

## SCHEDULE A: Applications with Recommendation

13/0115

Item No: 04

Date of Committee: 19/04/2013

**Appn Ref No:**  
13/0115

**Applicant:**  
Mr Fell

**Parish:**  
Wetheral

**Date of Receipt:**  
20/02/2013

**Agent:**  
Mrs Halton

**Ward:**  
Wetheral

**Location:**

Wheelbarrow Hall Farm, Aglionby, Carlisle, CA4  
8AD

**Proposal:** Erection Of A Single Wind Turbine (60kW), 30.1m Hub Height, 41.6m To  
Tip Height And Associated Infrastructure (Revised Application)

---

### REPORT

**Case Officer:** Suzanne Edgar

#### Summary

One of the key principles of the National Planning Policy Framework (NPPF) is to support the transition to a low carbon future in a changing climate, encouraging the use of renewable resources. The NPPF indicates that Local Planning Authorities should approve renewable energy applications (unless material considerations indicate otherwise) if its impacts are, or can be made, acceptable.

The proposal is in accordance with the overall objectives of Government energy policy. This is in the context where Cumbria has a target of providing 247.5 MW by 2015 with actual provision standing at 143 MW (excluding small scale domestic turbines). The benefits include effective protection of the environment through the reduction of greenhouse gas emissions and the prudent use of natural resources by reducing reliance on fossil fuels.

The turbine would not have a significant impact upon air safety, listed buildings, ecology/conservation, highway safety or on occupiers of neighbouring properties in terms of noise/shadow flicker. The turbine would be prominent locally within the landscape providing movement at high level and would be visible from primary windows/gardens of residential dwellings within the vicinity. The proposal would however not have a significant impact on the landscape type as a whole due to the presence of existing man made features within the landscape. The turbine would also not have a dominant effect on the living conditions of occupiers of residential properties due to the height of the proposal combined with the separation distances or the positioning of existing features within the landscape.

On balance it is considered that the benefits of the proposed development would

significantly outweigh its limited adverse impact upon the landscape/living conditions of the occupiers of neighbouring properties. Accordingly the application is recommended for approval subject to the imposition of relevant conditions.

## **1. Recommendation**

- 1.1 It is recommended that this application is approved with conditions.

## **2. Main Issues**

- 2.1 The potential contribution of the scheme towards the generation of renewable energy
- 2.2 The impact of the proposed development on the landscape and visual character of the area including cumulative impacts
- 2.3 The impact on residential properties (noise and shadow flicker)
- 2.4 The impact on the setting of Hadrian's Wall World Heritage Site and on listed buildings
- 2.5 The impact on air safety with regard to Carlisle Airport and the Ministry Of Defence
- 2.6 Impact on highway safety
- 2.7 The impact upon ecology and nature conservation
- 2.8 Other matters

## **3. Application Details**

### **The Site**

- 3.1 Wheelbarrow Hall Farm is located on the western side of Holme Lane which is a track leading from the northern side of the A69 opposite the junction to Scotby village. The farm complex is located to the immediate north of Stone Eden Nursery School and to the west of Aglionby Grange and Rose Park. The M6 motorway is located approximately 600 metres to the west of the farm steading and 300 metres to the south-west is Rosehill Henry Lonsdale Nursing home. The farm steading is also situated approximately 240 metres north of the village of Scotby and 600 metres from Junction 43 of the M6.
- 3.2 The farmstead comprises a recently constructed farmhouse to the north with associated agricultural buildings which vary in age, design and materials to the south. The house associated with Stone Eden Nursery is Grade II Listed and the whole of the farm complex is located within the buffer zone of Hadrian's Wall World Heritage Site.
- 3.3 The land around the farm steading is relatively flat however the land falls away to the north towards the River Eden Floodplain. The land consists of open agricultural fields surrounded by mature hedgerows. To the west of the site there are a line of pylons that run parallel to the M6 motorway. There are

also individual blocks of trees near Rosehill and the edge of the A69.

## **Background**

- 3.4 In 2009 (reference 09/0191) planning permission was granted for the installation of a 15 metre high wind monitoring mast for a period of three months. The monitoring mast was sited to the west of the farm complex.
- 3.5 In June 2012 (reference 12/0062) planning permission was refused for the erection of 1no. 275kW wind turbine (which had two blades with a 32m rotor diameter, a hub height of 55m and a tip height of 71m) at land approximately 230 metres to the west of Wheelbarrow Hall Farm. Application 12/0062 was refused for the following reason:

*"The application site occupies a prominent position close to the urban edge of Carlisle and in very close proximity to the village of Scotby and other residential properties. The proposed turbine due to its size and position will form an oppressive and dominant presence to the detriment of the living conditions of the occupiers of residential properties, with particular regard to Hedley Cross, Wheelbarrow Court and the dwellings on the northern side of Holme Fauld. The proposal is therefore considered to be contrary to Policy R44 of the Cumbria and Lake District Joint Structure Plan 2001-2016 and the objectives of Policies CP6, CP8 of the Carlisle District Local Plan 2001-2016."*

- 3.6 In December 2012 (reference 12/0936) a planning application was submitted seeking Full Planning Permission for the erection of a single wind turbine (60kW), 30.1 metres hub height, 41.6 to tip height and associated infrastructure. The application was however withdrawn prior to determination.

## **The Proposal**

- 3.7 The application seeks permission for the erection of 1no. 60kW wind turbine, which will have three blades with a 23.2 rotor diameter, a hub height of 30.1 metres and a tip height of 41.6 metres. All non-galvanized elements of the turbine will be coloured pale grey/off white. The turbine will be located on the same site as planning application 12/0062 (240 metres to the west of Wheelbarrow Hall Farm House).
- 3.8 The proposal does not include any ground based equipment housing, compound fencing or formal access tracks. An underground cable would connect the turbine to a DNO owned Switch Station located within an existing agricultural building to the south of the farm house. The route of the underground cable would be within land under the applicant's ownership.
- 3.9 The application is accompanied by a Planning Statement incorporating a Design and Access Statement, an extended Phase 1 Habitat Survey and Bat Risk Assessment, a Desk Top Bird Risk Assessment, Landscape and Visual Impact Assessment, Aviation Assessment and Photomontages.

#### **4. Summary of Representations**

4.1 This application has been advertised by the display of a site notice, press notice and by means of notification letters sent to 161 neighbouring properties. At the time of preparing the committee report 32 representations have been received of which 3 are in favour of the proposal and 29 are against.

4.2 The letters/emails of support cover a number of matters and these are summarised as follows.

1. Surveys continue to show that a large majority of people find wind turbines attractive
2. We need to reduce our dependence on non-renewable sources
3. Impact of a wind turbine on a landscape is minimal compared to coal or nuclear power stations
4. Windpower can significantly reduce carbon emissions
5. See no reason why the proposed wind turbine should cause any problems to anybody.
6. Turbine will not be an "eye sore" or a "disruption."
7. Fully supportive of future environmental developments

4.3 The objections cover a number of matters and these are summarised as follows.

##### **LANDSCAPE AND VISUAL**

1. Even though the turbine is smaller than the previous scheme it is still higher than the National Grid Pylons therefore reasons given for previous refusal should still apply
2. Visual intrusion into the landscape
3. Adverse impacts significantly outweigh the benefits
4. Cumulative impact of turbines adjacent to National Grid Pylons would severely harm the landscape
5. Damaging effect of turbine applications is all too evident in North Allerdale
6. Proposal will be totally out of keeping with the local landscape
7. Turbine will be an eyesore
8. Proposal will create a precedent
9. No assessment has been made from public footpaths in the area including along the River Eden

##### **LIVING CONDITIONS/HEALTH**

1. Will be detrimental to the living conditions of the occupiers of adjacent properties less than 400 metres away
2. Proposal is too close to residential properties and will be dominant/overpowering
3. Proposal is closer to residential properties than Newlands which was

- rejected by the Inspector due to its potential impact on adjoining property
4. Noise pollution and potential health problems
  5. None of the photographs show the impact of the proposal from the north side of Holme Fauld
  6. The proximity of the turbine from Holme Fauld was the main reason for the refusal of the last permission
  7. Views of the turbine from Holme Fauld would be uninterrupted
  8. Do not understand how the distances shown at 5.5.1 Residents Settlements have been calculated
  9. Impact on properties at Holme Fauld will be high not moderate/ slight
  10. There are primary windows on properties at Holme Fauld facing the proposed turbine
  11. Proposal will have an adverse impact on the village of Scotby, Aglionby and the surrounding communities
  12. Potential flicker effect
  13. Noise Impacts
  14. Impact on juvenile development
  15. Potential noise, dust, exhaust emissions from construction work
  16. Turbine is close to a residential home and nursery
  17. Proposal is not within the minimum safe distance of 1500m

#### ECONOMIC

1. Wind turbines have proved to be inefficient
2. Only benefit is the financial reward to the applicant
3. Impact on tourism
4. On shore wind turbines are not an efficient use of limited resources
5. Not viable or sustainable without a subsidy
6. Energy a turbine produces is not reliable
7. Turbines are expensive to erect and expensive to take down
8. No proven environmental benefits from turbines

#### HIGHWAY SAFETY/AVIATION SAFETY

1. Driver distraction on the A69 and M6
2. A69 has a poor safety record in this proposed area
3. Impact on low flying aircraft
4. Highway safety from construction traffic

#### ECOLOGY/CONSERVATION

1. Impact on bird life and their flight paths
2. Injury to wildlife
3. Impact on bats

#### OTHER MATTERS

1. Proposal is contrary to Structure Plan Policy R44 and Local Plan Policies CP6 and CP8
2. Expect independent expert opinion will be sought as part of the planning process

3. Potential disruption to TV and radio signals
4. Impact on house prices
5. Given the Governments commitment to localism, the turbine should be refused

## **5. Summary of Consultation Responses**

Cumbria County Council - (Econ. Dir. Highways & Transportation): - no objection;

Department for Transport (Highways Agency): - no objection;

Clerk to Wetheral PC,: - object to this application on the grounds that it will be detrimental to the visual amenity of the area and too close to buildings.

Natural England - Larger Schemes with Env.St & Designated Sites (SSSIs, SACs, SPAs, Ramsar Sites): - no objection;

English Heritage - North West Region: - the application should be determined in accordance with national and local policy guidance, and on the basis of your specialist conservation advice.

Cumbria Wildlife Trust: - no comments received;

Carlisle Airport: - no objection;

(Former Comm/Env.Services) - Green Spaces - Countryside Officer - RURAL AREA: - no comments received;

Local Environment - Environmental Protection (former Comm Env Services- Env Quality): - no objections;

Hadrians Wall Heritage Limited: - no comments received;

MOD Safeguarding - for all wind turbine application consultations: - no objections subject to the imposition of one condition;

Royal Society for the Protection of Birds: - do not propose to make any comments;

National Air Traffic Services: - no objection;

Joint Radio Co: - no objections.

## **6. Officer's Report**

### **Assessment**

- 6.1 Section 38(6) of the Planning and Compulsory Purchase Act 2004 requires that proposals be determined in accordance with the development plan,

unless material considerations indicate otherwise.

- 6.2 As a result of the recent Cala Homes litigation, the Regional Spatial Strategy (RSS) remains in force and part of the development plan until the provisions of the Localism Act are enacted. A separate order is required to revoke the RSS; and until this takes place the RSS remains part of the Development Plan. For the purposes of the determination of this application, therefore, the development plan comprises the North West of England Plan (Regional Spatial Strategy to 2021); the “saved policies” of the Cumbria and Lake District Joint Structure Plan 2001-2016; and the Carlisle District Local Plan 2001-2016. The application also needs to be assessed against the Cumbria Strategic Partnership’s Sub Regional Spatial Strategy 2008 - 2028 (SRSpS), the Cumbria Landscape Character Guidance and Toolkit (2011), and the Cumbria Wind Energy Supplementary Planning Document (2007).
- 6.3 The National Planning Policy Framework (NPPF) which was adopted 27th March 2012 is also a material planning consideration in the determination of this application. The NPPF has a presumption in favour of sustainable development with 12 core planning principles which should underpin plan-making and decision-taking. Members should note that two of the core planning principles are to support the transition to a low carbon future in a changing climate, encouraging the use of renewable resources whilst recognising the intrinsic character and beauty of the countryside.
- 6.4 The NPPF indicates that when determining applications Local Planning Authorities should not require applicants to demonstrate the overall need for renewable energy and it should be recognised that even small-scale projects provide a valuable contribution to cutting greenhouse gas emissions. The NPPF indicates that Local Planning Authorities should approve the application (unless material considerations indicate otherwise) if its impacts are, or can be made, acceptable. The NPPF also states that in determining applications for wind energy development Planning Authorities should follow the approach set out in the National Policy Statement for Energy Infrastructure (read with the relevant sections of the Overarching National Policy Statement for Energy Infrastructure, including that on aviation impacts). The National Planning Policy Statement for Energy Infrastructure generally relates to large wind farms however it give guidance on technical considerations when dealing with onshore wind farms.
- 6.5 Under "The Promotion of the Use of Energy from Renewable Sources Regulations 2011" there is a duty on the Secretary of State to ensure that the renewable share in 2020 is at least 15%.
- 6.6 RSS Policy EM1 seeks to identify, protect, enhance and manage environmental assets. RSS Policy EM1(A) refers to the landscape and the need to identify, protect, maintain and enhance its natural, historic and other distinctive features. RSS Policy EM17 requires at least 15% of the electricity which is supplied within the Region to be provided from renewable energy sources by 2015 (rising to at least 20% by 2020). Criteria that should be taken into account in assessing renewable energy schemes include the impact on local amenity and the landscape.
- 6.7 JSP Policy R44 states that renewable energy schemes should be favourably

considered where there is no significant adverse effect on such matters as landscape character, local amenity, and highways. The policy also explains that the environmental, economic and energy benefits of renewable energy proposals should be given significant weight. JSP Policy E37 stipulates that development should be compatible with the distinctive characteristics and features of the landscape. The assessment of any proposal being based on visual intrusion or impact; scale in relation to the landscape and features; and remoteness and tranquillity. Policy E35 seeks to safeguard areas and features of nature conservation interest.

- 6.8 In terms of the Local Plan policies, Policy CP1 requires rural development proposals to conserve and enhance the special features and diversity of the different landscape character areas. Policy CP8 deals with renewable energy and is permissive subject to a number of criteria including that there is no unacceptable visual impact on the immediate and wider landscape; and any new structure would be sensitively incorporated into the surrounding landscape and respect the local landscape character. A development principle of the Cumbria Sub Regional Spatial Strategy 2008-2028 includes the promotion of decentralised renewable and low carbon energy sources.
- 6.9 A Supplementary Planning Document 'Cumbria Wind Energy', which sets out Guidelines for wind energy schemes and includes a Landscape Capacity Assessment, was adopted by the Council in September 2008.
- 6.10 Other material considerations include Circular 1/2003 "Safeguarding Aerodromes, Technical Sites and Military Explosives Storage Areas".
- 6.11 When assessing this application it is considered that there are eight main issues, namely
1. The potential contribution of the scheme towards the generation of renewable energy
  2. The impact of the proposed development on the landscape and visual character of the area including cumulative impacts
  3. The impact on residential properties (noise and shadow flicker)
  4. The impact on the setting of Hadrian's Wall World Heritage Site and on Listed Buildings
  5. The impact on air safety with regard to Carlisle Airport and the Ministry Of Defence
  6. Impact on highway safety
  7. The impact upon ecology and nature conservation
  8. Other matters

- 6.12 Addressing these issues in turn:

**1. The Potential Contribution Of The Scheme Towards The Generation Of Renewable Energy**

- 6.13 As stated above the NPPF indicates that Local Planning Authorities should not require applications for energy development to demonstrate the overall need for renewable energy and should recognise that even small-scale projects provide a valuable contribution to cutting green house gas



emissions.

- 6.14 Policy EM17 of the Regional Spatial Strategy (RSS) encourages the promotion and greater use of renewable energy sources and includes a target of having 15% of the region's electricity production from renewable sources by 2015 and rising to 20% in 2020. The sub-regional target for Cumbria is to have 15 - 21 onshore wind farms by 2010 with generating capacity of 210 MW increasing to 247.5 MW by 2015.
- 6.15 The available records indicate that there are currently 16 onshore wind farms operating in Cumbria and five more with consent with a total of 135.48 MW of generating capacity. In effect, the county target for 2010 has yet to be met and, at the current rate, the target for 2015 is unlikely to be met. This figure does not however include small-scale domestic turbines.
- 6.16 The current proposal would provide a total installed capacity of 60kW and will therefore provide a contribution to meeting energy needs both locally and nationally.

## **2. The Impact Of The Proposed Development On The Landscape And Visual Character Of The Area Including Cumulative Impacts**

- 6.17 As stated above, the NPPF indicates that Planning Authorities should approve applications if the impacts are, or can be made, acceptable. The NPPF explains that the planning system should contribute to and enhance the natural and local environment by protecting and enhancing valued landscapes. Paragraph 118 indicates that if significant harm resulting from a development cannot be avoided, adequately mitigated, or, as a last resort compensated for then planning permission should be refused. The NPPF also indicates that great weight should be given to conserving landscape and scenic beauty in National Parks, the Broads and Area of Outstanding Natural Beauty (AONBs).
- 6.18 Wheelbarrow Hall is not located within an AONB however the farm steading does fall within the Buffer Zone for Hadrian's Wall World Heritage Site with Grade II Listed Buildings located adjacent to Stone Eden Nursery and at the Rosehill Henry Lonsdale Nursing Home.
- 6.19 It is important that a distinction is drawn between i) landscape impacts that relate to the characteristics of the landscape; and ii) visual impacts on receptor points (houses and rights of way etc) that relate to individual outlooks within that landscape. These issues are separately discussed as follows:
- 6.20 i) Landscape
- 6.21 The application site is within an area defined as category 5b – Low Farmland in the Cumbria Landscape Character Assessment. The Cumbria Wind Energy Supplementary Planning Document indicates that this landscape type has moderate landscape capacity to accommodate a small group of 3-5 turbines or exceptionally a large group of 6-9 turbines. As such it is clear that the proposed turbine is within the size limits suggested for this landscape type.

- 6.22 The topography of the field in which the turbine is to be situated is such that the land falls gently in a south-north direction. There are a number of man-made influences already within the landscape, notably the M6 corridor immediately to the west of the site, the large pylons (approximately 42 metres in height) that run parallel to the M6 together with the A69 to the south. The site is also located close to the eastern periphery of Carlisle. The pylons and power lines that project above the skyline are distinctive man made features of the landscape that contribute to the visual character of the area.
- 6.23 When considering impact on the landscape character Members will be aware that the Council sought independent landscape advice from Eden Environmental Ltd on a previous application for a 71 metre (to tip) wind turbine at land to the west of Wheelbarrow Hall (reference 12/0062) which was located in a similar position to the turbine proposed under this application. Eden Environmental in their advice for the previous application noted that the site is an area of simple, open and flat farmland which is influenced by urban fringe and transport corridor elements. The assessment indicated that the turbine (proposed under application 12/0062) would have a negligible adverse effect on the periphery of the visual envelope of the landscape to Hadrian's Wall as it would lie on the edge of the visual envelope which is already strongly influenced by the M6 motorway, pylons and the urban fringe of Carlisle. The assessment also went on to state that the presence of two lines of pylons (approximately 42 metres in height) already influences the sense of scale and the addition of a 71 metre (to tip) mast would increase the vertical scale within the landscape however the effect would be small in the context of the whole landscape type because of the presence of the existing pylons.
- 6.24 On balance the assessment by Eden Environmental Ltd for the previous application for this site indicated that during the operation of the turbine the proposal was found not to have a significant landscape impact. The report also stated that the impacts on the landscape during construction and decommissioning were also found to be no more noticeable or damaging to the landscape features and characteristics than every day farming operations.
- 6.25 In relation to cumulative impacts the report by Eden Environmental Ltd found that there is unlikely to be any significant cumulative impacts caused in combination with other wind farms particularly with regard to the small turbine at Low Wood and the turbines proposed at Newlands as there is unlikely to be any locations where all three turbines would be viewed simultaneously. It is possible that there could be simultaneous views from Linstock however the separation distances would make the magnitude of change very small.
- 6.26 The turbine proposed under the current application is 29.4 metres smaller than the previous application and is located in a similar position. The turbine when viewed from Carlisle and the M6 would be seen beyond existing power lines and pylons. Views of the site from the east would see the turbine against the backdrop of existing power lines and pylons. Views of the turbine from the north and south would be more open due to no significant intervening features. Within the local context, the turbine would appear as a prominent feature, especially as the blades provide movement at high level,

however it is not considered that the turbine would cause unacceptable harm to the local landscape character as it is already characterised by other large scale manmade features. Given the separation distances from the proposed turbine and others that are in operation/have consent it is not considered that there would be any significant cumulative impact.

6.27 ii) Visual Impact

6.28 With regards to visual impact it is important to make a distinction between something that is visible as opposed to being prominent and oppressive. It is noted that right to a view is not a material planning consideration and the focus of the planning system is to regulate the use and development of land in the public interest.

6.29 When assessing visual impact upon occupiers of neighbouring properties it is also important to apply the “Lavender Test”. It is noted that outlook from a private property is a private interest rather than a public interest however in 3 previous appeal decisions; North Tawton (Denbrook), Enifer Downs and Shooters Bottom, Inspector Lavender indicated that where turbines are present in such number, size and proximity that they represent an unpleasantly, overwhelming and unavoidable presence in a main view from a house or garden, there is every likelihood that the property concerned would come to be widely regarded as an unattractive and unsatisfactory place to live. It is therefore not in the public interest to create such living conditions where they did not exist before.

6.30 In relation to the impact on the visual amenities of residential properties it is noted that there a number of residential properties situated within the surrounding area, particularly but not exclusively those located along Holme Lane, the Henry Lonsdale Residential Care Home and the residential dwellings located on the opposite side of the A69 in Scotby. The closest non associated residential properties are Aglionby Grange, The Lodge Aglionby Grange and Rosehill Henry Lonsdale Care Home which are located approximately 340 metres, 280 metres and 340 metres respectively.

6.31 Members will be aware that the Council took independent advice from Eden Environmental Limited on a previous application for a 71 metre high turbine (12/0062) for this site. The advice received by Eden Environmental Limited for application 12/0062 indicated that key effects on visual amenity would be experienced in close proximity to the turbine; in central and north Scotby and in houses near Wheelbarrow Hall. Of the people living here, some at the northern end of Scotby and near Wheelbarrow Hall would experience a significant adverse impact (i.e. the northern end of Holme Fauld, Wheelbarrow Court, Hedley Cross and the applicants own property). There would also be a moderate adverse impact on the occupiers of Aglionby Grange, 1-3 Holme Park, the cottage on the junction of Holme Lane, the inner properties of Holme Fauld and Scotby Grange. The report predicted that significant adverse effects would be experience by people in 21 properties.

6.32 It is noted that the properties that were identified by Eden Environmental Limited for application 12/0062 as been significantly affected by the 71 metre

high turbine (Holme Fauld, Wheelbarrow Court and Hedley Cross) are located at different distances from the turbine; 500 metres, 390 metres and 400 metres respectively. Due to the separation distances between the 71 metre high turbine and the aforementioned non-associated properties it was considered that the 71 metre high turbine would appear uncomfortably close and would be viewed from the primary windows of these properties with little intervening landscaping that would screen a structure of such height. Application 12/0062 was therefore refused planning consent as it was considered that the 71 metre high turbine due to its size and position would form an oppressive and dominant presence to the detriment of the living conditions of the occupiers of residential properties, with particular regard to Hedley Cross, Wheelbarrow Court and the dwellings on the northern side of Holme Fauld. The proposal was therefore considered to be contrary to Policy R44 of the Cumbria and Lake District Joint Structure Plan 2001-2016 and the objectives of Policies CP6, CP8 of the Carlisle District Local Plan 2001-2016.

- 6.33 Members are reminded that each planning application has to be treated on its own merits. Even though the turbine proposed under this application is located in a similar position to that proposed under application 12/0062 it is noted that the proposed turbine will be significantly lower (by 29.4 metres) than the previous application which was refused consent.
- 6.34 Whilst it is accepted that some dwellings and properties within the vicinity would experience direct views of the turbine from primary windows or gardens, it is the Officers view that the separation distances in relation to the scale of the proposal are such that the turbine could not be said to be overbearing or dominant. As such it is considered that the turbine would not cause a sufficient demonstrable harm on the living conditions of the occupiers of these properties to warrant refusal of the application on this basis.

### **3. The Impact On Residential Properties (Noise And Shadow Flicker)**

- 6.35 The NPPF indicates that planning decisions should aim to avoid noise giving rise to significant adverse impacts on health and quality of life. The NPPF also indicates that in determining planning applications for wind energy planning authorities should follow the approach set out in the National Policy Statement For Renewable Energy Infrastructure (read with relevant sections of the Overarching National Policy Statement For Energy Infrastructure). The aforementioned documents indicate that the impact of noise from a wind farm should be assessed using "The Assessment And Rating Of Noise From Wind Farms (ETSU-97)".
- 6.36 The recommended absolute noise levels within ETSU-R-97 cover two time periods: i) the quiet daytime period (defined as between 18.00 and 23.00 hours during the normal working week, between 13.00 and 23.00 hours on a Saturday and all day during Sunday, 07.00 to 23.00 hours); and ii) the night-time period (defined as between 23.00 and 07.00 hours). The absolute limit within ETSU-R-97( in low noise environments) lies between levels of 35 to 40 dB at LA90, 10 min day time level. The guidance in ETSU-R-97states that noise limits from wind farms should be limited to 5dB (A) above background noise levels for day/night time with the exception of low noise

environments.

- 6.37 The proposed turbine will be a NPS60 model. A noise assessment has been undertaken for the proposed development which indicates the sound levels for this type of turbine at various distances from the turbine. A background noise assessment which was undertaken for application 12/0062 has been submitted by the agent for information purposes.
- 6.38 The submitted noise information demonstrates that the noise levels at all receptors would meet the requirements of ETSU-R-97 as the noise levels at all receptors would not exceed the background noise levels. Environmental Services have been consulted on this information and have raised no objections.
- 6.39 In relation to the above the noise levels generated by the proposed turbine are deemed acceptable and would not have an adverse impact upon the occupiers of any surrounding residential properties to warrant refusal of the application. If Members are minded to approve the application it is recommended that a condition is imposed within the Decision Notice controlling noise in accordance with the guidance contained in ETSU-R-97.
- 6.40 Shadow flicker is an effect that can occur when the shadow of a moving wind turbine blade passes over a small opening briefly reducing the intensity of light within the room. It is recognised as being capable of giving rise to two potential categories of effects: health effects and amenity effects. In terms of health effects, the operating frequency of the wind turbine is relevant in determining whether or not shadow flicker can cause health effects in human beings. The proposed turbine will have an operating frequency of 50 rpm (at high wind speeds) which is significantly less than the frequency capable of giving rise to health effects.
- 6.41 Research and computer modelling on flicker effects have demonstrated that there is unlikely to be a significant impact at distances greater than ten rotor diameters from a turbine (i.e. 230 metres in this case). The companion guide to PPS22 which is still relevant in terms of flicker effect indicates that in the UK only properties within 130 degree either side of north, relative to a turbine can be affected by Flicker Effect. No none associated residential properties fall within this zone, and as such it is not considered that there will be any adverse effects on any neighbouring properties by way of shadow flicker.

#### **4. The Impact On The Setting of Hadrian's Wall World Heritage Site and Grade II Listed Buildings**

- 6.42 The proposed development is situated within the buffer zone of Hadrian's Wall World Heritage Site. English Heritage have been consulted on the proposed development and have raised no objections. It is noted that the turbine will be visible from the wall itself however this visibility will not lead to an adverse impact on the ability to comprehend and appreciate Roman military planning and land use. In such circumstances it is not considered that the proposal would have an adverse impact upon Hadrians Wall World Heritage Site.

- 6.43 The Rosehill Henry Lonsdale Nursing Home and the property associated with Stone Eden Nursery are Grade II Listed located approximately 285 metres to the south-west and 300 metres to the south-east (respectively) from the application site. The Councils Heritage Officer has been consulted on the application and has confirmed that the proposal will not have a detrimental effect on the appearance or significance of the listed buildings.
- 6.44 In such circumstances the proposal will not have an adverse impact upon the setting of Hadrian's Wall World Heritage Site or Grade II listed buildings situated close to the application site.

## **5. Air Safety: Carlisle Airport And Ministry Of Defence**

- 6.45 Following receipt of a detailed aviation assessment Carlisle Airport have confirmed no objection to the proposal.
- 6.46 The Ministry Of Defence (MOD) have also been consulted and have raised no objections subject to the imposition of a condition advising the MOD on the date of construction, maximum height of construction equipment and the latitude/longitude of the turbine.
- 6.47 In relation to the above, the proposed development is unlikely to have an adverse impact upon air safety.

## **6. Impact Upon Highway Safety**

- 6.48 The proposed turbine will be located approximately 330 metres from the A69 and 350 metres from the M6 motorway. The Highways Agency and Highways Authority have been consulted on the proposed development and have raised no objections. In such circumstances it is not considered that the proposal will have a detrimental impact upon highway safety.

## **7. Impact Upon Local Ecology And Nature Conservation**

- 6.49 When considering whether the proposal safeguards the biodiversity and ecology of the area it is recognised that Local Planning Authorities must have regard to the requirements of the EC Habitats Directive (92/43/EEC) when determining a planning application as prescribed by regulation 3 (4) of the Conservation (Natural Habitats, &c.) Regulations 1994 (as amended), and Article 16 of the Habitats Directive before planning permission is granted. Article 16 of the Directive indicates that if there is reasonable likelihood of a European protected species being present then derogation may be sought when there is no satisfactory alternative and that the proposal will not harm the favourable conservation of the protected species and their habitat. In this case, the proposal relates to the siting of a wind turbine within agricultural land. The River Eden SSSI/SAC is located approximately 640 metres to the west of site. The application includes no hedgerow removal and will be located approximately 40 metres from the nearest hedgerow.
- 6.50 Breeding birds, swan and hares have been highlighted within the vicinity. An

extended Phase 1 Habitat Survey and Bat Risk Assessment has been submitted by Marishal Thompson Group to accompany the planning application which indicates that the site has a low potential value for foraging and a negligible bat roost potential as the site has wide open fields, poor boundary hedges and a lot of new planting which is still small with canes and rabbit guards present. The survey also found that there were no specially protected schedule 1 birds/breeding habitats; no evidence of badgers using the site; and that the site had no suitable features for water vole, otters, great crested newts, reptiles or other fauna.

- 6.51 A Desk Based Bird Assessment has also been submitted. This report indicates that the hedgerows and buildings on site can be valued as providing feeding/nesting opportunities for birds and the construction of the turbine could cause disturbance to nesting birds therefore mitigation measures should be in place regarding timing of works. The report concludes that the turbine would be unlikely to impact on bird species due to absence of records of bird species regarded to be at risk from rotor collision and the habitats on site being of a reduced value for such species. The assessment also indicates that the proposal would not have an adverse impact upon wetland birds due to lack of suitable habitat within the wider area
- 6.52 The RSPB has been consulted on the application and has confirmed that they do not wish to comment on the application. Natural England have raised no objections to the proposal indicating that the proposal will not materially or significantly affect the River Eden Site of Special Scientific Interest (SSSI) or the River Eden Special Area of Conservation (SAC). Natural England have also confirmed that the proposal does not have any significant impacts upon any other protected areas of interest to Natural England or birds. Furthermore Cumbria Wildlife Trust have not raised any objections to the proposed development during the consultation period.
- 6.53 Taking into account the proposed development, its location and surroundings it is considered that there should be no significant effects from the proposal, and that there would be no harm to the favourable conservation of any protected species or their habitats. If Members are minded to approve the application it is recommended that advisory notes are imposed within the Decision Notice with regard to protected species and a condition is imposed within the Decision Notice regarding no construction works during the breeding bird season.

### **Other Matters**

- 6.54 It is appreciated that other issues can arise when considering a proposed turbine including signal interference but based on the size of the proposed turbine, the accompanying information and the turbines location, it is not considered that they are of sufficient weight to influence the outcome of the proposal. Furthermore, impact of the proposal on house prices is not a material planning consideration.
- 6.55 Members should note that whilst an objection has been raised relating to the belief that the proposal is a 'commercial venture' this is not something that

can be taken into account when assessing the application. Also, objectors have raised concerns that the approval of this application may lead to other wind energy schemes in the area, however, each application is assessed on its own merits, and it is therefore considered that this proposal would not set a precedent.

- 6.56 The proposal has been considered against the provisions of the Human Rights Act 1998. Article 8 and Article 1 Protocol 1 are relevant but, based on the foregoing; it is not considered that any personal considerations outweigh the harm created by the development.

## **Conclusion**

- 6.57 In conclusion the proposal involves the erection of a single turbine to serve the needs of Wheelbarrow Hall Farm with excess energy fed back into the national grid. The applicants agent has confirmed that the proposal will provide a significant financial saving on energy bills which in turn will support investment in agricultural use, helping to sustain the farms future growth and development.
- 6.58 National planning policy promotes targets for renewable energy and looks to Local Authorities to support proposals for renewable energy developments which do not have unacceptable impacts.
- 6.59 The benefits of the proposed development is that the turbine would produce energy from a renewable source which would help address the impacts of climate change. The landscape of Carlisle District is not immune from the effects of climate change and the landscape, in the vicinity of the proposed turbine and elsewhere, will not survive, in the future, unless the serious effects of climate change are addressed. The proposal would not have a significant impact upon air safety, listed buildings, ecology/conservation, highway safety or on occupiers of non associated neighbouring properties in terms of noise/shadow flicker.
- 6.60 The turbine would be prominent locally within the landscape providing movement at high level and would be visible from primary windows/gardens of residential dwellings within the vicinity. The proposal would not have a significant impact on the landscape type as a whole due to the presence of existing man made features within the landscape. The turbine would also not have a dominant effect on the living conditions of occupiers of residential properties due to the height of the proposal combined with the separation distances or the positioning of existing features within the landscape. On balance it is considered that the benefits of the proposed development would significantly outweigh its limited adverse impact upon the landscape/living conditions of the occupiers of neighbouring properties. Accordingly the application is considered to be compliant with the criteria of the relevant planning policies and is therefore recommended for approval subject to the imposition of relevant conditions.



## **7. Planning History**

- 7.1 The site has an extensive planning history, the most relevant is as follows:
- 7.2 In 2009 Full Planning Permission was granted for the installation of a 15m wind mast for a period of 3 months (reference 09/0191);
- 7.3 In 2012 Full Planning Permission was refused for the erection of a single wind turbine (275kW), 55m hub height, 71m to tip height and 32m rotor diameter and associated infrastructure (reference 12/0062).
- 7.4 In December 2012 (reference 12/0936) a planning application was submitted seeking Full Planning Permission for the erection of a single wind turbine (60kW), 30.1 metres hub height, 41.6 to tip height and associated infrastructure. The application was however withdrawn prior to determination.

## **8. Recommendation: Grant Permission**

1. The development shall be begun not later than the expiration of 3 years beginning with the date of the grant of this permission.

**Reason:** In accordance with the provisions of Section 91 of the Town and Country Planning Act 1990 ( as amended by Section 51 of the Planning and Compulsory Purchase Act 2004).

2. The approved documents for this Planning Permission comprise:
  1. the submitted Planning Application Form received 3rd April 2013;
  2. the Site Location Plan received 3rd April 2013 (Drawing No. WHEEL/0001 REVB);
  3. the Block Plan received 3rd April 2013 (Drawing No.WHEEL/002/REVB);
  4. the Proposed Elevations received 15th February 2013 (Drawing No.1012907);
  5. the Design and Access Statement and Planning Statement received 15th February 2013;
  6. the Landscape and Visual Impact Assessment received 15th February 2013;
  7. the Photomontage Assessment received 15th February 2013;
  8. the Desktop Bird Risk Assessment received 15th February 2013;
  9. the Extended Phase 1 Habitat Survey and Bat Risk Assessment received 15th February 2013;
  10. the Grid Connection Information received 13th March 2013;
  11. the Aviation Assessment Undertaken by Cyrrus received 15th February 2013;
  12. the Turbine Specification received 15th February 2013;
  13. the Sheet Containing Electrical Output Details received 15th February 2013;
  14. the Noise Impact Assessment undertaken by PDA Acoustic Consultants received 13th March 2013 (used for information purposes

- with regard to background noise levels);
15. the Notice of Decision; and
  16. any such variation as may subsequently be approved in writing by the Local Planning Authority.

**Reason:** To define the permission.

3. If the wind turbine hereby permitted ceases to be operational for a continuous period of twelve months the operator shall give notice in writing to the local planning authority of the end date of the twelve month period. Within six months of this end date the wind turbine and all associated infrastructure and services shall be removed from the site and the site shall be reinstated to its original condition.

**Reason:** In the interests of the visual amenity of the area and to accord with the objectives of Policies CP1 and CP8 of the Carlisle District Local Plan 2001-2016.

4. The permission hereby granted is for the wind turbine to be retained for a period of not more than 25 years. The local planning authority shall be notified in writing of the date of the commissioning of the wind turbine. By no later than the end of the 25 year period the turbine shall be de-commissioned, and it and all related above ground structures shall be removed from the site which shall be reinstated to its original condition.

**Reason:** In the interests of the visual amenity of the area and to accord with the objectives of Policies CP1 and CP8 of the Carlisle District Local Plan 2001-2016.

5. No logos, advertisements, lettering, lights or other information (other than that required for health, safety and legal reasons) shall be displayed on the turbine hereby permitted, nor shall the turbine be illuminated without the prior written approval of the local planning authority.

**Reason:** To safeguard the character of the area in accordance with Policy CP5 of the Carlisle District Local Plan 2001-2016.

6. The level of noise emissions from the turbine hereby permitted when measured in free field conditions at the boundary of the nearest noise sensitive receptor which lawfully exists or has planning permission for construction at the date of this planning permission, or measured closer to the turbine and calculated out to the receptor in accordance with a methodology previously approved in writing by the local planning authority, shall not exceed 35 dB LA90,10min up to wind speeds of 10 m/s measured at a height of 10 m above ground level at a specified location near to the turbine which has been previously approved in writing by the local planning authority.

**Reason:** To minimise any potential adverse impact on nearby occupiers and in accordance with the objectives of Policy CP8 (Criteria 4) of the Carlisle District Local Plan 2001-2016.

7. The developer shall give advance notice in writing to the Ministry of Defence (including the local planning authority) of the date construction of the turbine hereby permitted commences and ends, and shall include details about the maximum height of construction equipment, together with the blade tip height of the turbine above ground level, and the latitude and longitude of the turbine.

**Reason:** In the interests of air safety.

8. No construction works of any kind shall take place during the breeding bird season (1st March - 31st August) unless the absence of nesting birds has been established through a survey and such survey has been agreed in writing beforehand by the local planning authority.

**Reason:** To protect features of recognised nature conservation importance in accordance with Policy CP2 of the Carlisle District Local Plan 2001-2016.

---

RECEIVED  
03 APR 2013  
130115

SCANNED  
03 APR 2013



1km

— Ownership Boundary

■ Proposed Turbine Location

Wheelbarrow Farm

Site Location Plan

WHEELBARROW FARM  
OS Mastermap

28 October 2012, 10:  
00:00:00

www.centremaps.co.uk

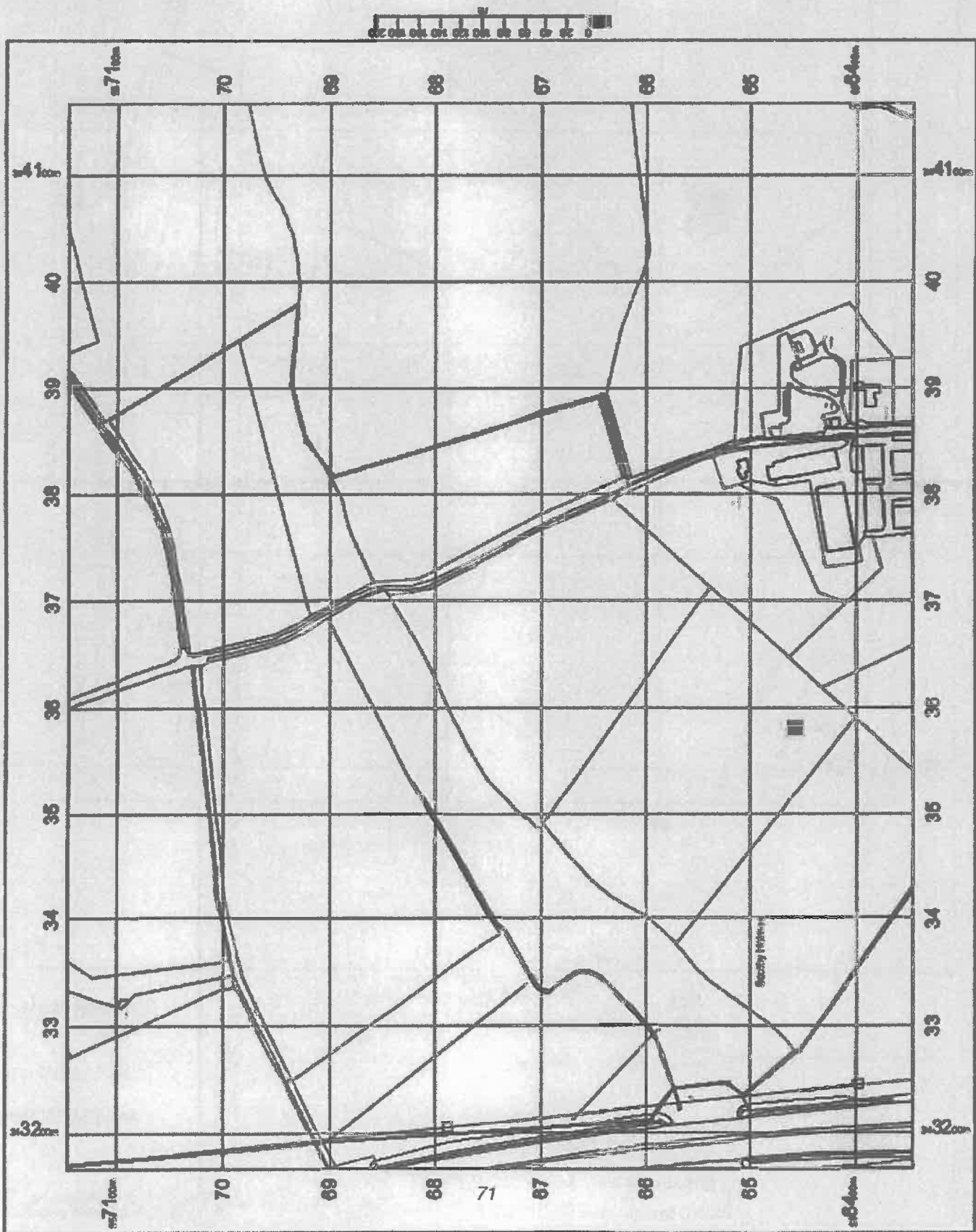
1:5000 scale print at A4, Centre:  
345877 E, 558747 N

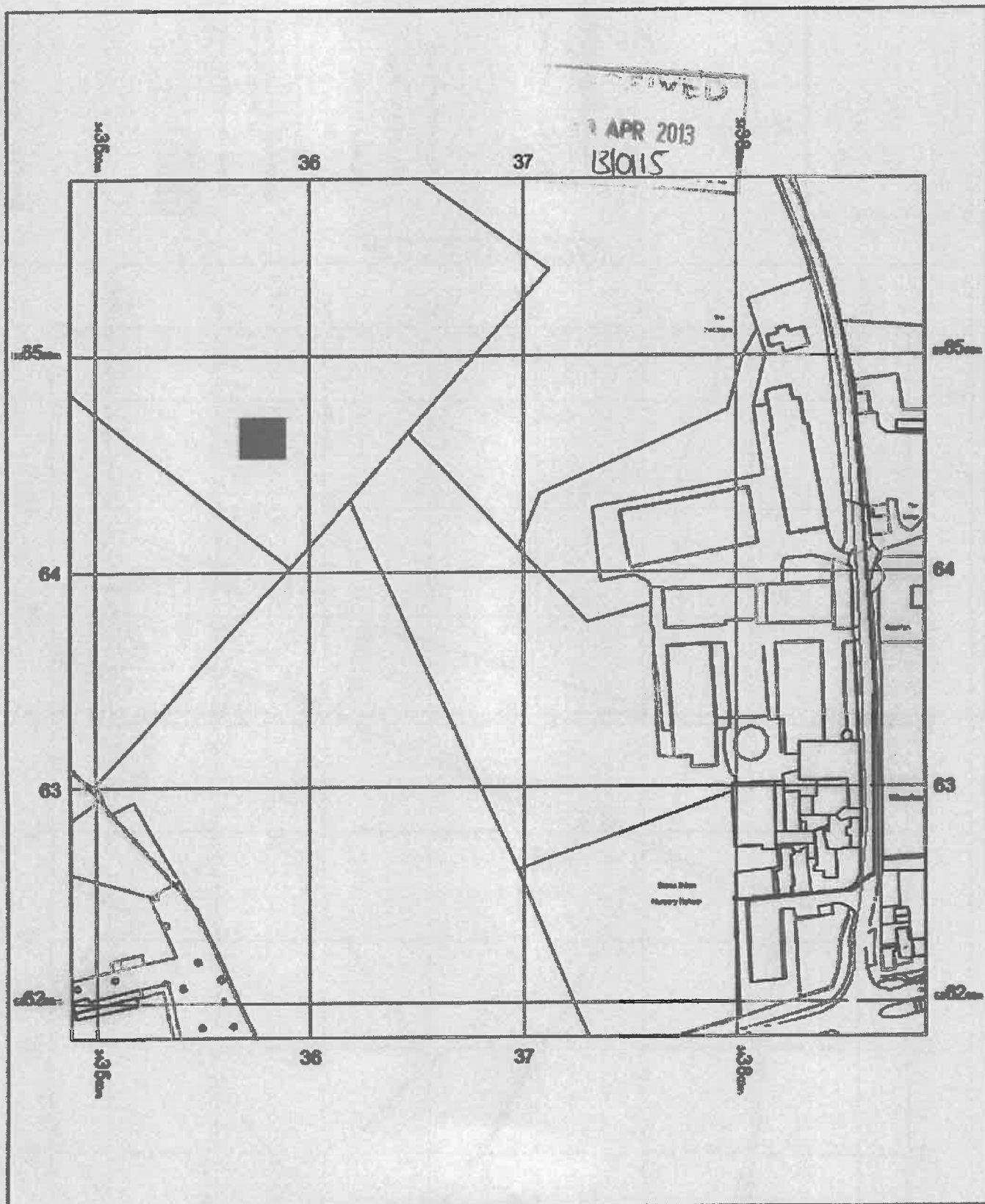
© Crown Copyright. Licence no.  
100019830

Ordnance  
Survey



CENTREMAPS/ve  
www.centremaps.co.uk





**Key**



Proposed Turbine Location



Ownership Boundary



**Wheelbarrow Farm**

**Site Block Plan**

**WHEEL/0002 REV D**

OS Mastermap  
13 February 2013, ID: CM-0007454  
[www.centremapslive.co.uk](http://www.centremapslive.co.uk)

12500 scale point at M, Centre: 343688 E, 558383 N

© Crown Copyright, Licence no. 100019080



[76]  
Ø 23.2  
ROTOR DIAMETER

[137]  
41.6  
BLADE TIP HEIGHT

TOWER SECTION 3  
WALL THICKNESS=10mm  
STEEL GRADE:  
GB Q235B (CHINA)  
Fy= 235 MPa MINIMUM  
Fu= 370-500 MPa

TOWER SECTION 2  
WALL THICKNESS=10mm  
STEEL GRADE:  
GB Q235B (CHINA)  
Fy= 235 MPa MINIMUM  
Fu= 370-500 MPa

TOWER SECTION 1  
WALL THICKNESS=10mm  
STEEL GRADE:  
GB Q345D (CHINA)  
Fy= 345 MPa MINIMUM  
Fu= 470-630 MPa

[4.00]  
Ø 1.22  
TOWER TC

[99]  
30.1  
HUB HEIGHT

[95]  
29.0  
TOWER HEIGHT

[7.33]  
Ø 2.24  
TOWER BASE

RECEIVED  
15 FEB 2013  
2013/01/15

STRUCTURAL DESIGN IS PERFORMED ACCORDING TO IEC 61400-1, EDITION 3, "WIND TURBINES - DESIGN REQUIREMENTS". EXTREME WIND CONDITIONS ARE DEFINED BY IEC WTG3 CLASS I.

TOWER TOP LOAD CALCULATION ACCORDING TO IEC 61400-1 IS SIMILAR TO THAT DESCRIBED BY SECTION 4.5 (ANALYTICAL PROCEDURE) OF ASCE 7-05. STRUCTURAL DESIGN INFORMATION USED BY NORTHERN POWER IS ACCORDING TO IEC 61400-1 AND IS PRESENTED BELOW IN A FORM CONSISTENT WITH ASCE 7-05.

CHARACTERISTIC (UNFACTORED) LOADS AT TOWER TOP ..... SEE NOTE 1

- Fy (Shear): 61.0 kN (13.7 kip)
- Fz (Weight): -60.5 kN (-13.6 kip)
- Mxy (Overturning Moment): 47.1 kN-m (34.7 kip-ft)
- Mz (Torsional Moment): 7.0 kN-m (5.2 kip-ft)

CHARACTERISTIC (UNFACTORED) LOADS AT TOWER BASE ..... SEE NOTE 2

- Fy (Shear): 110.7 kN (24.9 kip)
- Fz (Weight): -201.5 kN (-45.5 kip)
- Mxy (Overturning Moment): 2548.4 kN-m (1872.4 kip-ft)
- Mz (Torsional Moment): 7.0 kN-m (5.2 kip-ft)
- Mx (Maximum Torsional Moment): 46.3 kN-m (34.1 kip-ft)

BASIC WIND SPEED, V = 47.8 m/s (107 mph) ..... SEE NOTE 3

AIR DENSITY,  $\rho = 1.225 \text{ kg/m}^3$  (0.00241 lb/ft<sup>3</sup>) ..... SEE NOTE 4

IMPORTANCE FACTOR, I = 1.0 ..... SEE NOTE 5

WIND DIRECTIONALITY FACTOR, Kd = 1.0 ..... SEE NOTE 6

TOWER HEIGHT, h = 29.0 m (95 ft) ..... SEE NOTE 7

TOPOGRAPHIC FACTOR, Kz = 1.0 ..... SEE NOTE 8

GUST EFFECT FACTOR, G = 1.0 ..... SEE NOTE 9

TOWER FORCE COEFFICIENT, Cf = 0.6

FOUNDATION STIFFNESS REQUIREMENTS ..... SEE NOTE 10

- LATERAL FOUNDATION STIFFNESS,  $K_{xy} = 2 \times 10^6 \text{ N/m}$  MINIMUM
- ROTATIONAL FOUNDATION STIFFNESS,  $K_{\theta} = 2.1 \times 10^6 \text{ N-m/rad}$  MINIMUM

#### NOTES

1. TOWER TOP LOADS PROVIDED INCLUDE EFFECTS OF THE WIND ON THE BLADES AND NACELLE. NORTHERN POWER USED A LOAD FACTOR OF 1.35 FOR ALL AERODYNAMIC LOADS ON THE STRUCTURE ACCORDING TO IEC 61400-1.
2. TOWER BASE LOADS PROVIDED INCLUDE EFFECTS OF THE WIND ON THE BLADES, NACELLE, AND TOWER. NORTHERN POWER USED A LOAD FACTOR OF 1.35 (NOT INCLUDED ABOVE) FOR ALL AERODYNAMIC LOADS ON THE STRUCTURE ACCORDING TO IEC 61400-1. "MAX" AND "MIN" MAXIMUMS ARE DERIVED FROM DIFFERENT LOAD CASES. NOTE THAT "MAXIMUM" DOES NOT OCCUR DURING THE 30-YEAR EXTREME GUST LOAD CASE, BUT MAY BE CONSERVATIVELY ASSUMED IN LOAD COMBINATION FOR PURPOSES OF FOUNDATION DESIGN.
3. BASIC WIND SPEED IS AT h=10m (33 ft). THIS VALUE IS DERIVED FROM THE EXTREME WIND SPEED AT HUB HEIGHT ACCORDING TO IEC 61400-1,  $V_{e30} = 54 \text{ m/s}$  (121 mph), USING A POWER LAW EXPONENT CONSISTENT WITH EXPOSURE C.
4. RANDOM AIR DENSITY IS NOT EXPLICITLY IDENTIFIED IN SECTION 4.5 OF ASCE 7-05. IT IS IMPLICIT IN THE WIND PRESSURE CALCULATION, EQUATION 6-15.
5. A DIRECTIONALITY FACTOR IS NOT USED BY NORTHERN POWER.
6. EFFECTS OF LOCAL TOPOGRAPHY ON THE WIND ARE NOT ACCOUNTED FOR IN THIS CALCULATION. THEY MUST BE CONSIDERED DURING PROJECT PLANNING AND SITE REVIEW.
7. THE TOWER LOADS ARE PREDICTED USING A COMPLETE AERO-ELASTIC SIMULATION WHICH ACCOUNTS FOR DYNAMIC INTERACTIONS OF THE STRUCTURE AND THE APPLIED LOADS. AN ADDITIONAL GUST EFFECT FACTOR (E.G. ACCORDING TO SECTION 6.5.8 OF ASCE 7-05) IS THEREFORE NOT USED BY NORTHERN POWER.
8. SEISMIC ACTIONS ARE NOT ACCOUNTED FOR IN THIS CALCULATION, THOUGH TYPICALLY NON-GOVERNING, THEY MUST BE CONSIDERED DURING PROJECT PLANNING AND SITE REVIEW.
9. THE VALUES STATED IN METRIC OR UNITS SHALL BE REGARDED AS THE STANDARD. THE INCH-POUND (IP) UNITS SHOWN IN PARENTHESES SHALL BE FOR REFERENCE ONLY.
10. NORTHERN POWER IS CONTINUALLY DEVELOPING PRODUCT UPGRADES, MODIFICATIONS, AND IMPROVEMENTS, AND AS A RESULT RESERVES THE RIGHT TO CHANGE OR ALTER THESE SPECIFICATIONS AT ANY TIME. REFER TO DOCUMENT A05415 "NPS 60-23 GENERAL SPECIFICATION" AND DOCUMENT A06267 "NPS 60-23 APPLICATION REQUIREMENTS" FOR FURTHER INFORMATION.

NPS 60-23-30  
STRUCTURAL LOADS AND GEOMETRY  
ROTOR DIAMETER: 23m  
HUB HEIGHT: 30m  
SCALE 1: 200  
WHEN PRINTED ON ISO A4  
ALL DIMENSIONS IN METERS AND (FEET)

COPYRIGHT 2012 NORTHERN POWER SYSTEMS

73

REV	DESCRIPTION	DATE	ENG	CHK	APP
D	RELEASE FOR CUSTOMER USE ECR-004, ECR-007, ECR-111	4/29/2012	CBC	NMS	DPC
E	RELEASE FOR BID/QUOTE	4/9/2012	NMS	CBC	DPC
C	RELEASE FOR BID/QUOTE	3/25/2012	NMS	DPC	CAM
A	DR. PAPER FOR SUBMITTAL	1/24/2012	NMS	CBC	CAM

DRAWING NUMBER: 1012707 REVISION: E SHEET: 2 OF 2



Northern  
POWER SYSTEMS

29 Pitman Road  
Barn, VT 05441 USA  
www.northernpower.co

This drawing and specifications contained herein is proprietary confidential to Northern Power and is loaned to licensee for construction, fabrication and/or erection of requirements only and is to be surrendered upon request or completion of services and may not be reproduced or transferred to other documents or systems without the written consent of Northern Power Systems.