape protection.

- 3 If any turbine fails to produce electricity for a continuous period of 6 months the operator of the development shall notify the Local Planning authority in writing no later than one month after the end of that period. the turbine and its associated equipment shall be removed from the site no later than 9 months from the end of that period and the relevant part of the site restored, all in accordance with a decommissioning scheme previously submitted to and approved in writing by the Local Planning Authority.

Reason: In the interests of visual amenity and landscape protection.

- 4 No later than 3 months from the date of this permission the developer shall inform the Ministry of Defence (MoD) and the Civil Aviation Authority (CAA) of the proposed date of commencement of development and the maximum extended height of any construction equipment to be used on the site.

Reason: In the interests of safety

- 5 No later than 14 days after the operation date the developer shall inform the MoD and CAA in writing of:

- (i) the date of completion of construction
- (ii) the height above ground level of the highest potential obstacle
- (iii) the position of the structures in latitude and longitude; and
- (iv) the lighting details of the site.

Reason: In the interests of safety.

- 6 **No development shall take place until details of all access tracks, including details of their location, construction and surface materials, have been submitted to and approved in writing by the Local Planning Authority. The tracks shall be laid out in accordance with the approved details and so retained thereafter.**

Reason: In the interests of visual amenity and highway safety in accordance with Policy DM1 and DM3 of the Core Strategy and Development Management Policies (2009)

- 7 **No development shall take place until details of the proposed road access to the site, including associated visibility splays have been submitted to and approved in writing by the Local Planning Authority. The access shall be provided in accordance with the approved details, brought into use prior to the operational date and so retained thereafter and the visibility splays shall at all times be kept free of obstructions to visibility of drivers.**

Reason: In the interests of visual amenity and highway safety in accordance with Policy DM1 and DM3 of the Core Strategy and Development Management Policies (2009)

- 8 **No development shall take place until details of the turbine, including their foundation construction, make, model, design, external appearance, finish, colour and technical specification have been submitted to and approved in writing by the Local Planning Authority. The turbine shall be erected in accordance with the approved details and so retained thereafter.**

Reason: In the interests of visual and neighbouring amenity in accordance with Policy DM1 and DM3 of the Core Strategy and Development Management Policies (2009)

- 9 **No development shall take place until details of any permanent buildings on the site, including details of materials to be used on external surfaces, have been submitted to and approved in writing by the Local Planning Authority. The buildings shall be erected in accordance with the approved details and so retained thereafter.**

Reason: In the interests of visual and neighbouring amenity in accordance with Policy DM1 and DM3 of the Core Strategy and Development Management Policies (2009)

- 10 **Prior to the operational date a scheme for assessing shadow flicker in the event of any complaint from the owner or occupier of a dwelling and for remedial measures shall be submitted to and approved in writing by the Local Planning Authority. For the purposes of this condition, a dwelling is defined as a building falling within classes C3 and C4 of the Town and Country Planning (Use Classes) Order 1987 as amended, which lawfully exists, or had planning permission, at the time of this planning permission and which is situated within a distance equivalent to 10 rotor diameters from one of the turbines. The development shall be carried out in accordance with the approved scheme.**

Reason: In the interests of neighbouring amenity in accordance with Policy DM3 of the Core Strategy and Development Management Policies DPD (2009).

- 11 **No development shall take place until a scheme of archaeological investigation, together with a programme for its implementation, has been submitted to and approved in writing by the Local Planning Authority. The scheme shall provide for access to the site by a nominated archaeologist during construction to examine excavations**

and record or remove finds. The scheme shall be implemented in accordance with the approved details.

Reason: To protect heritage assets in accordance with the NPPF.

- 12 No development shall commence until details of the junction of the proposed vehicular (west) access, including kerb radii and tracking diagrams of the largest vehicle entering/leaving the site in both directions has been submitted to and approved in writing by the Local Planning Authority and the junction shall be constructed in accordance with the approved details prior to the development commencing.**

Reason: In order to minimise danger, obstruction and inconvenience to users of the highway and the site.

- 13 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 proposals for construction traffic routes, the scheduling and timing of movements, any traffic control, signage within the highway inclusive of temporary warning signs, the management of junctions to, and crossing of, the public highway and other public rights of way, details of escorts for abnormal loads, temporary removal and replacement of highway infrastructure and street furniture, the reinstatement of any signs, verges or other items displaced by construction traffic, banksman and escort details, tracking diagrams at junctions and bends along the route, details of the construction workers and deliveries parking and access within and to the site, details of how the use of the existing (east) access will be stopped to transporters and vehicles relating to the construction of the wind turbine. The CTMP shall be implemented in accordance with the approved details for the duration of the construction period.**

Reason: In order to minimise danger, obstruction and inconvenience to users of the highway and the site.

- 14 Construction work and deliveries to the site shall only take place between the hours of 08.00 and 18.00 on Monday to Friday inclusive and 08.00 and 13.00 on Saturdays, with no work or deliveries on a Sunday or public holiday unless otherwise agreed in writing with the Local Planning Authority. Outside these hours work shall be limited to dust suppression and emergency works, details of the latter to be notified in writing to the Local Planning Authority within 3 days of the occurrence of the emergency.**

Reason: In the interests of residential amenity and Highway safety.

- 15 No development shall commence until details of a scheme of environmental mitigation has been submitted to and approved in writing by the Local Planning Authority and the development shall be carried out in accordance with the approved scheme.**

Reason: To enable proper consideration of the impact of the

development on the contribution of nature conservation interests to the amenity of the area.

- 16 **No development shall take place until a monitoring scheme for surveillance of bird and bat activity and mortality and monitoring of activity of Biodiversity Action Plan species has been submitted to and approved in writing by the Local Planning Authority. The scheme shall be implemented in accordance with the approved details.**

Reason: In the interests of biodiversity and wildlife protection.

17

The rating level of noise emissions from the wind turbine, (including the application of any tonal penalty) when determined in accordance with the attached Guidance Notes, shall not exceed 35dB LA90 (10 minute) at any dwelling for any relevant 10m height 10 minute mean above ground level measured integer wind speed of between 1-12m/s as identified in this condition 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 a consultant approved by the Local Planning Authority, to assess the level of noise emissions from the wind farm at a 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 logged in accordance with paragraph (G) to the Local Planning Authority in the format set out in Guidance Note 1(e).
- C. 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 locations identified in accordance with the Guidance Notes where measurements of noise and wind shall be obtained for compliance checking purposes. Measurements to assess compliance with the noise limit of this condition shall be undertaken at the measurement locations approved in writing by the Local Planning Authority.
- D. Prior to the submission of the independent consultant's assessment of the rating level of noise emissions in accordance with paragraph (E), 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 (which shall include the range of wind speeds, wind directions, power generation and times of day) to determine the assessment of rating level of noise emissions; and
- (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 written request of the Local Planning Authority under paragraph (B), and such others as the independent consultant considers likely to result in a breach of the noise limits. The assessment of the rating level of noise emissions shall be undertaken in accordance with the assessment protocol approved in writing by the Local Planning Authority.

- E. The wind farm operator shall provide to the Local Planning Authority the independent consultant's written assessment of the rating level of noise emissions 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) 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 emissions.
- F. Where a further assessment of the rating level of noise emissions from the wind farm is required pursuant to paragraph 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 (E) above unless the time limit has been extended in writing by the Local Planning Authority.
- G. The wind farm operator shall continuously log power production, rotational speed, nacelle wind speed, nacelle wind direction and nacelle orientation and where available as part of the SCADA system (Supervisory Control and Data Acquisition) the blade pitch and revolutions per minute of the turbine (the latter as a 10 minute average) at the wind turbine all in accordance with Guidance Note 1(d). 10 metre height wind speeds averaged over 10 minute periods shall be measured at a location approved by the local planning authority for comparison with the measured noise levels, for the duration of the noise level compliance check survey required by the local planning authority or if separately required by the local planning authority (in writing) where the authority choose

to assess compliance themselves. Rainfall shall also be measured during any measurement regime at a location approved by the local planning authority in writing. These data obtained shall be retained for the life of the planning permission. The wind farm operator shall provide this information in the format set out in Guidance Note 1(e) to the Local Planning Authority on its request, within 14 days of receipt in writing of such a request.

- H. Once the Local Planning Authority has received the independent consultant's noise assessment required by this condition, including all noise measurements and audio recordings, where the Local Planning Authority is satisfied of an established breach of the noise limit or through their separate measurements are satisfied of a breach of the noise limit, upon notification by the Local Planning Authority in writing to the wind farm operator of the said breach, the wind farm operator shall within 14 days propose a scheme for the approval of the Local Planning Authority. The scheme shall be designed to mitigate the breach and to prevent its future recurrence. This scheme shall specify the timescales for implementation. The scheme shall be implemented as reasonably approved by the Local Planning Authority and according to the timescales within it. The scheme as implemented shall be retained thereafter in accordance with the approved details unless otherwise agreed in writing with the Local Planning Authority.

For the purposes of this condition, a "dwelling" is a building which is lawfully used as a dwelling house and which exists or had planning permission at the date of this consent.

- 18 **No development shall commence until details of the reduction of the width and re-instatement of the reduced width of the junction of the (west) access to serve the wind turbine has been submitted to and approved in writing by the Local Planning Authority. Within one month of the turbine being erected the junction shall be reduced in width and reinstated in accordance with the approved plans.**

Reason: In order to minimise danger, obstruction and inconvenience to users of the highway and the site.

- 19 Visibility splays shall be provided at the junction of the access with the public highway before the development commences. The minimum dimensions to provide the required splay lines shall be 2.4m measured along the centre line of the proposed access from its junction with the channel of the public highway and 215.0m measured from the centre line of the proposed access along the line of the channel of the public highway. The required vision splays shall for the perpetuity of the development remain free of any obstruction to visibility.

Reason: To provide adequate visibility between the existing highway and the proposed access, and to make the access safe and convenient for the traffic which is likely to use it.

20 **No development shall commence until the on site vehicular areas have been constructed and surfaced in a stable and durable material in accordance with details to be approved in writing by the Local Planning Authority for a distance of 20.0m into the site, measured from the highway boundary. Arrangements shall be made for surface water drainage from the site to be intercepted and disposed of separately so that it does not discharge into the highway.**

Reason: To avoid the carriage of mud or other extraneous material or surface water from the site so as to safeguard the interest of highway safety and reduce the risk of flooding and to minimise inconvenience to users of the premises and ensure satisfactory parking of vehicles outside highway limits

21 Within two months prior to the decommissioning date details of the traffic management plan and widening of the junction for removal of the turbine from the site, and the reduction of the width of the junction and reinstatement of the reduced width within one month after the removal of the turbine, shall be submitted to and approved in writing by the Local Planning Authority. The traffic management plan, construction of the widened junction, construction and reinstatement of the reduced width of the junction shall be completed in accordance with the approved details.

Reason: For the avoidance of doubt and in order to minimise danger, obstruction and inconvenience to users of the highway and the site.

22 Any gates provided shall open away from the highway and be set back a distance of at least 20.0 from the nearside edge of the carriageway of the adjoining highway.

Reason: To enable vehicles to draw off the highway before the gates are opened

23 Within one month of the turbine being erected the existing (east) access shall be closed in a manner to the Local Planning Authority's written approval.
(See Notes to the Applicant)

Reason: In the interest of road safety and to reduce the number of points at which traffic will enter and leave the public highway

24 **No development shall commence on site until the details of a turning space within the curtilage of the site for the largest transporter vehicle has been submitted to the Local Planning Authority and approved in writing. The turning space shall be implemented upon the commencement of the development and shall be constructed in accordance with the approved details.**

Reason: To enable vehicles to draw off, park and turn outside of the highway limits thereby avoiding the reversing of vehicles on to the highway.

- 25 Best practical means shall be taken at all times to ensure that all vehicles leaving the development site during construction of the development are in a condition such as not emit dust or deposit mud, slurry or other debris on the highway, in particular efficient means shall be installed prior to commencement of the development and thereafter maintained and employed at all times during construction of the development of cleaning the wheels of all lorries leaving the site

Reason: To minimise the impact of construction vehicles and to improve the amenity of the local area.

- 26 The turbine shall be fitted with 25 candela omni-directional red lighting or infrared lighting with an optimised flash pattern of 60 flashes per minute of 200ms to 500ms duration at the highest practicable points. The lighting shall remain in place for the duration of the development unless otherwise agreed in writing by the Local Planning Authority.

Reason: In the interest of air safety.

- 27 The development hereby permitted shall not be carried out except in complete accordance with the details shown on the submitted plans, numbers 4035_T0376_01, 4035_T0378_01, 4035_T0396_01, Environmental Report and Appendices dated August 2013.

Reason: For the avoidance of doubt.

Notes to Applicant

1. Guidance Notes for Noise Conditions

These notes are to be read with and form part of the noise conditions. They further explain the condition and specify the methods to be deployed 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. 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 LA90,10-minute noise statistic required for condition 1 should be measured at the complainant's property, using a sound level meter of EN 60651/BS EN 60804 Type 1, or BS EN 61672 Class 1 quality (or the equivalent UK adopted standard in force at the time of the measurements) set to measure using the fast time weighted response as specified in BS EN 60651/BS EN 60804 or BS EN 61672-1 (or the equivalent UK adopted standard in force at the time of the measurements). This should be calibrated in accordance with the procedure specified in BS 4142: 1997 (or the equivalent UK adopted standard in force at the time of the measurements). Measurements shall be undertaken in such a manner to enable a tonal penalty to be applied in accordance with Guidance Note 3.

- (b) The microphone should be mounted at 1.2 - 1.5 metres above ground level, fitted with a large diameter (150mm or larger) windshield or suitable equivalent approved by the Local Planning Authority, and placed outside the complainant's dwelling. Measurements should be made in "free field" conditions. To achieve this, the microphone should be placed at least 3.5 metres away from the building facade or any reflecting surface except the ground at the approved measurement location. In the event that the consent of the complainant for access to his or her property to undertake compliance measurements is withheld, the wind farm operator shall 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 LA90, 10-minute measurements must be synchronised with measurements of the 10-minute arithmetic average wind speed obtained at the approved location and with turbine operational

data logged in accordance with Guidance Note 1(d), including the power generation data from the turbine control systems of the wind farm.

- (d) To enable compliance with the conditions to be evaluated, the wind farm operator shall continuously log actual arithmetic mean wind speed in metres per second (m/s) at 10 metres height, arithmetic mean wind direction in degrees from north and rainfall data in each successive 10-minute periods by direct measurement at the meteorological monitoring location approved by the Local Planning Authority. The correlation of wind speeds with the measured noise levels should comply with Guidance Note 1(c) and 1(d) and should be determined as valid in accordance with Note 2(b). The wind farm operator shall continuously log arithmetic mean nacelle anemometer wind speed, arithmetic mean nacelle orientation, arithmetic mean wind direction as measured at the nacelle, the revolutions per minute of the blades and arithmetic mean power generated during each successive 10-minute period for the wind turbine on the wind farm. All 10-minute measurement periods for all data including noise shall commence on the hour and in 10-minute increments thereafter synchronised with Greenwich Mean Time.
- (e) Data provided to the Local Planning Authority in accordance with paragraphs (E) (F) and (G) of this noise condition shall be provided in comma separated values in electronic format with each data set adequately described for identification of the data.

Note 2

- (a) The noise measurements should be made so as to provide not less than 20 valid data points as defined in Note 2 paragraph (b). Where more than 80 valid data points are obtained, data shall be separated into contiguous sets of not more than 40 data points and not less than 20 data points based on the nearness of their occurrence to the meteorological conditions reflected during complaints of noise. The

data points should be chronologically ordered according to the meteorological conditions.

- (b) Valid data points are those measured in 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 at the approved meteorological measurement location provided in accordance with the planning permission on the wind farm site.
- (c) Values of the $L_{A90,10}$ -minute noise measurements and corresponding values of the 10-minute ten metre height wind speed for those data points considered valid in accordance with Note 2 paragraph (b) shall be plotted on an XY chart separately for each data set with noise level on the Y-axis and wind speed on the X-axis. A least squares, “best fit” curve of the lowest practicable order as deemed appropriate by the independent consultant (but which may not be higher than a fourth order) and in cases of measurements by the planning authority, as deemed appropriate by the planning authority, should be fitted to the data points and define the wind farm noise level at each integer speed for each data set.

Note 3

- (a) Where in accordance with the approved assessment protocol under paragraph (D) of the noise condition, noise emissions at the location or locations where compliance measurements are being undertaken contain or are likely to contain a tonal component, a tonal penalty is to be calculated and applied using the following rating procedure.
- (b) For each 10-minute interval for which $L_{A90,10}$ -minute data have been determined as valid in accordance with Note 2 a tonal assessment shall be performed on noise emissions during 2 minutes of each 10-minute period. The 2-minute periods should be spaced at 10-minute intervals provided that uninterrupted uncorrupted data are available (“the standard procedure”). Where uncorrupted data are not

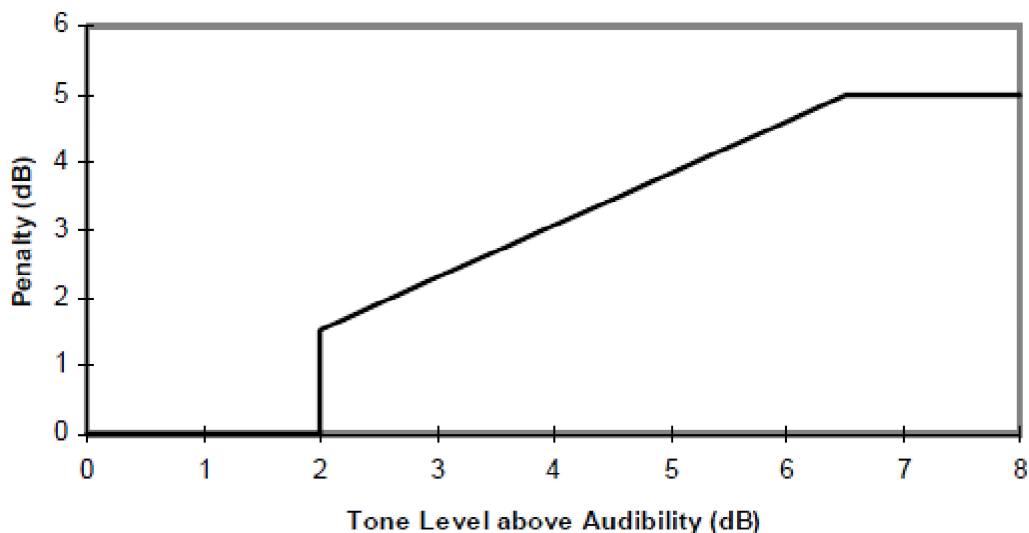
available, the first available uninterrupted clean 2-minute period out of the affected overall 10-minute period shall be selected. Any such deviations from standard procedure shall be reported.

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

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

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



Note 4

(a) If a tonal penalty is to be applied in accordance with Note 3 the rating

level of the turbine noise at each wind speed is the arithmetic sum of the measured noise level as determined from the best fit curve described in Note 2 and the penalty for tonal noise as derived in accordance with Note 3 above at each integer wind speed within the range set out in the approved assessment protocol under 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) In the event that the rating level is above the limit in the noise condition the independent consultant shall undertake a further assessment of the rating level to correct for background noise so that the rated level relates to wind turbine noise emission only.
- (d) The wind farm operator shall ensure that all the wind turbines in the development are turned off for such period as the independent consultant or the Local Planning Authority requires to undertake the further assessment or for any independent assessment by the planning authority. 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 and wind farm noise at each integer wind speed within the range set out in the approved assessment protocol under paragraph (E) of the noise condition.
 - ii. The wind farm noise at this speed shall then be calculated where the measured level with turbines running but without the addition of any tonal penalty:
 - 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 at that integer wind speed.
 - iv. 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 35dB LA90 (10 minute) then no further action is necessary. If the rating level at any integer wind speed exceeds the value in the condition for any data set then the development fails to comply with the condition.

Highway Notes

- The applicant is advised that no works associated with the construction of the vehicular access should be carried out within the confines of the public highway without prior consent, in writing, of the Central Bedfordshire Council Highways Department. Upon receipt of this Notice of Planning Approval, the applicant is advised to seek approval from the Local Planning Authority for details of the proposed vehicular access junction in accordance with condition 18. Upon formal approval of details, the applicant is advised to write to Central Bedfordshire Council's Highway Help Desk, Technology House, 239 Ampthill Road, Bedford MK42 9BD quoting the Planning Application number and supplying a copy of the Decision Notice (with list of conditions) and a copy of the approved plan for the access. This will enable the necessary consent and procedures under Section 184 of the Highways Act to be implemented. The applicant is also advised that if any of the works associated with the construction of the vehicular access affects or requires the removal and/or the relocation of any equipment, apparatus or structures (e.g. street name plates, bus stop signs or shelters, statutory authority equipment etc.) then the applicant will be required to bear the cost of such removal or alteration. To fully discharge condition 1 the applicant should provide evidence to the Local Planning Authority that Bedfordshire Highways have undertaken the construction in accordance with the approved plan, before the development is brought into use.
- The applicant is advised that the requirements of the New Roads and Street Works Act 1991 will apply to any works undertaken within the limits of the existing public highway. Further details can be obtained from the Traffic Management Group Highways and Transport Division, Central Bedfordshire Council, Technology House, 239 Ampthill Road, Bedford MK42 9BD
- The applicant is advised that photographs of the existing highway that is to be used for access and delivery of materials will be required by the Local Highway Authority. Any subsequent damage to the public highway resulting from the works as shown by the photographs, including damage caused by delivery vehicles to the works, will be made good to the satisfaction of the Local Highway Authority and at the expense of the applicant. Attention is drawn to Section 59 of the Highways Act 1980 in this respect.
- The applicant is advised that the storage of materials associated with this development should take place within the site and not extend into within the public highway without authorisation from the highway authority. If necessary further details can be obtained from Bedfordshire Highways (Amey), District Manager (for

the relevant area) via the Central Bedfordshire Council's Customer Contact Centre on 0300 300 8308.

- The applicant is advised that in order to achieve the vision splays in condition 19 of the permission it may be necessary for vegetation overhanging the public highway to be removed. Prior to the commencement of work the applicant is advised to contact Central Bedfordshire Council's Customer Contact Centre on 0300 300 8308 to request the removal of the overhanging vegetation on the public highway.
- The applicant is advised that the closure of existing (east) access and the reduction of the width of the (west) access shall include the reinstatement of the highway to include any footway, verge and kerbing and no works associated with the closure of the vehicular access should be carried out within the confines of the public highway without prior consent, in writing, of the Central Bedfordshire Council Highways Department. Upon receipt of this Notice of Planning Approval, the applicant is advised to seek approval from the Local Planning Authority for details of the proposed vehicular access junction in accordance with the relevant conditions. Upon formal approval of details, the applicant is advised to write to Central Bedfordshire Council's Highway Help Desk, Technology House, 239 Ampthill Road, Bedford MK42 9BD quoting the Planning Application number and supplying a copy of the Decision Notice (with list of conditions) and a copy of the approved plan for the access. This will enable the necessary consent and procedures under Section 184 of the Highways Act to be implemented. To fully discharge condition 4 the applicant should provide evidence to the Local Planning Authority that Bedfordshire Highways have undertaken the construction works in accordance with the approved plan, before the development is brought into use. The applicant will also be expected to bear all costs involved in closing the accesses.
- The applicant is advised that no works associated with the construction traffic management plan (CTMP) should be carried out within the confines of the public highway without prior consent, in writing, of the Central Bedfordshire Council Highways Department. Upon receipt of this Notice of Planning Approval, the applicant is advised to seek approval from the Local Planning Authority for details of the CTMP in accordance with condition 10. Upon formal approval of details, the applicant is advised to write to Central Bedfordshire Council's Highway Help Desk, Technology House, 239 Ampthill Road, Bedford MK42 9BD quoting the Planning Application number and supplying a copy of the Decision Notice (with list of conditions) and the approved CTMP. This will enable the necessary consent and procedures of the Highways Act to be implemented. The applicant is also advised that if any of the works associated with the proposal affects or requires the removal and/or the relocation of any equipment, apparatus or structures (e.g. street name plates, bus stop signs or shelters, statutory authority equipment etc.) and re-instatement of the highway then the applicant will be required to bear the cost of such removal or alteration and re-instatement. To fully discharge condition 13 the applicant should provide evidence to the Local Planning Authority that Bedfordshire Highways are proactive with the CTMP.

Statement required by the Town and Country Planning (Development Management Procedure) (England) (Amendment No. 2) Order 2012 - Article 31

The Council acted pro-actively through early engagement with the applicant at the pre-application stage which led to improvements to the scheme. The Council has therefore acted pro-actively to secure a sustainable form of development in line with the requirements of the Framework (paragraphs 186 and 187) and in accordance with the Town and Country Planning (Development Management Procedure) (England) (Amendment No. 2) Order 2012.

DECISION

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