

DESIGN AND ACCESS STATEMENT

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PROPOSED SITING OF 1 x 24.6M HIGH (HUB) WIND TURBINE WITH A TIP HEIGHT OF 34.2M

September 2012

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1.0 Introduction to the Proposal

1.1 This desktop assessment sets out our analysis of the relevant planning policy principles which need to be considered in support of this application for the erection of one 24.6m high (hub height) wind turbine at Dyson Cote Farm. The turbine would have an overall height of approximately 34.2m to the tip.

Use

1.2 The site itself consists of a pasture field currently used in association with the farm. The surrounding countryside comprises undulating farmland and forms part of the wider green belt to the north west of Sheffield. The proposed turbine would introduce a different use but would remain intrinsically linked with the agricultural use of the land in that it would harvest the natural resources of the land much in the way agricultural activities do. The effects of this are analysed within the consideration chapter of this report.

Amount

1.3 The development proposal involves the provision of one Endurance wind turbine and associated infrastructure comprising the following specifically:

- Base work to secure the turbine to the site
- Grid connection

The amount of work involved is consequently limited. The effects of this are analysed within the consideration chapter of this report.

Scale

1.4 The scale of the development is derived from the turbine's height as the nature of this turbine has a very slim profile. The proposals seek the erection of one 24.6m high (hub height) wind turbine which would have an overall height of approximately 34.2m to the tip. This is illustrated in the following image.

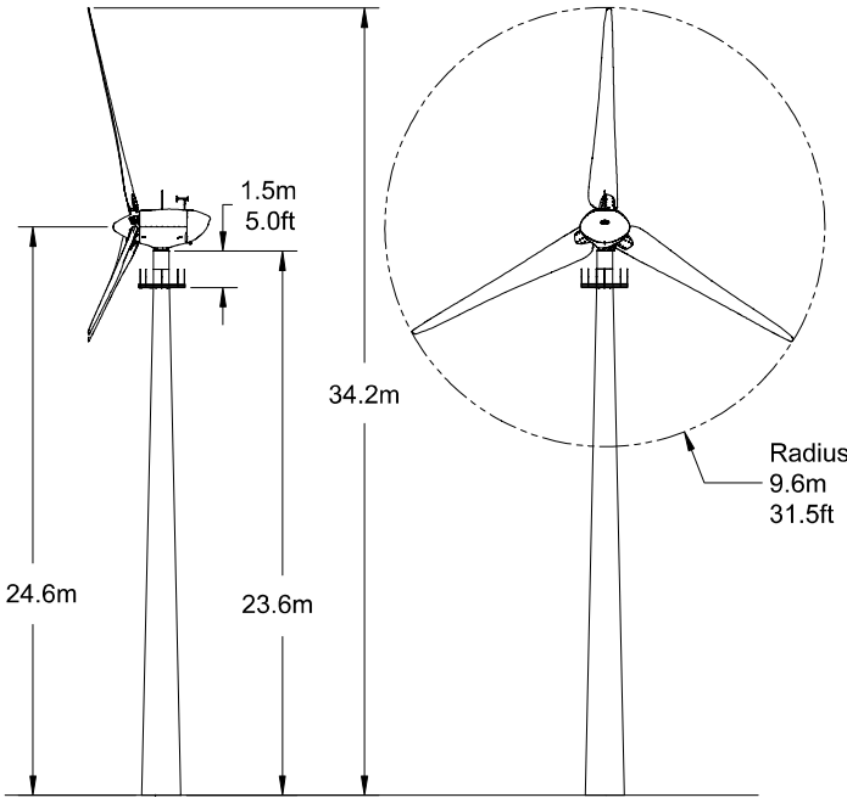


Image 1: Elevation Plan of the Turbine

1.5 The effects of this scale of turbine are analysed within the consideration chapter of this report.

Layout

1.6 From an operational standpoint, the siting of a wind turbine requires maximum exposure to unobstructed wind flow conditions in order to achieve efficient operation. Proximity to ground based obstructions can detrimentally affect the performance of a turbine and it is therefore essential to ensure that a wind turbine is located a sufficient distance away from any such obstacles to provide the necessary clearance. After taking into consideration these factors, the siting point for the turbine has been chosen from both an operational/technical and a visual impact perspective and has been sited in the proposed location to ensure that the turbine's operation is not adversely affected by turbulence caused by the farm buildings to the north around the farmstead and the tree belt to the north west. The proposed layout of the turbine and associated works is indicated in the following site location plan.



Image 2: Site Location Plan

1.7 The effects of this layout and positioning of the turbine are analysed within the consideration chapter of this report.

Landscaping

1.8 No landscaping is proposed as part of this planning application, however all disruption to the landform such as through the cable run would be returned back to ensure that the existing landscaping associated with the pasture field is maintained. The effects of this are analysed within the consideration chapter of this report.

Appearance

1.9 The proposals seek a traditional three blade horizontal axis wind turbine. The appearance of wind turbines is standard. Endurance use industry standard neutral matte finish paints. These are designed to absorb light and blend into a dull grey cloudy background. As illustrated in the manufacturer's datasheet. The effects of the appearance of this turbine

are analysed within the consideration chapter of this report particularly within the Landscape and Visual Impact section.

Access

1.10 Access to the site for the installation is likely to be easy as the site is currently served by an existing field access to the south east of the turbine from Underbank Lane. The proposed turbine would be delivered in parts and so does not necessitate unduly large vehicles that require specific requirements for the installation. The effects of this are analysed within the consideration chapter of this report.

Climate Change Mitigation

1.11 The proposed wind turbine would satisfy the energy demands of the farm by providing a source of renewable energy that would also allow the farm business to operate in a more environmentally and financially sustainable manner. The whole thrust of this application is therefore based on climate change mitigation.

1.12 The main planning considerations are considered within this report in relation to local and national planning guidance.

2.0 The Site Details and Background

2.1 The application site is associated with Dyson Cote Farm which is a farm to the south west of a small hamlet at Snowden Hill. The proposed turbine is positioned to the south of this hamlet and to the south of Dyson Cote Farm within a field associated with the farm on the south side of Salter Hill Lane. The proposed turbine is indicated in the map below showing the turbine in relation to its surroundings:

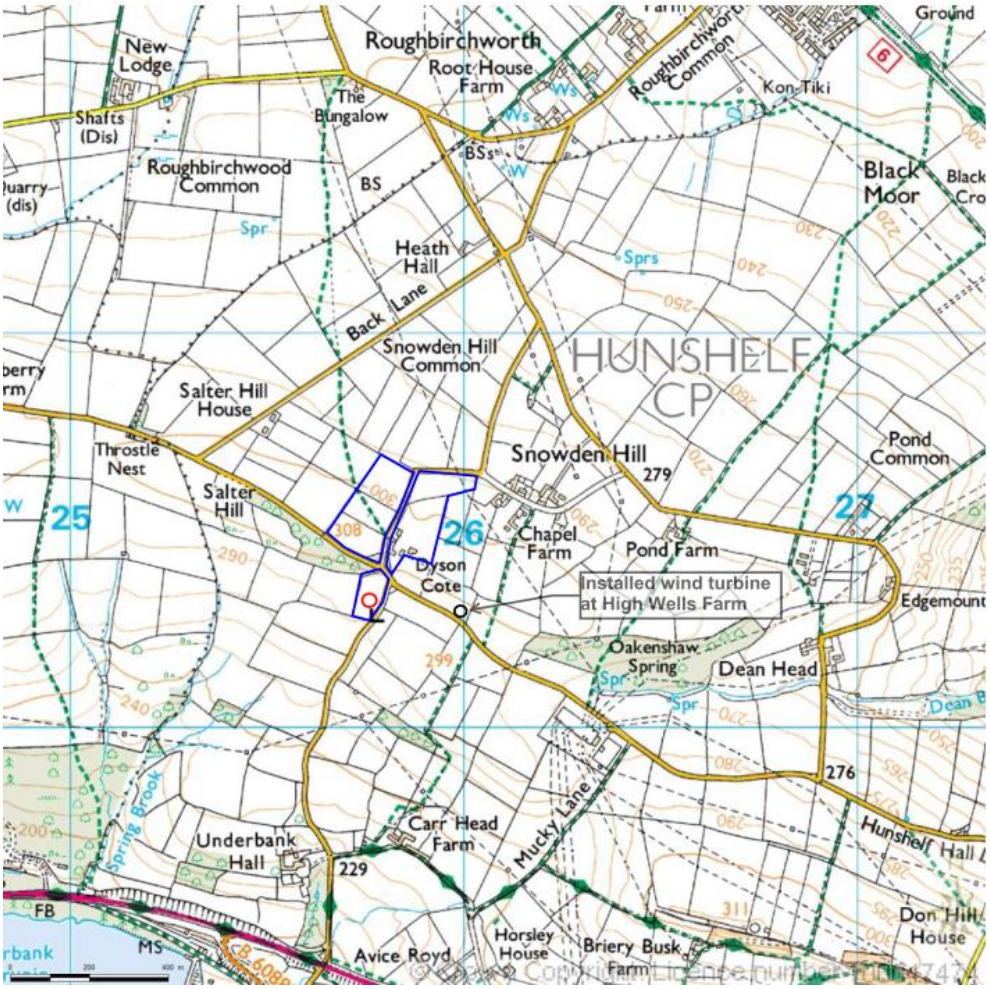


Image 3: Site Area Plan

2.2 As the name suggests Snowden Hill is positioned on a hill with the surrounding landscape being undulating in nature. Dyson Cote Farm is positioned near the brow of the hill with the topography dropping to the south and north. The proposed turbine would be positioned below the brow of the hill on the south side such that the tree belt to the north would be on

the higher ground level. The land then drops steeply to the south along Underbank Lane down to the A616.

2.3 The nearest main settlements are Penistone over 2km to the north west and Stocksbridge over 2km to the south east. The site sits close to the boundaries of Sheffield and Barnsley Council but falls within Barnsley's boundaries.

2.4 The site has good access arrangements which would allow for the installation of the turbine to be accommodated with ease. 'B' class roads pass close to the site to the south, west and north and a public footpath passes in the adjacent fields to the east. The actual siting of the turbine is approximately 45m from the nearest road to the east – Underbank Lane.

2.5 There is an existing wind turbine located to the east of the proposed turbine associated with High Wells Farm. This existing wind turbine is positioned approximately 250m to the east of the application site. There are also a range of pylons in the vicinity of the application site contributing to a number of vertical human elements within the landscape.

3.0 Planning Policy

3.1 The government's National Planning Policy Framework (NPPF) was adopted on 27 March 2012 and represents the principal national guidance document and a material consideration which must be taken into account, where relevant, in determining planning applications. This framework replaces all previous national policy statements, which were superseded on its adoption. Statements contained within cannot make irrelevant any matter which is a material consideration in a particular case, but where such statements indicate the weight that should be given to relevant considerations, decision makers must have proper regard to them. One particular consideration which will be teased out in this report is the weight which should be given to the appropriateness of development both within the countryside and any specific landscape designation versus the weight associated with the wider environmental benefits of a wind turbine.

3.2 At the heart of the NPPF is a presumption in favour of sustainable development, which should be seen as a golden thread running through both plan-making and decision-taking. Sustainable development encompasses concepts of sustainable economic, social and environmental development which run concurrent with the spatial approach to planning. Key to this application, the following excerpts are applicable to a proposed wind turbine for this site:

Renewable Energy

3.3 To help increase the use and supply of renewable and low carbon energy, local planning authorities should recognise the responsibility on all communities to contribute to energy generation from renewable or low carbon sources. They should:

- Have a positive strategy to promote energy from renewable and low carbon sources;

3.4 When determining planning applications, local planning authorities should:

- Not require applicants for energy development to demonstrate the overall need for renewable or low carbon energy and also recognise that even small-scale projects provide a valuable contribution to cutting greenhouse gas emissions; and

- Approve if its impacts are (or can be made) acceptable. Once suitable areas for renewable and low carbon energy have been identified in plans, local planning

authorities should also expect subsequent applications for commercial scale projects outside these areas to demonstrate that the proposed location meets the criteria used in identifying suitable areas.

Heritage Assets

3.5 When considering the impact of a proposed development on the significance of a designated heritage asset, great weight should be given to the asset's conservation. The more important the asset, the greater the weight should be. Significance can be harmed or lost through alteration or destruction of the heritage asset or development within its setting. As heritage assets are irreplaceable, any harm or loss should require clear and convincing justification. Substantial harm to or loss of a grade II listed building, park or garden should be exceptional. Substantial harm to or loss of designated heritage assets of the highest significance, notably scheduled monuments, protected wreck sites, battlefields, grade I and II* listed buildings, grade I and II* registered parks and gardens, and World Heritage Sites, should be wholly exceptional.

Companion Guide to PPS22

3.6 Despite the majority of the Planning Policy Statements (PPS's), including PPS22, and Planning Policy Guidance Notes being superseded by the NPPF the companion guide to PPS22 still remains in force until such time as a suitable replacement is adopted. The guide intends to encourage the appropriate development of further renewable energy schemes, throughout England. This will include schemes in urban as well as rural locations, ranging in size from the domestic to the commercial scale.

Green Belt

3.7 Section 9 of the NPPF refers to protecting Green Belt land and states that the government attaches great importance to Green Belts. The fundamental aim of Green Belt policy is to prevent urban sprawl by keeping land permanently open; the essential characteristics of Green Belts are their openness and their permanence. A Green Belt serves five purposes;

- To check the unrestricted sprawl of large built-up areas;
- To prevent neighbouring towns merging into one another;

- To assist in safeguarding the countryside from encroachment;
- To preserve the setting and special character of historic towns; and
- To assist in urban regeneration, by encouraging the recycling of derelict and other urban land.

3.8 Once Green Belts have been defined, local planning authorities should plan positively to enhance the beneficial use of the Green Belt, such as looking for opportunities to provide access; to provide opportunities for outdoor sport and recreation; to retain and enhance landscapes, visual amenity and biodiversity; or to improve damaged and derelict land.

3.9 As with previous Green Belt policy, inappropriate development is, by definition, harmful to the Green Belt and should not be approved except in very special circumstances. When considering any planning application, local planning authorities should ensure that substantial weight is given to any harm to the Green Belt. 'Very special circumstances' will not exist unless the potential harm to the Green Belt by reason of inappropriateness, and any other harm, is clearly outweighed by other considerations.

3.10 When located in the Green Belt, elements of many renewable energy projects will comprise inappropriate development. In such cases developers will need to demonstrate very special circumstances if projects are to proceed. The NPPF specifically states **'Such very special circumstances may include the wider environmental benefits associated with increased production of energy from renewable sources'**.

3.11 Barnsley Borough Council has recently adopted its Local Development Framework Core Strategy with this providing the strategic objectives and core policies which will now be used to guide development in the area, along with the remaining 'saved' policies from the Unitary Development Plan. Consideration on the local level with regards to the Green Belt issue is given to Policy CSP34 of the Core Strategy which seeks to safeguard against inappropriate development in this locality and specifies that development will not be permitted within the Green Belt unless there are very special circumstances which will justify allowing the development. One such development that can indeed bring economic and environmental benefits that might be considered to outweigh any perceived harm caused to the openness of the Green Belt land in which the proposed development is sited.

3.12 The application site is also within one of the Borough's designated areas of Landscape Character which are recognised as being of higher landscape quality than other countryside areas. The Areas of Landscape Character are also in the Green Belt and development will therefore be limited to that which is appropriate in such areas in accordance with Policy CSP37, which seeks to conserve the character of the area, and should, wherever possible, positively enhance the environment through its location, siting, scale, design, materials and landscaping.

3.13 Of particular importance to the assessment of this application is Policy CSP6 which sets out the council's requirements for proposals that seek to develop and produce renewable energy. Development will be allowed where it can be shown there would be no significantly harmful effect on:

- the character of the landscape and appearance of the area
- living conditions
- biodiversity, geodiversity and water quality
- heritage assets, their settings and cultural features and areas
- highway safety, and
- infrastructure including radar.

3.14 Also of importance is Policy ES12c of the Unitary Development Plan, which was 'saved' and remains an important consideration. This policy states that the council will control development in the vicinity of existing wind generation installations so as to safeguard these from a reduction in local wind speeds.

3.15 Finally, of more general relevance is policy CSP29 which sets out the design principles and standards for all development. Development proposals will be expected to demonstrate that it respects, takes advantage of and enhances the distinctive features of Barnsley, including:

- topography, green infrastructure assets, important habitats, woodlands and other natural features

- views and vistas to key buildings, landmarks, skylines and gateways
- heritage, townscape and landscape character including the scale, layout, building styles and materials of the built form particularly in and around:
    - Barnsley Town Centre
    - Penistone and the rural villages in the west of the borough
    - within and adjacent to conservation areas

Development should also:

- contribute to place making and be of a high quality, that contributes to a healthy, safe and sustainable environment
- help to transform the character of physical environments that have become run down and are lacking in distinctiveness
- enable all people to gain access safely and conveniently, providing, in particular, for the needs of families and children, and of disabled people and older people
- contribute towards creating attractive, sustainable and successful neighbourhoods
- achieve a Building For Life assessment rating of 'good' or equivalent as a minimum, in developments of 10 or more dwellings.

3.16 It is clear from the above policies that the provision of renewable energy is encouraged in the District in general, and although turbines are deemed an inappropriate development in principle in the Green Belt, the benefits of this type of renewable energy provision and the government's direction on such matters can and does override Green Belt planning policy. Indeed this is illustrated by the grant of permission for the wind turbine serving High Wells Farm approximately 250m to the east of the site. The application is likely to be assessed against the above criteria. These are considered in detail within this report and it is considered that the proposals can be accommodated on this site without adversely affecting the principles of this policy.

4.0 Consideration

4.1 As previously identified, there is a presumption in favour of renewable technologies and significant weight should be attributed to this issue in line with government policy. This issue should be balanced against other main considerations including the impact upon the character and appearance of the area, archaeological and nature conservation issues and any adverse impact upon the electromagnetic field. Each issue will be considered individually within this desktop assessment.

Landscape and Visual Impact Assessment

4.2 The proposed wind turbine would be positioned approximately 150m to the south of the farmstead and would measure 24.6 m high to the hub, with the blades extending to reach a tip height of 32.4m. In this location and at this height the turbine would be visible due to the position of the turbine on rising land and would therefore change the appreciation of this site within its surrounding rural context. The process of assessing the impact of this application has been guided by the document 'Guidelines for Landscape and Visual Impact Assessment'(2002) utilising photomontages as guiding tools. This is commonly used for large scale schemes, however the principles can be used on even the smallest scheme and the principles have therefore been adopted with this application to offer a robust assessment of the visual impact of the proposed turbines. Appendix A of this report outlines the approach taken here within this desktop assessment.

Landscape Character Assessment

4.3 The application site lies within Character Area 37 'Yorkshire Southern Pennine Fringe' as defined in The Countryside Commission's Countryside Character. The key characteristics of area 37 'Yorkshire Southern Pennine Fringe' are as follows:

- Eastern slopes of the Pennines, dropping from upland in the west down to the east, dissected by numerous steep-sided valleys;
- Extensive urban influences from the matrix of large and small towns;
- Close conjunction of large-scale industry, urban areas and transport routes with open countryside;

- Predominance of local sandstone and 'gritstone' as a building material notably in large and dominant industrial buildings;
- Urban development mainly confined by valleys creating dramatic interplay of views between settlements and the surrounding hillsides;
- Predominantly pastoral farming with strong linear patterns of walled enclosures on plateaux;
- Predominantly broadleaved woodlands on steep valley sides forming important backdrops to industrialised areas;
- Impression of a well-wooded landscape even though tree cover is relatively sparse overall;
- Dense network of roads, canals and railways.

4.4 The site is also located within the Green Belt where there is a presumption against inappropriate development and core aim of maintaining the openness of the area. More detailed landscape guidance can be found within the Barnsley Landscape Character Assessment. The landscape of Barnsley Borough is diverse, reflecting the complex interaction of physical and human influences over time. The landscape has been classified into 6 character types (within the Landscape Character Assessment) that have broadly similar landscape patterns: Unenclosed Moorland, Upland River Valleys, Lowland River Floors, Settled Arable Slopes, Settled Wooded Farmland and Upland Farmland. These character types have been subdivided into 17 unique character areas, each with a specific geographic location. The application site lies within the F2: Penistone Upland Farmland sub area where the following key characteristics exist:

- Stepped landform rising to 364m at Hartcliffe Hill.
- Fields of pasture comprising small to medium geometric field units strongly defined by distinctive stone walls.
- Linear or circular beech plantations stand out on the skyline, sometimes enclosed by stone walls.
- Unimproved pasture with scrub on steeper slopes.

- Scattered farmsteads of local light coloured stone.
- Penistone is the largest settlement in the area, lying on the edge of the Don Valley.
- Isolated trees form silhouettes against the skyline.
- Pylons and power lines are visually prominent on the skyline.
- Single lane rural roads criss-cross the open countryside, bounded by stone walls.
- Disused industrial quarries, shafts and mines indicate the historical importance of the area for the extraction of coal and stone.
- Panoramic views over adjacent river valleys and towards the open moorland of the Peak District National Park

4.5 The council's Landscape Character Assessment goes on to state on sensitivity '*Although this is an exposed upland area, some visual enclosure is provided by the incised valleys of the dikes that drain into the Don and Little Don. Beech plantations also provide some visual enclosure. However, the rural character of the area, and its low density settlement pattern and distinctive field patterns, make this landscape particularly sensitive to built development. The presence of Regionally Important Geographic Sites, such as Bullhouse Quarry, increase sensitivity to change. The area is highly visible from the Peak District National Park and this further increases its sensitivity to change. In view of the above, landscape sensitivity to built development is judged to be high and landscape capacity is considered to be low'.* This does mean that the potential for change within the general sub area is low, but it is important to note that this sensitivity does not relate specifically to wind turbine development and so an assessment should still be made of the proposed turbine of this scale in relation to key characteristics of the area. In this respect, being a medium scale wind turbine, the nature of the turbine includes a narrow mast, rotating blades with a low massing allowing an appreciation of the key components around and past the wind turbine. The turbine would undoubtedly be visible but its scale in relation to the scale of the landscape would not appear oppressive and would relate well other landscape features on and around the site such as the wind turbine serving High Wells Farm to the east, the tree belt to the north and over head pylons. There would inevitably be some additional landscape clutter as a result of this additional turbine but the resulting magnitude of change to the landscape character of

the area would be low. The visual effects are considered below, with the aid of photomontages assisting the assessment.

Landscape Visual Impact

4.6 In order to provide some quantifiable evidence over the potential visual impact of the proposed turbine a Zone of Theoretical Visibility (ZTV) map has been produced which shows the extent of visual impact based on the topography of the landscape i.e. excluding landscape features such as trees and buildings. The ZTV attached as Appendix B illustrates that the turbine would not be visible from much of Stocksbridge, Penistone, Barnsley and all of Oughtibridge, Deepcar, Chapeltown or Sheffield. The turbine would also not be visible from Broomhead or More Hall Reservoirs to the south and would not be visible from the majority of the National Park all of which have recreational value. An assessment of the visual impact of the proposed turbine has been made of utilising photomontages as guiding tools. These photomontages are attached as Appendix B. The following table demonstrates this assessment of these photomontages:

Table Detailing the landscape and visual impact

Site/Feature	***Location and Distance from Turbine***	***View and Assessment***	***Receptor Sensitivity***	***Magnitude of Impact***	***Impact Assessment***
Photomontage 1 - X 426374 Y 399999	692m to the east	The approved turbine would be visible and dominant from this receptor, however the proposed turbine would be positioned over the brow of the hill such that only the upper portions of the mast including the hub and rotating blades would be visible. In this location the view would also be interrupted by other landscape features such as vegetation and dominant pylons over head. Set in this context there would be some limited change in the view characteristics with the additional	Medium as Tofts Lane is an attractive rural lane	Low	Slight Adverse

		human clutter.			
Photomontage 2 - X 425700 Y 400940	620m to the north	Again it is the approved turbine which would appear the most dominant vertical structure in the landscape due to its positioning near the brow and in relation to the building group. The proposed turbine would be located over the brow of the hill from this receptor and in this context it would not be visible in its entirety. The tree belt would be positioned in between and whilst in the winter months glimpses maybe possible such an impact would be negligible with the view characteristics remaining.	Medium as Back Lane is an attractive rural lane	Negligible	Negligible
Photomontage 3 - X 427602 Y 402721	3km to the north	The existing view is wide open to the rising land, the ridgeline is dominated by the existing pylons and set in this context would be the approved turbine at High Wells Farm on the ridge. The proposed turbine would be positioned over the brow of the hill but would be visible beyond the building group with its rotating blades being visible as distant landscape features. Nevertheless at this distance the resulting impact would be low with only a limited change in the view characteristics.	High as residential properties located here	Low	Slight Adverse
Photomontage 4 - X 420554 Y 400596	5.15km to the south west	The proposed turbine would be visible in the distance and would be skylined due to its position near the brow of the hill. Although it would be visible, the turbine would not dominate the skyline as the existing pylons would appear greater in scale to the rear of the turbine on the skyline. The proposed turbine would therefore	Low as the A616 is a general road	Low	Slight Adverse

		only see a limited change in the view characteristics.			

4.7 Therefore having regard to the above assessment, whilst there is some harm within the slight adverse category, this does not necessarily equate to unacceptable harm and this change in vista must be balanced against policy expectations and guidance encouraging renewable energy.

4.8 Due to the narrowness of the turbine and the relatively modest height in comparison with large scale commercial wind turbines and having regard to the ZTV, it is clear that main views would be contained to more local views from the immediate road network. There is unlikely to be any longer distant view of the turbine which would have a significant effect. This aids in ensuring that any harm is minimised and constrained to the local scale.

Cumulative Landscape Impact

4.9 The following image shows the commercial wind schemes in the broader area and it is clear that there is a significant distance to such schemes and that the proposals are unlikely therefore, to have any real visual interaction which would result in any significant cumulative impact:

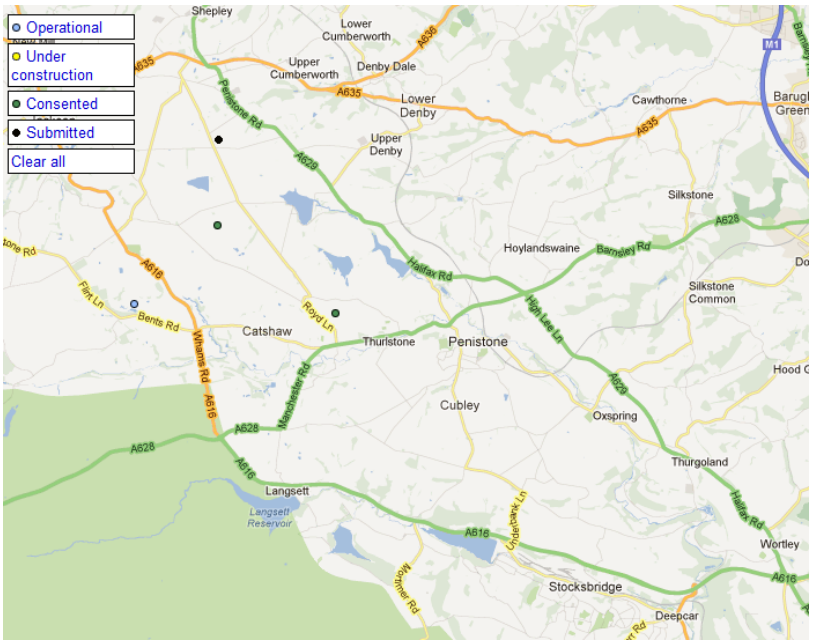


Image 4: Map showing the nearby commercial schemes

4.10 The nearest wind farm to the application site is the scheme at Spicer Hill, the details of which are included in the table below:

Date	Wind farm	Location	Power(MW)	Turbines	MW Capacity	Annual homes equiv*.	Developer	Latitude	Longitude
March 2010	Spicer Hill	South Yorkshire	2.3	3	6.9	3858	JG Pears Ltd	53 31 55N	01 40 10W

4.11 The ZTV indicates that the proposed turbine may be visible from Spicer Hill but the reality is that at over 4km away the proposed turbine would not be dominant from this wind farm and they would not be seen as a collective group. So whilst there would be some additional cumulative effects as a result, the amount of effects would be minimal.

4.12 As highlighted previously there would be some additional cumulative impact with the proposed turbine seen in relation to the approved turbine at High Wells Farm. However, the photomontages included within Appendix B demonstrate that due to the positioning of the proposed turbine over the brow of the hill from the approved turbine the resulting cumulative effects would generally be low. Crucially both turbines are the same specification and scale ensuring that in design terms they would be compatible and would not conflict with each other.

4.13 Based on the above assessment the turbine would not significantly alter the character of the local landscape as previously defined, thus the general character of the landscape would be retained, albeit with the introduction of an additional turbine often seen with the approved turbine serving High Wells Farm. When the visual impact is balanced against the positive benefits associated with the introduction of the renewable energy provision, it is considered that this application should be considered favourably and can be accommodated without compromising the overriding characteristics of this landscape and the associated planning policies.

Neighbour Impact

Shadow Flicker

4.14 The chosen siting point of the turbine is over 200m from any other residential property excluding Dyson Cote Farm, which is amply sufficient to prevent adverse impact on any residential dwelling. Shadow flicker is defined as obstructions to light incurred when the blades of the wind turbine cause light pollution when sited in close proximity to buildings, typically to the west or east of the turbine. Shadow flicker has only been known to occur within 10 rotor diameters of a turbine 130 degrees either side of north. In this case, shadow flicker could only theoretically occur within 192m of the turbine and there are no properties within this distance. There is therefore no issue of residents being affected by shadow flicker at the site due to the location of the turbine and the distance with neighbouring properties.

Noise

4.15 The ETSU-R97 is a guidance note widely used by planners in assessing wind turbines and indicates that a noise limit for night time operation of 43DB(A) is acceptable. This limit is derived from the 35DB(A) sleep disturbance criteria referred to in Planning Policy Guidance.

4.16 The Noise Working Group recommends that day time lower fixed limits can be higher than this at 45 DB(A). They also state that consideration should be given to increasing the permissible margin above background where the occupier of the site has some financial involvement in the wind turbine, meaning that it can be acceptable to have higher noise readings where the applicant's property is the primary affected residence.

4.17 Attached with the application documents is a noise survey undertaken in relation to the Endurance E-3120 Wind Turbine according to IEC 61400-11 at East Ash Farm, Bradworthy, Devon to measure the sound power level and tonal characteristics. The apparent sound power level of the wind turbine was calculated over a range of wind speeds from 3-12m/s together with the one third octave band levels for wind speeds of 6-8 m/s. It was not possible to calculate the 1/3 octave sound power levels above 8m/s due to the contrition of background noise. The tonal output from the Endurance E-3120 turbine has been assessed using the methodology prescribed by IEC 61400-11 for wind speeds of 6-10 m/s and has been determined to be not tonal, except at a wind speed of

6m/s where tones were identified. In the case of the siting point of the wind turbine, the nearest residential property is well over 200m from the wind turbine and therefore noise emissions are unlikely to present a concern in this case.

Visual Impact from Neighbours

4.18 In terms of visual impact from neighbouring properties, the accompanying photomontages within Appendix B outlines how the proposed turbines would sit in the landscape. It is a well held planning principle that there is 'no right to a view' from individual residential properties over land in someone else's ownership. However, any development which dominates an outlook to an unreasonable degree in that it harms the amenity of residents could constitute an unacceptable impact. In this particular case the nearest neighbouring properties are generally to the north around Snowden Hill or to the south such as at Underbank Hall and Car Head Farm. The photomontages illustrate that from the north the visual impact is low due to the position over the brow of the hill on the southern slope and due to the location of the tree belt. As such the turbine would not appear oppressive to neighbours to the north. To the south the neighbours are approximately 600m away and although the turbine would be on the higher ground level at this distance the turbine is unlikely to be overly dominant or prominent. Furthermore, the location of maturing trees in close proximity to these neighbours would further reduce any potential visual intrusion. At the distances involved the turbine is unlikely to harm the living conditions enjoyed by the occupants of these properties.

Electromagnetic Interference

4.19 The wind turbine's switch gear has been fully tested to ensure compliance with the UK standards, thus ensuring that the main source of electromagnetic interference from other wind turbines is avoided. The digital TV network in the UK is not affected by electromagnetic interference which was previously associated with analogue TV services and transmission stations. The scattering and disruption of signal is a rare occurrence in any event, associated with very large utility scale wind turbines and there have been no recorded instances of electromagnetic interference occurring from wind turbines less than 45m high. Consequently, this wind turbine is unlikely to cause any electromagnetic interference in the area.

Proximity to Airports and Flight Paths

4.20 The nearest commercial airport is at Doncaster, which is a significant distance away and amply sufficient to ensure that the turbine would not impact upon that airport. The nearest airfield is an unlicensed airfield known as Crossland Moor and is indicated on the following plan. The application site is indicated by the blue circle.

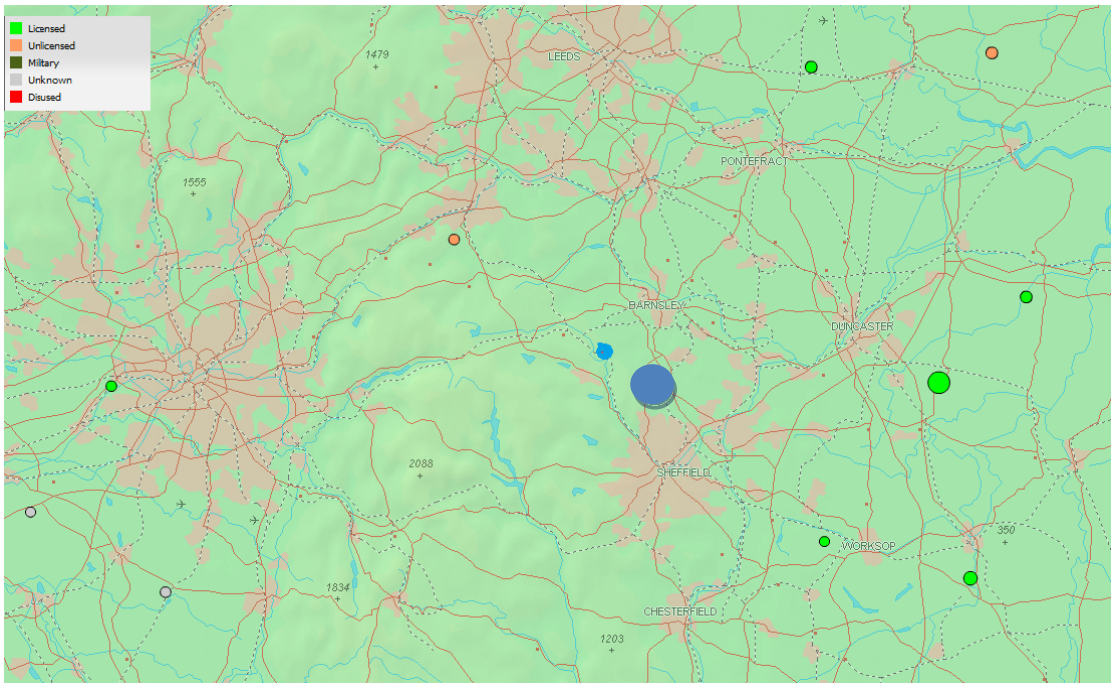


Image 5: Location of airfields in the area

4.21 As you can see in the above plan, the application site is located a significant distance to any licensed (green circle) or unlicensed (orange circle) airfield and there are no military (black circles) airfields within the vicinity. Given the significant distance to any main or small air field and having regard to the size of the wind turbine, on this site, and in relation to the approved wind turbine serving High Wells Farm which is on a higher ground level, it is considered that the proposals would have no impact on flight paths or the operations of airports in the wider region.

Ecological Issues

4.22 The installation of the proposed wind turbine would result in no significant trees being removed due to the form and nature of the installation process. An appraisal of nearby designated sites has found the following within 10km of the application site:

Selected Local Nature Reserves

Site Code	Name	Area (Ha)
1009581	Wheata Woods	65.27
1009580	Wharncliffe Heath	48.95
1009900	Worsborough Country Park	62.82
1008867	Dearne Valley Park	49.33
1009078	Potter Holes Plantation	8.66
1008884	Elsecar Reservoir	13.64
1083118	Town End Common	8.43

Selected Special Areas of Conservation

Site Code	Name	Area (Ha)
UK0030280	South Pennine Moors	65025.5

Selected Special Protection Areas

Site Code	Name
UK9007021	Peak District Moors (South Pennine Moors Phase 1)

Selected Sites of Special Scientific Interest

Site Code	Name	Area (Ha)
1003966	Little Don Stream Section	1.01
1004074	Pye Flatts Meadows	2.21
1002023	The Dark Peak	31823.79
1084115	Spring Meadows, Alderman's Head & Cow Croft Meadows	16.83
1002361	Canyards Hills	65.62
1004022	Wharncliffe Crags	15.6

4.23 Although there are a number of ecological designated sites within the broader area, the application site is not located within a specifically designated site ensuring that no direct habitat loss would occur. The following map illustrates those closest.

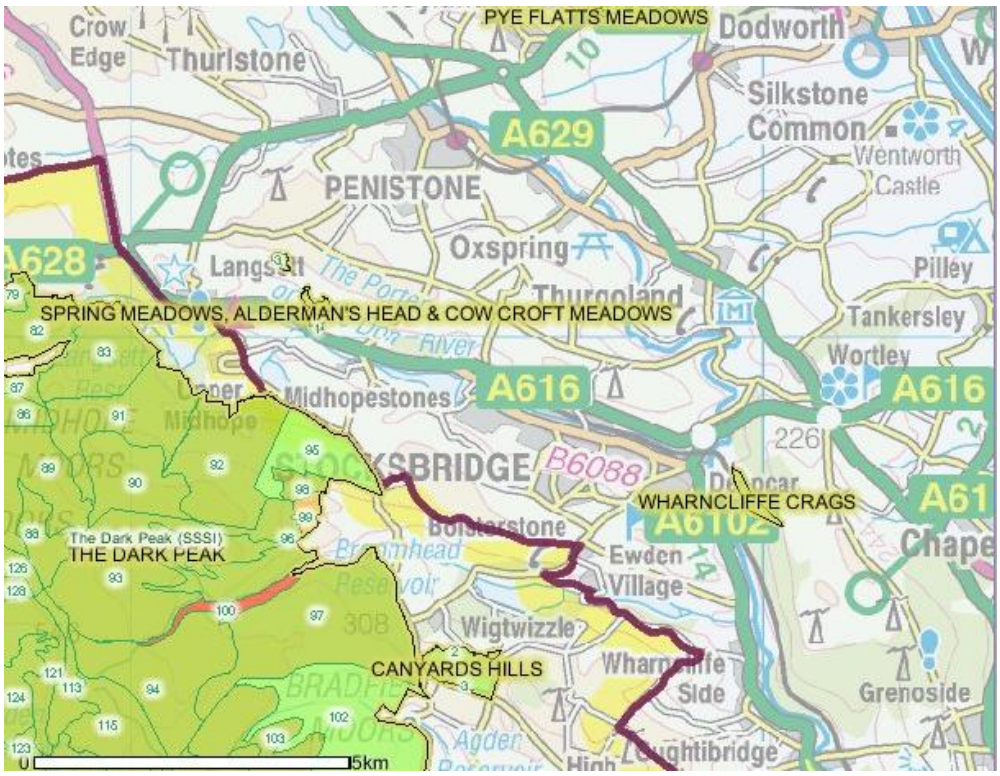


Image 6: Map of ecological sites

4.24 Wind farms or individual turbines can affect birds in three main ways: collision, disturbance displacement and direct habitat loss. As can be seen there is a greater proliferation of designated sites to the south west associated with the Dark Peaks and whilst birdlife will travel there is unlikely to be any significant ecological linkages between these sites and the application site due to the proximity of urban settlements in between and the rows of pylons in close proximity to the application site. In this respect it is considered that the likely impact from collision, disturbance and displacement would be minimal and confined to the field locality rather than any wider significant impacts. The approval of the wind turbine serving High Wells Farm would serve to indicate that the relationship of a wind turbine with these designated sites is appropriate in this location and the addition of another wind turbine is unlikely to create any further significant effects.

4.25 Natural England has produced a Technical Information Note TIN051 in light of the Eurobats Agreement, entitled 'Bats and Onshore Wind Turbines'. This report summarises the potential impacts of wind energy developments on bats and TIN051 recommends that wind turbines are unlikely to affect bat populations where a 50m buffer is maintained from foraging habitat. In this location the field boundaries are stone walls, and as such, there is

little habitat for foraging bats. The most likely foraging area is the small tree belt over 90m to the north of the turbine. This wind turbine is therefore positioned outside of the buffer zone required by Natural England and it is thus clear that the proposals would not result in any significant impact on possible bat populations.

4.26 Both the RSPB and Natural England are generally supportive of wind turbines and the role they play in sustaining the country's energy demands. Naturally site specific conditions must still be given due consideration and in this location it is considered that the provision of one individual wind turbine can be sensitively sited so as to ensure that the proposals would not result in any adverse impact on ecological issues.

Archaeological Implications

4.27 The proposals will involve some ground excavations when the foundations are laid and turbine installed. A review of the information within the PastScape database has been undertaken which is taken directly from the NMR's national historic environment database containing nearly 400,000 records on the archaeology and buildings of England and its territorial waters. A search of sites within 500m of the proposed turbine has found no records within the PastScape database. The South Yorkshire Sites and Monuments Record is a record of the known archaeology of the districts of Barnsley, Doncaster and Rotherham and of the City of Sheffield and offers another database to search. The following records were found within 500m of the application site:

Name	Location
Dyson Cote Stoop, Langsett	Langsett
Cloth Hall, Hunshelf	Hunshelf

4.28 Both of these assets are grade II listed buildings and are dealt with within the Heritage Assets section rather than in this section. There appears to be no specific archaeological records within the immediate area indicating a lower risk nevertheless, if any findings are discovered during ground work appropriate steps as required will be taken to ensure that no damage occurs.

Heritage Assets

4.29 As with any application, consideration should be given to any impact on the character of heritage assets, be they listed buildings or conservation areas. The nearby listed buildings (purple triangle) and Scheduled Ancient Monuments (red hatching) are identified in the following map:

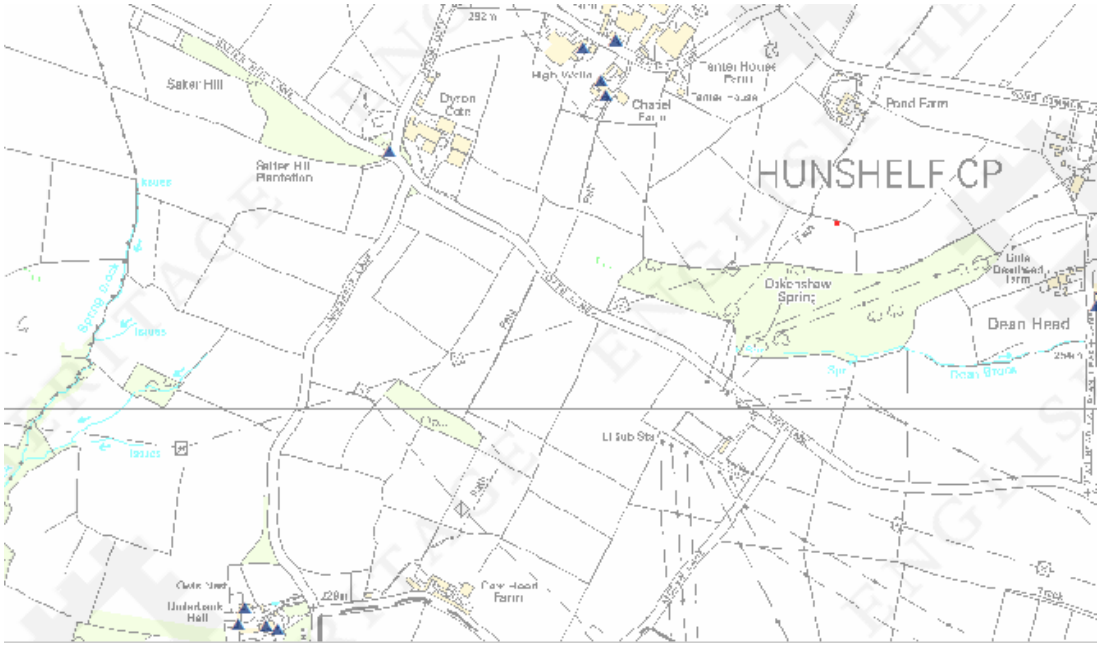


Image 7: Map of Heritage Assets

4.30 The following records of listed buildings are identified in the map within image 7.

- Dean Head Farmhouse
- Barn Approximately 10 Metres South East Of Cloth Hall Farmhouse
- Chapel Farmhouse Including Chapel
- Cottage And Attached Mounting Block Immediately East Of Underbank Hall
- Guide Post At Junction With Dyson Cote Lane
- Cloth Hall Farmhouse
- Underbank Hall
- Stable Range Approximately 30 Metres North West Of Underbank Hall

- Cottage At High Wells Farm Approximately 10 Metres West Of New Farmhouse
- Barn And Farm Buildings Attached To Chapel Farmhouse
- Barn Approximately 5 Metres To South Of Dean Head Farmhouse
- Barn Approximately 30 Metres To West Of Underbank Hall

4.31 The nearest asset is the Milestone noted as the guide post at the junction with Dyson Cote Lane. The Milestone, known as collectively guide stoops, were ordered to be set on the highways across the moors by the West Riding Justices of the Peace in 1700. It was further ordered in 1733 that stoops should be erected at minor crossroads on the edge of the moors, pointing the way to hamlets and even to isolated farms. In 1738, distances were ordered to be shown. Most stoops have 4 sides; the Dyson Cote stoop, however, has 6. These are marked "Barnsley & Pontefract 1734/Doncaster/Wakefield & Leeds/Penistone, Huthersfield & Hallifax/Woodhead & Mottram/Underbank & Bradfield/ Sheffield & Rotterham. Although the proposed turbine would be visible in relation to this milestone it is not considered that the turbine would intrude significantly into the asset's setting which is primarily related to the public highway and the connections with the local road network. The introduction of a turbine would not significantly alter this relationship and thus any visual connection is considered acceptable.

4.32 Other heritage assets appear to be concentrated at Snowden Hill or around Underbank Hall and the photomontages within Appendix B illustrate that the turbine would not appear unduly dominant from the north. Consequently although the turbine maybe visible the impact on the setting of assets at Snowden Hill would be acceptable and certainly reduced from the approved wind turbine at High Wells Farm. With relation to those heritage assets at and around Underbank Hall, at over 600m from these assets, the turbine would not be oppressive in scale. There would be varied views depending on the location of the receptor in relation to the number of maturing trees in the vicinity of the Hall but the distance would ensure the turbine would not intrude significantly into the setting of these assets.

Loss of Agricultural Land

4.33 The area of the application site is limited due to the diameter of the turbine and consequently it would have a no more than negligible impact on the agricultural use of the land which would for the main part continue whilst the turbine is in operation.

Installation of the Turbine and Access Arrangements

4.34 The temporary works required to install the turbine are limited. If granted we would be happy to accept a condition that any works to the land be reinstated following the installation of the turbine. In order to install the cabling for the turbine to connect to the grid some ground disturbance will be needed, however this will be temporary works, no trees would be removed and again the ground will be reinstated to its original condition upon laying the cable.

4.35 The installation of the single Endurance E-3120 wind turbine will take no more than 2 months. The principle stages for the installation are as follows:

1. Construction of foundation and concrete curing period

2. Cable trenching and installation

3. Tower Assembly and erection

4. Installation of the blades onto the rotor

5. Installation of the nacelle on the tower section

4.36 A standard digger will be used to dig the foundations of the turbine. Cement for the foundations will be brought in using standard cement lorries. Transportation of the wind turbine to the site will usually be via two standard lorries – each capable of accommodating a standard 40ft shipping container. There will be no abnormally large loads and the volume of delivery and installation traffic will not be significantly greater than required for special transportation measures and in many respects comparable with the width and scale of agricultural vehicles that currently use the site. Two cranes are typically used to hoist the wind turbine into place. The application area that will be disturbed during construction of

the base and tower will be in the region of 6m by 6m (36 square metres in total) within the land edged red.

4.37 The location and site map submitted with the application indicates the access route for the delivery of the turbine, tower and foundations with a dotted orange line. Access from public highway to the site will be via the existing field access to the south east of the turbine from Underbank Lane. Then access to the turbine position will be across the field itself. It will not be necessary to create a hard-core track as access to the turbine will be over the undisturbed field surface using temporary reinforcing cover sheets. These are removed completely once installation is complete leaving no trace. It should be noted that there is no requirement for regular vehicle access to the turbine site other than for delivery and installation of the foundations and the wind turbine itself. The installation will not take place until site conditions make it easy to use this route without any need for a permanent track across the field. The proposed site will not therefore require any changes or improvements to the local highways for access or maintenance. This is one of the real benefits of a turbine of this scale where no extra traffic will be generated as a result of the project, other than for the initial delivery of the equipment and an annual routine maintenance visit.

5.0 Conclusion

5.1 In assessing this application in relation to policy and environmental context, it is considered that the application should be granted for the following reasons:

- The proposed wind turbine would be positioned to the south of the farmstead over the brow of the hill on the southern slope in a location where the visual intrusion would be minimised and the turbine seen against the context of the pylons which dominate the landscape. Set against these features the turbine would appear subservient and not intrusive into the countryside.

- The proposed turbine would not be seen as an isolated feature within the countryside and the location below the horizon would ensure that the entire turbine mast is not skylined.

- Although there would be another wind turbine associated with High Wells Farm which would result in some cumulative effects, these resultant effects are considered to be minimal due to the positioning on the lower ground level and the design and scale of turbine ensuring that where views are obtained they would not conflict with each other.

- It is acknowledged that under strict Green Belt guidance, a wind turbine is considered inappropriate development in principle, however, in line with recent appeal decisions and case law there are exceptional circumstances in the form of providing renewable energy and assisting the UK's commitment to addressing climate change which outweigh Green Belt planning policy.

- The scale and location of the wind turbine would be such that the impact on nearby residential properties would be negligible with any impact confined to a visual appreciation of its siting. This in its own would not constitute a material harm to living conditions and it is thus considered that the amenity of neighbouring properties would be maintained.

- There are no other material planning considerations that would outweigh the overriding benefits of this proposal in providing a renewable energy source and the long term environmental benefits this brings.

5.2 Having regard to the above and all other matters, it is considered that the proposed development meets the expectations of policies of the Development Plan and other policy guidance including specifically the provisions of the NPPF. It is thus felt that this application should be granted subject to reasonable and appropriate conditions.

APPENDIX A METHODOLOGY USED FOR ASSESSING VISUAL LANDSCAPE IMPACT

The process of assessing the impact of this application from a visual amenity perspective has been guided by the document 'Guidelines for Landscape and Visual Impact Assessment'(2002). To accompany the description of baseline and assessment information, a series of classifications have been applied to the landscape character of the site and each visual receptor. These act as a summary and place a defined value on; the sensitivity of the character area/visual receptor, the magnitude of change and the subsequent significance of the effect of the development.

The sensitivity of existing Landscape Character/Visual Receptors is the degree to which landscape character or a visual receptor can accommodate change arising from a particular development, without a detrimental effect. It is dependent on its importance, quality, value and contribution and the degree to which it can be replaced or substituted. The sensitivity of landscape character/ a visual receptor is defined as being High/Medium/Low, where High is the most sensitive. For visual receptors and views the sensitivity will depend on the location and context of the viewpoint, the expectations and occupation or activity of the receptor and the importance of the view. The most important receptors are usually users of outdoor recreational facilities, where the interest may be focused on the landscape. Also, occupiers of residential properties where views may be affected by the turbine are considered important. Other receptors that have been included are people travelling through or past the affected landscape in cars, on trains or other transport routes. The magnitude of change to a landscape character area or visual receptor will be dependent upon the nature of the proposed development itself and its size, location, and individual forms and pattern in relation to the character of the proposed development site and the surrounding area. Magnitude of change is categorised using the terms Low, Moderate and High, which can be generally defined as:

- Low - a limited number of changes to any of the key elements/features/characteristics of the baseline landscape or views. This would equate to a discernable but non-material change to the landscape character or view;
- Moderate - a moderate number of changes to any of the key elements/features/characteristics of the baseline landscape or views. This would equate to a material change in the landscape character or view;

- High - a large number of changes to any of the key elements/features/characteristics of the baseline landscape or views. This would equate to a fundamental change in the landscape character or view.

For visual receptors the criteria adopted for classification of sensitivity and magnitude of impact are as follows:

Sensitivity:

- High sensitivity e.g. residential properties, Public Rights of Way and passive recreational activities, scenic drive;
- Medium sensitivity e.g. play areas, sporting and active recreational facilities, attractive rural lanes;
- Low sensitivity e.g. industry, general road users.

Views from faster roads (e.g. 'A' and 'B' class roads and motorways) are normally considered to be of low sensitivity to change due to the transitory nature of such views. Views from minor country lanes, which potentially have a higher recreational value, have been assessed as being of medium or high sensitivity.

Magnitude of Impact:

- High magnitude e.g. major change in view character;
- Medium magnitude e.g. moderate change in view character;
- Low magnitude e.g. minor change in view character;
- Negligible magnitude e.g. a development is visible but forms a barely perceptible component of the view

Due to access restrictions, the magnitude of effect on view character for all receptors, including residential property, is assessed on the basis of ground level views (e.g. from ground floor and garden level in the case of residential property).

An assessment of the significance of an impact can be derived from the combination of the 'sensitivity' of a landscape or visual receptor and the 'magnitude' of the impact. This has been interpreted as follows:

Sensitivity		**Magnitude**		**Significance**
High	+	High	=	Substantial
High	+	Medium	=	Moderate
High	+	Low	=	Slight
Medium	+	High	=	Moderate
Medium	+	Medium	=	Moderate
Medium	+	Low	=	Slight
Low	+	High	=	Moderate
Low	+	Medium	=	Slight
Low	+	Low	=	Slight

Impacts are described as being either beneficial or adverse.

Negligible impacts can be derived from high, medium or low sensitivity combined with negligible magnitude.

Landscape character is defined as a distinct and recognisable pattern of elements that occur consistently in a particular type of landscape. Patterns in the landscape, activity or tranquillity, heritage and cultural associations, vegetation, land use and connectivity combine together to create landscape character. It is important this is considered so a full understanding of the site and its surroundings can be achieved. England has been divided into areas with similar landscape character, which are called National Character Areas (NCAs) and the characteristics of the application site are considered within this application.

An assessment has been made of the visual impact from key settlements and public vantage points around the site. A table has been prepared which demonstrates the envisaged impact from key areas around the site of the proposed turbine.