

SOUTH CAMBRIDGESHIRE DISTRICT COUNCIL

REPORT TO: Planning Committee

6th June 2007

AUTHOR/S: Executive Director / Corporate Manager - Planning and Sustainable Communities

S/1018/06/F – WEST WRATTING

Wind Farm Comprising 13 Wind Turbines, Transformers, Tracks, Hardstandings, Control Building, Substation, Permanent Anemometer Mast, Off-Highway Modifications, Temporary Construction Compound and Two Temporary Anemometer Masts at Wadlow Farm for RES Development Ltd

Recommendation: Refusal

Date for Determination: 16th August 2006 (Major Application)

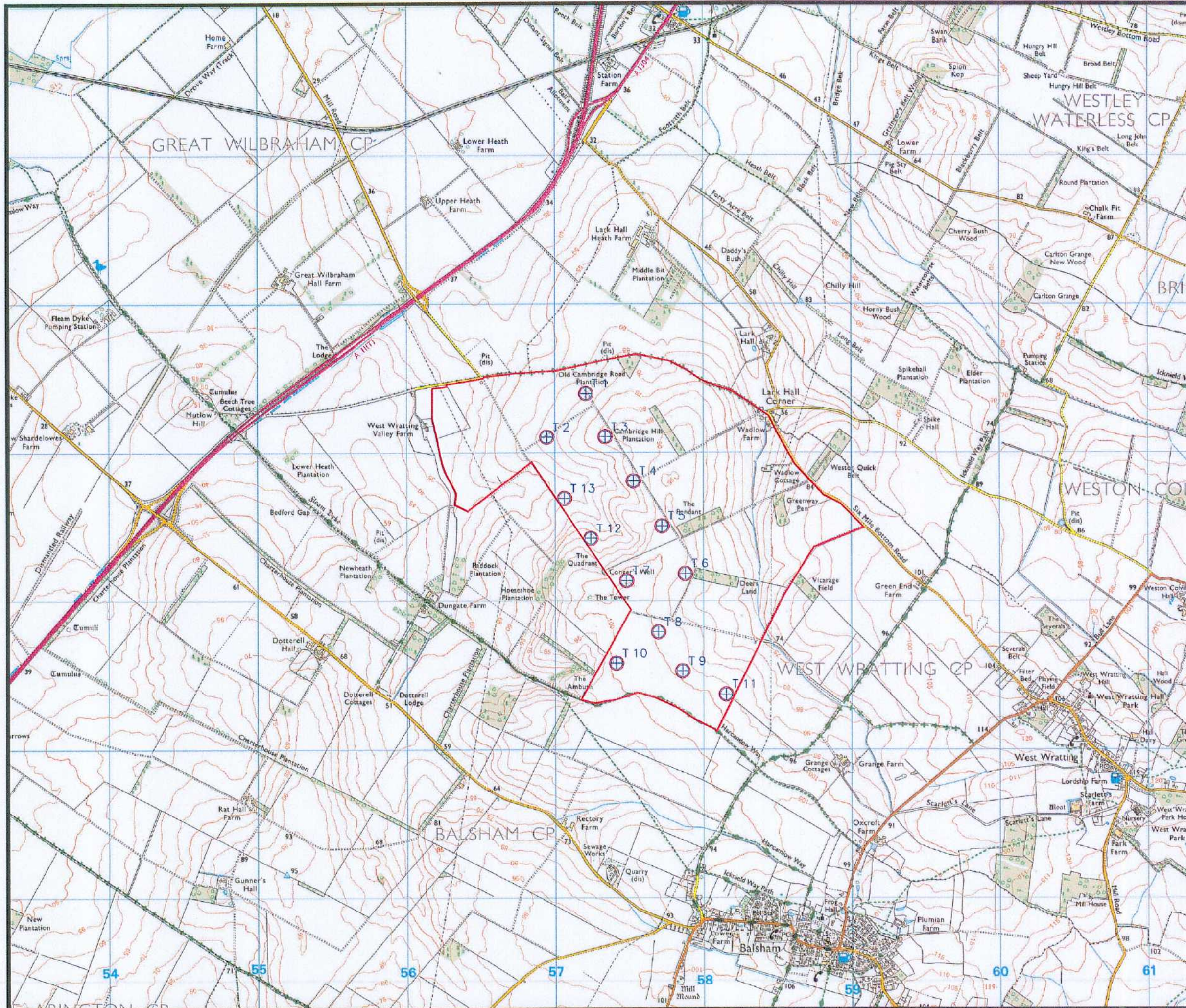
Notes:

This Application has been reported to the Planning Committee as the recommendation of Refusal does not substantially satisfy all the representations received and because the application is of wide interest and significance.

Members will visit this site on Monday 4th June.

Site and Proposal

1. The site, which extends to some 367 hectares (according to the application form), is an area of elevated and sloping agricultural land varying in height from approximately 35m high to 105m high. The proposed turbines themselves would stand on parts of the site between 55-60m high and 105m high. The site is located adjacent to Fleam Dyke, a Scheduled Ancient Monument and Site of Special Scientific Interest (SSSI) to the south and there are 6 other SSSIs over 2km but within 5km of the site (*Planning Statement para 2.5*). The site is bounded to the north and south by a public byway and a public footpath respectively. The closest points of the village frameworks of the nearest villages, Balsham and West Wratting, lie approximately 95m (Fox Road) and 110m (The Rookery, Balsham) and 150m (Six Mile Bottom Road, West Wratting) respectively to the southeast of the site and approximately 120m and 135m (Fox Road and The Rookery, Balsham) and 195m respectively from the nearest turbine (T.11). The nearest dwellings are a minimum of 800m from the turbines. The A11 runs northeast to southwest to the northwest of the site. To the west is a high voltage overhead line on pylons approximately 50m in height.
2. This full application, registered on the 17th May 2006 and amended by Flood Risk Assessment dated 25th September 2006 and additional information date stamped 29th November 2006, proposes a wind farm comprising 13no. three bladed wind turbines measuring up to 120m high to tip of blade and up to 80m high to top of nacelle/tower, transformers for each turbine, 5m wide tracks (50% of which would run along existing farm tracks), hardstandings, a 20m x 6m x 5.5m high pitched roof control building, a substation, a permanent 80m high anemometer mast, off-site highway modifications, a 65m x 40m temporary construction compound and 2no. up to 80m high temporary anemometer masts. One of the two temporary masts would be installed for 6 months at the start of the construction phase in the position that



WADLOW FARM WIND FARM

FIGURE 4.1



TURBINE LAYOUT WITH SITE BOUNDARY

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TURBINE COORDINATES

ID	Easting	Northing
T1	557209	254397
T2	556946	254104
T3	557339	254106
T4	557529	253809
T5	557720	253508
T6	557877	253186
T7	557483	253140
T8	557696	252792
T9	557858	252529
T10	557413	252582
T11	558151	252373
T12	557241	253424
T13	557065	253691

Key

-  Site Boundary
-  Wind Turbine with 50m
micrositing area (in red)

17 MAY 2006



LAYOUT DWG 01464D0001-09 T-LAYOUT NO. PENGwad014

DRAWING NUMBER
01464D0901-03

SCALE - 1:25,000@A3

**ENVIRONMENTAL STATEMENT
2006**

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turbine 10 would subsequently be installed. The other temporary mast would be installed upwind of this location, some 200m to the southeast, and would be up for 18 months.

3. The turbines would be connected to the proposed sub-station by underground cabling and then by underground cabling to the grid by the existing 33kV line that passes through Greenway Pen Wood within the site. No additional pylons would be required.
4. With the exception of the actual footprints of the towers, buildings and the access tracks (approximately 4 hectares in total/approximately 1% of the site area), the site would continue to be farmed (Planning Statement para 6.3.10).
5. The expected operational life of the wind farm is twenty five years from the date of commissioning. At the end of this period, the application states that a decision would be made as to whether to refurbish, remove or replace the turbines. If the decision is to decommission them, the applicant company confirms that it is committed to above ground reinstatement following decommissioning.
6. The turbines would be delivered to the site from the port at Felixstowe via the A14 and A11. The proposed off-site highway modifications involve two options for over-run areas at the end of the slip road on the southwest bound of the A11 at the Wilbrahams junction and a 1m wide haunch to be constructed along the road between the Wilbrahams junction and the site.
7. During the 12 month construction period, there would be a temporary workforce of between 20 and 60 people.
8. As the applicant states that the wind turbine industry is evolving at a remarkable rate, the application does not specify a particular model of turbine that would be erected but does make it clear that the turbines would be no more than 120m high. For visual and acoustic purposes, the Environmental Statement (ES) is based upon turbines of 1.65-2.3MW nominal capacity. The positions of the turbines are shown on the submitted drawings but the application also seeks permission to deviate from these positions by up to 50m to take account of ground conditions which would only become apparent as trial pits are dug at the start of construction and to mitigate any potential environmental effects e.g. the avoidance of archaeological features not apparent from records or visual assessment.
9. The external materials, including the colour and finish of the turbines (although the applicants consider a pale grey semi-matt finish is likely), are to be agreed.
10. The application is accompanied by a Planning Statement and an Environmental Statement (ES). The ES includes chapters on: Renewable Energy and Local Policies; Site Selection and Public Consultation; Project Description; Landscape and Visual Impact Assessment; Ecological Assessment; Cultural Heritage Assessment; Hydrology and Hydrogeology; Acoustic Impact Assessment; Transport and Access; Electromagnetic Interference; and Socio-Economic Assessment.
11. The planning statement states that: based on 2.3 MW capacity turbines, the wind farm would produce sufficient electrical energy to satisfy the average requirements of over 16,700 homes, equivalent to about 32% of the annual consumption of all houses in South Cambridgeshire; and the estimated construction timescale of up to 12 months. The ES concludes that substantial landscape and visual effects are limited to a vicinity of approximately 3km from the site and moderate effects are generally limited to within a 10km radius with no more than slight effects beyond 1-km. It also

concludes that there will, at most, be slight significant effects on conservation areas, no significant effect on the immediate setting of registered Historic Parks and Gardens and the effect on listed buildings will be slight or negligible/no change.

12. The additional information dated 29th November 2006 includes the following additional information: acoustic assessment, including suggested noise conditions; an ecological mitigation and enhancement strategy; TV reception; response to CSS Spectrum Management Services' objection; the current position in relation to discussions with Cambridge Airport; comment in terms of the impact of the development on the historic environment; consideration of alternatives; wind speed/capacity information; the site area/use; and a response to the Stop Wadlow Wind Farm Group's objections.

Planning History

13. Temporary permission has been granted and renewed until 31st August 2007 for a 70m anemometer mast on the site under references **S/2400/03/F** and **S/0128/06/F** respectively. The anemometer mast that has been erected is 50m rather than 70m high and is located at 80m elevation at the point proposed for Turbine 4.

Planning Policy

National Guidance

14. Planning Policy Statement (**PPS**) **1**, Delivering Sustainable Development, (2005) aims to facilitate and promote sustainable and inclusive patterns of urban and rural development. It confirms that the Government is committed to protecting and enhancing the quality of the natural and historic environment, in both urban and rural areas.
15. **PPS 7**, Sustainable Development in Rural Areas, (2004) aims to promote more sustainable patterns of development by protecting the countryside for the sake of its intrinsic character and beauty, the diversity of its landscape, heritage and wildlife, the wealth of its natural resources and so it may be enjoyed by all (para. 1 (iv)). It advises that, in determining planning applications, authorities should provide for the sensitive exploitation of renewable energy sources in accordance with the policies set out in **PPS 22**.
16. **PPS 9**, Biodiversity and Geological Conservation, (2005) sets out Government's objectives for 'biodiversity and geological conservation'. Planning decisions should aim to maintain and enhance, restore or add to biodiversity and geological conservation interests. Development proposals should be permitted where the principal objective is to conserve or enhance biodiversity and geological interests. If significant harm cannot be prevented, adequately mitigated against, or compensated for, then planning permission should be refused.
17. **PPG 15**, Planning and the Historic Environment, (1994) provides guidance in respect of development which will affect the historic and built environment. The historic environment includes not just buildings, but encompasses the wider landscape. It indicates that development may affect the setting of a Listed Building some way away.
18. **PPG 16**, 'Archaeology' advises that the duty to protect archaeological sites and monuments extends to their setting. Para 27 advises that there is 'a presumption

against proposals which would involve significant alteration or cause damage, or which would have a significant impact on the setting of visible remains.'

19. **PPS 22, 'Renewable Energy'** (August 2004) replaced PPG 22. It aims to increase the development of renewable energy resources. Amongst key principles are:

- (a) Renewable energy developments should be capable of being accommodated throughout England in locations where the technology is viable and environmental, economic, and social impacts can be addressed satisfactorily.
- (b) The wider environmental and economic benefits of all proposals for renewable energy projects, whatever their scale, are material considerations that should be given significant weight in determining whether proposals should be granted planning permission.
- (c) Small-scale projects can provide a limited but valuable contribution to overall outputs of renewable energy and to meeting energy needs both locally and nationally. Planning authorities should not therefore reject planning applications simply because the level of output is small.
- (d) Development proposals should demonstrate any environmental, economic and social benefits as well as how any environmental and social impacts have been minimised through careful consideration of location, scale, design and other measures.

The **PPS** sets out the government's objectives and the need to generate a minimum of 10% of UK electricity from renewable sources by 2010 (with onshore and offshore wind being the largest contributors) and up to 20% by 2020 (with onshore and offshore wind biomass being the largest contributors). The fact that a target has been met is not a reason to refuse planning permission for further projects.

When considering landscape and visual effects paragraph 19 notes these are likely to vary on a case by case basis according to the type of development, its location and landscape setting. Some of these effects may be minimised by appropriate siting, design and landscape schemes. Paragraph 20 goes on to state that the impact of turbines on the landscape will vary according to the size and number of turbines and the type of landscape involved.

20. **'Planning for Renewable Energy: A Companion Guide to PPS 22' (2004)** identifies the key issues in determining planning applications. It is designed to encourage appropriate development and offers practical advice as to how policies can be implemented on the ground. At para 5.10 authorities are advised to come to an objective view on:

- (a) The extent to which the project is in conformity with the development plan;
- (b) The extent to which the reasons for any area based designations may be compromised;
- (c) The extent of any positive or negative impacts, and the means by which they may be mitigated, if negative; and,
- (d) The contribution towards meeting the regional target, but recognising that a small contribution cannot be in itself a reason for refusal of permission.

21. The Companion Guide includes a very detailed technical annex upon wind. It covers issues such as noise, low frequency noise, landscape and visual impact, driver distraction and shadow flicker. It states at Para 5.4, that landscape and visual effects will only be one consideration to be balanced alongside the wider environmental, economic and social benefits.
22. **PPG 24** 'Planning and Noise', (1994) states that noise can be a material consideration in the determination of planning applications. Development should not cause an unacceptable degree of disturbance.
23. Para 15 of Circular 1/2003, 'Safeguarding aerodromes etc', advises that wind turbines can create certain problems for aviation. This includes signals radiated from and received by aeronautical systems.

Regional Policy

24. **Regional Planning Guidance (RPG6) for East Anglia** supports renewable energy developments in appropriate locations. **Policy 60** indicates that small-scale schemes may be suitable in many rural areas.
25. The new **East of England Plan (RSS14)** is awaited. In December 2006 the Secretary of State published for consultation proposed changes to the draft revision to the **RSS**. The final version of the **RSS** will be published in mid 2007, when it will replace **RPG 6**.

Proposed **Policy ENG2** 'Renewable energy targets', supports the development of new facilities for renewable power generation with the aim of meeting regional targets, equivalent to 14% of total electricity consumption in the East of England (or 10% excluding offshore wind) by 2010 (1192 mega watts), and 44% (17% excluding offshore wind) by 2020 (4250 megawatts).

The proposal text states that 'issues of location and scale will require careful consideration. The Regional Assembly proposes to develop fuller regional guidance for renewable energy as part of the review of **RSS**, including sub-regional targets based on an assessment of potential, together with locational criteria'.

26. Structure Plan 2003 Policies of relevance:
 - **P1/2** Environmental restrictions on development
 - **P1/3** Sustainable Design in Built Development
 - **P7/1** Sites of Natural and Heritage Interest
 - **P7/2** Biodiversity
 - **P7/4** Landscape
 - **P7/6** Historic Built Environment
 - **P7/7** Renewable Energy Generation
27. Local Plan 2004 Policies of relevance:
 - **EN1** Landscape Character Areas
 - **EN3** Landscaping and design Standards for New Development in the Countryside
 - **EN4** Historic Landscapes
 - **EN5** The Landscaping of New Development
 - **EN8** Natural Areas
 - **EN12** Nature Conservation: Unidentified sites

- **EN13** Protected Species
- **EN15** Archaeology
- **EN28** Development within the Curtilage or Setting of a Listed Building
- **EN30** Development in Conservation Areas
- **EN44** Supports Proposals for the Use of Renewable Energy Resources Subject to other Policies in the Plan
- **ES6** Noise and Pollution

28. **Emerging Local Development Framework (LDF)**

The LDF is not statutory policy but its emerging Development Control policies in a Development Plan Document (DPD) were submitted in January 2006. A Public Examination took place in the Autumn 2006. The 'fact check' of the Inspectors' report has been received. No changes are made to the following Policies and supporting text.

In respect of renewable energy, **Policy NE/2** and the supporting text states:

Policy NE/2

"The District Council will grant planning permission for proposals to generate energy from renewable sources, subject to proposals according with the development principles set out in DP/1 – DP/3 and complying with the following criteria:

- (a) The proposal can be connected efficiently to existing national grid infrastructure unless it can be demonstrated that energy generation would be used on-site to meet the needs of a specific end user;
- (b) The proposal makes provision for the removal of the facilities and reinstatement of the site, should the facilities cease to be operational.

[Text from Paragraphs 7.6 - 7.8 inclusive]

"Given the commitment by Government and the District Council to reduce the use of fossil fuels, opportunities to increase the proportion of energy, especially electricity, generated from renewable sources will be permitted unless there is clear adverse impact on the environment or amenity of the area.

In South Cambridgeshire, with greater than the UK average levels of sunshine, solar power can make a significant contribution. The District Council will seek the incorporation of measures such as solar panels or electricity generation from photo-voltaic cells in new or converted buildings and structures.

Individual or small groups of wind turbines may also be appropriate".

29. The Development principles set out in DP/1-DP/3 deal with issues relating to sustainable development, design and a checklist for development criteria.
30. **Policy NE/4**
"Development will only be permitted where it respects and retains or enhances the local character and distinctiveness of the individual Landscape Character Area in which it is located".
31. The adopted Core Strategy (January 2007) has a number of objectives. Amongst others they aim to ensure development addresses sustainability issues, including

climatic change mitigation, protects and enhances native biodiversity and protects and enhances assets of conservation importance and the character of the landscape.

Consultations

32. **Balsham Parish Council** recommends refusal:

“1. Change of Use of Land

The application states that RES are looking for approximately 4ha of permanent land take, which is about 1% of the site (volume 1 page 9 ‘Land Take’). The remainder will remain as farming land. There is therefore no basis for changing the use of the whole site which includes land close to the A11.

2. Inadequate and misleading Information to Support a Full Planning Application

- 2.1 There are a lot of “TBA’s” in the planning application. We have not received any further information on all these items and are therefore unable, with the present information to make the necessary judgements to approve the application.
- 2.2 Proposed external materials, proposed boundary walls and fences and the location of the turbines (50m micro-siting area – figure 4.2) are either not specified or ill-defined.
- 2.3 Since the turbine supplier has not been selected we are unable to understand how assurances on such items as noise can be made.
- 2.4 No site specific capacity factor has been provided. RES have used the ‘national average’ of 0.3. It is clear from independent assessments (e.g. Prof. R E Burge’s letter to the SCDC planning department of 17th June 2006) that the actual capacity factor for this site is probably less than half the national average. Therefore in respect of policy EN34 of the South Cambridge local plan this particular site does not provide an energy efficient wind farm because equivalent investment in many other parts of the UK will bring far higher output power from substantially higher available wind speeds (see also 3(a) below). The figure of 16,700 homes ‘one third of South Cambridgeshire’ continuously quoted by RES in their presentations and community communication literature is spurious and very misleading. We would suggest the true figure is closer to 6,800 (representing a net load factor of 12% after the site specific wind profile, line losses and conversion efficiency are taken into account). See also *Appendix 1*.

3. Policy Breaches

- a. Structure Plan Policy P7/7 - Renewable Energy Generation (Planning Statement page 10)

“Local Planning Authorities will consider areas of search for generating energy from wind in locations that:

- *Attain adequate wind speeds;*

No information on wind speeds has been provided (see also 2.2 above). South Cambs Local Plan adopted Feb 2004 para 10.95 Renewable Energy and Conservation of Energy states *“The Eastern Region Renewable Energy Study indicates that wind speeds in South Cambridgeshire are not*

sufficient for large scale wind farms, although individual turbines for private use may be viable”.

- b. Structure Plan Policy P7/4 – Landscape (Planning Statement page 14)
This application is in direct conflict with planning statements:-

“Development must relate sensitively to the local environment and contribute to the sense of place, identity and diversity of the distinct landscape character areas.

Para 7.14 Proposals for prominent structures will only be permitted if they are essential in the countryside and if the location, siting and design minimise adverse impact on the environment. Special attention needs to be paid to: the need to integrate proposals with existing landscape features to conserve and enhance local character; the scale of the development, its siting, design and materials and colours used, which must be in sympathy with the surroundings”.

English Nature & The Countryside Agency report on Character Area 87 – East Anglian Chalk states “the area would benefit from a discouragement of ... large-scale development on hill tops ...” and “the management of distinctive historic linear features such as the dykes and open grass tracks should be addressed”.

The lack of information about the location, design and scale of proposed external materials and boundary walls and fences also contravenes this policy.

Minimising the impact is described as moving from 20 smaller turbines to 13 maximum size turbines (which also generate more energy and hence profit). We do not agree with this statement.

- c. Structure Plan Policy P1/2 – (Planning Statement pages 12 & 20)
“Development will be restricted:
· *In the countryside unless the proposals can be demonstrated to be essential in **a particular** rural location;”.*
This development is not ‘essential’ in this ‘particular location’.
- d. National Planning Policy PPS22 (ODPM 2004) Paragraph 11 states:
*11. In sites with Nationally recognised designations (SSSIs....Conservation Areas....Listed Buildings...) planning permission for renewable energy projects should only be granted where it can be demonstrated that the objectives of the designation of the area will not be compromised by the development, and any significant adverse qualities for which the area has been designated are **clearly outweighed by environmental, social and economic benefits.** [our bold]*
We believe that the arguments summarised in paragraph 5c below indicate that the current application is in direct contravention of this National Policy.

4. Creeping Industrialisation

Wadlow Farm is already a waste disposal site. There is to be a substantial Grain Store development. The cumulative impact of the addition of a wind farm is substantial. Furthermore, RES are making an application for the change of

use of the land as a whole. We are concerned that the whole site might become further developed as an industrial/commercial area.

5. Environmental and Ecological Impact

Whilst at public consultation meetings much was made of selection criteria and sensitivity ascribed to the variety of elements considered in evaluating site suitability, the planning application clearly demonstrates that the key driver for selecting any site is the proximity to the National Grid and, as a consequence a variety of, particularly environmental and ecological, impacts have been downplayed. Much of the evaluation relies upon mathematical modelling and extrapolation based on model outputs to promote a particular result. Balsham PC is not persuaded by statements based on outputs from such approaches.

a) Visual Impact

The application plays down the nature of the Wadlow Farm landscape saying that it is less attractive than adjacent areas that are more intimate and pastoral. This is nonsense. The landscape that makes up this area of chalk downland is a contiguous landscape all of similar character and, being close to the highest point in Cambridgeshire, has high visibility relating to all surrounding horizons. It is an historically open farmed landscape of rolling downland and it is precisely this and the limited number of receptors (low population with few domestic and farm buildings) that makes it so sensitive to change. Furthermore, inter-visibility is also downplayed. The visibility of the turbines in the winter will be enhanced because of the lack of foliage in the intervening tree lines and hedgerows.

RES state that the site is 'on undulating land rising from 40m AOD in the west to 90m AOD in the East. That is correct but misleading because all Turbines are at the high level. The average level of turbine base is proposed to be 86m AOD, the average tower height 161mAOD and the average blade tip height is 206m AOD (see *Appendix 2*). RES themselves admit that the Wadlow Farm development will cause significant deterioration in landscape and view and admit that no mitigation of this impact is possible.

b) Sound Emission

No analysis has been made of infrasound. Such frequencies travel long distances. This issue is downplayed but night time low frequency sound emissions from wind farm turbines are noticeably enhanced largely due to the reduction in ambient sound from traffic, birdsong etc.

c) Ecology

There will inevitably be an impact on the environment, both flora and fauna. As noted this is an area of chalk downland, an historic habitat supporting rare vulnerable species such as Fine Leafed Fumatory and Night Flowering Catchfly. Also of note is the prime habitat of old Cambridge road verges, and key protected wildlife features. The site is in close proximity to the SSSI site in Fleam Dyke and within 10km there are 25 conservation areas and many listed buildings. A recent landscape study shows two strategic recreation routes here – Fleam Dyke and Icknield Way. Furthermore, we have substantial concerns about the impact on the protected bat population. Less than 1.5km from the proposed development lies Balsham Caves, the most valuable winter bat hibernation site in Cambridgeshire. Other studies have shown that turbines of

the scale, size and position of those proposed at Wadlow can have a serious impact on bat populations and we are not assured by the impact report provided by RES.

As a general comment, there are sites elsewhere in the county that are less environmentally sensitive than this and it is disingenuous to suggest that there is unlikely to be any significant environmental impact from this development should it proceed.

d) **Pollution Savings**

The RES figure of 67,576 tonnes of CO2 reductions is based on their calculations using the 30% capacity factor (see 2.4 above). This has been shown to be misleading data. RES have also failed, or chosen not to use, the Guidelines for Company reporting on Greenhouse Gas Emissions (Defra July 2005). Defra recommend use of 0.43kg CO2/unit saved in contrast to RES's figure of 0.86kg CO2/unit (*Appendix 3*). Using the Defra figure and the more realistic load factor of 12% (see 2.4 above) gives CO2 reductions of only 13,515 tonnes!

6. **Community Compensation**

During the process of consultation RES visited Balsham, staged an exhibition and took part in a presentation and an open question and answer session. During that process and specifically on their website under 'local benefits' RES specify the formation of a "community fund of at least £1,000/MW/year e.g. a 29.9MW wind farm equals £29,900/year".

There is no mention of a specific compensation payment within the planning application. Chairs of affected villages, led by West Wrating and Balsham, have met and resolved that should the Application be approved, an independent Community Trust should be formed to negotiate and thereafter distribute an annual compensation fund to projects or parish councils within the affected area.

Discussions have commenced with SCDC and we are in the process of taking part in setting up such a Community Trust, however, this takes time. No planning permission should be granted for this project until such time as:

- a) A Community Trust has been formed to the satisfaction of affected villages;
- b) The amount payable annually to the Community Trust has been agreed with RES;
- c) Such a figure or formula has been incorporated in a S106 condition attached to any planning permission that might be granted.

It is the view of Balsham that a figure of £1,000/MWpa is derisory. If the project goes ahead as planned it will:

- (a) Have a major impact on the visual landscape and environment around our village;
- (b) Create noise pollution;
- (c) Adversely affect an environmentally important local area much enjoyed by local citizens;
- (d) Impact negatively on property values; and
- (e) In itself produce no direct benefit to the village whatsoever.

....and hence carry a net detriment to the village.

On the figures put forward by RES and utilising current wholesale energy prices we estimate that the income from this wind farm will be in the order of £6mpa (max power output (kWhrs) x capacity factor x annual hours x unit price gives $29,900 \times 0.3 \times 8760 \times £0.078 = £6.1/\text{MWpa}$).

Assuming a generous £1.25m operating costs per annum and £20m construction cost amortised over 20 years there is an annual surplus of £3.75m or £125,000/MWpa.

The £1,000MWpa offered by RES (though we do acknowledge that their website uses the phrase “at least £1,000MWpa”) is derisory in the context of the planning gain that will arise if this planning application is granted. **It is our view that local communities should receive 10% of annual surplus produced by this wind farm in compensation i.e. a figure of £12,500/MWpa and that this should be linked over the full 25 year life of the planning application to the wholesale price of electricity.”**

Additional Comments

“The Parish Council voted against the Wind Farm (Vote 3 against, 1 abstention).

The Parish Council’s main concerns are the visual impact on the landscape, which is not counterbalanced by the amount of electricity, which is generated by the Wind Farm.

Structure plan: Policy breaches No. 3) and 5) in original submissions and there is no new evidence to change the opinion of the Parish Council.”

33. **Little Wilbraham Parish Council** recommends refusal in response to the original application:

“The councillors have considered the application from two perspectives; the particular local proposal and the general principles raised by this application.

The concern with the particular application is that the scale of the proposals is out of balance with the surroundings. The proposals would have a visual impact on the adjacent villages and neighbouring communities. The impact would not only be aesthetically unacceptable, but the installation would generate other problems of noise and staff/visitor traffic. It is also felt that the grouping of such a large number of turbines together would cause damage to wildlife.

The councillors are aware of the need for alternative energy sources to be created in order to safeguard the interests of future generations. Wind farms tend to evoke the impression of a 'green' and friendly energy source, but in reality, if installed on a significant scale, the effects on the landscape and wildlife would far outweigh the benefit of their relatively small contribution to the national energy supply. There is a duty to safeguard the environment for future generations.

The opinion is that the strategy to deliver large scale energy supplies from this source is flawed. Winds forces are not reliably consistent to give adequate levels of power generation. The scales of wind farm developments are out of proportion to the output, and make a significant impact on the landscape. This impact may not always be

detrimental, and in some situations the wind turbines provide quite a dramatic feature. However, to then extrapolate the number of wind farms required to provide a nationally significant energy supply, would inevitably lead to an unacceptable impact. It would be preferable for the Government to intensify research into other renewable energy sources, which have a better chance of providing the longer term national energy requirements; wave/tidal power being one option. Eliminating waste of energy is recognised as a worthwhile action, and this should be given further encouragement and guidance.

The Parish Council wish to register their objection to this application.”

Response to Additional Comments:

“The parish council are divided on this application.

Three councillors are strongly against the proposals mainly on the grounds of the validity of the sustainability on this site. They also questioned the viability of this form of energy generation in general/national terms.

Two councillors support the application, only in that they believe that there is a need to explore alternative sources of energy, and the consequential effects on the local environment have to be accepted. One councillor had a similar view but he accepted that local views would be different if the development were 'in your own backyard'.

With this range of opinions, the Parish register 'no recommendation' to this application.”

34. Brinkley Parish Council recommends refusal.

- (a) “With every parishioner of Brinkley being balloted during July for their views, a - majority opposed the plans for Wadlow Wind Farm.
- (b) The unspoilt, highly visual chalkland hills of the proposed site are considered inappropriate for such a development. Whilst the importance of renewable energy as being climate-friendly is fully accepted, this proposed location does not comply with SPP P7/4, SPP P1/2 and LPP EN1.
- (c) The wind speeds/conditions of the chosen location, by admission of representatives of RES Ltd to attendees at a Brinkley PC meeting on 3rd July, is not as good as it ought to be for such a development. Thus the output efficiency of the proposed site is in serious doubt and RES claim's unsubstantiated. SPP P7/7 states that 'locations that attain adequate wind speeds and do not cause unacceptable impact on residential amenity or to local environments' will be considered. This is not the case with this proposal unless suitable wind and output data can be delivered and substantiated.
- (d) The prominence of 13 turbines location very close to the A 11 will cause driver distraction and potential road safety issues.
- (e) With the increasing likelihood of creeping industrialisation of the area (there is already a waste disposal facility on-site), further development at the Wadlow site will have a major negative impact on the local area and villages.
- (f) Noise pollution.

- (g) Possible interference with radio and TV signals.
- (h) Negative impact on property values, likely to increase if creeping industrialisation takes place.
- (i) Potential ecological impact.
- (j) There is no benefit whatsoever to residents of Brinkley. RES are making no offers or concessions of discounted electricity to Brinkley or other local villages within a radius of say 5 miles."

35. **Carlton Parish Council** recommends refusal.

"Carlton Parish Councillors collected many parishioners' views before holding a Special PC meeting attended by around 30 parishioners. The main reasons for the Council's decision to recommend refusal of the application are as follows: -

1. Unsubstantiated scale of environmental and economic benefits

The strategic importance of wind energy as a climate-friendly, indigenous source of electricity is recognised by the PC. It therefore accepts the imperative behind PPS22 that the wider environmental and economic benefits of renewable energy projects are material considerations that should be given significant weight in determining whether proposals should be granted planning permission.

But this is a contentious onshore wind proposal because its green credentials are undermined by quantified concerns that the energy generated and emissions saved would be materially less than claimed - indeed small compared to the large impact of industrialisation on beautiful countryside. There are also issues of transparency and public confidence that arise from the proposal.

Structure plan policy P7/7 - Renewable Energy Generation, states that proposals for generating energy from renewable sources such as wind...will be favourably considered...in locations that attain adequate wind speeds [and] do not cause unacceptable impact on residential amenity or to the local environment.

RES are not prepared to make available their wind speed and continuity test results. They state that a period of wind monitoring was undertaken which "confirmed the economic viability of the site". Economic viability does not demonstrate that the site has a good load factor compared to other sites in Eastern England or Britain as a whole. Commercial viability and a safe return can be achieved on sub-optimal renewables investments thanks to the Renewables Obligation.

According to the Government's recent Energy Report, onshore wind farms are made economic to developers by the Renewables Obligation, which is a subsidy paid for by electricity consumers. Implicit in policies like PPS22, P7/7 and EN44 is that support to promote renewables - subsidy and planning preference - should go to projects in relatively efficient locations because in those locations the scale and speed of gains from clean energy may fairly balance consumer and environmental cost.

Local Plan Policy EN44 – Renewable Energy, states that the District Council will support and encourage proposals for the use of renewable energy resources ... using energy efficient ... technologies. In practice at Wadlow, how 'energy efficient' would wind technology be?

RES claim that the wind farm would produce sufficient electrical energy to satisfy the average requirements of over 16,700 homes. This is based on an assumed 30% mean load factor (ES VII, App. 1.1), which is the industry standard countrywide load factor and is not specific to Wadlow. Independent data analysed locally (SCDC have a copy dated 17 June 2006) shows that 30% is not an appropriate load factor for Wadlow, and assesses the equivalent number of homes to be supplied as closer to 6,000 than 16,700. On this basis annual CO2 emissions saved by the wind farm would be 24,000 tonnes not 67,000 as claimed.

For the above reasons Carlton PC believes this proposal runs against the intention of several planning policies: wider environment and economic benefits (PPS22) are low; adequate wind speeds (P7/7) are not attained; and at this site the technology is not energy efficient (EN44). Consequently planning permission cannot be properly considered until the data are substantiated.

2. Adverse effect on landscape character

It follows from (1) above that this proposal lacks substantive wider environmental and economic benefits that outweigh the proposal's impacts on landscape and environment. It is therefore clearly not essential in this particular rural location and as such the proposal does not comply with PPS22 or Structure Plan Policy P1/2.

Thirteen 120m wind turbines cannot be integrated so as to conserve and enhance the local rural chalk ridge character, and the towering scale of the development does not relate sensitively to the sense of place, identity and diversity of the distinct landscape. This is contrary to Structure Plan Policy P7/4 and Local Plan Policy EN1.

3. Risk to highway safety

The prominence of the site close to the A11 is likely to distract drivers using this busy trunk road. Views will be dramatic to drivers travelling both Northwards and Southwards, because the A11 nearby ranges from 30-40m in elevation compared to 57-102m at the bases of the proposed turbines at Wadlow. This will increase the level of highway risk on the A11.

4. Planning Conditions

Notwithstanding our objections, in the event that SCDC are minded to approve the proposal we believe the following conditions should be attached: -

- (a) Measures that would directly benefit Carlton and the other communities affected by the development. For example, RES should establish a community fund in consultation with local communities and councillors, and/or set up a system to deliver discounted electricity to consumers within five miles of the nearest turbine.
- (b) Heavy lorries would use the Wilbraham junction onto the A11 during the construction phase. Highway improvements should be made at the junction to reduce the potential hazard of slow moving vehicles joining this busy roadway."

Response to Additional Comments

"Wind speed/capacity information

We are pleased that RES have now explained their methodology. We are not sure whether that explanation is sufficiently transparent for SCDC to assess the efficiency

of the proposal against Structure Plan Policy P7/7 or Local Plan Policy EN44. These policies do imply that subsidy and planning preference should be given only to projects in relatively efficient locations.

Effect on landscape character

Our position remains that thirteen 120 metre wind turbines cannot be integrated so as to conserve and enhance the local rural chalk ridge character, and that the towering scale of the development does not relate sensitively to the sense of place, identity and diversity of the distinct landscape. This is contrary to Structure Plan Policy P7/4 and Local Plan Policy EN1.

Risk to highway safety

We question whether the 2004 Highways Agency Review (Enclosure 7,2.30) can give assurance in the present case. It seems probable that 120-metre turbines standing on ground that is itself up to 80 metres above the A11 and in close proximity to the road, will increase the level of risk on this fast and busy highway.

Planning conditions

RES makes a welcome commitment to provide local benefit should their proposal be granted planning approval (Enclosure 7,2.37 and 2.38). We think provisional discussions should start now and involve representation from each local Parish Council.

Recommendation: -Refuse

36. West Wratting Parish Council recommends refusal.

- 1 "The Parish Council is concerned that it and other Council's have been asked to address what it considers is clearly an incomplete application. This full application fails to provide the following basic information:
 - (a) Lack of information on the precise location of the turbines. Whilst appropriate for an outline planning permission, it is insufficient for a full planning application (this could have been done if appropriate ground investigation had been completed). *No full application for a housing estate would be considered with a 50 metre variation in possible house plot locations.*
 - (b) Lack of information on proposed external materials. *External finishes to houses are normally given.*
 - (c) Lack of information on proposed boundary walls and fences.
- 2 The Parish Council considers that no consent should be given to this application in the absence of an application to connect the Wind Farm to the National Grid (Volume II para 4.2.19). To do otherwise would be to effectively give consent for a connection to the grid irrespective of any issues that application had associated with it, as to do otherwise would result in the wind farm being useless.
- 3 The reason for the Wind Farm is stated to be in support of Government policies to provide renewable energy and the applicant sees this as justifying certain negative impacts, including on the visual environment and landscape. Yet no assessment is provided to justify this location over any others and that an

alternative less sensitive and less visually intrusive site could not generate a similar amount of energy. Until a reasoned case for locating a wind farm here, which is in conflict with Local Plan Policies, can be made this application should be refused. Furthermore, it is noted that a 30% load factor is assumed but no documentation to support this is given. We understand this to be a mean figure for the UK, however, South Cambridgeshire is below the national average for wind speeds, as is noted in the South Cambs Local Plan (para 10.95 Renewable Energy and Conservation of Energy). It is therefore an inappropriate assumption that overstates the likely load factor. RES have been monitoring wind speeds for some time but have provided no detailed information on wind speeds, although this is given as a key criterion for the selection of this sensitive site.

4 In terms of Specific Policies:

Structure Plan policy 7/7 states:

*Local Planning Authorities will consider areas of search for generating energy from wind farms that;
Attain adequate wind speeds*

No information on wind speeds is provided to meet this policy requirement.

SCDC Local Plan (February 2004) states:

"wind speeds in South Cambridgeshire are not sufficient for large wind farms"

No information is provided to demonstrate that this policy does not apply at this particular location.

There are a number of policy breaches relating to landscape and countryside issues, including: Structure Plan Policy P/4

Paragraph 7.14

Structure Plan Policy P/2

The importance of the landscape is recorded by English Nature and The Countryside Agency Report on Character Area 87 "...the area would benefit from discouragement of. ...large scale development on hill tops ..." and "...the management of distinctive historic features such as dykes and open grass tracks should be addressed".

This application fails to take proper account of these, it makes no attempt to relate to this exposed open hillside and there is no study to demonstrate it is essential in this location. Hence there is no case to justify setting aside this range of significant landscape and countryside policies.

Whilst the Planning Statement seeks to indicate that renewable energy will often be produced in rural areas there are other forms of renewal energy available to meet Government targets without compromising the above policies and the Wind Farm has not been shown to be essential. By way of example Biomass is a means of energy production that is highly suitable in this region within the policy constraints.

Regional Planning Guidance 6 - East Anglia

Policy 60 Renewable Energy states:

"Development plans should include proposals for renewable energy generators and set out the criteria by which applications for such generators will be considered. Account should be taken of their land use and environmental implications and the desirability of such developments in sustainable terms. Small scale schemes may be suitable in many rural areas".

No reasonable account has been taken of the land use and environmental implications of the development or the desirability of this development in sustainable terms and it certainly does not accord with the part of the policy which indicates that small scale schemes may be suited to rural areas. Whilst the area is very rural this is not an appropriate small scale scheme.

5 Objection related to Safety

The Parish Council notes that the site and the wind turbines would be;

- a) Highly visible from the A11, a busy trunk road carrying some 30,000 or more vehicles per day
- b) Be accessed from a very compact junction with minimal acceleration and deceleration slip roads.

In both respects the Parish Council consider that the wind farm would lead to the potential for accidents on the A11 at this location by creating a significant visual distraction for drivers passing through this sub-standard junction as HGVs leave and join it.

Furthermore, this safety issue has been greatly exacerbated and will be a continuing concern throughout the life of the wind farm due to the recent approval to build a grain store adjacent to the junction which will result in several thousand HGVs using this junction every year.

6 The proposed Change of Use

The Parish Council considers that there is no justification for a change of use other than possibly for the footprint of the turbines, which from the application is only some 1% of the site area.

Almost all of the site will remain fully suitable for continued farming use and to accept a change of use of the whole site would only act as a precedent to future possible applications which could lead to further industrialisation of this exposed hilltop. It is noted that the border of the development site has been extended since RES's consultation in January through the addition of an additional field to the north east. However, there seems to be no requirement or planned development of this field that is related to the wind farm and no case has been made for its inclusion in the application.

7 Local and Community benefits

The Parish Council is not aware as to whether local benefits and particularly community funding and ownership are material planning matters, but it notes that the applicant put these forward in support of its application. Hence the Parish Council would comment as follows as it is charged with looking after the interests and welfare of the village community:

RES are claiming a 30% load factor (Volume 3 Appendix 1.1). Costing this using the formula: max power output (kWhrs) x load factor x annual hours x unit price gives 29,900 x 0.3 x 8760 x £0.08 = £6,286,176 per year. Assuming a generous £1.25m operating costs per year and £20m construction costs this gives a 5 year pay back (with interest) and £100m profit over the next 20 years. None of this will come to the villages other than through employment and taxes - which is no different to any other employer of this scale.

Precedence exists for compensation / benefit payments of 6 figures.

Discussions have commenced with SCDC and, with other affected villages, we are in the process of setting up such a Community Trust, however, this takes time. If despite all the objections a planning permission is to be granted for this project it should not be until such time as:

- a) A Community Trust has been formed to the satisfaction of affected villages;*
- b) The amount payable annually to the Community Trust has been agreed with RES,.*
- c) Such a figure or formula has been incorporated in a S106 condition attached to any planning permission that might be granted.*

8 Other Matters

The following issues have been raised by the applicant, but have been left open and undetermined at this time and yet they are directly associated with any implementation of this proposal. As this is a full planning application and the last time the Parish Council has an opportunity to fully consider the applicant's proposals these issues need to be addressed before any permission is given:

- (a) site decommissioning and its funding arrangements
- (b) community fund
- (c) assessing and overcoming interference to TV, radio and mobile phones monitoring of noise (including noise accumulation, resonance and interference) and flicker throughout the life of the wind farm plus undertaking corrective measures.

The Parish Council would expect the technical elements of the above to be based on expert opinion by a company approved by SCDC and independent of RES and its associate companies.

For the above reasons the Parish Council Objects to this Application

This statement deals only with the reasons that the Parish Council considers in rejecting this proposal. The Parish Council would wish to be able to put forward possible Conditions and items to form part of a S.106 legal agreement if SCDC were minded to accept this application. The Parish Council therefore asks that it is advised and given adequate time to respond on these further matters prior to SCDC taking a decision to approve the application. Please reply that this is in order or advise of what other action we are requested to take and by what date."

Additional Comments

- "1. We were disappointed to note that RES had failed, in our view, to answer satisfactorily the question we asked regarding change of use for the land. As is usual, they just dismiss the point almost as an annoying irrelevance. We would have expected to see the boundaries for the site drawn only where required, ie along either side of a proposed track, not the whole site, which still allows for further development if the change of use were granted. The farmer has already shown he is potentially willing to increase development on his land with the grain store.

2. Noise - Although not technically competent to counter their arguments, we do live here and so know that most of the time, particularly at night, there is no background noise. We also do not believe they have carried out enough measurement and study of the potential noise implications particularly in the light of the new DTI publication on low frequency noise. They mention possible future measurement of noise, if required, in Enc 2 and say in the small print that it would be done at 1.2-1.5metre heights. Most people sleep upstairs at a much greater height and noise at 1.5m would probably be shielded by hedges etc so would not give an accurate reading.
3. Ecology - Paying money to the Wildlife Trust does not mitigate the effect of 120m wind turbines on this site. Again, although not experts, we do not feel a thorough survey has been completed, particularly on bats. They state that 'habitats suitable for bats is limited' in the area. Many people in West Wratting have bats in their gardens, so we question their thoroughness.
4. TV reception - This is another particular worry for West Wratting and RES stated themselves, in their ES, that a specialist study should be undertaken for West Wratting (I would suggest not just an online study!). They do not say that they would cease operation of the wind farm, as part of the S106 they suggest, if interference was experienced. We also live in a conservation area so would not want extra masts etc to assist TV reception.
5. Radio Paths - On various occasions, including at the West Wratting meeting in Jan 06, RES used the cover of 'it is commercially sensitive' to avoid giving us information and they even use it in their reply to you, but when another organisation uses the phrase, ie Anglia Water, they expect S/Cambs to chase an answer thereby using taxpayers money. They cannot have it both ways and should release information, for example on the alternative sites they looked at (if they did), and wind statistics.
6. Cambridge Airport - We cannot comment on this issue but will say that the proposed windfarm area is used frequently for rotary and fixed wing low flying by the MOD and would therefore assume that flight paths would need to be changed to either nearer, or over, the villages which would potentially create a greater nuisance.
7. Historic environment - RES state the SSSI and Fleam Dyke is designated for flora and will not be affected by the development. That is open to question but what is not in question is that the enjoyment of it will be affected adversely. These turbines are huge and will have a massive effect on the area and its enjoyment. Their view that conservation areas, and people within them, are inward looking and are therefore not really relevant is a nonsense, as the reason most people live here is for the countryside and its views. People do not just sit in their houses, they walk and use the countryside. There are also likely to be more people arriving to enjoy the countryside as more houses are built. These turbines will dominate the area completely and ruin that enjoyment.
8. Wind speed - we have all constantly asked for 'actual data', not guesswork and possibilities, right from the start and have always been told it is commercially sensitive information. RES claim a 30%+ capacity for this site which is clearly not going to happen when you look at all the available data from independent Ofgem figures. RES say that viability is not a planning issue but seem to also use it as a reason for the site.

9. Enc 8 - Although I am sure the Landscape Partnership will reply to the RES answer, one point did jump out. We live in this area and these massive 120m turbines will not 'accentuate local topography' but will totally dominate and ruin it. It is quite clearly out of proportion to the surrounding landscape.
10. RES have also failed to address the issue of grid connection to our satisfaction. They should do this before this application should be considered. We have a notoriously weak grid and do not want further cuts in power as a result of the effects that intermittent wind power has on the grid.
11. We still feel there is a safety issue with the Wilbrahams junction which has not been properly addressed and this is coupled with the increase in industrialisation the wind farm would bring with the grain store already having been approved.
12. There are locally generated and approved policies against development unless it is essential. This means it needs to be shown that it is needed here and cannot be located elsewhere, ie brownfield sites, or achieved by other means with less effect on the wider environment. The response still fails to address this need and does not say why other options or sites are unsuitable.

We have not included any S106 requests, as we still feel this application will be rejected, but would request that we be allowed to submit these in future if necessary.

We strongly urge the Council to reject this planning application.”

37. **Great Wilbraham Parish Council** recommends refusal.

“The Parish Council unanimously recommend REFUSAL of this application and wish to make the following comments:

Inadequate details

We feel that this application is seriously flawed in that it provides inadequate information (to be advised later). It would be irresponsible to approve this given the lack of detail. A lot of the supporting data and statements would appear to be several years old and some parts are contradictory. Why has the footprint of the site changed?

Site

RES claim that this is the best site in South Cambridgeshire. We are aware that this is reliant on the landowner allowing testing with anemometers etc., so this statement may not be true. Is there any comparative information from other locations in South Cambridgeshire?

Landscape

This is a designated character area (previously best landscape). Fleam Dyke and Icknield Way are in close proximity, as are 25 conservation areas with many listed buildings within 25 KM.

Change of Use

RES have applied for change of use for the site. This seems unnecessary as presumably most of the land will be retained for use as farmland.

Policy Breaches

This application goes against at least 3 policies:

P7/7 - Renewable energy generation (page 10 of planning statement)

P7/4 - Landscape (page 14)

PI/2 - Restricted development in rural locations (pages 12 and 20)

Compensation

Issues of compensation are not addressed. At the public meetings and in their publicity material, RES have promoted the fact that compensation would be payable to the local people. There is no mention of this in the application. Surely details need to be agreed prior to any approval. If this were to go ahead, the figures suggest that the company will make very healthy profits, some of which should be used to the good of the villages most affected.

Benefits to Villages

There is no direct benefit to the villages from cheaper electricity. Benefits on offer on the RES web site are 'potential' with no guarantees. What happens if RES sell the Wind Farm on, or it becomes insolvent? Any benefits need to be legally tied up. Most of the jobs created will be highly specialised, so there is little benefit to the local community. Local property will undoubtedly be devalued because of the Wind Farm.

Visibility

By virtue of the fact that this site is on a raised chalk ridge, it will be highly visible from many miles away. The photomontages published by RES are misleading and incorrect. A 120m tower standing on a rise of 80m raises questions about aircraft safety, and the potential for accidents in poor visibility due to confused radar and the impact on birds.

A11 Junction

We are concerned that the visibility of these turbines will compromise safety of people travelling along the A11, particularly near the junction for the Wilbraham's with its woefully short run-offs and sharp corners. There is a higher potential for accidents when the attention of the driver is distracted or affected by the 'flicker effect' of turbine blades. There are already many minor accidents (often unreported) with vehicles 'over-shooting' the exits, because they are not aware of the very short run-offs. The likelihood of more serious accidents can only increase with the extra hazards.

Changes to A11 Junction

The proposed minor changes to the Wilbraham junction on the A11 are considered inadequate following recent approval of the Camgrain Grain Store. We feel that the safety of local traffic using the junction will be seriously compromised and cannot agree that the proposed changes as part of this development will be sufficient.

Capacity Factor and Average Wind Speed

RES have used a national average of 0.3 without substantiating their figures. Professor (Emeritus) Ron Burge from Great Wilbraham has studied the potential efficiency of the wind farm, and in his letter dated 17th June, 2006 to SCDC, he details the inconsistencies. This information causes serious concern, and puts the whole viability of the wind farm into question. This also goes against Policy EN34 (in the SC Local Plan).

Noise

Many people are unconvinced that noise from the turbines will not be a problem to the surrounding area at some time or another. Other wind farms have an issue with noise, particularly as the parts age and wear. Research shows that the pitch of the sound will affect some susceptible people, and the flicker effect is also known to affect some people causing epilepsy and headaches. Some also feel that there has also not been enough research into the effect of the wind movement and the subsequent impact on health.

Grid Connection

We understand that connection will be to the local grid, but no detail is given. This area already suffers from an unreliable electricity provision, and there are often drops in power. What will be the effect of linking in to this? Again we have a lack of information.

Section 106 Agreements

There are a number of 106 agreements that need to be put in place. In particular, one to prevent traffic going to the Wind Farm from travelling through the villages of Great and Little Wilbraham, Six Mile Bottom and West Wrating.

Conclusion

Overall, Parish Council members feel that Wadlow Farm is the wrong site for a wind farm. There are far too many inconsistencies with this application that imply environmental losses which cannot be justified for what appears to be very little gain in terms of overall power output. If the capacity factor does not provide the predicted output, it seriously questions the suitability of this project. We would therefore urge the Planning Committee to REFUSE this application.”

Additional Information

“The Great Wilbraham Parish Council welcomes the opportunity to reply to the additional comments dated 14 November by Renewable Energy Systems UK Ltd (RES) in response to issues raised during wide consultation concerning this application. As part of the initial consultation process our Parish Council recommended that planning permission for the wind farm at Wadlow Farm should be refused. With the further details now provided by RES we have considered again whether or not this changes our original view.

We would like to make the following comments:

- (a) While the planning procedures have been in progress a highly relevant consideration has been made of the appeal against the refusal of planning permission for a 15-turbine wind farm on “Land south-west of the A14, between Boxworth and Conington”, Cambridgeshire. Following the hearing, the Inspector appointed by the Secretary of State, Dr A N Pykett, dismissed the appeal.
- (b) In his judgement Dr Pykett gives four main issues the balance between which decided the case. We find the relevant main issues for the Wadlow Wind Farm, as seen from Great Wilbraham, fit very closely indeed with those for “Boxworth/Conington. Dr Pykett found that the two issues (i) contribution of the scheme towards the targets for the provision of renewable energy, (ii) the impact of the development on the character and appearance of the area, including its effect on the historic landscape and visual amenity, were greater in their relative importance as compared with the two other-nevertheless

important-issues (iii) the compatibility of the development with highway safety on the A14 trunk road, and (iv) the effect of the proposed development on the living conditions of local residents with particular reference to the possible noise interference. In point (iii) GWPC of course substitute, instead of A14, the effects due to the main road A11 which passes close to the site, and with respect to point (iv) taking a parochial view, we realise that, due to the distance from the proposed Wadlow Wind Farm the added noise here is unlikely to be greater than that already experienced from the nearby A14.

- (c) Considering the balance between points (i) and (ii), it is our strong view that point (ii), concerning the historic environment has been only minimally considered in the RES document despite its obvious importance as summarised by Dr Pykett –indeed it was the dominance of the importance of preserving the historic environment, and related factors, that Dr Pykett gives as a major plank in explanation of his dismissal of the appeal against the Boxworth/Conington Wind Farm. We want to emphasise the united view of the Parish Council concerning the importance of the preservation of the historic environment and the serious competition this brings to our consideration of the case for the Wadlow Wind Farm.
- (d) Coming to the main point (i) we consider its relative importance compared with point (ii). Clearly the likelihood of reaching at Wadlow a substantial energy output is a prerequisite-a prerequisite judged to be unlikely at Boxworth/Conington. Collected data for the relative performances of similar lofty wind turbines operating elsewhere in East Anglia have recently been provided by the Renewable Energy Foundation. Regrettably none of these existing wind turbines produces an average power output that is as high as the design level. It appears that, in general, in East Anglia, despite building enormously high wind turbines at massive expense, the level of wind speed and its very large fluctuations are not appropriate for the construction of wind farms where their efficiency for energy production can outweigh the importance of preserving the historic environment.

On these grounds, the unanimous recommendation of the Great Wilbraham Parish Council is that planning permission for a wind farm at Wadlow be REFUSED.”

38. West Wickham Parish Council recommends refusal.

- “1. The sheer size and height of this development is totally unacceptable on this site. It is already close to the high point of the county and adding a further 120m to this will more than double its height above sea level. It will be visible from London and Kings Lynn and all points in between depending on air clarity .We understand that the proposed turbines will be the highest on mainland Britain. This goes against any number of Structure / Landscape planning policies. We as a parish do not want to be party to this blot on the East Anglian landscape.
- 2. We feel that the bird survey was only of the sites breeding potential with some assessment as an overwintering area. This whole area is a migration route and no account seems to have been made of this.
- 3. We are concerned that a specialist Archaeological Unit with local knowledge and experience did not undertake an in depth archaeological assessment. Entec UK Ltd is an " Environmental and Engineering Consultancy". This concern is mitigated somewhat by using the Institute of Field Archaeologists

Standards and Guidelines, but this was only for desk based assessments and only a very brief on site survey was undertaken. We ask, what has been missed, bearing in mind its proximity to Fleam Dyke?

4. We question the validity of a 30% load factor being included in the application. The applicants have not made available their wind speed data.
5. We feel that the "at least £1000/MW" offered to the local community is an insult to our commercial brain, in the context of the planning gain. It should also be linked to the entire life of the Wind Farm and to the wholesale price of electricity.

At the onset of our Parish Council meeting last night we had voted 4 to 1 against this development, after discussion we voted unanimously against this **BLOT** on the landscape."

39. **Fulbourn Parish Council** made no recommendation.

"Fulbourn Parish Council has concerns about this planning application which proposes 13 Wind Turbines with a height of 120m, which will be the highest in the country, on a site that overlooks Fleam Dyke, an important ancient earthworks which is a popular recreational area which is a SSSI.

The application seems to be contrary to the Structure Plan as follows:

Structure Plan Policy PI /2 - (Planning Statement pages 12 & 20) *"Development will be restricted: In the countryside unless the proposals can be demonstrated to be essential in a particular rural location"*.

Structure Plan Policy P7/4 - Landscape Planning Statement states: *"Development must relate sensitively to the local environment and contribute to the sense of place, identify and diversity of the distinct landscape character areas"*.

The Parish Council understands that South Cambridgeshire District Council is conducting an independent investigation into the Wind Farm application but the results are not known at the present time. However, we note the following comments in the Structure and Local Plans:

The Structure Plan Policy P7/7 - "Renewable Energy Generation (Planning Statement page 10) states: *"Local Planning Authorities will consider areas of search for generating energy from wind in locations that: Attain adequate wind speeds."* We understand no information on wind speeds has been provided with the application.

South Cambs Local Plan adopted Feb 2004 para 10.95 Renewable Energy and Conservation of Energy states *"The Eastern Region Renewable Energy Study indicates that wind speeds in South Cambridgeshire are not sufficient for large scale wind farms, although individual turbines for private use may be viable."*

There are concerns about sound emission. No analysis has been made of infrasound. Such frequencies travel long distances. This issue is downplayed but night time low frequency sound emissions from wind farm turbines are noticeably enhanced largely due to the reduction in ambient sound from traffic, birdsong etc.

Wildlife - There are concerns of the impact on wildlife, in particular birds and bats. Less than 1.5km from the proposed development lies Balsham Caves, the most valuable winter bat hibernation site in Cambridgeshire.

The Parish Council is unclear as to the benefit of this proposed application to neighbouring villages.

Fulbourn Parish Council wishes to be able to make further comments once the results of the independent investigation commissioned by South Cambridgeshire District Council are known."

It subsequently voiced its concerns at the impact the proposed wind farm would have on the setting of Fleam Dyke, which is a very important monument and which provides a very important amenity to Fulbourn and the surrounding area.

40. **Weston Colville Parish Council** recommends refusal.

"Weston Colville Parish Council held a special meeting to consider the above application; 38 people attended. The meeting was addressed by two representatives from RES and one representative from the Stop-Wadlow-Wind action group. The presentations were followed by extensive questions and discussion. Ballot papers had been distributed to all parishioners on the electoral roll, and these were then counted and resulted in a two to one vote against the proposal.

The six Parish Councillors present (one being absent) then discussed the application and voted unanimously to recommend rejection for the following reasons:

Environment

The proposed site is an East Anglian chalk ridge, designated character area 87 [previously an area of best landscape]. This is one of the most prominent landscapes in South Cambridgeshire and the installation of 13 very large turbines would adversely change the character of the area. They would be built on land about 90 metres above sea level and with a height of a further 120 metres to the top of the blades would be nearly 200 metres above the low land to the north as well as Cambridge City .

Capacity

At our Parish Council meeting we were told by RES that they were working on a capacity factor of between 29% and 31%. However they were not prepared to release wind speed data to support these figures, simply saying that it is 'one of the best sites in the East of England' and they would not want to build a wind farm if there was not sufficient wind. However we understand that it would still be very profitable to build even at a much lower capacity factor but then the cost benefit equation would move sharply towards refusal.

South Cambridgeshire Local Plan February 2004 para 10.95 states that 'the Eastern Region Renewable Energy Study indicates that wind speeds in South Cambridgeshire are not sufficient for large scale wind farms'. We strongly believe this application should not be considered unless RES produce wind data to show that the above statement is incorrect in respect of this site.

Change of Use of Site

The application states that approximately 4ha of permanent land take are required. We can see no justification for a change of use for the whole site. Rather this should be confined to the required 4ha and should be for the purpose of a wind farm only. We are extremely concerned that following the grant of permission for a grain store on part of the site the whole area could become subject to 'creeping industrialisation'.

Vehicle Movements and Safety

The proposed changes to the Wilbraham turn off the A11 are wholly inadequate. We understand that during construction there will be over 7,000 vehicle movements during a year and now we must add a further 4,000 in respect of the grain store. Most of these will be slow moving heavy goods vehicles causing a serious safety hazard.

- 41. **Bottisham Parish Council** was consulted but no comments have been received.
- 42. **East Cambridgeshire District Council** was consulted but no comments have been received.

Noise

- 43. An acoustic report by Belair Research Ltd, (BRL), commissioned by the **Corporate Manager (Health and Environmental Services)** resulted in further information being submitted by the applicants. This addressed most of the previous concerns. As a result, conditions have been recommended to be imposed on any Planning Consent, as follows:

- "1. At the reasonable request of the Planning Authority, following a complaint relating to noise emissions from the Wind Turbines, the developer will demonstrate that, at the noise sensitive property in question, the noise levels experienced as a result of the Wind Turbines, excluding the existing background noise levels, do not exceed:
 - (a) During night hours, the greater of the night hours LA90 (10min) background noise level plus 5 dB(A) or 43 dB(A) at wind speeds not exceeding 12 metres per second.
 - (b) The greater of the quiet waking hours LA90 (10min) background noise level plus 5 dB(A) or 37.5 Db(A) at wind speeds not exceeding 12 metres per second.

Wind speeds should relate to 10m height at OSGB (1936) location (557531, 253808).

Details of the methodology should be extracted from '*The Assessment & Rating of Noise from Wind Farms*', ETSU report number ETSU-R-97, pages 91-98.

- 2. The Wind Turbines finally selected shall demonstrate compliance with the ETSU-R-97 guidelines by way of warranted data from the manufacturers."

Historical Heritage/Archaeology

44. The **Conservation Manager** comments as follows:

- “1 The site is an extensive area of agricultural land, which gently slopes down from a high point on the edge of the ‘Southeast Claylands’ landscape character area, into the ‘Chalklands’ which fringe Cambridge City. The turbines will step down from the highest point along the Harcamlow Way, toward the lower lying areas adjacent to the A11.
- 2 The landscape character is undulating, with a scattering of farmsteads and small settlements, interspersed with farm woodlands. The site location to the highest points around the city gives extensive panoramic views in all directions, including into the city.
- 3 The historic interest of the site is afforded by the ancient route (scheduled ancient monument) of the Fleam Dyke and Harcamlow Way, which would have formed a prominent embankment across the site and the agricultural landscape. The route provides an important recreational route across the landscape, and is a key part of the Green Infrastructure Strategy, which has the objective of mitigating the development growth in the area.
- 4 The field sizes are generally large, but visually connected by the gently rolling landform and woodland. The field sizes have increased since the late 19th Century, and afford long open views, extending to wooded skylines, which are a particular feature when the area is viewed within the proposed site.
- 5 The character assessment in the SCDC Design Guide notes that, “the area has a surprisingly remote, rural character”. This is a recognition of the open views contributing to an apparent separation from the city, of which it forms part of the setting, and the enclosing villages, rather than actually a feeling of detachment. The visual relationship to the small settlements and indeed the connection to the city is evident from both the site and views toward the wind farm location.
- 6 The eastern end of the site area is located in the area noted as being within the “most tranquil” area on the CPRE’s Cambridgeshire map, reflecting its continuing agricultural character. The tranquillity of the area is lessened by the background noise and movement of the nearby A11, which becomes more apparent as one approaches Dungate Farm from the south, along Fleam Dyke. However, despite the intrusions of sound and movement, the site and its immediate setting retains the character of a peaceful component of the busy landscape. In contrast, the prospect is of the turbine structures appearing over the brow of hill from Fleam Dyke to become intrusive in the other wise, relatively tranquil landscape.
- 7 The nearby villages are characterised by their scattered appearance in the broad landscape, enclosed by woodland belts. Buildings in the landscape tend to be dwarfed by the scale and open character of the site, with the villages signalled by church towers, often the only projecting element in the landscape. The tower of Balsham church is particularly evident from the wind farm site, along the ancient route of Fleam Dyke.
- 8 The undulating nature and breadth of the landscape, along with the scattered nature of the settlement, also tends to subsume even larger scale agricultural buildings. This tempering of such structures is assisted by their relatively squat,

inanimate nature, with largely horizontal emphasis, which is visually proportioned to the woodland enclosures.

- 9 In contrast, it is the vertical elements of the landscape, which are intrusive in the landscape. These include, on the positive side, the church tower of Balsham and the Water Tower at Linton, as assertive but relatively modest, single components of the landscape.
- 10 However, the expansive views across the landscape are scarred by pylons which march across the landscape, emphasising the unfortunate impact of such vast vertical structures. While the pylons remain inanimate, their cable connections divide the panorama, detracting from the expansive views emphasising their massively disproportionate impact of this infrastructure on the landscape. The wind farm will share this characteristic of transforming the balance between components of the landscape. Consequently, and ironically, the infrastructure, necessary to sustain the growth of the area will actually start to erode the quality of the landscape, which drives the growth in the first instance.
- 11 The open nature of the site means it is possible to view it across significant distances particularly to the north across the A11, into the city. This is due to the expansive scale of the landscape which is characterised by its “big skys” and long distance views. As noted in the ‘Planning Statement’ the proposed wind farm will be viewed across substantial distances. It will be less evident ‘within’ the nearby villages due to the relatively enclosed character resulting from the mature planting along their boundaries. Therefore, the impact of the turbines on the immediate setting of historic buildings in the settlements is limited.
- 12 However, the impact of the wind farm will be evident as one leaves the settlements, creating a new point of reference between the villages. This will remove the important visual separation between the scattered settlements inserting an alien structure into the gap between the two villages. This spatial separation is fundamental to the character of this historic landscape. The result will be to visually shrink the landscape, which will be particularly unfortunate given their relative tranquillity of this part of the district.

Conclusion

- 13 It appears evident that it will not be possible to entirely mitigate the visual impact of the insertion of a series of thrusting, kinetic industrial structures into this rolling arable landscape, without a significant reduction in the number of the turbines. Avoiding the erection of turbines along the line of Fleam Dyke/ Harcamlow Way would have a significant impact on the wider landscape. These would have the greatest impact over a wider area than the turbines nearer to the A11. However, the accumulation of turbines, power cables and pylons in the area adjacent to the A11 will also have a significant, but more local, impact on the landscape.
- 14 The landscape is evidently large and has its own distinctive character which creates dramatic panoramas, particularly from the ancient routes. I would suggest that the proposed number of turbines, spreading across the rolling arable landscape will tend to dominate, rather than contribute to the interest or character of the landscape (which might result from a single or more scattered structures).

- 15 The result is that the proposal, as existing, will insert an industrial complex into the agricultural landscape, which would dominate the skyline and character of the area. This impact would be perceived both across a wide distance as well as exacerbating local environmental degradation resulting from the existing infrastructure. This must be considered to be to the detriment of this part of the district.
- 16 I note that the Planning Statement makes the point that wind farms tend to be associated with remoter rural areas and thus, it is argued, in this respect, the development is not in conflict with PPS7. However, I would suggest, that, it is evident that the site is not actually remote (despite being 'tranquil'), as it forms part of the setting of the city, and the proposal will clearly have a significant impact on part of the county's landscape resource, as well as designated historic structures. Therefore, conversely the proposal must be in conflict with PPS7 and should, therefore, be resisted in this current extensive form."
45. **County Archaeology** stated that its records indicate that the proposal is located within an area of high archaeological potential and recommends that the site be subject to a programme of archaeological assessment and evaluation, to be commissioned at the expense of the developer and undertaken prior to a decision being taken on the application. In response, RES wrote to County Archaeology on 19th July pointing out that this assessment is contained in the ES. No further comments have been received from County Archaeology.
46. **English Heritage** has considered the impact of the development on the setting of the Fleam Dyke, a nationally important scheduled ancient monument, and its original position was that it was opposed to turbines 8, 9 and 10 and would prefer turbines 7, 11 and 12 to be sited further away from the monument. It stated that turbines 8, 9 and 10, by virtue of their height and siting 220-450m from the monument, would be visually intrusive when seen from this important piece of historic landscape. It also stated that the noise from the turbines would alter the experience of this walk in tranquil countryside and, for the same reasons, it would prefer turbines 7, 11 and 12 to be sited 100m further away from the monument. Following a site visit and a visit to the Coldham Wind Farm near March, and having given careful consideration to the enclosed nature (because of tree cover) and to existing areas of woodland, it no longer objects to the siting of turbines 8 and 9 and does not feel that there is an overwhelming argument for Turbines 7, 11 and 12 to be further away. It continued to object to Turbine 10 in its present position, or using the 50m micro siting allowance resulting in an overall distance of 357m between the SAM and Turbine 10 as it considered that this turbine would have a considerable visual impact on visitors to the monument and asked that this turbine be located further away from the monument.
47. Having further considered carefully the following factors:
- (a) The assessment of setting, in relation to PPG16 (paragraph 18) should be on a site by site basis;
 - (b) Turbine 10 as proposed would be 357m from the south-east end of the Fleam Dyke;
 - (c) The desirability of preserving the setting does need to be assessed and expressed;
 - (d) The effects on the setting of the Fleam Dyke may have to be considered in the context of its whole 5km length, and not merely the south-east end;

- (e) The proposed turbines may not be seen over much of the route of walkers along the monument, or they may be visible but behind the walker due to the direction of travel. These points need to be weighed in the balance regarding the need to preserve the existing setting absolutely; and
- (f) The enclosed nature of the Fleam Dyke due to vegetation cover (at least in summer) shields the walker from the visual impacts of the wind farm, including turbine 10 until the very south-east end of the monument; English Heritage now considers that, on balance, there are no overwhelming reasons for it to maintain an objection to Turbine 10.

Public Rights of Way

- 48. **CCC Definitive Map Officer** states that, as the proposal meets the British Horse Society's current guidance that turbines should be a minimum of 200m away from rights of way used by horses, it has no comment on the siting of the turbines. It also states that the temporary construction compound must not encroach on the adjacent Public BOAT No.19, vehicles and material must not be stored on it and the public right of way must remain open and available for use at all times.
- 49. **The British Horse Society** "has no view on the merits of windfarms as sources of energy - our interest lies in the protection of public bridleways and byways. There are two issues normally arising wind farm development and those are a) proximity of turbines to bridleways/byways and b) vehicular use of, and damage to, bridleways and byways when used as construction and maintenance routes. We require a 200m safety zone between any turbine and public right of way - this is to prevent a horse reacting to shadow flicker, whirring noise, risk of machinery starting up suddenly, risk of ice/snow falling during winter months. It would appear from the information you sent us that the Turbines are outside the 200m zone (could you check T1 distance from bridleway please?) and the access routes have been planned to avoid public bridleways & byways. Therefore, we are satisfied (subject to check on T1 distance) that public bridleway will not be adversely affected."
- 50. **The BHS** has recently approved amended guidance as follows:

'As guidance to developers and planners, the Society recommends that, as a starting point when assessing a site and its potential layout, a separation distance of 4 times the overall height should be the target for National Trails and Ride UK routes, as these are likely to be used by equestrians unfamiliar with turbines, and a distance of 3 times overall height from all other routes, with the 200m recommended in the Technical Guidance to PPS22 being seen as the minimum, where it is shown in a particular case that this would be acceptable. The negotiation process recommended above should indicate whether, in the particular circumstances of each site, these guidelines can be relaxed or need strengthening to minimise or eliminate the potential difficulties.'

However, no further comments have been received from BHS in regard to this particular application.

Telecommunications/Telemetry

- 51. **Ofcom** states that Hutchinson 3G's links may be affected by the proposal and the applicant should have clearance from Hutchinson 3G stating that they are satisfied that the proposal would not affect the operation of the microwave link. It also states

that, with regard to assessing the affects on TV reception, the BBC's new online tool should be used by developers.

52. **Hutchinson 3G** was consulted directly and, whilst no response has been received direct, correspondence from H3G forwarded by the applicant confirms that it has no objections.
53. **Arqiva (the new name for NTL Broadcast) Spectrum Planning Group** states that its analysis shows the proposed development is unlikely to affect any of its UHF Re-Broadcast feeds and therefore does not wish to object to the proposal.
54. **CSS Spectrum Management Services Ltd** objects to the proposal stating that the site is on radio paths between sites of its client's (Anglian Water Services) UHF Radio Scanning Telemetry communications and may result in interference. The applicant has been seeking to understand and to address this problem but has not been able to progress the matter with CSS.
55. **JRC, on behalf of the UK Fuel & Power Industry**, states that it does not foresee any potential problems based on known interference scenarios in relation to potential interference to telemetry and telecontrol radio systems operated by utility companies.

Aviation

56. **Civil Aviation Authority Directorate of Airspace Policy** states that it is essential that a Cambridge Airport perspective of the Environmental Statement is established and notes that there clearly remains several significant issues outstanding. It also states that: Duxford Aerodrome, the licensee of Stansted Airport and the Ministry of Defence are provided the opportunity to comment on the proposal; there needs to be a NERL assessment of the proposal; aviation obstruction lighting will need to be considered if recommended by other consultees; consultation should be carried in accordance with OPDM Circular 1/2004; and, should the development proceed, the developer and/or the Council (ODPM Circular 1/2003 refers) will need to provide details of the development to the Defence Geographic Centre so that the structures can be charted on aviation maps.
57. **NATS/NERL Safeguarding** states that, although the proposed development is likely to impact on its electronic infrastructure (radars at Debden and Stansted), it has no safeguarding objection to the proposal.
58. **BAA** has no objections to the proposal in relation to air traffic services.
59. **Cambridge Airport** objected stating that there are two grounds for objection – impact on the area radar operated by the airport and the penetration of the outer horizontal surface established around the airport.

Radar – The airport operates and benefits from radar coverage, based on its AR15 system. The proposed wind farm will create a paint on the screen, to the detriment of the radar coverage. The service will be degraded and increased risk will arise.

Marshall is aware of the ongoing work being carried out by the applicants, to determine whether a software package can be developed to allow the radar to operate with the same reliable level of coverage. Marshall, with others, is co-operating in that work.

A further issue is the question of whether any solution found is capable of supporting the existing AR15 radar. Should such a solution be found, Marshall will require the applicants to fund any installation and its required level of maintenance.

Outer Horizontal Surface – Cambridge City Airport benefits from an established outer horizontal surface, which helps safeguard airspace from obstruction. Preliminary work in relation to the proposed wind farm indicates that the outer horizontal surface will be penetrated by approximately 40 metres, by the tips of the turbine blades.

On 8th January 2007 Cambridge Airport withdrew its objection in regard to penetration of the outer horizontal slope. Discussions continue in regard to the area radar.

60. **Defence Estates** final comments are awaited. Discussions continue with the applicants in regard to the impact of the proposal upon operations at Defence Procurement Agency (DPA) Cambridge. A previous objection raised by HQ Strike command due to the affects on Lakenheath has been withdrawn.

Landscape

61. **The Countryside Agency (Now Natural England)** does not wish to comment on the application but states that it recommends that applications for wind energy proposals include the following: description of existing situation; explanation of site selection process; description of development; definition of the zone of visual influence and likely significant environmental effects; description of the existing environmental situation; assessment of the nature of recreational usage of the area and public rights of way within the zone of visual interference; assessment and judgement of the visual influence of the development; and consideration of modifications to the proposals.

High Pressure Gas Main

62. **National Grid** states that turbines must be 1.5 times their mast height away from high pressure gas mains and the nearest turbine 10, which has a mast height of 80 metres, is 135 metres away from a main and thereby more than the recommended 1.5 times its height.

Wildlife/Ecology

63. **SCDC Ecology Officer** originally had a holding objection to the proposal stating that it has the potential to impact on bats and rare farmland flora, the level of habitat mitigation and enhancement is not clearly presented and the post-project monitoring is not adequate in terms of range of subjects or duration. He stated that: in order to properly assess the impact of the development on bats, information on flight paths across the site is fundamental; new planting and enhancement of hedgerows should be provided in advance; further and more detailed mitigation and enhancement is required; species rich chalk grasslands adjacent to tracks need to be adequately protected and re-created; it should be clarified if the Old Cambridge Road Verges County Wildlife Site will be affected by the proposal in any way; whilst the current badger survey work is acceptable, a re-survey should be required prior to the commencement of construction work; the impact of the A11 junction alterations on habitats and opportunities to establish new verges should be clarified; the turbine base surrounds could be sown with chalk grassland wildflower mix and the temporary cranes hardstandings could be re-sown if that will not be productive arable land again; the potential for new hedgerow and woodland planting should be further

clarified and shown on an enhancement plan; monitoring of bats, birds and arable flora should be carried out for a minimum of 5 years.

In response to the submitted Ecological Mitigation and Enhancement Strategy date stamped 29th November 2006, he states that he has no outstanding objections to the proposal and feels that much of the information contained within the supplementary strategy can be enforced through appropriately worded conditions. Specific issues he highlights are:

It is accepted that the hedgerows contained within the site have been suitably avoided and that where construction measures have potential to cause some harm mitigation measures are proposed. Furthermore, in order to provide a net gain for hedgerow restoration within the site 450m of new hedge is proposed along with infilling (gapping up) where needed (section 3.3). The badger setts present within the site can be suitably integrated within the restored hedgerows, thus this activity should provide a net gain for the local badger population. The new hedgerow when considered along with the 4-6m grass swathe on each side should also become an important green corridor in the future across what is presently a very open site.

RES undertook an important survey to assess the current value of the site for arable plants. The site was highlighted as containing (at least) regionally important communities of arable plants. The plants were found mainly along field margins and could have been threatened by track widening. However, through discussion a suitable approach has been agreed to retain the arable plants along new field headland (section 4.2).

The project proposals have now clarified the level of new chalk grassland creation. This will make an important contribution towards the Cambs BAP and is much welcomed. The supplementary report states that a net gain of 99,218m² of chalk grassland will be created (section 5.6). Furthermore, I am now aware of RES's proposal to provide the Wildlife Trust with a degree of funding to assist in the management of the nearby Fleam Dyke SSSI, thus securing the positive management of a nationally important chalk grassland site.

The proposal also intends to create 5,200m² of wildflower habitats around the base of each crane hardstanding. This further habitat creation represents an innovative approach to what would have been bare concrete (section 6.1).

It is accepted that stone curlews have not been found within the site during 2006 (section 7.2).

It is agreed that the grass strips will provide benefits for the local skylark population thus contributing the needs of another Cambs BAP species (section 7.3).

The findings of the October 2006 Bat Survey Report are accepted (section 8.2). The habitat creation measures should improve the long-term habitat potential of the site for feeding and commuting bats. The link with the local Bat Group should be further explored (section 8.4) given the degree of uncertainty that still remains between the interactions of bats and wind turbines, and the relative proximity of the Balsham Bat Caves.

The proposal to plant hedgerows prior to the start of construction is welcomed and should be conditioned (section 9.2).

The proposals for the monitoring of the site over a period of five years is welcomed (section 10.1).

The clear table presenting negative and positive impacts is a useful tool for presenting the biodiversity gains of the proposal (section 11.1) and is welcomed.

Additional Comments

"Further to my previous comments I provide an update in respect of the submitted "Ecological Mitigation & Enhancement Strategy", supplementary document produced by RES Nov. 2006.

I have no outstanding objections to the proposal and feel that much of the information contained within the supplementary strategy can be enforced through appropriately worded conditions. Specific issues are considered below.

It is accepted that the hedgerows contained within the site have been suitably avoided and that where construction measures have potential to cause some harm mitigation measures are proposed. Furthermore, in order to provide a net gain for hedgerow restoration within the site 450m of new hedge is proposed along with infilling (gapping up) where needed (section 3.3). The badger setts present within the site can be suitably integrated within the restored hedgerows, thus this activity should provide a net gain for the local badger population. The new hedgerow when considered along with the 4-6m grass swathe on each side should also become an important green corridor in the future across what is presently a very open site.

RES undertook an important survey to assess the current value of the site for arable plants. The site was highlighted as containing (at least) regionally important communities of arable plants. The plants were found mainly along field margins and could have been threatened by track widening. However, through discussion a suitable approach has been agreed to retain the arable plants along new field headland (section 4.2).

The project proposals have now clarified the level of new chalk grassland creation. This will make an important contribution towards the Cambs BAP and is much welcomed. The supplementary report states that a net gain of 99,218m² of chalk grassland will be created (section 5.6). Furthermore, I am now aware of RES's proposal to provide the Wildlife Trust with a degree of funding to assist in the management of the nearby Fleam Dyke SSSI, thus securing the positive management of a nationally important chalk grassland site.

The proposal also intends to create 5,200m² of wildflower habitats around the base of each crane hardstanding. This further habitat creation represents an innovative approach to what would have been bare concrete (section 6.1).

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interactions of bats and wind turbines, and the relative proximity of the Balsham Bat Caves.

The proposal to plant hedgerows prior to the start of construction is welcomed and should be conditioned (section 9.2)

The proposals for the monitoring of the site over a period of five years is welcomed (section 10.1).

The clear table presenting negative and positive impacts is a useful tool for presenting the biodiversity gains of the proposal (section 11 .1) and is welcomed.”

64. **Natural England (formerly English Nature)** has considered the proposal in terms of designated sites, birds, bats, badgers, scarce arable plants and habitat enhancements and other protected species and has no objections to the proposal subject to conditions and the proposal being carried out in strict accordance with the details of the application. It also broadly supports the Ecological Mitigation and Enhancement Strategy date stamped 29th November 2006. It states that the site is within 300m of Fleam Dyke Site of Special Scientific Interest (SSSI) and less than 5km from 5 other SSSIs. It has also had regard to the Old Cambridge Road County Wildlife Site. It also recognises that a number of protected and notable species are known to occur, or are likely to be present at the site including a variety of scarce arable plants, bats, breeding and wintering birds, and badgers. It recommends that conditions should cover/ensure: no blades pass closer than 50m from any hedgerow or woodland edge habitats to minimise risk of bat mortality when bats use these areas for commuting or feeding; bat and bird surveys and monitoring regimes should be agreed for a period of at least 3 years to ensure that the mitigation proposed in the application has been successful and any reduction in numbers addressed and suitably mitigated; further detailing of mitigation and enhancement proposals listed in the application (6.11.21-6.11.27); and long-term monitoring of the scarce arable plant populations to assess the success of mitigation, to review management of the site and enable any reduction in numbers to be addressed and suitably mitigated. It also states that bat habitat enhancement should be carried out as described in the application (para 6.11.18) but that rather than provide bat boxes on site as proposed (para 6.11.31), in order to minimise bat collisions, off-site provision or a contribution towards a local bat group be made. It also recommends that surveys of protected species should be reviewed periodically if construction is delayed or phased and advises that all contractors are briefed by the applicant's ecologist. – relevant guidance Circular 06/2005 and PPS9. It is satisfied that the E.S adequately protects the main badger sett.
65. **Environment Agency** comments in relation to the impact of the development on invertebrates are awaited. In relation to other ecological considerations, it states that; it supports the mitigation and enhancement measures proposed; an ecological management plan including details of who will be carrying out the management should be provided for the site as many of the mitigation and enhancement recommendations are dependent on future management; and the recommendations made in the Environmental Statement should form part of the planning conditions if the application is approved.
66. **RSPB** has no objections to the application but makes the following comments: all of the seven designated nature conservation sites within 5km of Wadlow Farm are designated for their botanical interests; all works should avoid the breeding season to avoid disturbance to breeding birds and would like to remind the applicant that all Schedule 1 birds and all nesting birds are legally protected; it is pleased that the

turbines are located to avoid ecologically sensitive areas, such as Fleam Dyke SSSI; it is pleased that hedgerow take has been minimised and will be mitigated for with the creation of replacement habitat and is pleased to see that grassland and field margin strips will be established throughout the site and along boundaries; the proposed post construction monitoring is satisfactory; although it is satisfied that the methodology for the stone curlew study was thorough, as the time was not optimal to producing comprehensive results, it recommends that these surveys be repeated over the next breeding season; in view of this and the size of the proposal, it recommends a precautionary approach to the development by the creation of an area of habitat specifically managed for stone curlews in an appropriate location on the farm away from the turbines which, as well as mitigating for the potential disturbance to stone curlews, would help to meet UK biodiversity action plan targets.

Flood Risk and Pollution Control

67. Following receipt of the Flood Risk Assessment accompanying RES' 25th September 2006 letter, the **Environment Agency** has no objection to the application in terms of flood risk and pollution control subject to the imposition of a condition relating to surface water drainage and makes advisory comments with respect to pollution control.

Economic Development

68. **East of England Development Agency (EEDA)** broadly supports the proposal as it helps to address some of the key themes identified in the Regional Economic Strategy, especially the aim of maximising the efficient use of resources. It also states that the Eastern Region is unlikely to meet its targets of 10% from on-shore 4% from off-shore of the region's electricity from renewable sources by 2010 but that this development would make an important contribution towards the region's target. It also considers that the development would produce some, albeit limited, economic benefit for the area.

Highway Matters

69. **Highways Agency** has no objections to the proposal on the condition that the temporary junction improvements at the A11/Wilbraham junction are carried out. The Agency is happy with either of the 2 proposed highway modifications options included at the back of the ES Volume III.
70. **Local Highways Authority** considers that the application contains insufficient detail on how the developers foresee the proposed A11 Wilbrahams junction modifications operating to make an informed recommendation on the road safety issues posed by the scheme. Notwithstanding this, it states that: the lorry routeing agreement must ensure that all HGVs access is via the A11; it is essential that each time an abnormal load travels to the site, manual traffic management within the vicinity of the slip road and route to the site is agreed in advance with both the Highways Agency and CCC traffic/maintenance staff; and all off-site works must be the subject of a Section 106 Agreement with CCC and completed prior to the commencement of any development.

In response, the applicant has submitted a Transport and Traffic Management Plan to the Local Highways Authority, updated 1st May 2007 to take account of comments raised by the Local Highways Authority.

Others/Comments Covering a Number of Issues

71. **Campaign to Protect Rural England** states that it favours renewable energy but objects to this proposal on the following grounds: adverse effect on the landscape; adverse effect on Fleam Dyke, a Scheduled Ancient Monument; together with other planned development for the area, urbanising effect on rural landscape; loss of amenity for members of the public using Fleam Dyke, a Site of Special Scientific Interest and a public right of way, particularly as Harcamlow Way (the right of way running from Little Wilbraham to Balsham) is identified as a Green Corridor Initiative by Cambridgeshire Horizons in its 'Green Infrastructure Strategy' (2006); and likely distraction to drivers using the A11. It therefore states that the application is contrary to Structure Plan 2003 Policies P1/2, P7/4 and P7/7 and Local Plan 2004 Policies EN1, EN4 and EN15(b).
72. **Cambridgeshire County Council Head of Strategic Planning** has no comment.
73. **Trinity House Lighthouse Service** has no observations.
74. The following were consulted on the application but have not commented – **UNEP World Conservation Monitoring Centre, Ramblers' Association, SCDC Strategic Development Officer, Wildlife Trust and Cambridgeshire Bat Group.**
75. The following were notified of the application but did not wish to be consulted – **British Telecom, Vodafone, O2, NTL, ITC, Orange, T-Mobile, BT Airwave, Cambridge Water Company, Transco and IWM Duxford.**

Representations

76. In addition to site notices and an advert in the Cambridge Evening News, notification letters were sent to all the residents of Balsham, Fulbourn, Great Wilbraham, Little Wilbraham, Six Mile, Weston Colville, West Wickham and West Wrating.
77. Cambridge Preservation Society welcomes moves to facilitate more sustainable living and working and high sustainability in relation to the expanding needs of the sub-region, but feels that the following comments require addressing: the effect of the proposal on the important natural and historic feature of Fleam Dyke; the effect on views from the Gog Magog Hills; and on and off-site local mitigation.

Objections

78. Stop Wadlow Wind Farm (SWWF), a campaign group opposed to the development, supported by a 'Planning policy, landscape and visual critique' prepared by The Landscape Partnership (attached as an electronic appendix) objects on the following grounds:
- (a) Industrial scale development on a rare and historically important, truly rural landscape;
 - (b) The development would change the entire nature of this important prehistoric landscape;
 - (c) The level of investigation of the site's known prehistoric activity is inadequate;
 - (d) The development would result in a significant visual change that would impair the distinctiveness of the landscape character of a wide tract of countryside;

- (e) Within the Joint Character Document, prepared by The Landscape Partnership as consultants for the Countryside Agency and English Nature 1999 under the 'Shaping the Future' heading, it states that the East Anglian Chalk Landscape Character Area "would benefit from a discouragement of ...large scale development on hilltops ...". The A11 and national grid power lines for the most part run below the ridge line whereas the turbines would appear as skyline features dominating the ridge at this point. The landscape currently absorbs the A11 and the national grid lines but the further intrusion of the proposal would detract from the distinctiveness or central character of the chalk ridge;
- (f) The landscape has a sub-regional and possibly regional significance as it is rare within East Anglia to find prominent higher land of high quality. This high quality being dependent upon its striking topography and surface mantle of woodlands and substantial hedgerows which add definition and emphasis the landform;
- (g) Significant adverse visual impact on the approaches and perimeter of Balsham, West Wrating, Fulbourn and Great Wilbraham Conservation Areas, and the northern edge of Balsham Conservation Area in particular, and listed buildings within them. Contrary to the statement in the Environmental Statement, most of the conservation areas are not located within the centre of the identified settlements and do not generally have restricted visibility towards the site. Churches in particular were built as the dominant structure in the local landscape and were not inward facing. There has been a significant failure within the Environmental Assessment process to address the issues of setting as well as impact on the historic environment;
- (h) Harm to character and setting of Fleam Dyke, a Scheduled Ancient Monument;
- (i) Impact on enjoyment of those using the strategic recreation routes within the area including Fleam Dyke, Icknield Way, Harcamlow Way and the myriad of local footpaths which have long views over the countryside for several miles. Cambridgeshire Horizons has highlighted Fleam Dyke and the Harcamlow Way as New Green Corridor 26 for Cambridge as part of its Green Infrastructure Strategy for the Cambridge Sub-Region reiterating their importance;
- (j) RES has underplayed the effect and visibility of the turbines from people's own homes and makes no allowance for providing mature screening other than one hedge on the development site which is unacceptable due to the extremely open nature of the surrounding land. If approved, suitable mature planting needs to be secured by condition within at least a 6km radius of the site and for any roads where drivers will have a direct view across to the wind farm at dangerous corners or junctions where distraction may occur;
- (k) The limited mitigation proposed is not sufficient to address the identified harm;
- (l) The development centres around the dangerous A11 Wilbrahams junction and effectively visually link the villages of Balsham, West Wrating and the Wilbrahams;
- (m) Proposed modifications to A11 Wilbrahams junction are not adequate;
- (n) Driver distraction caused by turbines;
- (o) Damage to bird population – the claim in the application that the breeding bird survey carried out noted that no species that are specifically protected under

Schedule of the Wildlife and Countryside Act were found is disputed completely as, on the neighbouring farm to the south, Rectory Farm, 8 species of bird were evident that are currently on the 'Red List' and a further 10 species were evident on the 'Amber List' in March and June 2006. Other birds including raptors are also evident within the immediate area of the site. No mitigation measures are offered;

- (p) Effect on local bat populations – RES' findings are based on limited survey work;
- (q) Serious impact on the residential amenity of local communities;
- (r) Noise – background noise checks carried out are insufficient and incomplete. Only 3 sites were assessed, most in close proximity to the A11. No assessment has been carried out in any of the nearby downwind villages and the test period was only 20 consecutive days in August 2005;
- (s) The proposed hours of construction (7am-7pm or dusk 7 days a week) would give neighbours no respite and are unreasonable. If approved, weekend and Public Holiday working should be excluded by condition;
- (t) Interference with TV, mobile and radio signals. Confirmation is required from the managing company that the direct line of sight between the 2 TETRA masts (which co-ordinate emergency services) that skim the site would not be affected. If approved, RES should be required by condition to provide a technical fix for any local residents who experience problems with interference once the turbines are operational;
- (u) It has not been shown that wind speeds are sufficient and the generation capacity claimed in the application is grossly over-estimated. Wind speed figures obtained from the existing anemometer on site should be made public. The environmental damage that the development would cause seriously outweighs any small benefits the development may generate;
- (v) The Environmental Statement is seriously flawed in that there is no documented assessments of any of the other 7 alternative sites examined, no consideration is given of the alternative sources of renewable energy provision as the Best Practicable Environmental Option and the number and size of turbines are all taken as given rather than consideration being given to whether alternative designs or configuration would contribute to any minimisation of their impact;
- (w) Other than the generation of electricity and very limited local economic benefits, the application does not set out any environmental, social or economic benefits of the development;
- (x) The Environmental Statement is incomplete with serious misinterpretation of policies, in particular policies EN4, EN9, EN13, EN14 and EN15 and basic errors such as drawings using the descriptors 'heather and peat';
- (y) A landscape and environmental capacity study is required to determine the most appropriate locations for wind turbine development in the District;
- (z) The community fund should be resolved before a decision is made; and if approved, a condition and bond should require the removal of the entire development, including the concrete foundations, after the 25 year period.

- (aa) The Campaign Group has re-iterated its objections in a letter dated 18th December 2006, following consideration of various enclosures provided by RES. Appended to that letter is a response from its Landscape Consultants that concludes:

"Nothing in the LDA response to our Technical Report leads us to change our observations in respect to this application. It only increases our concern that the Environmental Statement and, in particular, the Landscape and Visual Assessment on which we are particularly qualified to comment is flawed and falls short of what should be expected.

We are encouraged that Andrew Pykett, the Inspector conducting the Boxworth and Conington appeal, appears to have adopted a similar approach in dismissing that appeal on a site that we consider to be a less visually sensitive and lower quality landscape than would be influenced by the Wadlow proposal. Accordingly we urge the South Cambridgeshire District Council to refuse this application."

79. In addition, 183 letters of objection from 162 addresses have been received – 45 letters from Balsham residents, 44 from West Wrating residents, 21 from Weston Colville residents, 19 from Great Wilbraham residents, 10 from Little Wilbraham residents, 8 from Fulbourn residents, 7 from Carlton residents, 7 from Six Mile Bottom residents, 5 from Brinkley residents, 4 from West Wickham residents, 1 from a Bottisham Resident and 11 from residents of other places. The grounds for objection are:

(The number after each point refers to the number of letters referring to that ground for objection).

- (a) Industrialisation of/eyesore and discordant feature in what is currently a beautiful, delightful, unspoilt rural setting, and a historic chalk upland and peaceful rolling landscape; destruction of the rural character of the villages of Balsham and West Wrating, including if lit at night; English Nature and the Countryside Agency have stipulated that large scale development on hill tops in this area should be discouraged – 160
- (b) Noise disturbance/pollution including infrasound, the figures for which can only be speculation as a specific turbine has not been chosen; background noise levels taken at Valley Farm only which is in relatively close proximity to the A11 and upwind of the site; readings should be taken at Green End Farm Cottages – 77
- (c) Wind farms are not the solution; burning crop bi-products, biomass, solar and nuclear would be better; economic benefit not proven; development would line pockets of investors at the expense of the taxpayers; alternatives required for when there is too much and too little wind; off-shore wind farms are more productive and less damaging; need to reduce energy usage – 65
- (d) Impact on protected species/wildlife (birds, bats and badgers) – 64
- (e) Insufficient wind speeds; questions over viability; figures for energy produced exaggerated – 65
- (f) Distraction to drivers using A11, including if lit at night – 35

- (g) Impact on/overwhelm present ambience of Fleam Dyke/historic sites including setting of conservation areas and listed buildings – 34
- (h) Devaluation of property prices – 23
- (i) Interference with already poor TV, radio and mobile signals – 16
- (j) Shadow flicker – 10
- (k) Wilbrahams A11 junction/bridge over is woefully inadequate to support the construction traffic – 10
- (l) Dangers to low flying aircraft/affect on radar and aircraft safety – 9
- (m) Disruption to road users and local residents during construction period – 8
- (n) No proven/limited benefit to the local community – 6
- (o) Precedent for further industrialisation/wind farms – 5
- (p) Proposal could exacerbate already fragile electricity supplies to local villages, leading to even more power cuts – 4
- (q) Dangers of blades becoming detached – 3
- (r) No information of other sites considered available to enable critical analysis – 3
- (s) Proximity to a SSSI – 3
- (t) Change of use of whole site edged red not necessary – 2
- (u) Immediate area is of archaeological significance – 2
- (v) Information needed about connection to the National Grid – 2
- (w) CO² emissions savings are overplayed/no real information to say how much electricity will be produced – 2
- (x) Use of epoxy resins on blades is hazardous to workers – 1
- (y) Proposed changes to A11 junction would make it more dangerous as it would encourage drivers to speed – 1
- (z) No need for further wind farms given number already approved and proposed within the County – 1
- (aa) Key driver for selecting any site is proximity to the National Grid, not any other selection criteria – 1
- (bb) This site only chosen because of proximity of power cabling and access roads and hence low development costs – 1
- (cc) Impact on horse riders and cyclists using rights of way from shadow flicker, blade movement, ice throw and noise – 1

- (dd) Safety threat when ice is thrown off the blades when starting up in cold weather – 1
- (ee) If built, dedicated parking for viewers required to avoid parking on verges – 1
- (ff) Loss of farming – 1
- (gg) Environmental, wildlife and road problems of getting the equipment on site – 1
- (hh) Cynical attempt by the developers to profit from politicians desire to be seen to be doing something – 1
- (ii) No demonstrable need – 1
- (jj) Insufficient information on drainage of access track immediately north of field parcel 6500 – 1
- (kk) Restrictions would need to be placed on any future use of hardstandings – 1
- (ll) The EA is flawed, inaccurate and lacks the required rigour and objectivity – 1
- (mm) Many local residents have been misled into the view that they can obtain cheap electricity due to wind costing nothing – 1
- (nn) Further information required about decommissioning, community fund, assessing and overcoming interference with TV, radio and mobile homes and monitoring of noise, flicker and acceptance to undertake expeditiously corrective measures – 1
- (oo) This poorly presented application doesn't allow any reasonable assessment to be made of the impacts of the proposal – 1

Letters of Support/No Objections

- 80. 100 letters of support/no objection from 72 addresses have been received – 8 from Fulbourn residents, 4 from West Wickham residents, 4 from Little Wilbraham residents, 3 from Balsham residents, 2 from Weston Colville residents, 1 from a Brinkley address, 1 from a Carlton resident and 76 from residents of other places. A petition in support of the proposal signed by occupiers of 19 dwellings in Carlton and Willingham Green has also been received. The grounds for support/no objection are:
- 81. (The number after each point refers to the number of letters referring to that reason to support/not object to the proposal)
 - (a) Alternative sources of energy must be secured and wind power can make a contribution – 82
 - (b) Being away from substantial housing, on rising ground, adjacent to the national grid and not a high grade landscape (not an AONB or National Park) make it an ideal wind turbine site – 6
 - (c) Noise pollution would be minimal, partly in view of proximity of the A11 – 7
 - (d) Impact on wildlife would be minimal – 3

- (e) Turbines are graceful and would add to rather than detract from the landscape – 4
- (f) Turbines are no more unsightly/are less unsightly than electricity pylons – 3
- (g) Benefits of reducing climate change outweigh harm to landscape – 4
- (h) Proposal will provide clean, green electricity – 6
- (i) They would not be a distraction to A11 drivers – 2
- (j) Fears about adverse effect on house prices would prove unfounded/are overemphasised – 2
- (k) Benefits to the local community would accrue through a fund to be set up – 1
- (l) Impact will be relatively insignificant/far greater damage has already been done/turbines would provide a welcome contrast – 1
- (m) Visual blight is grossly overestimated – 1
- (n) In keeping with National Planning Policy in PPS1 and PPS22 and an appropriate land use for the area – 5
- (o) Allegations of health hazards are plain nonsense – 1
- (p) No shortage of wind at Wadlow Farm – 1
- (q) Finances not relevant – 1
- (r) Land is of limited biological interest – 1
- (s) Wind power has a lesser effect on habitats than alternatives – 1
- (t) Meadow Primary School in Balsham is educating the children to be ecologically minded. They deserve to inherit a sustainable future - 1
- (u) It will produce sufficient to power one third of the homes in South Cambs, eliminating 67,000 tons of CO₂ - 1
- (v) Assessment by the applicants has demonstrated that Wadlow Farm is one of the best sites in South Cambridgeshire - 69
- (w) Modern wind turbines are planned for a period of 25 years, after which time they may be removed, or replaced - 69
- (x) Measures proposed to reduce visual impact through tree planting and financing a Wildlife Trust initiative to enhance Fleam Dike SSSI - 70
- (y) Consequences of not responding to the threat of climate change resulting in significant impact on the local landscape, beginning with loss of bluebell woods and beech trees - 69

82. Whilst supporting/not objecting to the proposal, one of those commenting wanted disruption to be kept to a minimum, a % of profits to be channelled back to the local

villages, the implementation of a substantial landscaping scheme and assurances that the project would not set a precedent for others in the area. Another wanted to be assured that impacts on wildlife, traffic hazards and local residents are carefully considered. A third stated that the development must not lead to further industrial developments and a fourth asked members to note that Friends of the Earth do not object, the scheme is not in an area with a nationally recognised landscape designation, the development is in line with national imperatives to increase generation by renewable means and Cambridgeshire contributes very little to the National Grid.

Planning Comments – Key Issues

83. The main issues in relation to this application are: renewable energy targets; landscape and visual impacts; nature conservation interests; archaeology and the historic built environment; hydrology; residential amenity; highway safety; electromagnetic interference, and air safety.

Renewable Energy Targets

84. At the Public Inquiry held in October 2006 into the refusal of planning permission for 16 wind turbines at Boxworth/Conington it was agreed that the then current regional total for operational and consented renewable energy schemes amounted to an equivalent of 4.9% of the total. Projects at the planning stage (including that appeal scheme) would increase the potential installed capacity of 7.2% of the total (6.8% without the subsequently dismissed appeal scheme).
85. The Inspector at that Inquiry considered that, in view of the current proportion, the limited number of schemes at the planning stage, and the long lead-in times, it is most unlikely that the 2010 target will be met. Therefore he gave weight to the appellant's view that "the need for more renewable energy development is both urgent and increasingly pressing."
86. In a similar way this scheme will contribute towards attainment of the regional targets. The application is therefore in partial conformity with Policy 60 of RPG60, with the purposes of Structure Plan Policy P7/7 and Local Plan Policy EN44 and those of Policies NE/2 of the LDF and ENG2 of the Draft revision of RSS14.

Landscape and Visual Impacts

87. Landscape impact and visual impact should be considered separately. Landscape impact being the effects of a development on the landscape fabric, character and quality and so concerns the degree to which the development becomes a significant or defining characteristic of the landscape. Visual impact being the degree to which a development becomes a feature in particular views and the effect this has on the people experiencing those views.
88. It is considered that there are no other wind farm developments alongside which this proposal should be considered in terms of the cumulative landscape and/or visual impact as, not only are there not any other such developments visible from the same points, there are also no other such developments that would be visible shortly after each other along the same journey.
89. Other than localised hedge planting to the southwest of the site, the ES concludes that there is no benefit gained by or proposal for on-site mitigation planting.

90. The Council commissioned Chris Blandford Associates (CBA), landscape architects specialising in wind farm development, to provide an assessment of the landscape and visual chapters of the ES and to provide landscape and visual advice on the planning application.
91. CBA has reviewed the methodology adopted in the ES to assess landscape and visual impact. Several criticisms are highlighted in regard to the degree of assessment and impact upon Conservation Areas, Historic Parks and Gardens, Listed Buildings and landscape character, quality value and sensitivity.
92. CBA has reviewed the ES landscape and visual impact assessment in regard to the above matters and to The Fleam Dyke Scheduled Ancient Monument, the setting of Cambridge, the historic landscape and visual impacts.
93. CBA has identified key landscape planning policies and guidance at the national (PPG15 and PPG16), County (Structure Plan 2003) and Local Level (2004 Local Plan).
94. Finally CBA considers the suitability of the Wind Farm Site at Section 5. I quote it in full:
- “5.1 Many of the landscapes surrounding the site are simple and large-scale, and a wind farm development can, in theory, be more easily accommodated within such landscapes than complex, small-scale ones. However, the landscapes surrounding the site also have high sensitivities to wind turbine development, e.g. open and undeveloped skylines, a sense of tranquillity and seclusion in some parts and the presence of protected features such as listed buildings, Conservation Areas and a scheduled ancient monument.
- 5.2 Development of the wind farm would result in the introduction of new, large-scale, vertical, man-made elements into a predominantly rural landscape that supports a relatively sparse population.
- 5.3 The proposed wind farm would result in significant adverse impacts on the:-
- (a) Character, local distinctiveness and quality of this high quality, rural landscape
 - (b) Setting and appreciation of the historic character of Fleam Dyke
 - (c) Setting of Conservation Areas at West Wrating and Balsham
 - (d) Setting of listed buildings at Nine Chimneys House on the northern edge of Balsham, Weston Colville Hall to the west of the site, and West Wrating Grange to the southeast of the site.
- 5.4 The wind farm would also result in significant adverse impacts on the visual amenity of residents and recreational walkers for up to 10km from the site but would affect relatively low numbers of people for a wind farm site in this part of England.
- 5.5 The proposed turbines would conflict with a series of landscape planning policies and guidance, at local, county and national level, which are intended to protect residential amenity, the intrinsic character of the countryside, and the settings of landscape and cultural heritage resources. This would conflict

with Cambridgeshire and Peterborough Structure Plan policies P7/4 (Landscape), P7/6 (Historic Built Environment) and P1/2 (Environmental Restrictions on Development). They would also conflict with South Cambridgeshire Local Plan policies EN1 (Landscape Character Areas), EN3 (Landscaping and design standards for new development in the countryside), EN4 (Historic Landscapes), EN28 (Development within the Curtilage or Setting of a Listed Building) and EN30 (Development in Conservation Areas).

- 5.6 CBA consider that there are strong grounds for rejection of this planning application based on the predicted significant adverse impacts on the setting of the scheduled ancient monument of Fleam Dyke, on the setting of Conservation Areas and listed buildings and on the character, quality and local distinctiveness of this high quality, largely intact rural landscape."

Nature Conservation Interests

95. Badgers, bats, a number of bird species and scarce arable fauna are known to be present on and around the site, but having carefully considered the survey work originally submitted and the additional survey work carried out, and subject to the agreement and implementation of the proposed habitat enhancement plan, together with the imposition of appropriately worded conditions, the relevant Conservation Groups have not objected to the proposal. Indeed positive benefits have been identified, including RES's proposal to fund over a 5 year period the following 3 work areas on Fleam Dyke SSSI:
- (a) Management of species rich grassland
 - (b) Juniper restoration plan
 - (c) Monitoring of the local Chalkhill butterfly population

Archaeology and the Historic Built Environment

96. The ES identifies a number of potential archaeological features within the site which would be largely unaffected. Where they would be affected, they would be excavated and recorded.
97. The impact of the proposal upon the setting of Fleam Dyke, SAM, at its south east end will be significant, particularly given the location of Turbine 10 up to 357m distance from this open section of the SAM. The SAM is some 5km long and is dissected by the A11 Trunk Road and crossed south east of Dungate Farm by a 400kw overhead power line with a 46m pylon tower some 50m from the Dyke. The presence of Turbine 10 on the south easterly approach to the SAM will, in my opinion, detract from its setting at that end, but elsewhere the turbines will be no closer than 900m; and in many cases exceed 1km. For much of its length south-east of the A11 the Dyke has vegetation on either side, which will help to filter views. In the absence of an objection from English Heritage, I do not consider that permission should be withheld on that ground.
98. I do not agree with the CBA report for the Council which concluded that the proposal would have a significant adverse impact on the Conservation Areas at West Wrattling and Balsham or on the setting of the Listed Buildings specified in Paragraph 94 above. These Conservation Areas do, for the most part, have an enclosed character by virtue of mature planting and tree belts. Views out towards the application site are limited. The same applies to the specified Listed Buildings, other than Grange Farmhouse on Balsham Road, West Wrattling. This is some 900 metres from T.11 in this very open and visually exposed part of the site. In terms of its wider visual and

functional setting there will be an adverse impact, but, in the context of the wider historic environment, I agree with the Conservation Manager that impact is limited.

Hydrology

99. The ES includes information on hydrology and hydrogeology and a Flood Risk Assessment has also been submitted as part of the application. Subject to the surface water drainage condition recommended by the Environment Agency, the proposal is considered to be acceptable in terms of its impact on the water environment.

Residential Amenity

100. In terms of noise, figure 10.1 in the ES seeks to demonstrate that only Wadlow Cottage would be within the predicted >35.0 dB contour. Recommended good practice on controlling noise from wind turbines is contained in 'The Assessment and Rating of Noise from Wind Farms', ETSU-R-97, part of which is reproduced in the Companion Guide to PPS22.
101. For the day-time hours it suggests an upper limit of 35-40dB(A) or 5dB(A) above the prevailing background as measured during quiet day-time periods, whichever is the greater. For the night-time, the recommended maximum noise limit is 43dB(A) or 5dB(A) above the prevailing night-time background, whichever is the greater. The 43dB(A) lower limit is based on a sleep disturbance criterion of 35dB(A), with an allowance of 10dB(A) for attenuation through an open window and 2dB(A) subtracted to account for the use of L_{A90} rather than L_{aeq} .
102. The ES records predicted noise levels at nearby dwellings from the operation of the proposed wind farm. Six of the 20 nearest neighbours would experience noise emission levels above the 35dB(A) threshold at a wind speed of 10m/s at 10m above ground level (ETSU recommended simplified criteria for offering sufficient protection of amenity from wind farms with "very large separation distances between the turbines and nearest properties").

Location	Noise Level	Distance to Nearest Turbine/m
Dungate Farm	35.5	1126
Larkhall Cottages	35.9	1048
New Wadlow Cottages	36.3	960
Wadlow Cottage	37.7	802
Wadlow Farm	36.3	981
West Wratting Valley Farm	36.1	817

103. The ES carried out a full acoustic assessment for these properties and concluded that noise levels at all locations are within both the quiet waking hours limit and night-time noise limits (see Paragraph 101 above) at all wind speeds considered.
104. The Council's consultant, BRL, is satisfied that, subject to the imposition of appropriate conditions, the application has complied with the advice included in PPS22. Whilst the conditions on different sites are not the same, it is interesting to note that the Inspector in his December 2006 decision letter noted that:

“During my visit to the Burton Wold Wind Farm I noted that the turbines only became audible at much closer locations than any of the nearest dwellings in Conington and Boxworth would be to the turbines indicated in the appeal proposal.”

The nearest dwellings at Wadlow would be further from the wind farm than was the case at Boxworth and Conington.

105. PPS22 Companion Guide indicates that there is no evidence that ground transmitted low frequency noise from wind turbines is at a sufficient level to be harmful to human health.

In November 2006 all planning authorities received a letter from the Department of Communities and Local Government advising that the ‘Hayes McKenzie’ report, commissioned by the DTI and issued in May 2006, concluded that there is no evidence of health effects arising from infrasound or low frequency noise generated by wind turbines.

In regard to aerodynamic modulation (synchronised downward stroke of more than one blade resulting in a combined ‘chomp’), the Inspector at the Boxworth Inquiry concluded that “the infrequent identification of aerodynamic modulation in existing wind farms leads me to the conclusion that it would be unlikely this would occur.”

106. The application does not specify a particular model of turbine that would be erected. The ES uses the Vestas V90 2MW 105.0dB(A) for the purpose of the noise assessment. Should the application be approved, it would be important to ensure that the type of turbine approved and erected has no greater impact on local residents than this model. This would be covered by the recommended conditions at paragraph 104 above.
107. In relation to shadow flicker and reflected light, PPS22 CG indicates that this can occur inside buildings where the flicker appears through a narrow window opening. It goes on to say that flicker occurs only within ten rotor diameters of a turbine. Thus for 80m diameter blades, the potential flicker could be felt up to 800m from a turbine. No dwelling would be less than 800m from a turbine at Wadlow. In addition the ES indicates that rotational speed of the blades would be well below the 50 rpm critical frequency over which a nuisance might occur.
108. The Companion Guide to PPS22 indicates that careful choice of blade colour and surface finish can reduce the effect of reflected light and suggests that a light grey semi-matt finish, as suggested by the applicant, is often used for this.

Highway Safety

109. Some objectors have expressed concern that the turbines would be a distraction to motorists, particularly those using the A11 Trunk Road. Whilst the Highways Agency has been concerned about distraction in relation to the wind farm, at Boxworth/Conington, it has raised no objections to this application provided the proposed junction improvements to the Wilbrahams junction are carried out. Traffic flows and conditions are significantly different on the A11 compared with the A14. In 2005 traffic flows on the A11 were less than 50% of the flow on the A14 at Boxworth/Conington and HGV flows were 30% less. At Boxworth the closest turbines were about 250m from the road. At Wadlow the closest would be 1,150m/1,200m. There are no planned improvement schemes on the A11, unlike the A14.

110. PPS22CG points out that:

“Wind turbines should therefore not be treated any differently from other distractions a driver must face and should not be considered particularly hazardous. There are now a large number of wind farms adjoining or close to road networks and there has been no history of accidents at any of them.”

111. Although that was also the conclusion of evidence presented at the Boxworth Inquiry by the Highways Agency’s consultants, the Inspector opined that the particular combination of circumstances led to a conclusion that, exceptionally, the wind farm would have a harmful impact on road safety.

112. There are no highway or road safety grounds for objecting to this proposal.

Electromagnetic Interference

113. Wind turbines can potentially interfere with communication systems that use electromagnetic waves like television, radio and microwave links. The bodies responsible for such links were consulted on the application and, in the main, raised no objections to the proposal. However, there are holding objections from Cambridge Airport and Anglian Water. An assessment by the applicant, with reference to the BBC’s new online tool, of the affect of the development on TV reception has enabled the applicant to assess the properties potentially affected.

114. RES is confident that, in all areas of predicted interference, a remedial solution is available either by aerial re-direction, upgrading existing installations with amplification or an improved aerial, or a conversion to terrestrial digital or satellite television. RES is quite willing to agree to a Section 106 or similarly binding agreement to meet the costs of investigating and rectifying any TV reception problems which may occur as a result of the wind farm.

115. The applicant commissioned a report on the compatibility of the proposal and utility radio telecommunication services. This is a detailed technical report which concludes that radio systems and wind farms can co-exist provided adequate mitigation measures are taken and the cost of specified mitigation measures are borne by the Developer. Given that Anglian Water has not disclosed whether it is concerned about existing or possible future radio systems, I do not consider that the objection can be sustained. If permission is granted, a suitably worded condition should oblige the applicant to commission a comprehensive mitigation study and to identify measures to overcome any potential interference.

116. In relation to potential television interference, the ES states that the main TV service in the area is from the Sandy Heath transmitter to the west with an alternative service from the Sudbury transmitter to the east. It indicates that any problems are likely to be isolated to a small area to the east of the site, there are ready solutions and the applicant would be prepared to enter into a legally binding agreement to ensure that it identifies and rectifies speedily at its own cost any such occurrence. PPS22CG indicates that careful siting of individual turbines can usually resolve effects on electromagnetic links. In some cases, it may be possible to effectively re-route the signal around the development, at the developer’s expense, to overcome the problem. Moreover it would be reasonable and possible to impose a condition on any consent to require a scheme to secure the investigation and alleviation of any interference to domestic TV reception, which may be caused by the operation of the wind turbines.

Air Safety

117. One issue remains to be resolved: that of degradation of radar services provided at Cambridge Airport. The parties are working on a solution to install a second radar at the airport to provide coverage of the airspace directly above the wind farm. All costs would be met by RES, who have now provided Cambridge Airport with a draft agreement. In principle, this technical matter should be capable of resolution. If permission is granted, a condition can be imposed precluding the operation of any wind turbine until the solution has been implemented.

Other Matters

118. Subject to the agreement of the precise siting of the turbines, the proposal complies with the guidelines set down by the British Horse Society and the National Grid in relation to minimum distances from public rights of way used by horses and high pressure gas mains respectively.

119. I note that the BHS has recently amended its guidelines, albeit without apparent consultation with BWEA. Nevertheless PPS22 CG, which carries weight in the decision-making process indicates that:

“The British Horse Society, following internal consultations, has suggested a 200 metre exclusion zone around bridle paths to avoid wind turbines frightening horses. Whilst this could be deemed desirable, it is not a statutory requirement, and some negotiation should be undertaken if it is difficult to achieve this.”

120. The Wind Annex to PPS22 says that there have been no examples of injury to a member of the public arising from the operation of wind turbines and adds that published research shows the build up of ice on blades to be unlikely to be problematic. It refers to the overall height to the blade tip plus 10% as being often regarded as a safe separation distance from occupied buildings and the overall height to the blade tip as being often regarded as a safe separation distance from public rights of way. There are no occupied buildings or rights of way within 132m (the height of the turbines plus 10%) of any turbine, the nearest right of way being 200m from Turbine 1.

Conclusion

121. Having regard to all of the material considerations discussed in this case, I consider that the determination rests on the balance between the strong presumption in favour of supporting renewable energy schemes, particularly as there exists a substantial gap between the targets and current provision in the region and the significant harm which will be caused to the landscape character and visual qualities of this area, by reason of the number, size and extent of the turbines.
122. Policy presumption in favour of the scheme is tempered by the very significant weight to be attached to the reasoned justification for Policy NE/2 of the LDF, which suggests that “small groups of wind turbines may also be appropriate”. I do not consider this scheme to comprise a small group!
123. There are no longer special landscape designations in South Cambridgeshire but the Landscape Character Assessment of the East Anglian Chalk, which was carried out by the author of The Landscape Partnership Report, on behalf of the then Countryside Commission (1996 to 1998), advised that ‘the area would benefit from a discouragement of both large-scale developments on hilltops and’.

124. I do not consider that the scale of this particular scheme will sensitively relate to the features and character of this landscape, which Policies P7/4 of the Structure Plan and EN1 and EN3 of the Local Plan seek to protect.
125. The extensive nature of the proposal beyond the containing elements of the north and westerly facing slopes and the existing blocks of woodland, coupled with the height and number of turbines, would overwhelm and dominate the character of the landscape rather than be assimilated into or work with the existing features.
126. I am, however, conscious that no sizeable renewable energy project has been approved in South Cambridgeshire. Approved schemes have been limited to individual wind turbines and the inclusion of technology to generate renewable energy within new developments.
127. Schemes of a scale appropriate to their surroundings should be supported, notwithstanding the degree and nature of change which will result. In neither of the two cases so far advanced in this District has that balance been successfully achieved. I do not consider that the economic, climatic or ecological benefits accruing from the scheme outweigh the substantial harm caused by the scale of this proposal.

Recommendation

128. Refuse (as amended by the Flood Risk Assessment accompanying RES' 25th September 2006 letter to the Environment Agency and additional information dated stamped 29th November 2006) for the following reasons:

Reason for refusal:

Whilst Policies P7/7 of the Structure Plan 2003 and NE/2 of the Local Development Framework (LDF) 2007 support proposals which generate energy from renewable sources, the benefits accruing from this proposal are outweighed by the substantial harm caused by the number, height and extent of the turbines dominating the character and quality of this landscape which can be appreciated by the public from nearby important public rights of way. The scale of the proposal would, therefore, be contrary to Policies P7/4 of the Structure Plan, EN1 of the South Cambridgeshire Local Plan 2004 and NE/4 of the LDF.

Background Papers: the following background papers were used in the preparation of this report:

- South Cambridgeshire Local Plan 2004
- Cambridgeshire and Peterborough Structure Plan 2003
- Local Development Framework Development Control Policies Submission Draft January 2006
- Planning file refs: S/1018/06/F, S/0128/06/F and S/2400/03/F

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