



Campaign to Protect
Rural England

CPRE Bedfordshire

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Head of Planning & Housing Services
19 November 2008
Town Hall
St Paul's Square
Bedford, MK40 1SJ

Date 19th November 2008

Attn: Peter Bull

Dear Sirs,

**Re : Application No: 08/02692/MAF Erection and Operation of 3 Wind Turbines Etc
Airfield Farm, Podington**

As you are aware CPRE opposed the previous application (**05/02589/FUL**) for 9 wind turbines on this site, and the surrounding area. This application was ultimately refused by Bedford Borough Council. Following this, an appeal against refusal was subsequently withdrawn by the applicant.

The current application seeks to erect three turbines, of similar height (max.126 metres) to those for the previous application, all situated on the former Podington airfield site to the north of Odell Great Wood. The proposed siting of these turbines appears to occupy a similar position to the group of three proposed in the previous application.

The removal of the group of six turbines previously proposed to the south of Hinwick would reduce the adverse impact on the listed buildings and park and gardens at the settlement, and this has been acknowledged by English Heritage. The nearest turbine would now be 2km from the settlement as opposed to about 900 metres as was previously the case.

In response to this application CPRE would like to submit the following comments:

1.0 Setting of the Application Site

- 1.1 **Quality:** The site is set in the Hinwick Wooded Wolds, an area of North Bedfordshire which is arguably one of the finest in the Borough. In the recent Landscape Character Assessment survey of the area its overall character was judged to be of **high sensitivity to change**.
- 1.2 **Settlements:** The site is surrounded by ancient settlements, Hinwick to the north-west, Podington to the north-east and Odell to the south. All these settlements are described in the Domesday Survey of 1085 and have preserved their distinctive and individual character to this day. They all contain listed buildings and are protected by Conservation Area status.
- 1.3 **Landscape Features:** Odell Great Wood, an ancient woodland, lies immediately to the south of the site and is designated a Site of Special Scientific Interest

(SSSI). Further to the south, passing through Odell, the River Great Ouse lies in the valley below the site. Between Odell and Harrold (a large village about 3 kilometres to the west) a very popular wildlife park has been established, adjacent to the river, incorporating water-filled former gravel pits.

- 1.4 **Wildlife:** The area is very rich in wildlife, particularly associated with the wildlife park mentioned above which attracts many migratory birds. The red kite, a rare raptor once totally extinct in the area, recently introduced to the neighbouring county of Northamptonshire, now frequents the site area.
- 1.5 **Access:** The area is served by a network of footpaths and bridleways with 'The Three Shires Way' forming a major recreational route across the landscape.
- 1.6 **Amenity Value:** The area is used by a large portion of the population, both local and from nearby large conurbations, for recreational purposes such as walking and horse riding and for wildlife study.

2.0 Development Impact

- 2.1 **Visual:** By virtue of their height (126 metres max.) the proposed turbines will be very visible in the landscape over a wide area. These would appear as disproportionate, unnatural, man-made structures in an otherwise natural setting which is unable to absorb them. Applied screening, as the applicant readily admits, is impossible and though some natural screening will be afforded to an observer by trees and bushes close at hand, this will be haphazard and intermittent and will be reduced further in wintertime. A degree of adverse visual impact is unavoidable, a fact that is readily admitted by the applicant. This effect is well shown by the view at the front of the applicant's supporting documentation taken from the Harrold & Odell Wildlife Park (1.3) at about 3 kilometres from the application site. This effect bears out the observation made in the Hinwick Wooded Wolds Landscape Character Assessment at 2A.17: *"The areas with highest visual sensitivity are the slopes rising above the valley of the Great Ouse which provides a rural backdrop to the valley floor"*.
- 2.2 **Noise:** It is accepted that the noise of turning turbine blades can over a long period have a detrimental affect on the health of a nearby listener. This normally occurs when there are occupied dwellings adjacent to the turbines. In this case, however, there appear to be few dwellings in the site area and the applicant has sought to position the turbines as far as possible from these. Nevertheless this disbenefit might still prove to be a problem. Furthermore, there is also the possibility of turbine noise affecting horses on nearby bridleways (see below).
- 2.3 **Shadow and Flicker:** While this can have a distracting affect upon humans, it is of greater concern in relation to bridleways and the affect on horses. Currently (2007) The British Horse Society (BHS) recommends that when bridleways are used by experienced riders the distance of the turbines from bridleways should be no less than three times the height of the turbines, which in this case would be about 375 metres. Furthermore, if inexperienced riders, or those unfamiliar with the local terrain, are likely to use the bridleways the BHS recommends that this safe distance be extended to four times the height of the turbine (500 metres). Apparently these new standards were conveyed to the applicant by the Chairman of BHS Bedfordshire in May 2007, but as far as CPRE is able to ascertain from the application detail these new standards have not been applied
- 2.4 **Trackways:** To install and service the turbines would require that 2.56 kilometres of suitable trackway, (5 metres in width with additional width at corners and at

passing places), with 1.13 km being achieved by upgrading existing track. The possible widening of the existing trackway and the creation of 1.43 km additional track could have an adverse impact on wildlife populations, especially ground nesting birds.

2.5 **Carbon Footprint** – i.e. CO₂ production associated with the manufacture, transportation and installation of the turbines, trackways and related infrastructure:

CPRE is unable to calculate this absolutely definitively, but we can identify many of the elements contributing to the carbon expenditure associated with the creation of the wind farm as follows:

- the manufacture of the turbine components plus their transportation (from the continent?).
- the transportation of materials, soil excavation and construction of the three turbine bases. Each base would be 15 x 15 x 2.5 metres (562 cu.m.) and would use approx. 350 tonnes of concrete (cement + aggregate) plus 48 tonnes of reinforcing steel.
- the transportation of materials, soil excavation and construction of the adjacent concrete crane pad (23 x 40 metres) for the erection of each turbine.
- the transportation of materials and construction of control building and hard standing (27.5 x 8.5 metres).
- the transportation of materials and construction of site compound (50 x 50 metres) hard standing.
- the manufacture, supply, trenching and laying of connecting electrical cables (approx. 7.29 km).
- the transportation and laying of aggregate to an average depth of over 500mm for 2.56km of trackway.

By using the details made available by the applicant and applying them to the Renewable Energy Foundation model for determining carbon footprint, CPRE estimates that this could equate to requiring a period of at least 3 years energy production to reach carbon parity.

3.0 **Local Development Framework Policy**

From the CPRE viewpoint the following policies from the Borough's recently adopted (April 2008) Core Strategy & Rural Issues Plan are relevant to this application:

3.1 **Policy CP23** – *Heritage* which states that: *Development will be required to protect and where appropriate enhance:*

3.1.1 “the character of conservation areas, scheduled ancient monuments (SAM), historic parks and gardens, listed buildings and other important historic or archaeological features.”

3.1.2 “the borough's cultural assets, including its landscape, in order to underpin sense of place, cultural identity and promote quality of life.”

3.1.3 With regard to 3.1.1 CPRE appreciates that apart from the SAM, the applicant has tried to address this adverse impact by the removal of the six turbines nearest to Hinwick.

- 3.1.4 Nevertheless it is worth pointing out that in the modified Nun Wood wind farm application, shortly to be submitted to the Borough, the turbines (of the same height as those proposed for Podington) which would have been most visible from Castle Ashby (a listed stately home some 8 kilometres from the proposed site) have been dropped from the new proposals in order to remove the accepted adverse visual impact that would be created. The listed buildings at Hinwick would be 2 km, only a quarter of the Castle Ashby distance, away from the nearest turbine and despite the English Heritage assurance it is difficult to believe that no adverse visual impact would remain, especially since the airfield site is on average 25metres higher in contour than Hinwick.
- 3.1.5 CPRE believes the proposed development would be totally contrary to the aims of the policy expressed at 3.1.2. As previously stated, CPRE views this area of North Bedfordshire as a very important public amenity, and one which exemplifies all aspects of this policy.

3.2 **Policy CP 24 – Landscape protection and enhancement.**

An extract from the subtext supporting this policy states that:

“Landscape enhancement is an important issue in the rural area of the borough where there are smaller villages and the impact of development could have a detrimental impact on the landscape if not appropriately controlled. It is therefore important to consider the impact of development on the landscape at both the macro and micro scale by considering views, the need for screening and the impact on existing landscape features.”

This informs the following policy statements:

- 3.2.1 “The landscape and character of the borough will be conserved and where appropriate enhanced.”
- 3.2.2 “New development should protect and where appropriate enhance the quality and character of the landscape. The nature and scale of development should be appropriate within the wider landscape.”
- 3.2.3 CPRE believes that the proposed development would be totally at odds with every aspect of these policies for the reasons we have expressed earlier.

4.0 **Balance between Renewable Energy Production and Public Amenity Loss**

- 4.1 CPRE is fully aware of the need to conserve energy, reduce carbon emissions and to develop renewable sources of energy generation. In principle it supports a policy which aims to bring about an increase in renewable energy generation which is efficient in terms of carbon saving and investment cost. However CPRE also has a duty on behalf of the whole nation to ensure that any loss of amenity due to adverse environmental impact on the countryside is proportionate to the level of benefit.
- 4.2 It is of great importance to the nation – and the wider world - that renewable energy sources give the highest possible level of energy production. In the case of wind generation this aim is directly related to siting and associated wind speed values.
- 4.3 The maximum wind energy output can at best only be achieved for 50% of the time. Percentage output against time is referred to as ‘load factor’. To achieve the greatest load factor, sites have to be positioned in areas of the high wind speed. These are predominantly off-shore, at wind-swept coastal areas or high level open

sites. By comparison lowland inland sites deliver much lower levels of production. Evidence supplied by European wind speed maps indicates that Bedfordshire and the East Midlands lie within an area of relatively low wind speed, which seriously constrains energy output. The Burton Wold wind farm, which lies only 16 kilometres (10 miles) north of the current application site, has a load factor of 22% (derived from Offgem data) and CPRE is reliably informed that the Podington airfield site is unlikely to achieve a load factor which is significantly higher.

4.4 To encourage energy companies to invest in renewable energy, national government has introduced a system of Renewable Obligation Certificates which provides a commercially viable income return to companies investing in wind farm development. This level of financial return is in fact paid for by the energy consumer and can therefore be described as a form of public subsidy.

4.5 It is a measure of the marginal level of generating capacity in the Bedfordshire/East Midlands area that in a recent BBC documentary broadcast on 'Wind Energy' a spokesman for an energy company involved in wind generation stated that "without this 'subsidy' it would not be financially viable to apply for sites in these areas of low wind speeds".

4.6 Furthermore, the chairman of Nuon, Ludo van Halderen, said only this year: "While the mechanisms of a single European market are well understood and widely adopted in the agricultural sector, policymakers find it difficult to apply the same concept of making optimal use of each country's natural resources when it comes to fuel mixes. Europe is still dragging its feet on adopting a single energy market for renewables, in which wind energy would be developed where it makes sense instead of seeing wind farms receiving substantial national subsidies in countries where they run for barely a fifth of the year." (i.e. those with a load factor of 20 – 25%)

5.0 Conclusion

5.1 From all of the above it becomes apparent that attempting to generate wind energy in areas such as that currently proposed is highly wasteful of resources, would take a long time to offset its considerable carbon footprint, while adversely affecting the quality of the landscape amenity.

5.2 The question must therefore be asked: *Is the contribution to renewable energy supply and the reduction of global warming sufficient to sacrifice the landscape amenity in this area?* CPRE strongly believes it is not. Much better resource investment returns can be achieved elsewhere, as explained, and it is vital, if we are to reach government targets for carbon emission reduction, that the nation - and indeed the world - concentrates its drive to achieve high levels of renewable energy output in areas where this is attainable and avoids inefficient developments which provide meagre results, waste public money and damage public amenity.

5.3 In consideration of this balance between degree of energy benefit and landscape amenity loss, it could be said that the balance has shifted further against the current proposal because although some of the disbenefits have been reduced, they have not been reduced by 2/3, given that the embodied carbon for a three turbine site is proportionately higher than at a site where there are more turbines.

6.0 Further Issues:

- 6.1 As mentioned earlier, CPRE is aware that a proposal for a wind farm of 12 turbines at Nun Wood on the Beds/Bucks/Northants border, with turbines of the same height as those proposed for this application, will shortly form the basis of a further application in the locality. The distance between these two application sites is at most 6 kilometres
- 6.2 The outcome of the Podington application will have a bearing on this larger application in two respects:
 - 6.2.1 Since the landscape character of the Nun Wood area, particularly on the Bedfordshire side of the border, is similar to the area surrounding the airfield site, approval of the current application could serve as a precedent for the Nun Wood determination.
 - 6.2.2 Since the distance between the two sites is relatively small there is a danger that an adverse 'cumulative impact' would be created.
- 6.3 Furthermore, approval of the current application would also act as a precedent for additional applications for further turbines in the area in general, as has been the case at Burton Wold – despite the fact that turbines there have achieved a very low energy return.

7.0 Summary

- 7.1 CPRE strongly recommends refusal of this application. Refusal will not – as advocates might have us believe – seriously reverse the attack on global warming and the renewable energy element of that attack. On the contrary, it would serve to concentrate minds to ensure that a more comprehensive and effective approach to the problem is addressed, and that limited resources are employed wisely and to maximum effect rather than wasted on projects with such marginal benefits - all of which reiterates the opinions of Nuon's Chairman reproduced above.
- 7.2 However should the Borough be minded to approve this application, then in CPRE's view there is a case for imposing a 'Grampian condition' preventing commencement of track laying and turbine construction until consent has been obtained for the separate and later application for access to allow connection to the National Grid - said by the applicant to be 2 km west of the application site.

Yours faithfully,

Peter Scott,
CPRE Bedfordshire