

Application No: 12/3438M

Location: LAND ADJACENT BT RADIO STATION, BUXTON ROAD, BOSLEY, CHESHIRE, SK11 0QL

Proposal: Proposed wind turbine to power Sutton Common radio mast, erected on a 23.6 metre high tower with a maximum blade tip height of 34.2 metres

Applicant: Marshall Waller

Expiry Date: 31-Oct-2012

SUMMARY RECOMMENDATION:

Refuse planning permission

MAIN ISSUES:

- Renewable energy development;
- Landscape and visual impact;
- Residential amenity;
- Noise;
- Shadow flicker;
- Ecology;
- Public rights of way;
- Highway safety.

REASON FOR REFERRAL

This application has been referred to the Northern Planning Committee at the discretion of the Northern Area Manager due to the level of public interest the application has attracted and the potentially wider than local impacts of the proposal given the location of the site.

SITE DESCRIPTION

The application site consists of part of a field approximately 310 metres to the south/south west of Sutton Common Radio Mast on Croker Hill. The site is approximately 3.5 miles south of Macclesfield and 2 miles south of the village of Sutton. To the south west is Bosley approximately 1.5 miles away. The Peak District National Park is to the South and East approximately 500 metres away at its closest point. The site is in Countryside beyond the Green Belt (as defined by the Local Plan) and the Peak Park Fringe Area of Special County Value (ASCV). Access to the site is via a track from the A54. There are a number of public footpaths in proximity, Sutton FP33 (Part of the Gritstone trail) and Bosley FP10.

DETAILS OF PROPOSAL

The application seeks planning permission for a single three bladed Endurance E-3120 50kW wind turbine and associated access track. The wind turbine would include a 23.6 metre high tower on top of which the turbine hub would sit. The individual blades would be 9 metres in length with an overall rotor diameter of 19.2 metres (blades and hub). The maximum blade tip height would be 34.2 metres. The turbine would sit on a concrete pad approximately 6 metres by 6 metres in size.

The Design and Access Statement says the turbine would have an annual power generation of 273,000 kWh (273 MWh) based on a wind speed 8.5 metres per second, which it is claimed is the average wind speed for this location. The purpose of the wind turbine would be to power the BT radio mast with any excess electricity being fed into the National Grid. The BT Radio Mast has an annual energy consumption between 160 and 190MWh, with the turbine predicted to provide 131MWh (based on a 30% capacity factor), equivalent to 70-80% of its energy. The turbine would generate power at wind speeds between 3.5 metres per second and 25 metres per second, but for efficiency and safety reasons it would not operate outside this range. The turbine has built-in safety features to ensure it does not operate outside this range or in the event of grid failure or fault.

The application is submitted by the land owner whose business and residence is based at Blaze Farm in Wildboardclough. The applicant has an agreement with BT to purchase the electricity.

The access track would link to the existing track that serves Dollards Farm, Lingerds Farm, Upton Fold Farm, and the Radio Mast. It would run from the north adjacent to the field boundary (on its western side) and would be approximately 500 metres long. The track would consist of two 1500mm wide tracks with a grassed centre track. The track would have a surface finish of road planings on an MOT hardcore base.

RELEVANT HISTORY

No relevant planning history.

RELEVANT PLANNING POLICIES

North West of England Plan Regional Spatial Strategy to 2021

- DP1 (Spatial principles applicable to development management)
- DP2 (Promote sustainable communities)
- DP7 (Criteria to promote environmental quality)
- DP9 (Reduce emissions and adapt to climate change)
- EM17 (Renewable energy)
- RDF2 (Rural Areas)

Macclesfield Borough Local Plan – Saved policies

- NE1 (Areas of Special County Value)
- NE2 (Diversity of Landscape)
- NE11 (Nature Conservation)
- BE1 (Design principles for new development)
- GC5 (Countryside beyond the Green Belt)
- DC1 (High quality design for new buildings)

- DC3 (Protection of amenities of nearby residential properties)
- DC6 (Circulation and access)
- DC13 (Noise generating developments)
- DC14 (Mitigation of noise)
- DC62 (Renewable Energy Development)

Other Material Considerations

National Planning Policy Framework

In addition the Government has published a series of National Policy Statements (NPSs) across a range of infrastructure types in accordance with Planning Act 2008. The NPSs are statements of government policy that are used by the Major Infrastructure Planning Unit (who replaced the Infrastructure Planning Commission) to determine applications.

NPSs are not part of the statutory development plan and planning applications must be determined in accordance with the development plan unless material considerations indicate otherwise. The NPSs are a material consideration where development plans have not been updated to take account of NPSs. Additionally NPSs set out government policy and therefore offer clear guidance.

The NPSs relevant to this application are:

- National Policy Statement for Renewable Energy Infrastructure (EN-3)
- National Policy Statement for Energy Infrastructure (sections 1.1 and 4.1) (EN-1)

OBSERVATIONS OF CONSULTEES

Environment Agency

No comments to make

Environmental Health

Notes the submission of a Noise Impact Assessment however the advice contained within it is not site specific and therefore the impacts of the proposal cannot be properly assessed due to lack of information.

The department also notes it is not able to comment on visual amenity or shadow flicker. With reference to Electromagnetic Interference they suggest clarification from the applicant. The comments also refer to public perception of health affects, offering guidance or suggesting the planning department use its own guidelines.

Peak District National Park Authority

The turbine would be visible from the Peak District National Park and would represent an incongruous visual intrusion. The Landscape and Visual Impact Assessment is inadequate.

Public Rights of Way

The site is adjacent to public footpath no.33 Sutton. The development is unlikely to affect the public right of way however advice should be attached to any approval to ensure the public right of way is not affected.

Ministry of Defence

No objections

National Air Traffic Service (NATS)

Although the proposal is likely to impact our electronic infrastructure, NATS have no safeguarding objection to the proposal.

Manchester Airport

No safeguarding objections.

Highways

No objections. There would be no impact on the local highway network.

VIEWS OF THE PARISH COUNCIL

Sutton Parish Council

Object on the following grounds:

- It would create an unwelcome visual feature in the landscape;
- The justification for the proposal is not sufficient when balanced against the detrimental visual impact to the landscape;
- There seems to be serious reservation as to the impact of noise and shadow flicker on neighbouring properties in the Design and Access Statement.

The Parish Council have also forwarded further observations:

- There may be a condition within the original planning application for the telecommunications tower that ancillary development should be underground in order to protect the landscape.
- The proposed development is ancillary to the radio mast as its purpose is to provide power to the mast.

Bosley Parish Council (adjacent Parish)

Object on the following grounds:

- Detract from the quality and diversity of the landscape contrary to policies NE1 and NE2;
- The proposal is not essential for agriculture, forestry, outdoor recreation therefore contrary to GC5;
- Site would be visible in all directions for many miles. Contrary to DC62 and PPG22;
- The noise would cause loss of amenity at neighbouring residential dwellings. No noise assessment has been carried out by the applicant.

The following comments were also made:

- Government guidelines on separation distances are vague;

- The application would adversely affect tourism as a number of footpaths cross within a few hundred metres;
- If allowed it may set a precedent;
- Electromagnetic interference and shadow flicker should be subject to further investigation.

OTHER REPRESENTATIONS

A number of representations have been received from groups/organisations other than those consulted as statutory consultees. These are summarised below.

Cheshire Wildlife Trust

A wind turbine does not have to be within a designated site to have an effect on the habitats or species for which the site is designated. There are several designated sites to the east and west, parts of which lie within a 20km radius of the site, including: South Pennine moors, Peak District moors, Dane Moss, Goyt Valley, Bosley reservoir, Gawsorth common, Shell Brook, Bosley Minn, Whitemoor pasture, High Lee farm.

The CWT advise that unless they have been advised otherwise by the LPA, the applicant should consider the potential impacts of the proposal on any designate site within 20km.

Campaign to Protect Rural England – Cheshire

It would contravene policies NE1, NE2 and GC5 of the Local Plan. The proposal would have a negative impact on the quality of life in the open countryside.

National Trust

The Cloud (nr Bosley) forms part of the National Trust's portfolio. The wind turbine would be visible from the Cloud and the Trust raises concerns regarding the visual impact of the development on the Cloud whilst recognising this would not warrant refusal on its own but should be taken into account when considering other adverse impacts.

Members of the Public

Additionally in excess of 300 representations have been received from members of the public. The objections raised are summarised below, grouping them into key themes.

- Impact on the landscape, focusing on the location of the site in an ASCV, close to the Peak District National Park and visible from The Cloud (National Trust land). The objections also note the likely long range visibility of the turbine.
- Nearby residents would be subject to unsatisfactory levels of noise from the turbine. Some objections identify the lack of site specific information submitted in the Noise Impact Assessment.
- Nearby residents would be subject to shadow flicker which would affect living conditions.
- There would be an adverse impact on wildlife. Also some objections highlight the lack of ecological assessments with the application.
- A number of objectors raise issues around wind turbine efficiency, viability and validity and consider there is no justification for the development.
- Electromagnetic interference affecting TV, radio and all fixed link communications.

- Wind turbines have an adverse affect on health due to low frequency sound and electromagnetic radiation. Some objectors also note a Bill currently laid before parliament requiring minimum distances from residential properties.
- It would set a precedent for further wind turbine development
- There would be a negative impact on tourism in the area.
- A number of objectors query how the turbine will be connected to the grid and raise concerns about the visual impact of any over ground cabling.

APPLICANTS SUPPORTING INFORMATION

The following documentation has been received in support of the application:

- Noise Impact Assessment;
- Design and Access Statement;
- Landscape and Visual Impact Assessment;
- Manufacturer brochure.

OFFICER APPRAISAL

Principle of the Development

Chapter 10 of the National Planning Policy Framework deals with *Meeting the challenge of climate change, flooding and coastal change*. It states that the role of planning in supporting renewable and low carbon energy development is central to the economic, social and environmental dimensions of sustainable development.

It also states, at Paragraph 98, that applicant's should not be required to demonstrate the overall need for renewable or low carbon energy and also recognise that even small-scale projects provide a contribution to cutting greenhouse gas emissions. It goes on to state that LPA's should approve the application if its impacts are (or can be made) acceptable. These impacts include the character of the landscape, ecology and residential amenity. The NPPF also places emphasis on protecting the countryside and its intrinsic beauty.

The NPPF is clearly supportive of renewable energy developments and the contribution which such proposals would have towards achieving renewable energy targets. This is clearly an environmental benefit which weighs in favour of the proposed development. There are also other economic benefits which would arise from the proposed development, supporting the business at Blaze Farm and feeding unused energy back into the grid.

The site lies in a highly visible location close to a landmark site on the fringe of the Peak District National Park. The renewable energy benefits also have to be balanced with landscape impact and other planning considerations set out in this report.

Renewable Energy Development

The Climate Change Act 2008 was put in place to set legally binding targets for the UK to reduce greenhouse gas emissions by 80% by 2050. The EU 2009 Renewable Energy Directive has set the UK with a legally binding target of achieving 15% of all energy from renewable sources by 2020.

The government has subsequently produced a Renewable Energy Roadmap to set out a program for achieving renewable energy targets to 2020 and beyond. The Roadmap identifies onshore wind as

one of the technologies having the greatest potential to help the UK meet the 2020 target in a cost effective and sustainable way.

A number of the objections received in relation to this application have identified recent statements made by ministers, newspaper reports, as well as studies and reports that question the efficiency, validity, and viability of wind turbines. These matters are a debate for Westminster and an individual planning application is not the place to determine the merits of wind power in the overall energy mix of the UK and its contribution to reduction in greenhouse gases and decreasing the reliance on fossil fuel. There is a vast array of Government documents supporting the use of wind energy and current planning policy reflects this position and accepts that wind energy development is a key component in meeting climate change and the energy needs of future generations.

Landscape and Visual Impact

There is no requirement for a sequential approach in determining the siting of wind turbines as they are usually limited to sites where the resource exists (i.e. wind) and where the scheme is economically feasible. The electricity generated by wind turbines increases disproportionately with the increase in wind speed and therefore its economic and environmental benefits are greater where wind speed is higher.

The site is within a sensitive and highly valued landscape. It is in the Peak Park Fringe Area of Special County Value (ASCV) and at its closest point, approximately 500 metres from the boundary of the Peak District National Park. The CLCA locates the site in the Upland Fringe Character Type and Sutton Common Character Area. Due to the elevated topography and average wind speeds, combined with the open nature of the landscape this area is likely to be targeted by wind developments, as is the case here. This is recognised in the Cheshire Landscape Character Assessment (CLCA).

The description of the Sutton Common Character Area includes the following:

'This Character Area includes the top reaches of the upland enclosed moor to the west of Wildboarclough with an elevation of 220 to 400 metres AOD. This includes the two prominent hills of Sutton Common and Cessbank...'

'This is a large scale, open and expansive landscape where long ranging panoramic views provide the defining characteristic feature.'

'The telecommunications mast at Croker Hill in the west of this character area is probably the most widely visible landmark in Cheshire. The height of the structure and its elevated location on the edge of the Cheshire lowlands ensures that this obvious man-made feature is visible from a very great distance. The smooth topped ridge of Croker Hill and Sutton Common forms a dominant skyline in views from the surrounding areas of lower altitude.'

Additionally the Peak District National Park has commented that the site is within the South West Peak Landscape Character area and the Enclosed Gritstone Upland Landscape Character Type in the Landscape Strategy and ECL Action Plan for the National Park.

A Landscape and Visual Impact Assessment (LVIA) has been provided with the application. However this does not include a written assessment of the landscape and visual impacts of the proposal. The LVIA includes photomontages and wireframe drawings including the wind turbine. However the usefulness of this is limited by the exclusion of the wind turbine from the photomontages and the

exclusion of the Radio Mast from the wire frame drawings. However it does show the site from various viewpoints within a 5km radius. It also includes a zone of theoretical visibility which shows the wind turbine is likely to be visible from a great distance, over 15km away, mainly from Cheshire Plains to the west but also from locations within the Peak District National Park (PDNP) to the east.

The applicant has argued in the Design and Access Statement that the wind turbine would not be an alien and incongruous feature in the landscape because the man-made radio mast already forms an integral part of the landscape character of Croker Hill.

However, the Radio Mast is the focal point on the ridge and the proposed wind turbine would be in close proximity to it and the turbine would therefore be highly conspicuous. The height of the wind turbine and its rotor diameter contributes to this and combined with the proposed siting of the wind turbine on this prominent ridge (to which the eye is drawn by the radio mast) it would be highly prominent and visually intrusive in the landscape. The radio mast is already an uncharacteristic feature which has an adverse effect on the landscape and it is considered that allowing a second man-made structure as is proposed would lead to a further unsightly and uncharacteristic feature that would add to the adverse effect on the landscape and the ASCV.

Additionally the PDNP have commented that the existing radio mast is seen as a visual intrusion that impacts on the setting of the National Park. They argue that the wind turbine would increase the negative impact on the landscape of the existing radio mast and would have a negative visual impact on the setting of the National Park itself. This is considered a reasonable conclusion for the reasons noted above and members should give substantial weight to the potential impacts on the National Park.

There are three wind turbines within 1.25km of the site, the closest at Dollards Farm, about 400metres to the east. These wind turbines are much smaller in scale than the proposed wind turbine and are fairly inconspicuous in the landscape because they are not located on hill tops and are generally viewed against a backdrop of vegetated hillside. They therefore differ considerably from this proposal. The applicant has not assessed any potential cumulative impact from this, it is noted that from some viewpoints the 9 metres wind turbine at Dollards Farm is visible above the horizon as would be this proposal.

To conclude, it is considered the wind turbine would be prominent in views from the lowlands to the west and from hills and valleys to the east including from the PDNP. It would be an uncharacteristic feature that would be visually intrusive, having an adverse visual impact on sensitive receptors over a wide area.

Residential Amenity

The wind turbine would be located a considerable distance from nearby residential properties, the closest being approximately 220 metres. Whilst the turbine would quite tall its overall scale or bulk is minimal and at this distance, would not be visually overbearing to the detriment of living conditions. Additionally it would not lead to a significant loss of light (shadow flicker is dealt with below). Many of the objections have pointed to a Private Members Bill which is currently laid before parliament which suggests minimum separation distances of wind turbines from residential properties. This Bill carries no weight in the determination of the application which must be determined in accordance with current legislation and Policy which does not include any minimum separation distances.

The loss of a private view is not a material planning consideration. The distance to the nearest residential properties provides adequate protection to the living conditions of the occupiers of those properties. The proposal accords with Local Plan Policy DC3 and one of the core planning principles in the NPPF to secure a good standard of amenity for future and existing occupants of land and buildings.

Noise

Wind turbines, when operational, will generally generate two types of noise, a mechanical noise and an aerodynamic noise although with modern wind turbines improved design has significantly reduced mechanical noise. The potential impact on nearby residential properties must therefore be considered and is a concern raised by many of the objectors. Lingerds Farm and Upton Fold farm are the nearest residential properties to the site, which are over 260 metres and 220 metres away respectively. Dollards Farm is approximately 430 metres away with other residential properties being in excess of 700 metres away. A Noise Impact Assessment (NIA) has been submitted with the application, however the Environmental Health department has advised that insufficient information has been provided to suggest that the amenity of the nearest noise sensitive receptors (NSRs), i.e. the residential properties noted above, would not be affected.

The NIA states that the source noise (the turbine) is considered to have a sound power level of approximately 95 db at a wind speed of 10 metres per second. This Environmental Health department note this is significant. The NIA accepts that the background noise levels are very low, however there is no existing background noise level provided for the NSRs nor is there any predicted noise level that the NSRs might be subject to post development.

The *Assessment and Rating of Noises from Wind Farms* (ETSU-R-97) report was produced by the Working Group on Noise from Wind Turbines Final Report, Sept. 1996, and recommends noise limits to protect the amenity of residents living near wind turbines. Reference is made to this report in the NIA. However no site specific information has been submitted which would include: existing background noise levels; predictions of how the noise environment would change with the proposed development; predicted noise levels at different wind speeds; noise levels at different times of day, evening and night; seasonal variations; and an assessment of how the effect of predicted changes in the noise environment on NSRs. As there is potential for background levels to be below 35dB the turbine could be the dominant noise source affecting the amenity at NSRs. Accordingly it is considered there is insufficient information to determine the impact of the development on amenity due to noise. This is also the position stated by the Environmental Health department.

It should be noted that the comments of the Environmental Health department were put to the applicant's agent however no response or site specific information has been forthcoming.

Shadow Flicker

Shadow flicker is the effect caused when a wind turbine is located between the sun and a receptor. The nearby residential dwellings identified in the *Noise* section above are the receptors for the purposes of this application. EN-3 states that shadow flicker occurs '*when the shadow of the rotating blades falls over the dwelling causing the light intensity within specific affected rooms of the occupied building to fluctuate*'.

It also identifies a number of factors that influence the significance of the effect:

- the location of the relevant building relative to the path of the sun and the turbines;
- the distance of turbines from such buildings; the size of the window apertures and their location in the building relative to the turbines;
- the turbine height and rotor diameter;
- the presence of intervening topography, buildings or vegetation;
- the frequency of bright sun and cloudless skies;
- the time of the year; and
- the prevailing wind direction and hence usual rotor orientation.

Nonetheless, current government research and advice states that shadow flicker is only likely to occur within 10 rotor diameters of the turbine. In this case the rotor diameter is 19.2 metres, thus only properties within 192 metres are likely to be affected. As no residential properties are within this distance it is not considered further assessment of shadow flicker is necessary, nor is it considered shadow flicker would have any significant impact on residential properties in the vicinity.

Ecology

There is concern about the potential impact of wind turbines on wildlife, particularly birds and bats resulting in injury or death.

Bat activity is often very closely associated with linear features such as water ways, woodland edges and hedgerows. The turbine is to be set within a field away from the boundary, which regardless is a stone wall. The potential risk posed to bats is therefore considered minimal. Furthermore, the landscape is sparse with few supporting features.

The potential impacts on birds from small-scale turbines is uncertain but possibly quite limited. Under the terms of the NPPF LPAs must consider impacts upon protected species and request impact assessments and mitigation proposals where it is 'reasonably likely' that a protected species will be adversely affected by the proposed development. Based on current knowledge the Nature Conservation Officer does not feel that the proposed development is likely to have any significant ecological impacts.

Public Rights of Way

Public Footpaths Sutton FP33 and Bosley FP10 are in close proximity to the application site. There is no statutory separation distance between a wind turbine and a public right of way, however fall over distance is often taken to be appropriate separation.

The wind turbine would be over 160 metres from Sutton FP33 at its nearest point and over 220 metres from Bosley FP10 at its nearest point. Given these distances it is not considered that the development would have any impact upon the Public Rights of Way.

There are no bridleways in close proximity to the site and therefore no concerns are raised regarding potential affect on horses.

Highway Safety

The wind turbine would not be in close proximity to a public road. Whilst it would be tall and visible from long distances it would not present a highway safety risk. Concerns that it would be a distraction to drivers could not sustain a reason to refuse the application.

With regard to the construction phase of the development, wind turbines are assembled on site and given this application is for a single wind turbine of modest proportions (when compared to commercial wind turbines of 80-150 metres height) it is not considered any particular consideration or control is required over the delivery and construction phase. Additionally, the Local Highway Authority have not raised any objections.

Other Matters

There are a number of other matters that have been raised in objections to the proposal or that generally require some considered in relation to wind energy developments. These are considered below.

Aviation

Due to the size of the wind turbine and its location there is potential for it to impact upon aviation. Manchester Airport, NATS and the MoD were all consulted as part of the application and have raised no objections.

Electromagnetic, TV and Radio Interference

The wind turbine has been located outside the 300 metre 'exclusion zone' so as not to interfere with the operation of the radio mast. The agent for the application has confirmed this exclusion zone relates to all services using the mast and that outside of this zone the wind turbine would not interfere with telecommunications or broadcast services.

Icing

With regards to icing, ice throw is a phenomenon that occurs under certain climatic conditions. There is very limited potential for such events to occur in the UK however the control systems within the turbine would detect faults and changes to the turbines performance and shut the turbine down.

Human Health

Concerns have been raised regarding the impact of wind turbines on human health, mainly from infrasound and low frequency noise.

National Policy Statement EN-3 makes clear there is '*no evidence that ground transmitted low frequency noise from wind turbines occurs at a sufficient level to be harmful to human health*'.

The perception of health impacts is a matter that can be considered in the planning balance. Objections on these grounds may carry some weight but it is not considered that a refusal could be sustained on these grounds noting the scale of the proposal and distance to residential properties. The level of apprehension about a development of this nature is not so severe to be a serious health consideration in its own right.

Tourism

The potential negative impact of the development on tourism has been highlighted in many of the responses received in relation to the application. They draw attention to the location of the site, near to the Gritstone trail, in close proximity to the Peak District National Park and being an area frequented by walkers and other visitors due to its natural beauty.

This report, and the recommendation, acknowledges the harmful landscape impact of this proposal. However, it would be speculation as to how this could impact on tourism in the area. This could not be substantiated or evidenced. The key issue is therefore the consideration of landscape impact (as a direct impact) and not any potential indirect impacts such as tourism.

Grid Connection

The wind turbine would be connected to the grid via the existing substation at the Radio mast. Whilst concerns regarding the need for overhead power lines are noted, this is something that could be controlled by condition, requiring all cabling to be below ground.

Sutton Common Radio Mast - Ancillary development

Sutton Parish Council has commented that the original application for the Radio Mast may have included a requirement that all ancillary infrastructure/developments should be underground to prevent further impacts on the landscape. The Local Planning Authority do not have any records of the original planning application which formed part of the 1950's/60's 'Backbone' network of radio links. It is likely this was not subject to local planning controls. Without any evidence little weight can be given to this and regardless any restrictions would be unlikely to prevent a planning permission being granted for above ground ancillary development should it be acceptable in all other respects. As such this matter is not considered to be of relevance to the decision.

CONCLUSIONS

There is broad support at national level for renewable energy proposals and wind turbines and the NPPF states that they should be approved if the impacts are acceptable. Local Plan policy is also permissive provided that certain criteria are met. However, it is considered that the size and scale of the wind turbine in the proposed location would introduce a highly prominent and uncharacteristic feature which would be visible from a wide area including the Peak District National Park. The presence of the existing iconic manmade landmark (the radio mast) in close proximity to the proposed wind turbine does not lessen the harmful visual impact of this proposal.

Secondly, the Noise Impact Assessment provided in support of the application does not present any site specific information. Given the proximity of the wind turbine to residential properties it is considered insufficient information has been provided to fully assess the potential amenity impacts of the development due to noise.

Application for Full Planning

RECOMMENDATION:

1. The adverse impact of the wind turbine on the landscape character due to its size and location
2. Insufficient information provided to assess the potential impact of the development on amenity from noise

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