Application No: 13/2314M

Location: Land east of Dawson Farm, BOSLEY, CHESHIRE, SK11 0PX

Proposal: Erection of an Endurance 50kw wind turbine and associated infrastructure, including a kiosk and access track.

Applicant: Hallmark Power Ltd

Expiry Date: 19-Jul-2013

SUMMARY RECOMMENDATION:
Approve subject to conditions

MAIN ISSUES:

- Renewable energy development;
- Principle of development;
- Landscape and visual impact;
- Residential amenity;
- Ecology;
- Safety;
- Electromagnetic Interference.

REASON FOR REFERRAL

This application has been called-in to the Northern Planning Committee by Councillor Smetham due to concerns about the impact of the development on the landscape.

SITE DESCRIPTION

The application site is situated to the north of the A54 (Dumbers), approximately 400 metres east of Dawsons Farm, and approximately 1 mile (as the crow flies) north east of Bosley village. The site forms part of the landholding of Thornlea Farm, Wincle, which is situated just short of a mile to the north east along the A54 heading towards Buxton. The Peak District National Park is in close proximity to the South and East. Access to the site is via an existing field gate from the A54.

The surrounding area is predominantly rural in character and in agricultural use. It is in the Countryside beyond the Green Belt (as defined by the Local Plan) and the Peak Park Fringe Area of Special County Value (ASCV).

DETAILS OF PROPOSAL

The application seeks planning permission for a single three bladed Endurance E-3120 50kW wind turbine and associated infrastructure, which includes an access track from the A54 and ancillary kiosk.

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 34.5 metres. The turbine would sit on a concrete foundation approximately 6 metres by 6 metres in size and 1.4 metres in depth. The turbine would be connected to the grid via underground cables leading to the existing high voltage overhead line to the north where a new pole mounted transformer would establish the link.

The kiosk would be sited to the east of the turbine. The kiosk would be 2 metres by 1.08 metres with a height above ground of 2.37 metres. It would be finished in a dark green colour.

The proposed access track would be constructed from the existing field gate on the A54 to the south of the turbine. It would wind left, then right, then left again to account for the topography, being approximately 100 metres in length. It would be constructed from 40mm limestone hardcore.

RELEVANT HISTORY

There is no relevant planning history relating to this site.

RELEVANT PLANNING POLICIES

Macclesfield Borough Local Plan – Saved policies:

- NE1 (Areas of Special County Value)
- NE2 (Diversity of Landscape)
- NE11 (Nature Conservation)
- GC5 (Countryside beyond the Green Belt)
- 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;
- Planning Practice Guidance for Renewable and Low Carbon Energy (CLG, 2014);
- Cheshire Landscape Character Assessment (Cheshire County Council, 2008);
- Cheshire East Landscape Sensitivity to Wind Energy Developments (2013).
- ETSU-R-97 *Assessment and Rating of Noises from Wind Farms*
- A Good Practice Guide to the Application of ETSU-R-97 for the Assessment and Rating of Wind Turbine Noise (Institute of Acoustics)
- Tall Structures and Their Impact on Broadcast and other Wireless Services (Ofcom)

In addition to the above, the Government has published a series of National Policy Statements (NPSs) across a range of infrastructure types in accordance with the Planning Act 2008. The NPSs are statements of government policy that are used in the determination of nationally significant energy infrastructure projects.

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 provide a good source of guidance on such matters.

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

The application was subject to a second period of consultation following the submission of further information i.e. an addendum to the Landscape and Visual Impact Assessment with photomontages from additional viewpoints, a site specific Noise Impact Assessment, an updated Ecological Appraisal and additional information in relation to highways.

British Telecom

The proposal would not cause interference to BT's current and presently planned radio network.

Environment Agency

No objection.

Environmental Health

The submitted noise assessment stops at a speed of 10m/s and it is not clear if topography and tonal loadings have been applied to the operating parameters.

Given the application is for a single wind turbine in a very rural location and the proximity of the nearest noise sensitive dwelling, it is not unreasonable to impose an absolute noise limit of 35dB LA90 (10mins). A monitoring speed of 10m/s should be considered for compliance.

Manchester Airport

No safeguarding objections.

Ministry of Defence

No objections

National Air Traffic Service (NATS)

No safeguarding objection to the proposal.

Natural England

No objections.

Ofcom

A fixed link report for the co-ordination area identified 3 links. The operators (BT and Arqiva) were contacted separately.

Peak District National Park Authority

The turbine would be seen from within the National Park and it will have an impact on the setting of the National Park, however, in this case it is not considered the proposal would have a significant impact upon the landscape character of the National Park.

It considered insufficient information has been submitted to conclude if the development would have an adverse impact upon bats or birds. *(note: this was prior to the submission of additional ecological information)*

Strategic Highways Manager

Following the submission of additional information, no objections, subject to a condition regarding the agreement of construction periods and traffic management arrangements.

VIEWS OF THE PARISH COUNCIL

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; The energy does not link to a local property.
- Site would be visible in many directions contrary to DC62 and PPG22;
- There are SBI's in the vicinity and would result in loss of heathland or ancient grassland.

The following comments were also made:

- Disappointed an on-site bat movement survey hasn't been carried out.
- Government guidelines on separation distances are vague however legislation is progressing through parliament to set clearer guidelines;
- If allowed it may set a precedent.

OTHER REPRESENTATIONS

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

National Trust

The Cloud (nr Bosley) forms part of the National Trust's portfolio. The National Trust do not consider the visual impact on the Cloud to be so significant to warrant refusal.

Visit England

The location of the Peak District and adjacent areas of high landscape value are an inappropriate location for wind turbines and will have an adverse impact on the landscape. This could have negative consequences for tourism.

Members of the Public

Additionally around 50 representations have been received from members of the public, although some responders have submitted many separate letters. 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.
- 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 and motorists on the A54 would be subject to shadow flicker which would affect living conditions and highway safety.
- The turbine would result in accidents due to its proximity to the A54;
- There would be an adverse impact on wildlife;
- Viability and validity questionable and rely on taxpayer subsidies;
- 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;
- The application is submitted by a utility provider and therefore provides no local benefit;
- There has been no community engagement;
- It would be overbearing, cause psychological distress and ill health;
- 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.
- The information submitted is inadequate, particularly in terms of the viewpoints submitted as part of the Landscape and Visual Impact Assessment.
- It contravenes Article 7 of the Aarhus Convention, the Equality Act 2010 and the Human Rights Act.

Three representations in support of the proposal have been received, although it should be noted one is from the landowner.

APPLICANTS SUPPORTING INFORMATION

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

- Acoustic Performance Test report;
- Ecological Appraisal;
- Generalised Noise Predictions report;
- Landscape and Visual Impact Assessment;
- Manufacturer technical specification brochure.
- Planning Statement Including Design and Access Statement;

Following requests for further information the following addition supporting documents have been submitted:

- Wind Turbine Noise Assessment;
- An updated Ecological Appraisal;
- An addendum to the Landscape and Visual Impact Assessment which considers additional viewpoints.

OFFICER APPRAISAL

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

highlights the Government's commitment to onshore wind as part of a diverse energy mix contributing to our security of supply and carbon reduction targets.

Questions around the efficiency, validity, and viability of wind turbines are matters of 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. This is discussed in more detail below.

Principle of the Development

Policy

Chapter 10 of the National Planning Policy Framework (NPPF) 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. Furthermore, supporting the transition to a low carbon future and encouraging the use of renewable resources is one of 12 core planning principles identified in the NPPF that should underpin all decisions.

The NPPF 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. The NPPF also places emphasis on protecting the countryside and its intrinsic beauty.

Local Plan Policy DC62 states that when determining applications for renewable energy development the following will be taken into account: whether the proposal would be unduly obtrusive having regard to its size, height or long range visibility; whether there would be undue loss of amenity; and, whether the proposal would have a significant adverse effect on the character of the area. Local Plan Policy NE1 seeks to conserve and enhance the quality of the landscape in Areas of Special County Value.

Energy Contribution

The applicant has advised that the projected energy production of the turbine would amount to approximately 200,000 kW hours per year, or the equivalent of providing electricity to 51 homes per year. It would offset approximately 91 tonnes of CO2 per year. This is based on the predicted wind resource, with the NOABL wind speed at 25 metres measuring 6.9 metres per second. NOABL is a wind speed database made available by the Department for Energy and Climate Change (DECC) which gives estimates of annual mean wind speed throughout the UK. It is worth noting that this database is based on historic information and does not

come from measured data and should not be considered up-to-date or accurate. However in the absence of on-site measured data it does represent a rough guide to the likely wind resource.

Economic Context

All of the energy produced by the wind turbine would be exported directly into the grid with any income from supply going to the operator. The operator would lease the land from the landowner. It is important to note that neither Local Plan policy nor national planning guidance require renewable energy projects to be directly linked to the operation needs of the holding (i.e. the energy needs of the business operating from the holding) on which it stands.

Conclusions on the Principle of Development

The NPPF is 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 Thornlea Farm which would receive an income from land rental, representing farm diversification, as well as the income generation for the operator from feed-in tariffs.

However, the *Planning Practice Guidance for Renewable and Low Carbon Energy* states that the need for renewable energy does not automatically override environmental protections. The energy contribution to be made and the economic and renewable energy benefits of the proposal must be balanced with landscape and visual impact and other planning considerations set out in this report.

Landscape and Visual Impact

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 closets point, approximately 150 metres from the boundary of the Peak District National Park.

The Cheshire Landscape Character Assessment (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 CLCA.

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 *Planning Practice Guidance for Renewable and Low Carbon Energy* advises that cumulative landscape and cumulative visual impacts are best considered separately. It advises:

'Cumulative landscape impacts are the effects of a proposed development on the fabric, character and quality of the landscape; it is concerned with the degree to which a proposed renewable energy development will become significant or defining characteristic of the landscape.

Cumulative visual impacts concern the degree to which proposed renewable energy development will become a feature in particular views (or sequence of views), and the impact this has upon the people experiencing those views.'

The applicant has submitted a Landscape and Visual Impact Assessment (LVIA) with the application. It considers the landscape and visual impacts separately.

The LVIA considers the impact of the wind turbine on the following landscape features: pattern, scale, topography, vegetation, field boundaries, activity and land use, roads and public footpaths, culture and heritage and landscape quality. It states that the key features which make up the character of the landscape would remain unaffected by the siting of the turbine in the local area and would not have a direct impact on key landscape features. It concludes that the proposed wind turbine would have a *slight to moderate* impact on the landscape character of the area.

The LVIA includes a Zone of Theoretical Visibility map (ZTV) which demonstrates the area over which the wind turbine could be visible within a 15 km radius of the site. This map indicates that the turbine would potentially be visible over a large area to the west and to the south of the site. However, this type of mapping is based on topography alone and does not take account of natural or man-made obstacles that would screen views.

The visual impact on receptors (viewers) was assessed from 12 representative viewpoints within the ZTV. From each of these points wireframe landform models and photomontages were produced. At the Council's request, views from a further 4 viewpoints were assessed and submitted as an addendum report.

The LVIA describes the visual impacts on the following receptor types: Recreational & road users, residential receptors, heritage receptors and the Peak District National Park. Cumulative landscape and visual impacts are also considered.

Landscape Impacts

As stated above the site is located in the open countryside, Peak Park Fringe ASCV and in close proximity to the Peak District National Park. The CLCA locates the site in the Upland Fringe Character Type and Sutton Common Character Area.

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.'

Earlier this year Cheshire East Council commissioned an assessment of the sensitivity of the landscape to wind turbine development within each of the borough's 15 Landscape Character Types. The final report titled *Cheshire East: Landscape Sensitivity to Wind Energy Development,* is a Key Evidence document for the emerging Local Plan.

In this study, landscape sensitivity is defined as:

'The extent to which the character and quality of the landscape is susceptible to change as a result of wind energy development.'

The study is based on an assessment of landscape character using carefully defined criteria based on the landscape attributes most likely to be affected. The criteria are: landform shape and scale, land cover pattern and presence of human scale features, skylines, perceptual qualities, historic landscape character and scenic and special qualities.

The study considers a range of wind turbine sizes. A tip height of 35 metres falls within the small category (i.e. 26 – 50 metres tip height)

The study finds that the Upland Fringe LCT has a sensitivity level to small wind turbines of *moderate to high*, i.e*. the key characteristics and qualities of the landscape are sensitive to change from the type and scale of the development of renewable energy being assessed.*

Considering each of the key criteria:

- The proposed turbine would not have an adverse impact on the landform shape and scale.
- It would not have a permanent impact on the land cover and pattern, though there would be some short term impacts due to the underground cabling works which could be mitigated.
- At an elevation of 254m AOD, the site lies near the lower boundary of the Character Type and the wind turbine would not therefore affect the sensitive skyline of Sutton Common.
- The site is in close proximity to the A54 and is not therefore a particularly remote or tranquil part of the Character Area.
- There would not be an adverse impact on historic landscape character.

- With regard to scenic and special qualities, the proposed turbine would be a large scale and uncharacteristic feature which would adversely affect this part of the Peak Park Fringe.

It is therefore considered that the proposed development would be likely to have a *moderately adverse* impact on the landscape character of the local area.

Visual Impacts

The proposed site is located at an elevation of 254 metres AOD on the western facing slopes of Sutton Common which is a very prominent hillside in views from the west.

The wind turbine would be a large-scale and uncharacteristic feature in the landscape and due to the movement of the rotor blades it would be more noticeable than a static structure of a similar scale. The off-white colour of the mast, hub and rotor blades would make the turbine less prominent when viewed against the sky and more conspicuous against darker, vegetated backgrounds. The Peak District National Park Authority (PDNP) have commented on the application and although recognising that the wind turbine would be seen from within the National Park, do not consider it would have a significant impact upon the landscape character of the National Park. They have however requested the turbine blades are coloured grey. The applicant and manufacturer have advised that the only colour available is white and that the colour is impregnated during the fibreglass manufacturing process and subsequent painting would significantly change the weight and balance of the components and therefore their operation. As such it is not considered a condition would be reasonable to require the blades to be grey. Furthermore, the colour of wind turbines is often about striking an appropriate balance, as white turbines are less visible against the skyline whereas grey turbines tend to be more inconspicuous against a vegetated backdrop. White is a worldwide standard accepted colour for wind turbines. In this case, it is considered white is acceptable.

Views of the proposed wind turbine from Turnhurst Farm are substantially screened by trees and Dawsons Farm is outside the Zone of Theoretical Visibility (ZTV), as are Golden Hill and Golden Slack, two other properties in the vicinity. There may be views of the turbine from Sourbutts Farm, however, this is approximately 650 metres away to the south west and due to its orientation these would probably be from secondary windows. It is unlikely that the turbine would be visible from dwellings in Bosley village due to the intervening landform and tree cover. Any other residential properties within the area are equally distant and/or outside the ZTV.

The A54 is a main road in to the Peak District National Park so although it is a relatively busy main road it is also a scenic visitor route. There would be a distant view of the turbine rotor blades from the A54 near to Bosley cross roads. Beyond this point, when travelling east, the road winds up hill and is generally flanked by roadside vegetation. Views of the turbine would be partial and momentary except for the section of road immediately adjacent to the site from where the whole of the turbine would be visible on the hillside above the road. From this area it would be highly visible and the impact would be substantially adverse from this location, but

it would be a fleeting view and given there are no footpaths or parking in this area it would be a short transitory view.

The submitted photomontage from Viewpoint 12 indicates the turbine would be visible from the A532 Leek Road to the south of Bosley but would not be very conspicuous from this area and would be at a considerable distance.

There are no public footpaths in the immediate vicinity of the site. There would be mid-distance views from two footpaths (FP Bosley 16 & 17) at the eastern end of Bosley reservoir. From these viewpoints the turbine would be viewed against a backdrop of the hillside and would not be very conspicuous.

Views from the Peak Park would generally be screened by Sutton Common and Bosley Minn. The turbine would, however, be visible from parts of Minn End Lane, which is an elevated track that runs along the top of Bosley Minn within the Peak Park to the east/south east of the site.

The LVIA states:

> *While views of the turbine are possible from more elevated parts of the national park, such as around 1.17Km south west of the A54 from Minn End Lane, the actual level of impact is still very limited as the topography of the site is low enough to ensure the turbine does not protrude above the horizon, but is in fact located well below and has land wrap which minimises skylining.*

A number of photomontages from viewpoints along Minn End Lane have been submitted and all show that the turbine would not be visible. It is however possible the turbine would be visible from some parts of Minn End Lane where the topography allows it. Such views would be against a backdrop of the hillside well below the horizon. The proposed wind turbine would therefore not be very conspicuous from this position.

It is also necessary to consider the cumulative visual impact of the wind turbine. There are 3 wind turbines located to the east of Sutton Common on the northern side of the A54. These turbines are smaller in scale than this proposal with hub heights of between 9 and 15 metres. They are all located in proximity to the farm buildings and viewed in context with the farmsteads. They are all Proven turbines consisting of a steel mast and relatively small black hub and rotor blades and because they are seen mainly against a vegetated background they are relatively inconspicuous in the landscape.

Due to the landform, it would not be possible to see the proposed turbine and the three existing turbines simultaneously from the A54 but there would be sequential views of the four turbines when travelling along this road. From the northern section of Minn End Lane it would be possible to see both the existing turbine at Dollards Farm and the hub and blades of the proposed turbine, although this would not be within direct line of sight.

Landscape and Visual Impact Conclusions

The proposed wind turbine would have a moderately adverse impact on the landscape character of the local area. The visual impact on the scattered residential properties and Bosley village is likely to be low to negligible. It is likely to have a fairly minor visual impact on the Peak Park. Views from the A54 in the immediate vicinity of the site would be substantially adverse but fleeting and, in general, the turbine would be fairly well screened and any views from the road would be partial and fleeting. Views from the A532 and public footpaths would tend to be middle to long distance views and the turbine would be seen against the background of the hillside and the photomontages indicate that it would not be particularly conspicuous.

Whilst landscape and visual impacts have been identified these are not considered to be so substantial as to warrant a refusal of planning permission.

Residential Amenity

Visual Amenity

The wind turbine would be located a considerable distance from nearby residential properties, the closest, Turnhurst Farm, is approximately 180 metres to the south and Dawsons Farm is approximately 400 metres to the east. Whilst the turbine would be quite tall its overall bulk and massing is minimal and combined with these distances, it would not be visually overbearing to the detriment of living conditions nor would it lead to a significant loss of light (shadow flicker is dealt with separately below). The siting of the wind turbine and its relationship with nearby residential properties is therefore considered to provide adequate protection to the living conditions of the occupiers.

Objections have pointed to a Bill currently going through Parliament which suggests minimum separation distances of wind turbines from residential properties. There is no guarantee this will become legislation and/or be subject to change. This 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. Also reference to separation distances in Scotland and Wales are quoted, however these again carry no weight.

Noise

The potential noise impact on nearby residential properties is a material consideration and has been raised as a concern by a number of local residents.

The *Planning Practice Guidance for Renewable and Low Carbon Energy* makes clear that the report *Assessment and Rating of Noises from Wind Farms* (ETSU-R-97) should be used to assess and rate noise from wind energy developments. ETSU-R-97 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. More recently, the Institute of Acoustics prepared a good practice guide regarding the application of ETSU-R-97 (A Good Practice Guide to the Application of ETSU-R-97 for the Assessment and Rating of

Wind Turbine Noise), which is endorsed and accepted as current industry and good practice by DECC.

The applicant has provided a site specific noise assessment to establish noise levels at the nearest noise sensitive receptors. The assessment has been carried out in relation to the requirements of ETSU-R-97 and with reference to the good practice guidance noted above.

The noise assessment identifies the nearest residential property to the site, Turnhurst Farm, as being the Noise Sensitive Receptor (NSR). It is identified as being approximately 180 metres away.

ETSU-R-97 recommends that noise levels at the nearest NSR should be limited to 5dB(A) above background noise levels. For locations with low noise levels, ETSU-R-97 recommends noise levels be limited to the range 35dB(A) to 40dB(A) during the day and 43dB(A) during the night. The higher limit at night relates to the need to protect indoor amenity whereas during the day it makes provision for enjoyment of private outdoor space.

However, ETSU-R-97 and the good practice guide have an overarching role of considering wind farm developments (i.e. multiple turbines on a single site) and thus consider the additional noise relative to the generating capacity, with those figures to 43dB LA90 to allow for greater output and commercially significant application.

ETSU-R-97 considers that an absolute noise level of 35dB LA90 (10min) offers sufficient protection to amenity such that no measurement of background noise is required.

The Environmental Health department have expressed the view that in this instance, given the proposal is for a single wind turbine of 50kW in a very rural location, and the proximity of the nearest NSR, that an absolute noise limit of 35dB LA90 (10 mins) should be imposed as highlighted in ETSU-R-97 (where single turbines are to be installed) and referred to in the submitted noise assessment. This is also based on concern that the submitted NIA only assesses noise to 10 m/s and it is not clear whether topography and tonal loadings have been applied to the operating parameters.

Shadow Flicker

Shadow flicker is the effect caused when a wind turbine is located between the sun and a receptor, where under certain combinations of geographical position and time of day, the sun may pass behind the rotors of a wind turbine and cast a shadow over the neighbouring property, with the blade rotation causing the shadow to flick on and off. Only properties within 130 degrees either side of north relative to the turbine can be affected in the UK. National Policy Statement (NPS) EN-3 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 (in NPS EN-3) 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 and 130 degrees either side of north of the turbine are likely to be affected.

Turnhurst Farm is approximately 180 metres away however it is not within 130 degrees either side of north of the turbine, being to the south. Dawsons Farm is approximately 400 metres away, over double the distance. Additionally it is outside the ZTV. All other nearby properties are even greater distances away and/or outside the ZTV.

As no residential properties are within the potential 'zone' for shadow flicker it is not considered further assessment and analysis is necessary, nor is it considered shadow flicker would have any significant impact on residential properties in the vicinity.

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 proposal is for a single wind turbine, its scale 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.

Ecology

There is concern about the potential impact of wind turbines on wildlife, particularly birds and bats resulting in injury or death. The applicant has submitted an Ecological Appraisal.

Bats

Of the five bat species identified as being vulnerable to turbines at either the medium or high level, only one is regularly recorded in Cheshire. Natural England Guidance advises that to minimise the potential impacts of turbines on bats they should be sited so the blade tip is 50 metres or more from any hedgerow or tree. In this instance, the nature conservation officer has calculated, based on Natural England guidance, that the turbine needs to be 57.83 metres away to achieve this. The turbine achieves a 57 metre stand-off. Whilst this drops

slightly short of the recommended stand-off, this is only 830mm which is considered negligible.

Bats are a European Protected Species and the decision must take account of the Habitat Regulations and consider the 'tests' under the regulations where the development is likely to have a significant adverse affect on a protected species. However, in this case, it is considered the proposed wind turbine is reasonably unlikely to have a significant impact upon bats due to the stand-off achieved.

Birds

A limited number of bird species are considered to be at significant risk from wind turbines. No significant habitat for sensitive birds has been identified within 250 metres of the proposed development.

Grassland Habitats

The proposed wind turbine would be located on semi-improved grassland considered to be of limited botanical value. Additional botanical information was requested by the Nature Conservation Officer and subsequently provided, which confirms that the grassland habitats affected by the proposed development are of low nature conservation value.

Conclusions on Ecological Impacts

Whilst the proposed wind turbine may pose a risk to both bats and birds, the risk is low and is not likely to have a significant impact on either of these species. Therefore it is unlikely there would be any significant ecological impacts associated with the proposed wind turbine.

Safety

Highway Safety

The Design and Access Statement gives details of the wind turbine components, and the access proposals. Further information has been provided in terms of the likely vehicle movements (and type of vehicles) and the swept path analysis of vehicles entering and manoeuvring within the site at the request of the Strategic Highways Manager.

This indicates that site preparation would take approximately 5 weeks, depending on the weather. It involves excavation and infilling the foundation base with concrete which would take 1 week and involve the delivery of concrete to the site and one excavator to prepare the site. A 4 week period to allow the concrete to set would then follow.

The construction phase would then begin. This would involve two constructions vehicles (cranes) and two delivery vehicles (articulated vehicles). Once the components are delivered the construction lasts 4 to 5 days. Construction staff would number approximately 10 people, who would arrive and depart the site each day.

Post construction, vehicle movements are likely to be 2 each year in the form of a maintenance van.

Details of the site access and swept path analysis shows that alterations to the existing field access would be required during construction, with a new access gate constructed further back. It states that approximately 10 metres of fence and hedgerow to the south would need to be temporarily removed/cut back to achieve the appropriate width.

The Strategic Highways Manager has not raised any objections to the proposed wind turbine. He has requested that should the application be approved, a condition requiring the agreement of the construction periods and traffic management arrangements are agreed. It is considered this is reasonable and would ensure proper controls over any disruption during the construction phase. A condition requiring full details of the temporary site access and restoration and permanent access post construction should also be imposed should the application be approved.

Concerns have been raised that the wind turbine would be a distraction to drivers and result in accidents. The wind turbine would be set back from the road and although it would be visible from some areas of the A54, drivers are presented with a number of distractions whilst driving and there is no evidence to suggest that wind turbines are a particular road safety risk. Drivers are expected to take reasonable care to ensure their own and others safety. This is a single small scale turbine. The Strategic Highways Manager has considered this matter and reviewed Personal Injury Accident Data and does not object on safety grounds. Concerns that it would be a distraction to drivers could not sustain a reason to refuse the application.

Air Traffic, Defence and Radar

The *Planning Practice Guidance for Renewable and Low Carbon Energy* advises that wind turbines have the potential to adversely affect air traffic movement and safety, both civilian and military, either as a risk to low flying aircraft or by interfering with proper operation of radar. Additionally they could adversely affect a number of other Ministry of Defence operations and other radar systems, such as weather radar operated by the Meteorological Office.

Manchester Airport, NATS and the MoD were all consulted as part of the application and have raised no objections. The site falls outside the consultation zone for Met Office radar sites.

General Safety

Fall over distance (i.e. the height of the turbine) plus 10% is generally considered a safe separation distance. There are no buildings or public rights of way within this proximity. There are no bridleways in close proximity to the site and therefore no concerns are raised regarding potential effect on horses. There are no power lines within close proximity.

Electromagnetic, TV and Radio Interference

A coordination request sent to Ofcom revealed three fixed links within the coordination radius, one operated by BT and two operated by Arqiva Service Ltd. The response is in respect of microwave fixed links managed and assigned by Ofcom. BT has confirmed that the proposed wind turbine would not interfere with their currently and presently planned radio networks. No response has been received from Arqiva Services Ltd.

Additionally, the band managers for water, electricity and utilities industries operating in a different frequency band were consulted. The Joint Radio Company (JRC), acting on behalf of the UK energy Industry and North West Water Industry, raised an objection. However, this was based on incorrect coordinates. Subsequently they were re-consulted with the correct coordinated however a response has not been received. The applicant has forwarded a response from JRC to them based on the correct coordinates which confirms the siting is acceptable and there would be no anticipated problems based on known interference scenarios.

In view of the above, it is not considered the proposal would adversely impact upon electromagnetic transmissions.

The BBC offer a wind farm tool (now deactivated) which provides a rough estimate of the populations that may suffer interference to television services from wind farms built at a specified location inputted by the user. The wind farm tool indicates that this proposal would likely affect 65 homes for whom there is no alternative off air service and may affect up to 224 more homes for whom there may be an alternative off-air service.

Actual levels of interference would only be apparent post construction, the tool being a guide and providing only rough estimates. However a number of remedial measures are available in the event of interference such as: improvements to existing aerials; redirecting aerials to different transmitters; new higher grade aerials; or switching to digital tv, satellite or cable service. If Members are minded to approve the application it is proposed a condition is attached to require, prior to development commencing, the submission and approval of a protocol for the assessment of television interference in the event of any complaint, including remedial measures to be taken.

Other Matters

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

Other Legislation

Reference has been made to the Equality Act, Human Rights Act, and Article 7 of the Aarhus Convention. It is accepted that the development would have a local impact in terms of the effect on the landscape, that there would be some visual impact and there would be a small increase in background noise levels. However, these rights have to be balanced against the right and freedoms of others and the national interest in terms of providing for renewable

energy. For the reasons discussed in this report it is not considered the effect on residents and the landscape would be unacceptable or disproportionate. Additionally, it is beyond the scope of an individual planning application to determine the validity of national government compliance with the Aarhus Convention and therefore does not justify refusing the application.

Tourism

The potential negative impact of the development on tourism has been highlighted in responses received in relation to the application. As with all wind turbines this proposal would have an impact on the landscape which has been discussed in detail above. 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. In this case, as the impact on landscape character is considered to be acceptable, there is no reason to believe that tourism would be harmed.

Grid Connection

The wind turbine would be connected to the grid via the existing overhead lines to the north. Whilst concerns regarding the need for overhead power lines are noted, the applicant has stated the connection would be via underground cabling and this is something that could be controlled by condition.

CONCLUSIONS

Decisions, as with any planning application, must be made as an objective assessment of the proposal against planning policy and guidance. Under Section 38(6) of the Planning and Compulsory Purchase Act 2004 should be made in accordance with the Development Plan unless material considerations indicate otherwise. The proposal is considered to comply with the relevant Local Plan policy (DC62) in relation to renewable energy development. The application has been assessed against national planning guidance and is considered to be acceptable.

The proposal is for a single small scale (in planning terms) wind turbine. The site is located in a sensitive landscape location. Having carefully considered the representations made and the evidence submitted with the application, given the proposal would have only a moderately adverse impact on the landscape, and it would have only fleeting and partial views from sensitive receptors, it is considered that the proposal is acceptable when balanced with the policy support, and the environmental and economic benefits identified in the report. Additionally, for the reasons outlined above, and subject to the conditions listed, the proposal is considered acceptable in all other respects.

In the event of any changes being needed to the wording of the Committee's decision (such as to delete, vary or add conditions/informatives/planning obligations or reasons for approval/refusal) prior to the decision being issued, the Northern Area Manager has delegated authority to do so in consultation with the Chairman of the Northern Planning Committee, provided that the changes do not exceed the substantive nature of the

Committee's decision.

Should this application be the subject of an appeal, authority shall be delegated to the Northern Area Manager in consultation with the Chairman of the Northern Planning Committee to enter into a planning agreement in accordance with the S106 Town and Country Planning Act to secure the Heads of Terms for a S106 Agreement.

Application for Full Planning

RECOMMENDATION: Approve subject to following conditions

1. A03FP - Commencement of development (3 years)
2. A06EX - Materials as application
3. A01AP - Development in accord with approved plans
4. Wind turbine shall be dismantled and removed from the site within 6 months of the date it ceases to be used for energy generation
5. Prior to commencment of development a scheme setting out the protocol for assessment of TV interference in the event of any complaint, including remedial measures shall be submitted and agreed.
6. All cabling between the wind turbine and supply cubicle, and the supply cubicle and new PMT shall be underground.
7. Prior to commencement full details of the construction period (start / end date) and associated traffic management arrangements shall be submitted and agreed.
8. Prior to commencement, full details of alterations to the access, including temporary alterations during construction, and how the boundary will be reinstated.
9. The noise emissions shall not exceed 35 dB LA90, 10 mins at the nearest noise sensitive receptor (dwelling) at wind speeds up to 10 m/s. Operator shall submit a compliance and monitoring scheme for approval in writing prior to to installation.
10. The planning permission shall be for a period of 25 years from the date the turbine begins operating