Agenda Item	Committee Date		Application Number
A6	27 July 2009		09/00155/FUL
Application Site		Proposal	
Fanny House Farm, Oxcliffe Road, Heaton-with- Oxcliffe, Morecambe, Lancs		Erection of two wind turbines and associated works including switch room, cable routing and trenches, site access and tracks, new access from A683, hard standing area and contractors' compound	
Name of Applicant		Name of Agent	
British Telecom PLC		Dalton Warner Davis LLP	
		12 Garlick Hill. London EC4Y 5BT	
Decision Target Date		Reason For Delay	
25 May 2009		Awaiting additional information from consultees and the applicants	
Case Officer		Peter Rivet	
Departure		No	
Summary of Recommendation		Refusal	

### <u>1.0</u> <u>The Site and its Surroundings</u>

- 1.1 This land is to the south east of Heysham, immediately to the north of the A683 Heysham link road. Part of it is occupied by a telecommunications tower owned by British Telecom. The immediate area is generally flat, but the southern part of Heysham occupies a ridge overlooking the site.
- 1.2 The land is crossed by three high voltage power lines from the Heysham Nuclear Power Stations in the direction of the White Lund and the south side of Lancaster. The site itself is not subject to any special designations, but the Heysham Moss SSSI lies between it and the Morecambe Heysham branch railway line.

# 2.0 The Proposal

- 2.1 It is proposed to erect two three bladed wind turbines on the site, and construct an access track to it off the main road. A small building is also required to accommodate the associated switchgear.
- 2.2 The plans as submitted indicated columns supporting the turbines would be 100m high and the three blades would be 41 metres long, so the maximum height of the structure, with one blade in a vertical position, would be 141 metres. Following discussions the applicants have agreed to reduce the height of the columns by approximately one third to 69 metres. This means that the maximum height of the structure would be 110 metres. The nearest dwellings, in Longmeadow Lane, would be approximately 500m away (part of the applicants' assessment gives this distance as 470 metres).
- 2.3 Each of the turbines would have a generating capacity of between 2 and 2.5MW. The wind farm is expected to have a life of 25 years.

- 2.4 Supporting information states that British Telecom is a major energy user in the UK, and uses 0.7% of the total national electricity demand. The company is committed to reducing its carbon footprint and one way of doing this is to develop wind energy projects on sites within its control. This is intended to be one of a series of wind farm projects.
- 2.5 The application is accompanied by a lengthy Environmental Impact Assessment (EIA) which addresses the issues associated with the development under a series of different headings:
  - Landscape
  - Ecology (habitats and protected species)
  - Ecology (ornithology)
  - Water and Geology
  - Noise
  - Traffic and transport
  - Archaeology and the historic environment
  - Geology, hydrogeology and hydrology
  - Shadow flicker
  - Social and economic impact
  - Air quality.
- 2.6 Their consultants have also provided what can best be described as an album of viewpoints of the site to illustrate the impact of the proposals on its surroundings. Because of their size the wind turbines would be visible in the distance over a wide area, as far away as Barrow and Fleetwood; but their real impact is on the immediate area, which includes the new housing at Heysham Mossgate. Part of this is only 0.5 km from the site.
- 2.7 One issue which is not specifically covered in the EIA is the relationship of the turbines, particularly the western one, with the nearby high voltage power line. This matter has been raised by several of the letters received from local people and has been referred to the applicants' agents. Their response is that the separation distance required is the maximum height measured from ground level to the tip of the blade (in this case 110 metres) plus a 4 metre separation distance. As the western turbine is 151 metres from the power line, it meets the required safety standard. They argue that the risk of turbine failure is very low, as there have been only a few examples worldwide, and that with increased experience of this type of equipment the probability of this happening is reduced. It is recognised that appropriate safety procedures will have to be followed with cranes used to put the turbines in place.

### 3.0 Site History

3.1 British Telecom have already assessed the potential of the site for wind generation by erecting an anemometer mast, which was granted a three year temporary consent in 2008. An earlier proposal for a second communications tower on part of the site was refused consent.

Application Number	Proposal	Decision
02/01501/PAM	Prior approval for a 15m telecommunications tower with 3 antennae, 4 dishes and an associated equipment cabin.	Refusal
07/01790/FUL	Erection of a 60m high anemometer mast	Approval

### 4.0 Consultation Responses

# 4.1 The following responses have been received from consultees:

Consultees	Response
Heysham Neighbourhood Council	Object to the application. The site is close to housing and the Heysham Moss SSSI. They are concerned about noise problems, loss of television signals and the safety of the turbines, and draw attention to the possible impact of the development on the ecology of the area. Following a public meeting organised by them, a letter has been

	sent by County Councillor Jean Yates objecting to the development on these grounds.
Heaton-with-Oxcliffe	No observations received.
Parish Council	
Middleton	No observations received.
Parish Council	
Lancashire County Council Planning	<b>Archaeology Unit</b> - A desktop assessment has concluded that there is medium to high potential for prehistoric activity on the site. They agree with this assessment. A condition should therefore be attached to any consent requiring the implementation of a programme of archaeological work.
	<b>Ecology Unit</b> - Are very critical of the content of the ecological assessment provided with the application. Consider that it provides insufficient information on the impact of the development on the nearby SSSI and the Biological Heritage Site. Further material is needed to cover the possible impact on protected species: great crested newts, bats, water voles, common toads and over-wintering and breeding birds. A survey to establish whether great crested newts are present on the site is needed. If consent is granted, a programme of mitigation measures is called for. These can be secured through planning conditions and/or a section 106 agreement. Other conditions are recommended to control details of the work carried out. Suggest that construction work should be timed to begin in the spring to minimise disturbance to birds. They also have concerns about the impact of any lighting on the site.
Lancashire County Council highways	The applicants have had some preliminary discussions about the proposal. However initially they did not provide a detailed Transport Statement dealing with the temporary junction on the A683 while construction is under way. This has now been submitted - further observations to follow.
Environmental Health	A paper referred to by some of the objectors is described as a "scientific assessment" but in fact it is clearly prepared as part of a package of anti-wind farm material. Many of the comments received from objectors refer to noise levels "close to" turbines. The technology has changed considerably in recent years; the newest ones are larger and therefore slower turning. On a recent visit to Caton Moor, when the turbines there were turning at 19rpm, a significant amount of noise was audible within 200m but the level 500m away was very low and unlikely to be an issue.
Environment Agency	Although the site is within Flood Zone 3 the application is supported by a Flood Risk Assessment and they have no objections to the development. However, a site check should be carried out by an ecologist to determine whether water voles are present as the habitat is suitable for them. Surface water drainage should be provided using a sustainable urban drainage system.
Natural England	Observations still awaited.
National Grid	No observations received.
Ministry of Defence	Object to the proposal. The turbines will be 33km from their radar installation at Warton (Preston); they will be within its line of sight, and will cause unacceptable interference to it. Following trials carried out in 2005, it has been concluded that wind turbines can affect the probability of detection of aircraft flying over or in the vicinity of wind turbines.
Civil Aviation	
	No observations received at the time this report was prepared.

# 5.0 Neighbour Representations

- 5.1 In total 111 letters and emails have been received from residents of Heysham and adjoining areas in response to publicity about the application, objecting to the proposal on the following grounds:
  - Inappropriate location close to a large housing estate
  - Detrimental to the wildlife of the area (bats, ducks, geese)
  - Wind turbines are inefficient, as the Caton Moor ones only operate for 30% of the time
  - Disturbance/health impacts from shadow flicker associated with the turbines
  - Possible noise problems
  - Possible interference with TV signals
  - Hazard for low flying aircraft
  - Distraction to drivers of vehicles on the Heysham bypass

- Loss of outlook/view
- Site has been chosen because of BT's existing involvement rather than because it is suitable for the purpose
- Possible health problems
- Wind turbines should be located offshore instead
- Loss of property value (this is not a planning consideration)
- 5.2 Geraldine Smith MP has written in support of her constituents' objections, on the basis that the turbines are likely to give rise to noise problems, particularly in the Longmeadow lane and Windermere Park areas. She is also concerned about the possible impact of the proposal on the nearby Heysham Moss SSSI.
- 5.3 The Campaign to Protect Rural England objects to the proposal. They say that they are not opposed to wind turbines as such, but regard this site as unsuitable because of its proximity to the SSSI and to Heysham.
- 5.4 The Wildlife Trust for Lancashire, Manchester and North Merseyside objects to the application. They are concerned about the hydrology of Heysham Moss, and the population of pink footed geese which frequents the area. They are concerned that insufficient commitment has been shown to necessary mitigation measures. If permission is granted, they wish to see conditions requiring that construction work should avoid the bird breeding season, that local lighting should not increase, and that the water quality if the land drainage should be monitored.
- 5.5 The Royal Society for the Protection of Birds has had meetings on the site with the applicants. They note that the area is frequented by Pink Footed Geese. They are satisfied that collision risk is not a significant issue but they believe that the birds' flight pattern is likely to be dispersed. They are concerned about the impact of the cabling and other works associated with the development on the Biological Heritage site but consider that it should be possible to mitigate their impact.
- 5.6 Seven representations have been received in support of the proposal, on the grounds that using wind power for electricity generation is very important both locally and nationally. One of them points out that the immediate area is already bisected by three high voltage power lines, and that the site is close to a busy road which is capable of producing much more noise than a turbine. Another argues that the possible disturbance to pink footed geese has been overstated and that the area is already well used by dog walkers, motorcyclists and farm workers on tractors.

### 6.0 Principal Development Plan Policies

- 6.1 National policy on wind farms is set out in PPS22 (Planning Policy Statement 22: Renewable Energy) which was published in 2004. Its starting point is the government's objective of generating 10% of UK electricity from renewable sources by 2010. While this target is now unlikely to be met within the intended timescale, it remains an aspiration. It requires both Regional; Spatial Strategies and local development documents to contain policies designed to promote and encourage, rather than restrict, the development of renewable energy resources.
- 6.2 The Regional Spatial Strategy for the North West refers to the Action Plan which forms part of the Regional Economic strategy. This "aims to stimulate and measure the progress of the region towards a low carbon economy, preparing it for the challenges of a changing climate and future energy demands. Whilst protecting and enhancing our quality of life and rich environment".
- 6.3 Policy ER7 of the Core Strategy states that the Council will promote renewable energy in the District by, among other things, "promoting South Heysham as a key focus for renewable energy generation including wind and biomass technology and promoting areas with renewable energy potential".
- 6.4 Of the "saved" policies in the Lancaster District Local Plan, E4 is relevant as it deals with development within areas identified as Countryside. It states that development will only be permitted where it is in scale and in keeping with the character and natural beauty of the landscape, appropriate to its surroundings in terms of siting, scale, design, materials, external appearance and landscaping; would not result in a significant adverse effect on nature conservation or geological interests; and makes appropriate arrangements for access. Policy E22, a "partly superseded" policy, indicates that proposals for wind farms will be assessed against their impact on the character of the landscape, nature conservation interests, and nearby dwellings including the possible effect of

electromagnetic disturbance. Part of the site is within a County Council Biological Heritage Site so policy E17 is also relevant. This states that development likely to damage or destroy such a site will not be permitted, unless the need for the development demonstrably outweighs the need to protect the site. As the site is close to the Heysham Moss SSSI account has also to be taken of its impact on it; this is covered by policy E16.

- 6.5 The Lancaster Sustainable Community Strategy 2008-2011 states in its Environment section that one of its objectives (Priority 2) is to "Protect and improve air, water and land quality and use resources sustainably with due regard to the interests of the wider community and the environment".
- 6.6 In 2005 Lancashire County Council commissioned a report from Lovejoy Associates, on <u>Landscape</u> <u>Sensitivity to Wind Energy Developments in Lancashire</u>. This identifies the application site as coming within an area of low sensitivity. For the purposes of determining the application, the report's conclusions do not have any standing as statutory policies, but they are still a material consideration.

### 7.0 Comment and Analysis

- 7.1 This is, by any standards, a major proposal. Only two turbines are proposed as part of the development, and the applicants' landholding does not offer scope for more. However one enquiry has already been received about the provision of more, by another developer, on land to the south of the A683 road. Whatever decision is reached here could be regarded as setting a precedent for further wind energy development in the area.
- 7.2 As noted above the City Council has a commitment to the promotion of renewable energy and the southern end of Heysham is specifically identified as a suitable area for this. Because of the existing network of high voltage power lines, the site is exceptionally well sited for a connection to the National Grid. The 4 5 MW generating potential of the proposal has to be seen in context; it is very small compared with that of the nearby nuclear power stations (Heysham 1 can produce 1150 MW, and Heysham 2 1250 MW). Nonetheless it is capable of making a useful contribution to national and local energy needs from renewable sources.
- 7.3 The key issues to be addressed in determining the application are:
  - The impact of the development on the landscape,
  - Possible noise problems
  - The possible impact of "shadow flicker"
  - The effect of the proposal on the ecology and wildlife of the area
  - The benefits to the community in terms of meeting energy demands
  - The interests of the Ministry of Defence and the Civil Aviation Authority

### 7.4 THE IMPACT ON THE LANDSCAPE

The surrounding does not have any features that merit special protection. There is an argument that the public interest is served better by siting an installation of this kind here, close to existing electricity generating infrastructure, rather than where it would impact on the high quality landscape of the Lune Valley. Nonetheless all landscape is important to the people who live there. The impact of the present proposal on views from the houses to the west of the site, at Heysham Mossgate, would be considerable. Its scale is such that no landscaping scheme would have any effect. The concerns expressed by people living in this area come as no surprise.

The size of turbines proposed is very large by the standards of the industry. As previously indicated the columns would have a height of 69m and the rotor blades would be 41m long, giving a maximum height of 110m metres. By way of comparison, the comparable figures for the second generation turbines on Caton Moor are 55m and 35m, giving a maximum height of 90m. To give some indication of what this represents, Blackpool Tower is 158m high.

According to the measurements given in part of the applicants' assessment, There are few examples in the UK of wind farms as close as 500m from housing areas, though a similar installation has been approved on the edge of Sheerness in Kent. Closer to Heysham, there is a comparable group of three large size turbines at Holmside, near Stanley in Co. Durham. The nearest housing to this is at South Stanley, a 1920s housing estate on a south facing slope facing towards one of the turbines.

The provision of two large wind turbines on this site may be seen as a statement of the City Council's commitment to renewable energy as well as British Telecom's but this has to be balanced against the visual impact of the proposal on the surrounding area, not only that of the residential area closest to the site.

#### 7.5 POSSIBLE NOISE PROBLEMS

The applicants' supporting statement claims that nose levels from the turbines, when measured from the nearest houses, are unlikely to be an issue. Because of its closeness to houses the noise issue is of greater significance than it is with an isolated rural site such as Caton Moor, but it must be remembered that background noise levels in an urban area - even a relatively quiet one - will be significantly higher than in open countryside.

Evidence from other wind farms indicates that complaints usually follow a malfunction of some kind. A condition is therefore desirable to ensure that the turbines are equipped with a cut-off mechanism to ensure that they will cease to turn if they are not working properly. The applicants are willing to agree to this.

#### 7.6 THE POSSIBLE IMPACT OF SHADOW FLICKER

Shadow flicker is a phenomenon experienced from the impact of sunlight on the rotating blades of a turbine. It can be experienced by people living nearby if a wind turbine is close enough to and of a specific orientation with, a nearby house. It will not occur where there is vegetation or some other obstruction between the turbines and the house; if windows facing a turbine are fitted with blinds or shutters; or if the sun is not shining brightly enough to cause shadows from a turbine. It can also be a problem for the drivers of vehicles along nearby roads. Shadow flicker is not just irritating. For a small number of people, it can trigger epileptic attacks.

The relationship of the two turbines to the housing to the north west of the site gives rise to concerns about the phenomenon. Clearly at certain times of the year, the morning sun will be low in the sky and will be visible behind them, even if allowance is made for the shielding effect of the hills to the east of Lancaster.

The assessment concludes that the potential for shadow flicker from this development is low, and that in most cases intervening buildings and vegetation will effectively limit its impact.

The information on this issue provided with the application is not as comprehensive as might be expected on this issue. Despite this, shadow flicker is associated with the sun being in a particular position in relation to the turbines, so it is possible to predict accurately on which days and at which times it will occur. The normal solution is to impose a condition requiring that the turbines are switched off during these times.

### 7.7 THE IMPACT ON THE ECOLOGY AND WILDLIFE OF THE AREA

The development will not directly affect the Heysham Mossgate SSSI but it will, quite clearly, impact on part of the Biological Heritage Site. The turbines will affect the paths of migrating birds, but not to the extent that alternative routes will not be available for them.

There is at present some uncertainty as to the impact of the development, if any, on bats. British Telecom have indicated that they are researching this issue further. However the additional survey information is not yet available.

Issues with the impact of the development at ground level can be addressed by appropriate mitigation measures. The applicants are clearly willing to undertake these. At present, an appropriate site for such measures has not been identified but there is no reason to believe that one cannot be identified; and in these circumstances the issue can be addressed by means of an appropriately worded condition.

The County Council's Ecology Unit have suggested that construction work should be timed to start in the spring so as to minimise the disturbance to wildlife on the site. This can be covered by a suitably worded condition.

So far as lighting is concerned, it would be very unusual to find this on a wind farm site as in the normal course of events there would be no reason for maintenance staff to visit after dark. The requirement suggested by the Environmental Health Service that a mechanism should be installed to ensure that the rotors cease to operate in the event of a mechanical failure should be sufficient to make it unnecessary.

### 7.8 BENEFITS TO THE COMMUNITY IN TERMS OF MEETING ENERGY DEMANDS

Objectors to wind farms argue that their contribution to electricity generating capacity is small; that they contribute nothing when there is no wind; that they are expensive and depend on subsidy to be viable; and they have a damaging effect on the landscape.

The first two of these assertions are undoubtedly true. So far as cost is concerned, it is true that wind energy benefits from a subsidy but it has the attraction that the infrastructure is relatively quick and simple to install. The last of these arguments involves a value judgement, and has to be balanced against the quality of the landscape affected.

Despite this wind energy can make a significant contribution to the national need for renewable energy, which as existing power stations reach the end of their working life is increasingly urgent. It is relatively quick and easy to install and makes use of a major energy resource, without increasing CO2 emissions, and a wind turbine can be removed relatively easily when it is no longer needed.

### 7.9 THE INTERESTS OF THE MINISTRY OF DEFENCE AND THE CIVIL AVIATION AUTHORITY

The Ministry of Defence are not a statutory consultee for this kind of application but it is required of the applicants that they should submit the proposal to them for clearance. The Ministry requires precise heights of the installation in order to comment and they make the point that any changes need to be notified to them. The consultation sent by the City Council refers to the reduced height of the columns, as negotiated with the City Council's Planning Service

The applicants have not, in this case, been able to obtain the necessary clearance. It is evident from the letter received from Defence Estates that they have serious concerns about the impact of the proposal on the radar system associated with the British Aerospace site at Warton. This site is used for building and testing aircraft so its safe and effective operation is of critical importance.

#### 7.10 OTHER MATTERS TO BE CONSIDERED

Other issues raised by objectors include television interference and hazards to low flying aircraft. It is considered that these have been adequately addressed in the applicants' initial submission.

### 8.0 Conclusions

- 8.1 All forms of energy generation have an impact on the landscape. Coal, which until recently provided the vast majority of the UK's electricity, has arguably the greatest impact of all. One important feature of wind energy is that its effects are short term ones. When a wind turbine reaches the end of its life, it can easily be taken away. All that will be left is a concrete base which can if need be also be removed, leaving nothing behind. The same cannot be said of the nearby nuclear power stations, which sterilise the land occupied by them for the foreseeable future.
- 8.2 However, it is clear from the comments received from the Ministry of Defence that they do not consider that the wind turbines as proposed are compatible with the needs of their radar system. At the same time there are some outstanding ecological issues which need to be addressed.
- 8.3 The applicants have asked for more time in order to overcome this problem, but as things stand there is no indication that an accommodation can be reached. In the circumstances the proposal cannot be recommended for approval.

### **Recommendation**

That Planning Permission **BE REFUSED** for the following reasons:

- 1. Contrary to national interest in that wind turbines in position shown would interfere with radar tracking of aircraft from Warton.
- 2. Insufficient information to show that wildlife interests of site will be safeguarded.

## Human Rights Act

This recommendation has been reached after consideration of the provisions of the Human Rights Act. Unless otherwise stated in this report, the issues arising do not appear to be of such magnitude to override the responsibility of the City Council to regulate land use for the benefit of the community as a whole, in accordance with national law.

### **Background Papers**

1. None.