AAH planning consultants

DESIGN & ACCESS PLANNING SUPPORTING STATEMENT

PENISTONE ADVANCED LEARNING CENTRE, HUDDERSFIELD ROAD,

PENISTONE, SHEFFIELD, S36 7BX

PROPOSED SITING OF ONE 32M HIGH WIND TURBINE

(REVISED SCHEME REPLACING THE APPROVED WIND TURBINE)

Our Ref: AAH/1001/11PLA

March 2011

PLANNING SUPPORTING STATEMENT

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1.0 Introduction

1.1 This Statement 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 32m high wind turbine at Penistone Advanced Learning Centre (ALC). This application is submitted following an earlier approval for two smaller wind turbines (hub heights of 25m) which was approved in July 2010. This application for a single turbine is intended as a replacement and not an addition to the earlier application (Ref: 2010/0744). As the planning permissions are on school sites owned by the Council, a written undertaking from the Education Authority is to be provided that they will not implement the permission and that should the site be transferred to private ownership a covenant of the transfer would be that the permission not be implemented. This essentially revokes this approved application for two wind turbines subject to this permission being granted.

1.2 The development proposal involves the provision of one 199KW turbine and associated infrastructure comprising the following specifically:

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

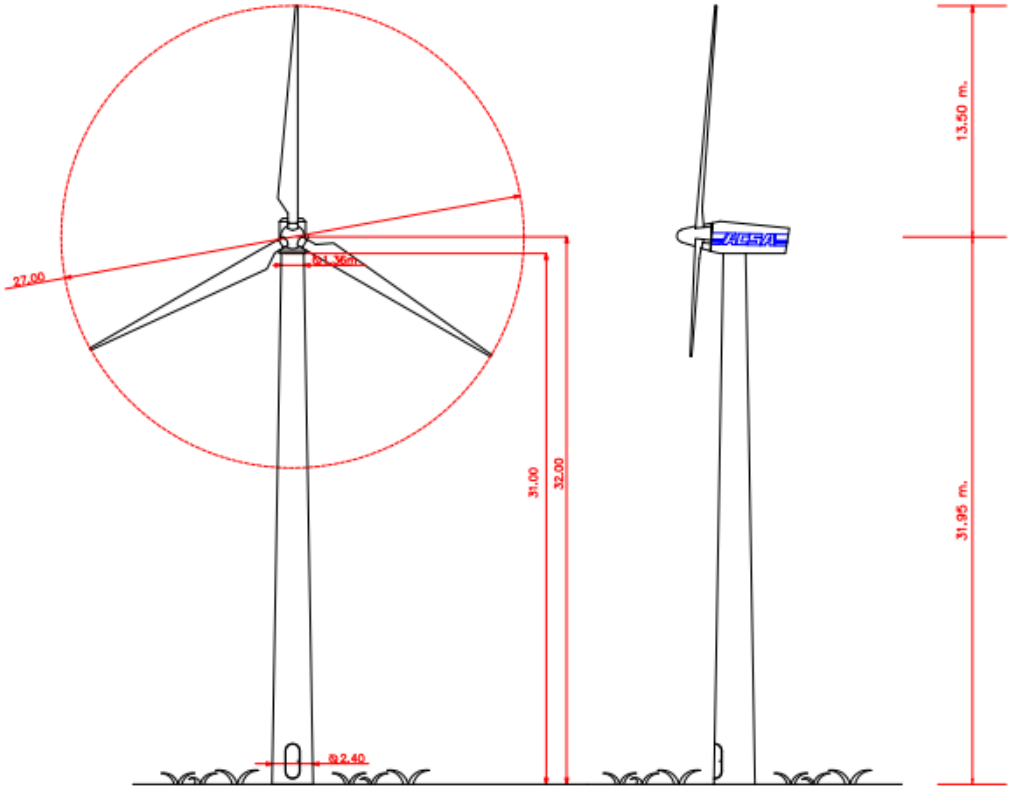


Image 1: Elevation Plan of the Turbine

1.3 The proposed development would be located within land leased for a period of 50 years by the Penistone Advanced Learning Centre, which is part of the Penistone Grammar School, where the principle of renewable energy provision is considered and has been previously determined to be acceptable. The main planning considerations are considered within this report in relation to local and national planning guidance alongside relevant planning case law.

2.0 Technical Details of the Proposed Turbine

2.1 The ACSA – A27 is a modern three bladed, high performance, reliable midsize 199KW wind turbine with each blade measuring 13.50m. Full specification details can be found within the table in Image 2 below:

Supplier / manufacturer:	**ACSA**
Output:	**199 KW**
Cut - in wind speed:	**3.5 m/sec.**
Cut - out wind speed:	**25 m/sec.**
Nominal wind speed:	**13,5 m / sec.**
Fast passive power regulation:	**Pitching (Blade angle adjustments)**

Image 2: Table outlining the technical specifications of the wind turbine

2.2 The wind turbine will be installed by appropriately trained and qualified engineers and electricians. Prior to installation a geological survey will be undertaken to determine the strength and composition of the sub soil in preparation for the foundation base of the wind turbine. The detailed design of the foundation depends on the sub soil composition. An anchor set in concrete and large anchor bolts secure the foundation structure to the base of the mast.

2.3 Installing in this manner ensures that minimal earthworks are required to install the turbine on site.



Image 3: Installation of the Turbine

2.4 The siting of the turbine would be approximately 50m from Long Lane to the north of the turbine. Temporary access would be required to facilitate the installation, however once

installed this may be grassed over and returned back to the existing ground conditions, or left for future access subject to agreement with the landowner.

2.5 The proposed wind turbine mast will be treated in a white colour as this is generally perceived as being more aesthetically pleasing and non-obtrusive than green, brown and black against rural backgrounds (trees, hedges, fields, leaves etc) and also against the skyline (grey and blue in this country). This is the reason other masts which are widely distributed throughout the UK (lampposts, pylons, signage posts, lightning conductors and other masts), utilise the same colours. The above colours are widely accepted by Planners across the UK and generally blend into a rural background with minimal visual impact.

3.1 The Site Details

3.1 The application site is located within the open countryside and is located on the northern edge of Penistone and eastern edge of Thurlstone. The land to the north of the site has rural characteristics and extends towards South Dike Reservoir. To the south, east and west of the site the land uses become increasingly urban in nature as the fields give way to built form. The actual proposed site of the turbine is located on the other side of a field boundary containing the playing fields associated with the school.

3.2 The original school building group is located on the north eastern side of Huddersfield Road, however the more recent extensions to the school facility including the erection of the Adult Learning Centre, have taken place on the western side of the highway. The playing fields associated with the school essentially extend towards the site of the turbine to the west.

3.3 The proposed site of the turbine is relatively level, however the wider area is undulating in nature with the land dropping to the south to the A628 and the River Don before rising again. To the north the land rises gradually and screens the reservoirs from view which are located on a lower level.

3.4 Access to the site of the proposed turbine is likely to be straight from Long Lane to the north of the proposed turbine and this will give the quickest and easiest access to the site. The actual siting of the turbine is approximately 50m from this road.

3.5 The application site is not located within a Conservation Area, however the site is within a Green Belt and subsequently the issues relating to the openness of the Green Belt require due consideration.

3.6 A copy of the plan, as set out in the accompanying planning documents illustrates the proposed siting.

4.0 Planning Policy

4.1 In order to understand the planning policy context associated with this forthcoming application for a wind turbine, it is necessary to consider the background context of energy use and how this has led to a fresh approach when dealing with renewable energy and particularly wind turbines.

4.2 In the UK around 90% of energy needs are met by oil, gas and coal. Fossil fuels are forecast to supply most energy needs by 2020. However, between 2004 and 2030 world demand for energy (on current trends) is forecast to increase by 53%. In addition, the concentration of global oil and gas reserves in relatively few locations brings issues of security of supply. Furthermore, as the UK's resources continue to decline, the UK will become more dependent on imports, hence the need for an increased use of renewable energy resources.

4.3 The UK's mix of generation capacity and reliance on coal and gas has meant that electricity generation in the UK has accounted for around one third of the UK's total carbon emissions. The UK needs to radically increase its use of renewable energy. Firstly, the impending threat of dangerous climate change means we urgently need to reduce our emissions of carbon dioxide and other greenhouse gases. A new focus on renewable energy will play a key role in this, as touched upon within this report, together with the carbon capture and storage and policies such as the EU Emissions Trading System and energy saving measures. At the same time, the growth in global demand for energy over the next few decades, and the depletion of our North Sea oil and gas resources, mean that we need to re-think our approach to sourcing and using energy. Turning to renewables will help the UK recover some of its energy self-sufficiency, while assuring that more of our imported energy comes from reliable sources. Finally, as the entire world gears up for the transition to a new, low-carbon future, the UK needs a robust and thriving renewable energy sector to maximise the economic and employment opportunities this will inevitably bring. In this context, planning policy has been shaped recently to allow for an increase in the use of alternative power sources including, notably, wind farms and individual wind turbines as a mechanism to delivering this robust, thriving renewable sector.

4.4 The Government's policy on energy use is set out in the Energy White Paper (DTI, 2007). This sets the base from which all other planning policy principles on renewable energy have followed. This White Paper aims to:

- Cut the UK's carbon dioxide emissions
- Maintain the reliability of energy supplies
- Promote competitive markets
- Ensure that every home is adequately and affordably heated

4.5 In this context, renewable electricity generation can make a significant impact and the White Paper aims for 20% of electricity to be supplied by renewable generation by 2020. In terms of distribution, the White Paper envisages the possibility of a more decentralised low carbon energy system with more local energy supply and greater use of renewables, which it suggests could reduce losses arising from the transmission of centrally-generated electricity. This application would thus directly accord with the principles behind the White Paper and would enable a local energy supply which would be entirely decentralised.

4.6 The Energy Act 2008 contains provisions to implement legislative aspects of the 2007 White Paper. In particular, it includes the following provisions:

- A regulatory framework to enable private sector investment in carbon capture and storage (CCS)
- A strengthened UK Renewables Obligation to bring about greater and speedier deployment of renewable energy
- The introduction of feed-in tariffs to support low carbon electricity generation for projects up to 5 megawatts (enabling a guaranteed payment for generation)

4.7 This Energy Act set the framework through which the feed-in tariff has now been released and this application would realise one wind turbine which would be eligible for this tariff.

4.8 Planning applications must be determined in accordance with the Statutory Development Plan, unless material considerations indicate otherwise. If the Development Plan contains material policies or proposals and there are no other material considerations, the application should be determined in accordance with the Development Plan. Where there are other material considerations, the Development Plan should be the starting point and other material considerations should be taken into account in reaching a decision. One such

consideration is whether the planning policies are relevant and up to date. The Act provides that if there is a conflict between policies in adopted national planning guidance or policies in a Development Plan Document, the most recent policy will take precedence and weight attributed accordingly.

4.9 Barnsley Council has, at this stage, not produced a Local Development Framework and following the recent intention to remove the Regional Spatial Strategies, the most up to date local planning document is the Barnsley Unitary Development Plan and the saved policies within, which were saved in 2007. This plan is considered to be somewhat out of date for the ever changing climate change issue and there are a number of relevant national planning policy principles which are not fully reflected within this local planning document.

4.10 The Government's statements of planning policy are material considerations which must be taken into account, where relevant, in determining planning applications. These statements 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 within the countryside and any specific landscape designation versus the weight associated with the environmental benefits of a wind turbine.

4.11 Planning Policy Statement 22: Planning for Renewable Energy (PPS22) was issued in 2004 along with its associated 'Companion Guide'. These two documents provide the national planning framework which sits against the context of the White Paper and Energy Act previously referenced, from which local planning authorities must decide on individual planning applications. The ministerial statement made by Yvette Cooper formalised government support for PPS22, it also encouraged local planning authorities to include in their local development frameworks policies requiring new developments to generate at least 10% of their own energy from on site renewable sources.

4.12 The Government believes that climate change is the greatest long-term challenge facing the world today. Addressing climate change is therefore the Government's principal concern for sustainable development. Policies and priorities for action, both in the UK and internationally, are set out in the Climate Change Programme and the report of the 2006 Energy Review. PPS22 sets the objective based criteria that must be applied by local

planning authorities in deciding individual planning applications to generate energy from wind. In particular, the following elements of PPS22 are seen as relevant to this case:

Key Principle V1: Small-scale projects can provide a limited but valuable contribution to overall output of renewable energy and to meet energy needs both locally and nationally. Planning Authorities should not therefore reject planning applications simply because the level of output is small.

Paragraph 11: "Small scale developments should be permitted within sensitive landscape areas such as National Parks, Areas of Outstanding Natural Beauty and Heritage Coasts, providing there is no significant environmental detriment to the area concerned".

Paragraph 18: Local planning authorities and developers should consider the opportunity of including renewable energy in all new developments. Small-scale renewable energy schemes utilising technologies such as solar panels, Biomass heating, small-scale wind turbines, photovoltaic cells and combined heat and power schemes can be incorporated both into new developments and some existing buildings. Local planning authorities should specifically encourage such schemes through positively expressed policies in local development documents.

Paragraph 20: Of all renewable technologies, wind turbines are likely to have the greatest visual and landscape effects. However, in assessing planning applications, local authorities should recognise that the impact of turbines on the landscape will vary according to the size and number of turbines and the type of landscape involved.

4.13 Planning Policy Statement 7: Sustainable Development in Rural Areas (PPS7) draws attention to the Government's objectives for the countryside and sets out the key principles of raising the quality of life in rural areas, encouraging more sustainable use of land, and to diversify and promote growth in rural areas.

4.14 Within PPS7 Paragraph 16 (i) / (iv) states that amongst these principles are promoting good quality, sustainable development that support development that provides for the sensitive exploitation of renewable energy sources in accordance with the policies set out in PPS22.

4.15 Planning Policy Statement 1: Delivering Sustainable Development, Planning and Climate Change (PPS1) - Supplement to PPS1, sets out how planning should contribute to reducing

emissions and stabilising climate change and take into account the unavoidable consequences. It notes that tackling climate change is a key Government priority for the planning system. Core Strategy Policies should be designed to promote and not restrict renewable and low carbon energy and supporting infrastructure. A proposal that will contribute to the delivery of the Key Planning Objectives set out in this PPS should expect expeditious and sympathetic handling of the planning application.

4.16 The application site is located within the council's Green Belt and consideration must be given to Planning Policy Guidance 2 (PPG2). Green Belts have been perhaps the best known feature of the planning system since the 1950's and continue to command widespread support. The protection of the Green Belt is an overriding planning consideration and one, which in the case of most forms of development, strongly militates against the granting of planning permission. However, having been a feature of the planning system since the 1950's the policies and traditional considerations applied to development within the Green Belt are not necessarily up to date with the ever changing climate change issue and weight should now be given to the environmental benefits from proposals such as wind turbines against the background of Green Belt policies. Very special circumstances will be required to justify instances where this presumption against development should not apply.

4.17 The principle of a wind turbine would not accord with the forms of development deemed acceptable in the Green Belt and its very nature is therefore deemed inappropriate in principle within the Green Belt under this policy context. Notwithstanding this, PPG2 – Green Belts does stipulate that '*Very special circumstances to justify inappropriate development will not exist unless the harm by reason of inappropriateness, and any other harm, is clearly outweighed by other considerations'.* Given the national planning policy context outlined previously and the greater emphasis that is now placed within the planning system on renewable energy provision, it is considered that the environmental benefits of small scale renewable projects such as this would represent 'very special circumstances'. Indeed, this issue was recently discussed in an appeal at land adjacent to Ramsgill, Otley Road, Bingley (APP/W4705/A/09/2118825). This appeal (decision attached with this report in Appendix A) related to a 15m high wind turbine within the Harrogate Green Belt and the Planning Inspector in allowing the appeal accepted that Green Belt planning policy principles would dictate that the principle of a wind turbine was inappropriate and would, to an extent,

result in some loss of openness. Nevertheless, in reaching the decision to allow the appeal the Inspector concluded:

4.18 *'I attach substantial weight to the harm to the Green Belt by reason of inappropriateness. As there would be a modest loss of openness within the Green Belt, I find only a limited degree of other harm. Set against this is the significant weight that I give to the wider environmental benefits associated with increased production of energy from renewable sources. When weight against one another, the other considerations do clearly outweigh the harm to the Green Belt by reason of inappropriateness and the other harm in relation to openness within the Green Belt. In my judgement very special circumstances do therefore exist and justify a grant of planning permission'.*

4.19 This appeal decision does set the issue of Green Belt principles versus renewable energy principles into context and the overriding conclusion is that the principle of renewable energy provision does represent special circumstances that justify planning consent. There is therefore considered to be no bar from a planning policy perspective to the consideration of this planning application in principle.

4.20 Consideration on the local level with regards to the Green Belt issue is given to Policy PE5 and links back with PPG2. As highlighted, the site is allocated under Policy PE5 as Green Belt land and under Policy PE20 as an existing community facility. Policy PE5 defines the extent of the Green Belt around the settlement of Penistone. Policy GS7 seeks to safeguard against inappropriate development in this locality and specifies that development will not be permitted within the Green Belt unless it maintains openness and does not conflict with the purposes of including land within the Green Belt. Policy GS9 requires that development within the Green Belt should not by reason of its siting, materials or design, result in significant harm to the visual amenity of the Green Belt. As highlighted the thrust of policies PE5, GS7 and GS9 all align with the provisions of PPG2 and the over whelming guidance contained within case law is that wind turbines in principle are acceptable in Green Belts.

4.21 Of particular importance to the assessment of this application is policy ES12 which sets out the Council's requirements for proposals that seek to develop wind energy generation. Such proposals will be assessed with regard to the following factors:

- Effect both individually and cumulatively upon landscape and the visual amenity of the area;

- The impact on residential amenity with reference to noise, visual outlook, shadow flicker and flashing from the turbine blades;
- Provision of satisfactory access to the highway network having regard to visual amenity, highway capacity and safety;
- Effect on wildlife, ecology and archaeology;
- Effect on agricultural land uses;
- Electro-magnetic effects;
- The provision for connection to the electricity transmission and supply system;
- The effect of shadow flicker or flashing from turbine blades.

4.22 Policy ES12A outlines the importance of using appropriate technology and design for all wind generator proposals. Policy ES1C 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.

4.23 Finally of more general relevance is policy BE6 which sets out design standards for all development. Proposals will be assessed in terms of:

- The quality of layout and the suitability of the scale of the development;
- The use, quality, design and landscape treatment of open land within the site and the area around buildings;
- The standard of detailed design and facing materials of proposed buildings;
- The suitability of the whole development for its proposed context and its relationship with adjoining land uses.

4.24 Having already determined and approved an application on site serving the school for two wind turbines the council have established, under the above mentioned policies, that the proposals for a wind turbine in this vicinity are appropriate. The assessment of this application which is a revised proposal must have regard to this baseline permission in the assessment of effects and how it relates to the relevant planning policies. The relevant

planning history is discussed in detail within the following chapter and how this relates to the assessment of this application.

5.0 Planning History

5.1 As already discussed, there is a significant amount of planning history which is relevant to the assessment of this application. This history and the discussions with the Local Planning Authority and other stakeholders are set out below.

5.2 Following the withdrawal of the initial application for five wind turbines, there have been extensive discussions with the council, the school and other consultees. Initial pre application discussions have been held with Barnsley Council officers regarding the proposed development. Initial discussions were held in February 2009 where the key issues were identified. In this respect the council requested that due consideration be given to noise, landscape and visual impact and other matters such as shadow flicker and highways impact. Further dialogue was held with the council where the proposed location of the two approved wind turbines were considered. Indicative location plans were submitted as part of a screening request submitted under the Environmental Impact Assessment (EIA) regulations. The original proposals were screened on the need for EIA where it was concluded that this was not necessary.

5.3 Prior to the resubmission of proposals for the two wind turbines, further discussions were held with officers of the council in February 2010. During the meeting further discussion was held in respect of turbine siting and overall approach to delivering 10% on site renewable energy generation over and above that provided via the biomass heating already approved.

5.4 The previous planning application for wind turbines at Penistone ALC (reference 2009/1590) was withdrawn in January 2010 to allow further consideration of the impact of the turbine on bats. In response to this, a bat survey was undertaken and the proposed wind turbines were re-sited to ensure minimal impact on these protected species. This subsequently was one of the reasons why the revised application was initially approved and this resubmission has sought to ensure that the impact on bat populations remains negligible.

5.5 In January 2011 the proposed revised location was agreed with the council's Planning Officers and a request was made for a Screening Opinion as the proposal falls within the scope of Schedule 2 of the Town and Country Planning Environmental Impact Assessment (EIA) Regulations (as amended). This has been requested as part of this planning application. The Planning Officer stated that the site is particularly sensitive to built developments being

on the very edge of generally open fields. Substantial vertical structures such as wind turbines can contrast significantly with the varied topography within the countryside surroundings causing harm to the landscape character. It is also a particularly prominent location as it overlooks, albeit from a distance, the outer reaches of Penistone and a number of elevated areas beyond. Undeniably, this proposal would have a far greater impact on the openness of the Green Belt and on the landscape as a whole; that said, the contribution the turbine makes towards tackling climate change (199kW output) is likely to be proportionately greater in relation to its size than the two permitted 15kW turbines.

5.6 The council's officers therefore requested a Landscape and Visual Impact Assessment (LVIA) along with photomontages taken from the same sites as the original planning application. In addition, the council requested a number of other photomontages from within the surrounding area and a new LVIA reflecting the new proposal. Finally, the council requested a unilateral undertaking in order to forsake the 2010/0744 planning permission however following discussions over the land ownership and having realised that the land of the current permission is within the ownership of Barnsley Council the proposed method for dealing with this has been agreed.

5.7 The above requests have been facilitated as part of this application package with a unilateral undertaking provided up front and an updated LVIA indicating the extent of the impact of the revised proposed wind turbine on the Green Belt and surrounding area. It was generally felt that the introduction of a single wind turbine, albeit taller than the approved, would have improved visual effects than two structures.

5.8 As part of the ongoing BSF programme, extensive engagement has always been held with the school during the design process where the location of the initially proposed turbines, and the now revised location, has been discussed and agreed. This engagement remains ongoing.

5.9 In preparing the initially approved proposals, discussions were held with the following statutory consultees:

- Sport England; and
- Natural England

- Sport England

5.10 Pre-application discussions were held with officers of Sport England where the siting of the turbines was discussed. As a result of the discussions, the siting of turbines was considered and in principle agreement was reached, subject to the application of conditions to a planning permission.

5.11 Officers of Natural England provided comments on the proposed sitings of the turbines for the initially approved application. Natural England indicated that, subject to confirmation that the turbines are to be in excess of 50m from existing vegetation features, a known issue in respect of risk to bat activity could be overcome. This guidance has remained relevant with the revised application and subsequently the siting of the now proposed wind turbine has been positioned in a manner which has ensured bat activity is not affected.

5.12 As part of the wider approach to pre-application engagement, the following consultees were also consulted:

- Civil Aviation Authority
- Ministry of Defence Estates
- National Air Traffic Service (NATS)

5.13 At the time of writing no adverse comment has been received from any of the above consultees.

6.0 Consideration

6.1 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.

6.2 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 as discussed below.

Visual impact and Harm to the Green Belt

6.3 The proposed wind turbine would be positioned to the west of the hedgerow forming the boundary with the school playing field as depicted in the accompanying plans. The turbine would measure approximately 32 m high to the hub, with the blades extending another 13.5m beyond to reach a maximum height of approximately 45m. The originally approved application was for the erection of two wind turbines which each measured 25m to the hub and each reached a total height 29.5m. This application would therefore see a single structure which would be more prominent than either of the two approved applications. Yet this increase in height must be balanced with the fact that this application would replace two structures with only a single structure, thus there is an argument to say that this reduction in structures would result in an improvement from the approved situation. This is of course a somewhat subjective matter given the increase in height and thus prominence of the proposed turbine and overall a balanced view must be taken in light of the specific assessment of these proposals.

6.4 As discussed, in this location and at this height the turbine would be visible from the surrounding public vantage points and would to an extent change the appreciation of this site within its surrounding context within the Green Belt. However, this does not necessarily equate to unacceptable harm and this change in vista must be balanced against policy expectations and guidance encouraging renewable energy and the benefits that this application brings in assisting with the energy demands of Penistone ALC. The accompanying photo montages and Landscape Visual Impact Assessment indicate the extent of prominence from nearby locations.

6.5 The issue of visual harm and the appropriateness of turbines within a Green Belt was recently discussed in an appeal at Land Adjacent to Ramsgill, Otley Road, Bingley (APP/W4705/A/09/2118825). This appeal related to a 15m high wind turbine within open countryside and within the Harrogate Green Belt and the Planning Inspector in allowing the appeal accepted that countryside and particularly Green Belt planning policy principles would dictate that the principle of a wind turbine was inappropriate and would, to an extent, result in some loss of openness. The conclusion is covered in section 4.18 of this report.

6.6 This site is located within a Green Belt and this appeal decision does set the issue of Green Belt principles versus renewable energy principles into context and the overriding conclusion is that the principle of renewable energy provision does represent special circumstances that justify planning consent. Clearly the turbine itself would be an inappropriate form of development in the Green Belt, however, special circumstances would exist that justify the planning consent. This conclusion is further underlined by the extant planning consent which can now be implemented for the erection of two wind turbines serving the ALC and demonstrates that the Council's position with regards to the acceptance of wind turbines within the Green Belt aligns with the above mentioned case law.

6.7 The proposed development of a single wind turbine within the grounds of the new school is a key component to the wider school redevelopment proposals, as this will secure a proportion of energy which is derived from on site renewable sources in accordance with the national planning policy objectives, the statutory development plan and the Design and Development Brief for the BSF Programme. The erection of this turbine will secure a source of renewable energy generation that will play its part in the wider objective of reducing greenhouse gas emissions, a principal cause of global climate change. The need to secure

and deliver sources of renewable energy generation in order to reduce CO^2 emissions is a key national planning policy objective.

6.8 The provision of the approved turbines at Penistone ALC met this overriding objective and consequently represented the very special circumstances that justified the approved proposals within the Green Belt. This revised planning application seeks to maintain the ALC's objectives and commitment to reduce CO^2 and thus the very special circumstances previously accepted would remain the same with this application. The development will therefore meet wider planning policy objectives, most notably RSS policy ENV5 and recent Coalition Government statements on renewable energy. It is therefore considered that the need for the development outweighs the harm to the Green Belt and that this constitutes very special circumstances.

6.9 Regard must still be given to the impact of the proposals on the open countryside and surrounding area. The application would result in a reasonably sized structure which would be visible in the open countryside and would therefore result in some loss of openness and some visual intrusion. In respect of openness it is considered that the introduction of a single structure, albeit taller than the approved two turbines, would result in a reduced impact on openness than the extant permission.

6.10 The extent of intrusion of this revised application has been minimised by the use of a single structure only, rather than the extant position of two turbines. The height of the turbine as highlighted is of course taller than the approved turbines, however this application has sought to achieve the correct balance between efficiency and intrusion. An assessment of the site has been undertaken in order to establish the most effective siting point for this revised turbine, taking into consideration both the technical and visual impact implications involved in this project with an increased height.

6.11 The accompanying photo montage examples and LVIA effectively illustrate and assess the proposed turbine's impact, in terms of height and massing. The surrounding topography is undulating in nature and this topography when combined with the existing vegetation does serve to effectively screen the proposed turbine from a number of locations including the Penistone Leisure Centre and from Thurlston Road. The topography is such that distant views can be achieved of the site from the east and north and these are indicated within the photo montage and LVIA. With these distant views the turbine would always be viewed in

the wider context of the panoramic vista and the undulating topography to the rear, such that the turbine would not be significantly sky lined from these vantage points. Furthermore, this turbine would not appear overly dominant but would be assimilated into the vista by the school buildings in the foreground, other buildings in the wider vicinity and hedgerows and trees. These would all serve to ensure that the physical intrusion from this single turbine would be limited.

6.12 The turbine would dominate the local landscape from nearby vantage points and ultimately this is unavoidable. From Long Lane and Work Bank Lane the turbine would dominate the vista and the photo montage from Long Lane demonstrates this impact. Work Bank Lane merges into a bridleway and along with Long Lane does have recreational value in the area, however this would not compromise any recreational enjoyment of the lane. Regard should also be given to the provision of a single turbine rather than the approved turbines which were sited in close proximity to the lane. Visual intrusion will always occur with a wind turbine, however the impact of this must be balanced against the overriding benefits and the steps taken to reduce the visual impact.

6.13 The proposed turbine would be treated in a white colour as this, and indeed grey or metallic colours, are more aesthetically pleasing and non-obtrusive than green, brown or black against rural backgrounds (trees, hedges, fields, leaves etc) and also against the skyline (grey and blue in this country). This is the reason other masts which are widely distributed throughout the UK (lampposts, pylons, signage posts, lightning conductors and other masts) utilise the same colours.

6.14 The proposed turbine, like the approved turbines, is detached from the ALC buildings as the turbine is proposed approximately 50m to the west of the western most playing field. However, due to issues such as ecology, noise and potential interference with the playing fields, there is no opportunity to site the turbine any closer to the ALC.

6.15 This turbine has therefore been sited in a position within as close proximity to the ALC and playing fields as possible and its relationship with the playing fields would be such that the turbine is not viewed in isolation in the countryside. Given the turbine's location, height and coloured finish it is considered that the landscape and pattern of open fields to the north would remain dominant in all public views of the turbines. This is further underlined by the nature of a wind turbine with a narrow mast and a greater inter-visibility with views through

the turbine to the countryside to the rear possible, unlike a building. This is evident within the photo montage.

6.16 The turbine would not be viewed as an incongruous feature in the landscape as it would be sited sufficiently close to the playing field for observers to understand the function as a renewable energy device, which is clearly serving the needs of the ALC. Furthermore, the location of the turbine with the context of the hedge to the west and in the immediate surroundings, maturing trees, and rising topography to the north would all serve to dilute the visual impact of the turbine. When this is combined with the inter-visibility of the turbine itself the result would ensure that an acceptable level of impact on the character and openness of the countryside would be achieved in this part of the Green Belt.

6.17 Residents/visitors travelling in the area either by foot, car or indeed using the lanes on horse, as is understood to be popular, would experience different degrees of visibility of the proposed turbine, principally due to the location and speed of movement. People's perception of the effect of the development would also vary, whilst some including a substantial number of local people would find the impact of the turbine unacceptable, others would welcome the introduction of the structure and find that it added diversity to this part of the countryside. Undoubtedly from close up the mast would dominate people's perception of the rural area. However, because the proposal would be a single structure its visibility and adverse impact would not be so great so as to fundamentally compromise either residents or visitors experience of this location. The impact on neighbour amenity is specifically addressed separately in this report.

6.18 Having regard to the extant situation with permission granted for two wind turbines which can be implemented, and given the above site context and landscape visual assessment it is felt that this turbine in this location would have an acceptable level of impact on the character and openness of the countryside. When this is balanced against the positive benefits associated with the introduction of the renewable energy provision this indicates that the application should be considered favourably.

6.19 Having regard to the siting of the turbine within the designated Green Belt, it must be recognized that the wind turbine would be inappropriate under Green Belt planning policy principles, nevertheless, it is considered that the wider environmental benefits associated with increased production of energy from the turbine serving the ALC outweighs the harm to

the Green Belt by reason of inappropriateness and the other harm in relation to openness within the Green Belt. It is therefore considered that very special circumstances do exist that justify a grant of planning permission for the provision of a turbine serving the site.

Neighbour Impact

6.20 In siting this revised application for the proposed turbine in the proposed location, we have sought to ensure that the positioning of the turbine is sufficiently secluded from adjoining neighbours to ensure local occupants are not in any way adversely affected by potential noise or shadow flicker associated with the operation of the wind turbine.

6.21 In this case, the chosen siting point of the turbine is approximately 250m from the nearest residential property, Red Ridge which is located to the south west of the application site and accessed off Work Bank Lane. There are other properties further west along this lane and then further to the south along the A628. It is understood that during the previous application for two wind turbines the following concern was raised during the consultation exercise with the public in relation to neighbour amenity:

1) The site is too close to residential properties which would lead to problems with noise and TV interference

6.22 This matter will be addressed as part of this assessment of effects alongside the visual dominance and the impact from shadow flicker. 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. PPS22 advises that 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 140m of the turbine and there are no properties within this distance, with the nearest property being Red Ridge approximately 250m away. 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.

6.23 The siting point of the wind turbine has been selected after considering technical feasibility, access, visual impact and noise pollution issues and has also taken into consideration the

proximity to all residences in relation to noise levels generated by the wind turbine in operation.

6.24 The ACSA – A27, like most modern day wind turbines does not create the same levels of noise as the very early designs, there are less mechanical parts to cause mechanical "whirring" noise. Accompanying this application is a noise specification for this model as measured at a distance of 63m with data for a wind speed of 8m/s and a precision level of +- 3 dB, obtained data are as follows:

Hz	63	125	250	500	1000	2000	4000	8000	A-weighted
$L_{eq,\,ref}$ (dB)	56	58	57	54	50	46	39	31	**55**
$L_{w,\,ref}$ (dB)	98	100	99	95	92	88	81	73	**97**

$L_{A,eq} = 55$ dB

6.25 Reference should be made to ETSY-R97, the Noise Assessment Rating for wind turbines. This guidance note, which is widely used by Planners in wind turbine noise assessments, 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.

6.26 The Noise Working Group recommends that day time lower fixed limits can be higher than this at 45dB(A). In the case of the siting point of the wind turbine, the nearest residential property, Red Ridge, is approximately 250m from the wind turbine and having regard to the data provided when measured at 65m it is clear that at over three times the distance away, noise emissions do not present a concern in this case.

6.27 Red Ridge is located on the south side of Work Bank Lane and is positioned set back behind a stone wall with vegetation along the boundary restricting views towards the application site from within the property. The principle elevation of Red Ridge is its south facing windows which enjoy maximum sun light and view and the proposed wind turbine would not be visible from these windows. Any view from the windows on the north elevation would be at an acute angle only from the window itself and not from within the rooms and as such the proposed wind turbine would not be overly dominant or prominent from this property. Comparably, other properties along the lane share similar characteristics with their principal

elevations facing south and north and thus do not face directly towards the proposed siting of the turbine. As such, the turbine would not be intrusive to the nearby farms or residential properties and at the distances and angle involved is unlikely to harm the living conditions enjoyed by the occupants of these properties.

6.28 Any other property such as those along the A628 to the south are considered sufficiently far away, taking into account the local topography which drops to the south with intervening vegetations and the built form of Penistone itself. These would all serve to ensure that the proposed turbine is unlikely to harm the living conditions enjoyed by the occupants of any other properties.

6.29 The perception of any visual harm caused by the wind turbine is a sensitive and subjective matter and this was evident during the course of the previous approved application for two wind turbines, with many individuals in support of their installation yet many against the principle of turbines in the countryside in their particular local area. It is felt that this perception of harm is likely to change over time as people become familiar with their appearance and recognise the positive contribution they make in reducing greenhouse gas emissions. A change in culture is thus likely to occur. Nevertheless, any application must be determined on its own merits and in light of policy expectations and the perception of harm from the principle of turbines, should carry little weight when balanced against the positive benefits of these turbines. Having regard to the actual likely effects of the proposed turbine in this location it must be concluded that the effects on neighbour amenity are likely to be negligible.

Electromagnetic Interference

6.30 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. Subsequently and notwithstanding the concerns raised during the previous application by

neighbours, this wind turbine is unlikely to cause any electromagnetic interference in the area.

Proximity to Electrical Power Lines

6.31 The guidelines set out by NEDL (Distribution Network Operator) indicate that the installation of a wind turbine is acceptable at over 10m from any power line. As can be seen on site, this application would therefore fully comply with these expectations and the proposed wind turbine would have no impact on the distribution network.

Proximity to Airports and Flight Paths

6.32 The National Air Traffic Service (NATS) no longer respond to wind turbine developer enquiries and any issues pertaining to the wind turbine's installation at the site will need to be conducted by the Local Planning Authority. However, it is noted that no objections were raised to the extant planning permission for two wind turbines during the previous application process and it is not envisaged that any concerns will be raised with this proposal. Pre application discussions have previously been undertaken with both the Civil Aviation Authority and Defence Estates and no objections were raised to the previous proposal for two wind turbines.

6.33 Given the significant distance to any main or small air field and their associated flight paths and having regard to the size of the proposed wind turbine on this site, it is considered that the proposals would have no impact on flight paths or the operations of airports in the wider region.

Ground Conditions

6.34 Prior to installation a geological survey will be undertaken to determine the strength and composition of the sub soil in preparation for the foundation base of the wind turbine. The detailed design of the foundation depends on the sub soil composition. An anchor set in concrete and large anchor bolts secure the foundation structure to the base of the mast. There is no overriding reason why the ground conditions in this location in comparison with the approved location are likely to preclude the development and should the Local Planning

Authority wish to consider the foundation structure in greater detail it is recommended that this be included and required as a condition of any consent.

Ecological Issues

6.35 The application site is not located in any area designated as being of ecological importance. The particular site has little in the way of ecological habitats with the exception of hedgerows or isolated trees. Concern was raised by local residents during the previous application that the turbines previously approved may affect local birdlife using the reservoirs to the north.

6.36 The installation of the proposed wind turbine is unlikely to result in significant hedgerows being removed due to the form and nature of the installation process which will require an access from Long Lane only, thus leaving the hedgerow to the east intact. Furthermore and notwithstanding the concerns raised by local residents, there is little evidence to suggest that a wind turbine in this particular area at the height proposed would cause any significant impact on local birdlife or indeed any other species. This is underlined in the fact that the previous application for two wind turbines, albeit lower in height, saw no objections from Natural England.

6.37 Natural England produced a document 'Our State of the Natural England' report in 2008 which summarises the potential impacts of both terrestrial and marine wind energy developments and their ancillary infrastructure, on the natural environment. These include but are not confined to, the potential impacts on bird and bat populations.

6.38 Bats and their roosts are legally protected by domestic and international legislation. The purpose of the legislation is to maintain and restore protected species to a situation where their populations are thriving, and there is sufficient habitat to ensure this will continue. Generic guidance on assessing the impact of wind turbines on bats has been developed at the European level under the Eurobats Agreement (Bonn Convention), to which the UK is a signatory. Natural England subsequently produced a Technical Information Note TIN051 in light of the Eurobats Agreement entitled Bats and Onshore Wind Turbines.

6.39 The Eurobats guidance proposes that the buffer surrounding woodland areas should be 200m, whereas the Natural England document suggests a buffer zone of 50m. One reason for the difference is that the European guidelines are catering for a greater diversity of species, some of which are known to fly very long distances, often in the open, away from woodland. The use of linear features varies among species. Research found that serotines in Finland and Holland utilised linear features and open habitat. In Holland, pipistrelle and serotine were known to cross gaps of 110-150m in open and patchy landscapes, although pipistrelles did so infrequently. Traditional flight routes may explain why pipistrelles and other small bats will cross gaps up to 200m.

6.40 However, the evidence in Britain is that most bat activity is in close proximity to habitat features. Activity was shown to decline when measured at fixed intervals up to 50m away from treelines and at varying intervals up to 35m from treelines. This decline occurred both when bats were commuting and when foraging, although the decline is greater when animals were commuting.

6.41 To minimise risk to bat populations Natural England's advice is to maintain a 50m buffer around any feature (trees, hedges) into which no part of the turbine intrudes. This advice was recommended during the previous approved planning application and remains pertinent here with the revised proposals. Notwithstanding this guidance, a bat survey was commissioned as part of the earlier planning application and the results of this survey remain relevant in this assessment of this application.

6.42 E3 Ecology Ltd was commissioned to undertake a bat survey of the location of the two approved wind turbines at Penistone Grammar School, Barnsley. Previous survey work had recorded roosts within the school buildings to the east of the playing fields. Survey work was undertaken in May 2010 and comprised a daytime inspection of the location of the proposed turbines, the erection of remote bat monitoring equipment and dusk and dawn transect surveys of the area surrounding the proposed turbine locations.

6.43 The habitats surrounding the proposed and the approved turbines comprise large areas of grassland and arable fields, which are bounded by hedgerows. The hedgerows are mature and comprise a range of species but are dominated by Crataegus monogyna (hawthorn). The hedgerows bordering the playing fields and arable fields provide a potential commuting

route between the known roosts within the school complex to the east and habitats to the west.

6.44 Survey work in 2009 recorded two small common pipistrelle maternity roosts within the buildings to the east of the site as well as a brown long eared bat roost and smaller roosts of common pipistrelle. Whiskered/Brandt's and noctule bats have also been recorded within the local area during previous survey work.

6.45 The survey in 2010, which focussed on the area of land around the playing fields to the east of the proposed turbine and west of the existing school buildings recorded common pipistrelle activity throughout the area, as well as a Myotis bat using the hedgerow which lies adjacent to the approved turbine location. The remote monitors also recorded common pipistrelle and Myotis activity indicating that these areas are used.

6.46 It is clear therefore that the area around the playing fields and in the vicinity of both the proposed turbine and the approved turbine appears to be used by a relatively small numbers of common pipistrelle and Myotis bats as commuting and potentially foraging habitats.

6.47 It must be recognised therefore that the approved turbines would cause some risk to small numbers of common pipistrelle and Myotis bats that may fly into the turbines once erected, or which may suffer from barotrauma caused by the change in pressure associated with the turbine blades. The position of the approved turbines sought to minimise such risk by its positioning in accordance with Natural England's guidance and their consultation response during the application.

6.48 This revised planning application would replace two wind turbines with a single wind turbine and although the turbine would be taller with a larger rotor swept area the fact that this is a single wind turbine only would reduce the chances of collision. This risk is again minimised through the proposed siting of the turbine which is again in accordance with Natural England's guidance previously referred to.

6.49 To help minimise the potential conflict between birds and wind turbines, the RSPB and Natural England have jointly produced a GIS map and written guidance to aid the planning process for onshore wind energy development in England. The map is based on distributional data for twelve sensitive bird species, plus statutory SPAs (Special Protection

Areas), and sites containing nationally important populations of breeding waders and seabirds, or wintering waders or wildfowl. Ten of the twelve species included on the map are listed on Annex I of the EU Birds Directive, with two additional species of conservation concern included, due to concern about potential impacts on their rapidly declining or highly localised populations. The application site is not located within an area designated as being of high or medium risk and there are no localised designations within the site or immediate surrounding area, indicating that the site is at low risk to bird populations notwithstanding the concerns raised by local residents during the previous application.

6.50 The RSPB recognises the essential role that renewable energy, including wind, plays in the attempt to tackle climate change, and supports appropriately located wind energy developments. Effects of wind farms on birds vary depending upon factors such as species, season, weather, habitat type and individual site characteristics such as topography (e.g. Langston and Pullan, 2003, Barrios and Rodríguez, 2004, Drewitt and Langston, 2006, 2008, de Lucas et al., 2008, Smallwood and Thelander, 2008). As wind energy is still a relatively new technology, information about these effects is sparse, with few relevant published peer-reviewed papers on the subject (Whitfield and Coupar, 2008), although the knowledge base is increasing.

6.51 Wind farms or individual turbines can affect birds in four main ways: collision, disturbance displacement, barrier effects (sometimes considered a type of disturbance displacement) and direct habitat loss.

6.52 Direct habitat loss is generally considered to be a relatively minor concern (Percival, 2000), although there will be exceptions, for example where overlap is with very rare species with small home ranges (Whitfield and Coupar, 2008). As the site has been designated a low risk area with no specific designation there would be no loss for very rare species. Furthermore given that this application relates purely to an individual turbine with no loss of trees or vegetation the proposals would not result in any loss of habitat.

6.53 Collision risk and disturbance displacement are considered the two predominant effects. Wind farms in the UK have not been associated with high collision rates to date, because on the whole they have been constructed in areas with little bird activity (Percival, 2005, Madders and Whitfield, 2006), and generally, collision rates recorded at many wind farms in the UK and elsewhere have been low (e.g. Erickson et al., 2001, Percival, 2005, Drewitt and

Langston, 2006, 2008). Clearly with an individual turbine the potential for collision with birdlife is reduced from the previous application or a wind farm.

6.54 Different species groups vary in terms of susceptibility to collision, with raptors appearing to be particularly susceptible (e.g. NWCC, 2000, Langston and Pullan, 2003, Thelander et al., 2003, Smallwood and Thelander, 2004, Anderson et al., 2004, 2005). Whitfield (2007) suggests that much of this vulnerability appears to be due to reduced avoidance of wind turbines by raptors (e.g. Whitfield and Madders, 2006a, b). Some other groups also appear quite susceptible, for example, together with raptors, gulls accounted for most of the fatalities in Hötker et al.'s (2006) review of wind farm impact studies, and an estimated 165 collisions of several species of tern per year occurred at a 25-turbine wind farm at Zeebrugge, Belgium (Everaert and Stienen, 2006). Moorehead and Epstein (1985) suggested that large wetland birds, such as geese, might be especially susceptible to collision. However, Hötker et al. (2006) found that records of collisions in geese were relatively rare, and generally there have been few recorded collisions of geese at wind farms.

6.55 It is generally considered that smaller more agile birds such as sparrows or finches are better equipped to avoid collision with wind turbines and in this respect the proposals are unlikely to have any impact in respect of collision with such birdlife. Given the ecological habitats within the area, which predominantly include hedgerows and maturing trees, it is considered that these types of birds would be the predominant birdlife in the area. The larger species groups referred to previously are not predominant within the immediate area and as such are unlikely to be affected. Furthermore, the site is not located on a known migration flight path which may otherwise prejudice other species. As this application relates to an isolated wind turbine rather than a wind farm, it is considered that the risk of bird collision would be minimal. Furthermore, having regard to the extant position of the two wind turbines previously approved, despite those turbines being lower in height there is considered a greater potential for collision from two smaller wind turbines in comparison with a single larger turbine which is more easily avoided.

6.56 Disturbance can affect species in a number of ways; either by direct loss of e.g. nesting, foraging, roosting or moulting habitat, or by affecting productivity, and potentially survival. Meta-analysis of 19 datasets suggested reduced abundances of birds at wind farms, particularly of wildfowl and waders (Stewart et al., 2007), in accordance with results on

disturbance displacement. However, such species are not predominant in the application site and as this application relates to an isolated turbine it is considered that disturbance is likely to be minimal and confined to the confines of the site locality rather than displacing any birds from the wider locality.

6.57 In respect of badgers, surveys have been undertaken and did not identify any setts within the site. Given the small area which would be affected by the works it is unlikely that badgers would be affected by the proposal. However, should a sett be discovered as part of the preconstruction check of the land, a license would need to be obtained from Natural England prior to commencement of works.

6.58 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

6.59 The proposals will involve some ground excavations when the foundations are laid and turbine installed, however, following a desktop appraisal there is little to suggest that the application site has any archaeological importance. Nevertheless, if any findings are discovered during ground work appropriate steps as required will be taken to ensure that no damage occurs.

Heritage Assets

6.60 As with any application consideration should be given to any impact on the character of heritage assets, be they listed buildings or conservation areas.

6.61 Importantly, wind turbines have a finite lifecycle and can be decommissioned and removed from site without any trace, and effects are subsequently transient in nature and unlikely to result in a permanent feature on the landscape. The English Heritage document: 'Wind Energy and the Historic Environment' acknowledges that climate change is itself likely to be detrimental to the historic environment for reasons which include the effects of rising sea

levels and increased 'storminess'. The document also points to the reversibility of wind energy developments which can further mitigate their impact. In this case, the expected 25 year life of the wind turbine would be short relative to the longevity of a historical building.

6.62 In this particular case, due to the rural context of the application site and the divorced nature from the built environment, Penistone town and other urban areas it is considered that there are no conservation areas or individual listed buildings that would be directly affected by the proposals. This is underlined further by the findings of the landscape and visual impact assessment in how the turbine would be appreciated from surrounding vantage points.

Loss of Agricultural Land

6.63 The area of the application site is limited due to the diameter of the turbine and subsequently 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.

Impact on Playing Pitch Users

6.64 Pre-application discussions with Sport England have confirmed that the approved siting of the two wind turbines was acceptable in principle and this was confirmed by the grant of planning consent without objections. The application site is located on farmland bordering the playing fields approved as part of the Landscape Masterplan under Reserved Matters Approval 2009/0078 and therefore would not directly impact upon the playing fields.

6.65 As this is the case, it is considered that the revised application continues to comply with Exception Criteria E3 of Sport England's Playing Fields Planning Policy Statement, which specifies that planning permission for development which may affect the use of a planning field is acceptable where:

'The proposed development affects only land incapable of forming, or forming part of, a playing pitch, and does not result in the loss or inability to make use of any playing pitch (including the maintenance of adequate safety margins), a reduction in the size of the playing areas of any playing pitch or the loss of any other sporting/ancillary facilities on the site'.

6.66 It has to be acknowledged that there may be some potential for distraction to users by virtue of the location of pitches relative to the location of the turbines due to the potential for shadow flicker to occur, however as outlined previously, such occurrences would be rare and unlikely to significantly impact upon the enjoyment and users of the playing pitches to the east.

Installation of the Turbine

6.67 The temporary works required to install the turbine are limited. A haul road of terram reinforcement membraine and crushed recycled material will need to be installed from Long Lane. It is the intention to leave the haul road in place to assist the access of the transit/landrover access in the future for inspections. The installation vehicles would include two cranes, one 120 tonne and one 50 tonne capacity to access across the field using the haul road. The delivery of the turbine parts will require 3 visits of a 44 tonne low load lorry to deliver the mast, nacelle and blades. The crane will lift the mast and nacelle into position, secure bolts to the mast base, and attach the 3 no blades to the nacelle. In order to connect the cables from the nacelle to the inverter, and from the inverter to the farmer's field boundary, a cable would be laid in a trench 800mm deep, 400mm wide and backfilled with excavated material and patted flat. The land would be reinstated to its original condition upon laying the cable.

Economic and Social Benefits

6.68 At present, wind turbines in the United Kingdom prevent over 5.5 million tonnes of CO^2 emissions each year, with a standard 2 megawatt turbine producing the same amount of power as that used by over 1,120 homes each year. The Sustainable Development Commission have calculated that if wind energy made up 20% of total output in 2020, the CO^2 emissions savings of wind output could be around 28.4 million tonnes (7.8 million tonnes of carbon) of CO^2 per year.

6.69 Wind power currently makes a contribution of 8.8% of renewables in input terms (i.e. in volume of fuel inputs of renewables to heat, electricity and transport, after conversion to an oil equivalent basis), but accounts for 27% of electricity generated by renewables (2007 figures, BERR, 2008). The implementation of the 2020 Renewable Energy Strategy will require a marked increase in both on and offshore wind energy generation. This could be to

the magnitude of an additional 10GW onshore and 25GW offshore, a five fold and sixty fold increase from current operational generating capacity. This implies a requirement for the construction of around an additional 5,000 onshore and 7,000 offshore wind turbines. This wind turbine proposed will help to achieve these targets.

6.70 Although the PPS1 supplement advises that strategic targets should not be applied directly to individual planning applications, they must be a relevant planning consideration when considering the applications simply because it is only through an accumulation of individual planning applications that regional targets are achieved. Therefore to entirely separate this issue would be irrational not only in terms of the Government's aim of securing substantially more renewable energy generation capacity but also of the whole basis of the plan-led system. The prominence given to them in national policy makes them an important consideration.

6.71 Onshore and offshore wind represent the cheapest, most technologically advanced and most rapidly growing forms of renewable energy, with wind growing by 25% between 2006 and 2007 in terms of input into electricity generation (BERR, 2008). This wind turbine will provide a greater proportion of electricity than the approved two wind turbines and the overall approach to delivering 10% on site renewable energy generation over and above that provided via the biomass heating. This application is critical in achieving these goals at Penistone ALC to provide a proportion of the school's energy requirements.

7.0 Conclusion

7.1 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 west of the playing fields in a location where the visual intrusion would be minimised and the turbine seen against the context of hedgerows, maturing trees and the rising topography to the north.

- The proposed turbine would not be seen as an isolated feature within the countryside but would clearly relate to Penistone ALC due to its relationship with the school playing fields, despite its distance to the actual buildings and thus the function would be readily appreciated.

- 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, case law and the extant planning consent on site for two turbines, 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 on its own would not constitute a material harm to living conditions due to the distance involved and the main aspect of the nearest properties which do not face directly towards the site of the wind turbine 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 taking into account the extant planning consent for two wind turbines which this would replace.

7.2 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 PPS1, 7 and 22. It is thus felt that this application should be granted subject to reasonable and appropriate conditions.