

WAT/1611/14 – Westmill Wind Farm Co-operative
Erection of 50m high permanent meteorological mast and relocation of electrical substation.
Westmill Farm, Highworth Road, Watchfield

1.0 **The Proposal**

- 1.1 Permission is sought for the erection of a 50 metre high permanent meteorological mast and the relocation of an electrical substation at Westmill Farm. The development would form part of the 5 wind turbine farm granted planning permission in July 2005.
- 1.2 The 50 metre mast is constructed of a sectional single pole (approximately 1 metre wide) held by guy ropes which extend 35 metres each side of the mast. It is to be located 150m south of the second wind turbine, beside the new access road which will serve the development. The substation, previously granted on the new access road, close to the B4508, is proposed to be relocated in a more energy efficient location at the eastern end of the line of wind turbines. The substation building is 5.1m high, 10.2m long and 4.7m wide, and is to be built of reconstituted stone under and artificial slate roof. A copy of the site location plan and mast substation elevations are attached at **Appendix 1**.
- 1.3 This application has been brought to Committee as a result of Watchfield Parish Council's objections to the proposal.

2.0 **Planning History**

- 2.1 In November 1999 planning permission was granted for the erection of five 50 metre wind turbines at Westmill Farm (ref: WAT/1611/7).
- 2.2 In January 2001 a second application for 5 wind turbines was permitted.
- 2.3 In July 2005, planning permission was granted for the substitution of Bonus 1.3 MW wind turbines for the previously permitted Vestas V52 wind turbines. These turbines are 50 metres high to the hub and a total of 81 metres high with the blades extended.

3.0 **Planning Policies**

- 3.1 PPS22, Renewable Energy, was published in August 2004 and makes specific reference to harnessing wind energy. The section dealing with wind power makes reference to other infrastructure needed to support the wind turbines including one or more anemometer masts, erected to the hub height of the turbines and of slender lattice construction.
- 3.2 Policy G6 of the Oxfordshire Structure Plan promotes energy efficiency and resource conservation.
- 3.3 The site is located in The North Vale Area of High Landscape Value, which is covered by Policy C3 of the adopted Local Plan. This policy seeks to protect the character and appearance of the landscape. Policy SF8 promotes the production of renewable energy, subject to no harm being caused to the landscape, local residents, historical features or nature conservation. The equivalent policy in the Second Deposit Draft Local Plan is Policy CF10.

4.0 **Consultations**

- 4.1 Watchfield Parish Council – Object. “The technical reasons given for the requirement for the need for the development of the meteorological measurement tower does not make sense. It is not necessary to have such a structure at a wind farm site. Examination of other sites in the UK indicate that they do not have these installed. Each turbine is fitted with its own anemometer to achieve maximum turbine output and therefore an additional one in a separate mast is not necessary. In addition, if installed, it would not be connected to the turbines therefore have no control function over the operation of the turbines and have no effect on their performance.”

4.2 Shrivvenham Parish Council – Do not object but “states it does seem strange that this did not form part of the original application, but given that the wind farm has been passed, it would be futile to object.”

4.3 1 letter of objection – mast will infringe visual amenity. It will affect the setting of White Horse Hill, an English Heritage site. The proposed mast and wind farm will have a negative visual impact on the surrounding area. The site will generate a noise nuisance.

5.0 **Officer Comments**

5.1 The permitted scheme for a wind farm at Westmill Farm involves the erection of 5 wind turbines which are 50 metres high to the hub with 31 metre long blades. The total height of each turbine is therefore 81 metres. The turbines will be located in open countryside to the north of Watchfield and will be set out, in a straight line running west to east, 200 metres apart.

5.2 The principal planning considerations relating to this application are considered to be (a) the need for the proposed mast and (b) the impact of the mast and relocated sub-station on the character of the open countryside, having regard to the permitted wind turbine farm.

Need for Mast

5.3 The applicants has submitted the following justification in support of the application in relation to the mast:

- The anemometers found on top of each wind turbine measure a wind speed that is affected by wind flow around the turbine nacelle and rotor. It is not therefore representative of free stream wind speed and requires a correction to be applied by the turbine controller/SCADA system to make this representative of free stream wind speed, which is the basis for power curve warranty and survival wind speeds. Not having an independent point of wind speed measurement means that the scheme is totally reliant upon wind data from the turbine supplier, making it very difficult to challenge the turbine supplier in the event of underperformance or premature component/turbine failure.
- Therefore, if the economics of the scheme can stand the cost of an anemometer mast (preferably at or about hub-height), the applicants recommend this option as it provides an independent reference point from which the long-term performance of the scheme can be monitored, it will enable easier resolution of insurance claims or disputes and it provides system flexibility in a fluid energy market, for example energy production forecasting.

5.4 Consultation with other local authorities familiar with wind farm developments suggests that applications for meteorological masts are not uncommon following wind turbine permissions for the reasons stated by the applicant, but their experience is that these masts are normally permitted on a temporary, rather than permanent basis.

5.5 This proposal is, however, for the permanent erection of a mast on the site, and therefore consideration has to be given to the impact of the permanent retention of such a mast on the local landscape. However, PPS22 does indicate that such ancillary structures to wind turbines are to be expected.

Impact on Landscape

5.6 The main public views of the site are available from the B4508 and A420 and from the village of Watchfield. From these vantage points the new mast would be seen in the context of the new turbines. A bridleway runs to the west of the site and similarly, it is your Officers opinion that from this vantage point the new mast would also be seen as part of the larger wind farm development. Therefore, the proposed mast, in addition to the permitted wind turbines, is not, in itself considered to be so harmful to the character of the open countryside to justify refusal. Likewise, the relocated substation, which has been moved to a more energy efficient location,

will be seen as part of the larger wind turbine development and is not considered to cause harm to the character of the site.

6.0 **Recommendation**

6.1 *It is recommended that the application be permitted subject to the following conditions:*

1. *TL1 Time Limit – Full Application*
2. *Prior to work commencing on site, details of the colour and finish of the proposed mast and guy ropes and the walling and roofing materials for the substation shall be submitted to, and approved in writing by, the Local Planning Authority and thereafter only the approved materials shall be used.*
3. *The mast hereby permitted shall be removed from the site and the site re-instated to its original condition when it is no longer required in connection with the wind turbines permitted under ref. WAT/1611/12.*