
Chief Executive's Office

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Date: 4 September 2007

Chief Executive: Donna Hall

Chorley
Council

Town Hall
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Dear Councillor

DEVELOPMENT CONTROL COMMITTEE - TUESDAY, 11TH SEPTEMBER 2007

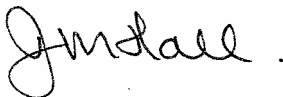
Please find enclosed for your information the following amended report, plan and appendix, for consideration at the above meeting of the Development Control Committee.

Agenda No Item

- a) A1:07/00568/FULMAJ - Cliffs Farm, Wood Lane, Mawdesley (Pages 125 - 168)

Report of Director of Development and Regeneration (enclosed)

Yours sincerely



Chief Executive

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Distribution

1. Agenda and reports to all Members of the Development Control Committee for attendance (Councillor Harold Heaton (Chair), Councillor David Dickinson (Vice Chair) and Councillors Ken Ball, Eric Bell, Alan Cain, Henry Counce, Michael Davies, Mike Devaney, Dennis Edgerley, Daniel Gee, Pat Haughton, Roy Lees, Adrian Lowe, June Molyneaux, Geoffrey Russell, Edward Smith and Ralph Snape)
2. Agenda and reports to Jane Meek (Director of Development and Regeneration), Paul Whittingham (Development Control Manager), Claire Hallwood (Deputy Director of Legal Services), Mark Moore (Principal Planning Officer) and Dianne Scambler (Trainee Democratic Services Officer) for attendance.

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આ માહિતીનો અનુવાદ આપની પોતાની ભાષામાં કરી શકાય છે. આ સેવા સરળતાથી મેળવવા માટે કૃપા કરી, આ નંબર પર ફોન કરો: 01257 515822

ان معلومات کا ترجمہ آپ کی اپنی زبان میں بھی کیا جاسکتا ہے۔ یہ خدمت استعمال کرنے کیلئے براہ مہربانی اس نمبر پر ٹیلیفون
کیجئے: 01257 515823

Item A. 1	07/00568/FULMAJ	Refuse Full Planning Permission
Case Officer	Mark Moore	
Ward	Eccleston And Mawdesley	
Proposal	Erection of 3 No. wind turbines	
Location	Cliffs Farm Wood Lane Mawdesley OrmskirkL40 2RL	
Applicant	Damien Culshaw	

Proposal: This application seeks permission for the erection of three wind turbines on land at Cliffs Farm, Mawdesley. The application is a re-submission following the withdrawal of a previous submission in 2006 due to an objection from Natural England which required monitoring in response to issues related to Whooper Swans.

The proposed wind turbines would each comprise a column 55m in height supporting a three bladed rotor with a radius of 24.1m. The overall height would measure 79.1m from the base to the tip of the rotors at the highest point in their arc with the hub of the rotors connected to a 6.2m wide casement. The columns would be 3.35m in diameter at the base receding to 2.54m at the top and would be constructed in steel finished a matt grey colour. Each turbine would be supported on a 15m square foundation buried 3.5m below the ground level and would be located within a compound area, the largest being approximately 40m x 32m. It is also proposed to construct a hard core pad at the base of each of the proposed turbines to allow for servicing.

In addition it is proposed to erect rectangular, metal control sheds adjacent to the base of each turbine measuring 3m x 3m square and 2.5m in height. The control sheds would be of corrugated steel construction finished in matt grey. A further transformer shed is also proposed which would comprise a steel cabinet of the same dimensions as the control sheds finished in a matching colour.

Access to the site would be via an existing track from Cliffs Farm however two new lengths of 4.2m wide track totalling approximately 340m in length would need to be created to enable each of the turbines to be accessed. The existing tracks proposed for access to the site form part of the Mawdesley Jubilee Trail which is a 7 mile circular walk set within the Mawdesley boundaries.

The electrical connections for the turbines would be via 10-20cm cable buried 1-2m underground.

The proposed turbines would be sited in an area of flat, open countryside located on Mawdesley Moss between the settlements of Mawdesley and Croston. Specifically, the site comprises a flat area of farmland with a field area of approximately 10ha and is situated within the Green Belt as defined by the Chorley Borough Local Plan Review. The site is accessed via a single width road from Wood Lane and via an unmade footpath from Cliffs Farm, which is located approximately 520m to the west of the nearest proposed turbine and is owned by a relative of the applicant. To the north of Cliffs Farm there is an additional residential property, Boundary Farm, which is sited approximately 540m from the northernmost proposed turbine. Further properties at Back House Farm, Hall Lane and Moss House Farm, Gales Lane are located to the south-east and south-west of the application site at a similar distance to Boundary Farm.

Planning History: The site history of Cliffs Farm is as follows:

Ref: 01/00679/FUL **Decision:** PERFPP
Decision Date: 19 December 2001
Description: Erection of boat and bicycle store and archery and air rifle sheds

Ref: 97/00473/COU **Decision:** PERFPP
Decision Date: 5 November 1997
Description: Conversion of redundant cattle building to agricultural and blacksmith's workshop,

Ref: 99/00584/COU **Decision:** PERFPP
Decision Date: 22 December 1999
Description: Change of use of redundant agricultural building to bunk barn accommodation

Ref: 99/00585/COU **Decision:** PERFPP
Decision Date: 22 December 1999
Description: Change of use of 1.2ha of agricultural land to leisure and education, including 0.4ha lake

Ref: 05/00007/INV **Decision:** WDN
Decision Date: 14 February 2005
Description: Replacement workshop building for decorative ironwork and general steel fabrication

Ref: 06/01125/FULMAJ **Decision:** WDN
Decision Date: 7 December 2006
Description: Erection of 3 No. wind turbines,

Ref: 07/00482/COU **Decision:** PCO
Decision Date:
Description: Change of use and improvements to existing barn to provide basic shelter and facilities for groups using the activity centre,

Planning Policy: **Local Plan:**

GN5	Building Design and Retaining Existing Landscape Features and Natural Habitats
DC1	Development in the Green Belt
DC9	Landscape Character Areas
EP4	Species Protection
EP10	Landscape Assessment
EP20	Noise
EP23	Energy from Renewable Resources
EP24	Wind Farms
EM3	Farm Diversification
LT10	Public Rights of Way

Joint Lancashire Structure Plan:

Policy 6	Green Belt
Policy 20	Lancashire's Landscapes
Policy 21	Lancashire's Natural and Manmade Heritage
Policy 25	Renewable Energy

RSS:

EM17	Renewable Energy
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ER5 Biodiversity and Nature Conservation

National Guidance:

PPG2	Green Belts
PPG24	Planning and Noise
PPS1	Delivering Sustainable Development
PPS7	Sustainable Development in Rural Areas
PPS9	Biodiversity and Geological Conservation
PPS22	Renewable Energy

The application site lies within Green Belt wherein development is strictly controlled. Development of very particular kinds such as agriculture, forestry or other uses that retain the open character of land, and are not visually detrimental, are considered appropriate within Green Belt. Local Plan Policy DC1 reflects government guidance in the form of PPG2 and expresses a presumption against inappropriate development. Under these policies other considerations must be put forward to provide the very special circumstances to justify an exception. Policy 6 of the Structure Plan Review reiterates policy in respect of Green Belt.

Policy 20 of the Structure Plan and Policy GN5 of the Local Plan seek to ensure development is of satisfactory design and appearance for its surroundings and will not detract from natural or man made heritage.

The Government is keen to encourage the use of all renewable energy resources. PPG22 gives guidance on wind power generation and the factors to be taken into consideration in assessing proposals, including landscape impact, nature conservation and archaeology, neighbour amenity and associated infrastructure requirements.

Policy 25 of the Structure Plan must be considered in conjunction with the Supplementary Planning Document 'Planning for Landscape Change' part 3, 'Landscape Sensitivity to Wind Energy Development in Lancashire'. The policy in its revised form also reflects the Government advice outlined in PPS22. The policy indicates that wind turbines must be assessed against the need to develop clean, green energy and the need to conserve Lancashire's landscapes and natural and man made heritage. It is acknowledged that the Government has set a target of 10% of electricity supply from renewable energy by 2010 and that there is considerable pressure to increase the number of renewable energy developments, of which a significant proportion is expected to come from wind energy. Policy 25 and associated documents state that the development of wind farms, and related development, will be supported in principle within particular areas identified as having commercially viable wind speeds (annual average of 6.5m/s).

Policy EP23 of the Local Plan outlines the Councils commitment to supporting proposals to harness renewable energy subject to; adequate protection of historic and archaeological features with wildlife habitats; the proposal not detracting from the amenity of the surrounding area by virtue of its size, scale, siting, design, noise, emissions or waste production and provided supporting infrastructure is kept to the minimum required.

Policy EP24 of the Local Plan expands on Policy EP23 in relation to developments for wind farms. EP24 states that the Council will support such proposals subject to the following additional criteria;

- They are not located in ridge top/summit locations where they would be prominent against the skyline

- They do not significantly detract from the countryside character of the proposed location, particularly where there is a sense of wilderness and tranquillity
- They do not result in a significant increase in risk or nuisance arising from noise, shadow flicker, or interference
- They do not create an adverse impact on residential amenity
- Connections to the grid system will be underground
- The disturbance of construction is minimised and any ancillary structures or roads do not create an adverse impact on the landscape
- Public rights of access are not reduced by the development
- Provision is made for removing any equipment and re-instating the site should the equipment no longer be required

Other Local Plan Policies outlined above such as EP4, 10 and 20 seek to protect wildlife species, landscape features and heritage and to ensure that developments do not result in adverse impacts upon amenity to local residents for example, arising from noise.

Applicant's Case:

The applicant has submitted an environmental report with the application which covers a range of issues including; landscape and visual impact; ecology; impact on bird species; noise; electromagnetic interference and shadow flicker. In support of the proposal the applicant has stated that the main reason for the application is to generate renewable, carbon-free electricity that would contribute towards the national, regional and local targets for electricity generation from renewable sources in place to help tackle climate change.

The applicant states that the project would generate around 4.2 million kWh units of electricity per year. In detail the turbines would be 'medium sized' of 750kW each (2.25MW total) and would contribute towards Lancashire's 2010 target of 157MW of capacity in 'wind farms and clusters'.

In support of the site selection the applicant has highlighted the following locational advantages to Mawdesley Moss;

- The land is flat and the turbines would be less visible than if they were built on a hill or a ridge
- The land is not in any designated environmental protection area and is an intensively farmed, man-made landscape
- The land has been designated in the LCC document 'Landscape Sensitivity to Wind Energy Development in Lancashire' as being in the lowest category of sensitivity
- The area is sparsely populated with only 5 isolated farmsteads within 1km of the proposed turbines all of which are in excess of 500m away
- Grid connection can be achieved without the need for overhead power lines and all underground wires can be accommodated within the development boundary
- Turbines of the size proposed can be brought to site without the need for additional roads or tracks (though hard core tracks on-site will be needed to facilitate construction)
- The site would allow educational access for school children and public who use the farm and activity centre at Cliffs Farm

Consultations:

Environmental Health: Concluded that the noise report submitted May 2007 was insufficiently detailed to enable an assessment of the potential noise impact of the proposed turbines. Made specific recommendations as to the content required of the noise report. The applicant has been in discussion with Environmental Health to resolve this issue.

At the time of compiling this report Environmental Health have confirmed that noise monitoring of the site is necessary in order that they may provide an informed opinion to the Planning Committee. The applicant has agreed to undertake background measurements to commence on site on 6th August 2007 to be conducted in accordance with the guidance. It is anticipated that the exercise will take a minimum of 14 days to ensure that all data at appropriate wind speeds is obtained. At the time of compiling this report the applicant had encountered problems in undertaking the monitoring and it is unlikely the information will be available in time for this matter to be assessed by the Environmental Health team and reported to Committee.

Environment Agency: Have no comments to make further than their response to the original planning application which was as follows;

The Agency has no objections in principle but wishes to make the following comments;

- Application includes creation of access tracks directly adjacent to field drains. Construction should be a minimum distance of 1m from the edge of the top of the bank of any drainage ditch to ensure the watercourses are not damaged.
- Field are used by nesting birds. As construction of the turbines has potential to disturb ground nesting birds and could be a breach of the Wildlife and Countryside Act 1981 the applicant should ensure that an appropriate time of year to undertake works is agreed with English Nature and the RSPB.
- As the site is located 340m from Croston Moss County Biological Heritage Site the applicant is advised to consult with the County Ecologist.

Civil Aviation Authority: No objections raised to proposed turbines.

OFCOM: Have identified 3 links at 33m, 303m and 340m from site. The applicant should have clearance from the licensed link operators stating that they are satisfied that the proposed turbines will not affect the operation of the microwave link.

Joint Radio Company: Part of the development is within the protection zone of a microwave radio link owned and operated by United Utilities supporting the integrity of their telecommunication network which underpins the safety and operational effectiveness of the electricity distribution network. JRC object to the proposed development for the following reasons;

- The microwave radio link supports the essential telecommunications infrastructure necessary for the effective monitoring and control of operational electrical plant equipment within United Utilities Electricity plc Electricity Distribution Network.
- United Utilities have been informed by JRC that part of the proposed wind farm development lies within the protection zone of the above microwave link. The infringement into the microwave path protection zone will impact on the integrity and resilience of the microwave link, which in turn may hinder or disrupt the speed at which United Utilities plc can remotely re-route or restore power to its customers should a fault/power outage occur within United Utilities Electricity Distribution Network.

CPRE (Lancs Branch): CPRE objects to this planning application on several counts. They are concerned about the proposal on the following grounds:

Impact on Green Belt

CPRE considers that this proposal constitutes 'inappropriate development' in the Green Belt, principally because three 80m high wind turbines will be a significant visual intrusion into flat countryside around the site. Furthermore, unlike other tall structures in the Green Belt e.g. pylons, wind turbines rotate. The flicker caused by wind turbines in motion in CPRE's view would 'significantly increase the visual impact of such structures in open countryside when seen from a distance'.

The development will therefore not 'maintain the openness' of the Green Belt as required by PPG2.

Impact on the Tranquillity of the Area.

CPRE has recently produced a tranquillity map for Lancashire which shows that the proposed location of this development is in the middle of one of the few remaining tranquil areas in Chorley Borough. This area is probably the **most** tranquil in Chorley. On a recent site visit the complete absence of manmade structures and noise from human activity was very apparent. The lack of visual intrusion and the silence at the proposed site was breathtaking.

CPRE note that the recent EIP Panel review of the Draft Regional Spatial Strategy (RSS) has recommended that Policy DP7- Safeguard Rural Areas should be achieved by a number of planning policy actions including; '*Maintaining and enhancing the tranquillity of open countryside and rural areas*'

In our opinion this proposed development will not 'maintain and enhance the tranquillity' of this open and rural part of Chorley.

Impact on Landscape Character

Chorley is blessed with a good variety of Landscape types as defined in the Lancashire Landscape Character Assessment. These range from the mossland at this proposed development site to the high moorland in the east of the Borough. The proposed wind turbine location is also close to other landscape character types in neighbouring local authority areas in Lancashire. We do not believe that the Environmental Report produced by the developer addresses adequately the wider landscape issues that the development will impact upon.

The site is visible from public roads and footpaths to the south. No meaningful assessment has been provided by the developer of the impact of the proposed development as viewed from these elevated positions to the south and other wider views from the lowland areas around the site. The mossland when viewed from these elevated positions is remarkably undeveloped. Even the electricity pylons to the west of the proposed site are difficult to spot as they are widely spaced dark open structures. The impression is of a very open and tranquil rural landscape, a rare commodity in south Lancashire.

Historic Built Landscapes

The applicant's Environmental Report is supposed to have analysed the impact of the development in a 10km radius around the site. It is therefore surprising that there is no reference to the development's impact on the historic buildings and designed landscapes of Rufford Old Hall (approx 2.5 km distant) and Bank Hall (approx 4.7 km distant). Bank Hall is currently subject to a £ multi-million draft proposal by the North West Heritage Trust supported by Chorley Council for Heritage Lottery

funding for its renovation, conservation and redevelopment. In this context we note LCC's concerns that up to 9 historic landscapes are in the area of the proposed development.

We would agree with LCC's opinion the radius of a 20km would offer a much better assessment of the wind farm's impact on landscape and built heritage.

CPRE again notes that the recent EIP Panel review of the Draft Regional Spatial Strategy (RSS) has recommended that Policy EM1 be amended to include specific landscape protection criteria as follows.

- *Plans, strategies, proposals and schemes should deliver an integrated approach to conserving and enhancing the natural environment, historic environment and woodlands of the region.*
- *Priority should be given to conserving and enhancing areas, sites, features and species of international, regional and local landscape, natural environment and historic environment importance.*

This proposal will not enhance the landscape.

Random Choice of Proposed Location

The existing landscape character assessments for Lancashire are too broad to make an informed local decision. The RSS EIP panel report further states.

EM1 (A) Landscape

Plans, strategies, proposals and schemes should identify, protect, maintain and enhance natural, historic and other distinctive features that contribute to the character of landscapes and places within the North West. They should be informed by and recognise the importance of: Detailed landscape character assessments and strategies, which local authorities should produce (our italics), set in the context of the North West Joint Character Area Map. These will be used to identify priority areas for the maintenance, enhancement and/or restoration of that character and will under-pin and act as key components of criteria-based policies in LDFs

There is also a lack of identified broad area analyses for the North West to identify where specific renewable energy technologies may be considered appropriate as required by PPS22.

The RSS EIP review panel requires these maps to be produced urgently. They state:

'We recommend that maps of broad areas where the development of particular types of renewable energy may be considered appropriate should be produced as a matter of urgency and incorporated into an early review of RSS'

Work has been done by Chorley's Planning Policy Section on the potential for different types of renewable energy types to be built in the Borough. For wind energy the only expressed view in policy documents on preferred locations is that high moorland areas in the east of the Borough are 'more likely' for such development.

CPRE are concerned about the lack of information from the developer on the wind speeds for his site. By his own admission the turbines are not large by modern standards. CPRE is tracking wind turbine developments and proposals across Lancashire. They are mostly in high windy

moorland sites. The most recent moorland proposals are significantly larger (120-130 metres high) than the Cliffs Farm proposal, which is on a lowland site (approx 6m above sea level). The smaller operating turbines at elevated moorland sites have proven uneconomic. It therefore seems probable that the three 80m turbines proposed at Cliffs farm will in the long term be uneconomic. The only economic gain in the short term will be via the current generous government grants to the developer. Once approved at this location the small turbines can easily be replaced by larger ones as recently happened at Caton Moor with the consequential greater impact on the landscape and Green Belt.

The wider economic benefit to the community will be very limited for this randomly chosen site.

In the absence of the required landscape analyses and renewable energy preferred area maps it would be a great pity to desecrate this wonderfully rural and tranquil part of Chorley for such a limited short term economic gain.

The Deficiencies in the Environmental Report Provided by the Developer

CPRE note the recent comments by LCC Planning Department on the inadequacies of the assessment of the impact of the proposal by the developer on the wider landscape issues.

CPRE is in full agreement with LCC's comments and suggestions for improvements to the developer's Environment and Ecology Reports.

We note the conclusion to LCC's extensive comments on this application, which states;

'The director of Strategic Planning and Transport considers the provision of additional information with regards to ecology and landscape is required to establish a strategic planning policy position'.

In CPRE's opinion for Chorley Council to consider this application with the inadequacies in the developer's current documentation would be unsound.

Notwithstanding these deficiencies, CPRE believe that the adverse impact the proposed wind farm at Cliffs Farm will have on the local Green Belt, tranquillity and landscape are already sufficient grounds for refusal of this application.

Royal Society for Protection of Birds: Initially concerned because Mawdesley Moss was used regularly by up to 140 wintering Whooper Swans during the winter of 2005/6. This represented 6% of the Lancashire population and 1% of the British population. Following meetings with the applicants, Wildfowl and Wetlands Trust, Natural England and Lancashire Wildlife Trust, a monitoring programme was agreed to establish the exact whereabouts of Whooper Swans plus the regularity with which they use the area. Monitoring during 2006/7 has provided little evidence that Mawdesley Moss is a significant or regular feeding area for Whooper Swans from the Special Protection Area populations of Martin Mere and the Ribble Estuary. RSPB therefore, does not object.

LCC Strategic Planning & Transport: In response to the original Environmental Report considered that the provision of additional information with regards to ecology and landscape was required to establish a strategic planning policy position.

Policy 25 of the JLSP deals with renewable energy and states that proposals will be supported where it can be shown that the following criteria have been addressed;

- The impact on the character of the surrounding landscape, biodiversity and the natural built heritage; and
- The extent to which any material harm that may be created by the proposal will be minimised to acceptable levels.

In relation to landscape LCC identified a number of omissions, weaknesses and inconsistencies in the submitted Environmental Report;

- Study area extended over 10km radius only whereas best practice requires a 30km area. Recommended a study area of 20km.
- Only 7 viewpoints were chosen, none from distant elevated locations or from the villages of Croston, Eccleston, Mawdesley or Rufford. Quality of photographs was poor and made the turbines look much smaller and distant than they would in reality.
- Visual analysis of the photomontages was inadequate.
- No assessment of the impacts on Conservation Areas and historic designated landscapes was undertaken (9 identified as being relatively close to the site).
- Assessment of the impacts on landscape character of the site and the area was inadequate. Only one type 'mossland' was referred to although turbines would be visible from other areas.
- Report stated the wind farm would not be seen from any significant centres of population such as the surrounding villages. This is simply not the case.
- Report referred to screening effects of trees but did not consider reduced screening effect in the winter. Winter photomontage would have been useful.
- Insufficient information was provided on the proposed mitigation tree planting and a plan indicating location of the proposed trees was considered essential.

In relation to the Green Belt LCC noted a recent appeal decision where it was concluded that landscapes can retain a sense of openness and therefore wind farms could be appropriate development. It was also noted that the turbines would contribute to targets for renewable energy/reducing greenhouse gas emissions in Lancashire. LCC also acknowledged that the proposals would contribute towards wider environmental, social and economic benefits. DTI research has indicated that other wind farm proposals provide direct community benefits (typically £1000.MW/per annum over the lifetime of the project) and LCC recommended that the Council give consideration to entering into a planning obligation with the applicant.

The applicant has subsequently submitted a further landscape assessment to address the shortcomings identified above. LCC commented on the additional landscape assessment as follows;

Policy

The key policy tests in Lancashire are that development outside urban areas should be of a scale and nature appropriate to its location (Policies 1 and 5) and that development should be appropriate for the landscape character type within which it is located (Policy 20). Policy 25 requires renewable energy development to be assessed against criteria including impact upon landscape character. The proposed wind farm at Cliffs Farm is not contrary to the tests of these policies.

The proposed location of the wind turbines at Cliffs Farm Wind Farm would make good use of the existing shelterbelt and hedgerow planting in the area. This is consistent with the recommendation in the LHSPG which states that in the Mosslands landscape character type vertical structures should be sited where the "screening effects of existing shelter belts and buildings minimises their impacts on long distance views".

PPS 7 requires protection of the countryside for the sake of its intrinsic character and beauty. PPS 22 encourages the development of renewable energy in locations where environmental issues can be addressed satisfactorily and identifies landscape and visual impacts as material considerations. The proposed wind farm at Cliffs Farm is not contrary to these national policies.

Landscape and Visual Impacts

Although the proposed wind farm would lie wholly within the Mosslands landscape the wind turbines could be seen from areas within the nearby Coastal Plain landscape character type. The proposed wind farm would **not significantly** affect:

- a) The characteristics and special features of the Mosslands and Coastal Plain landscapes.
- b) The setting of Croston and Rufford Park conservation areas.
- c) The setting of historic designed landscapes in the area.
- d) The recreational value of the area.
- e) The area's landscape fabric and amenity value.

The proposed wind farm would be located in a heavily man-influenced landscape that for centuries has been used to meet the needs of the community. Significantly man has used wind energy in this area for agricultural and engineering purposes.

There would be no cumulative affects with any other existing or consented wind farms.

For all these reasons LCC conclude that the landscape and visual impacts of the proposed wind farm at Cliffs farm would be acceptable.

Possible Further Mitigation

Opportunities for very limited further mitigation planting (native deciduous trees), should be considered to reduce the potential localised moderate impacts on outward distant views from the southern fringe of Croston Conservation area.

Lancashire County Council (Ecology): Advised that ecological concerns of the development include possible impacts on nesting birds, overwintering birds and water voles. The developer submitted an ecological assessment to determine potential impacts on wintering Whooper swans, but had failed to address concerns relating to other bird species/other sites. LCC Ecology initially recommended that the applicant be required to provide further information to deal with any outstanding issues, and to provide a basis for mitigation/compensation if damaging impacts are likely. Advised that if adequate mitigation/compensation could not be guaranteed then Chorley Borough Council should consider a refusal.

Designated sites

The location of the application area is such that the proposals could potentially affect the important population of Whooper Swans wintering at Martin Mere SPA and the Ribble Estuary SPA (and feeding in the wider area). Although the report 'Monitoring Whooper Swans on Mawdesley/Croston Moss' (DC Associates Ltd, April 2007) concluded that the 'significance' of the threat to Whooper swans from the proposed development is 'negligible', LCC Ecology raised concerns that the threat may in fact vary between years depending on the location of feeding grounds (dictated by cropping patterns). If in fact the threat to swans was negligible this year due to the particular pattern of crop growth only, LCC Ecology considered that it would seem reasonable and sensible to defer the planning decision and base it upon longer-term monitoring data, i.e. over several years, in order that impacts could be determined more precisely. LCC Ecology recommended that Natural England be consulted with regard to the need for longer term monitoring of the potential impacts on Whooper Swans associated with the internationally designated sites, and that the RSPB should be consulted with regard to impacts upon these (and other) bird species that may be affected locally.

When Lancashire County Council were consulted with respect to the earlier application (06/01125) concerns were raised about potential impacts upon bird populations associated with Croston Moss Biological Heritage Site BHS41NE03, as the application area is several hundred metres only from the BHS. Although the Environmental Report (DC Associates Ltd) does mention the BHS (section 5.5.4), there was no consideration of impacts upon bird species associated with this BHS. LCC Ecology therefore requested that the applicant should submit further information to deal with this issue.

Breeding Birds

Many of the habitats on site have the potential to support breeding birds. If the application is approved then works during the bird breeding season (March to July inclusive) should therefore be avoided where there may be an impact on nesting birds. This should be the subject of a planning condition.

Water Voles

In comments to the earlier application (08/06/01125) LCC raised concerns about the potential for impacts upon water voles if the proposed development would affect land within 10m of the drainage ditches. The applicant has now stated that there will be no works within 10m of the tops of the ditch banks and LCC have accepted there will be no need to undertake a survey for water voles.

Since the above comments were made the applicant has liaised with LCC to resolve the outstanding issues in relation to birds. LCC have now confirmed that they have had an opportunity to consult with the RSPB and consider that all the comments previously made have been adequately addressed.

Consequently, LCC raise no objections to the proposal on ecological grounds.

Lancashire County Council (Archaeology Service): No objections raised on archaeological grounds but advises that some archaeological work will be needed as part of the development. Suggests that if permission is granted a condition should be attached to secure the implementation of a programme of archaeological work in accordance with a written scheme of investigation which has been submitted by the applicant and approved by the planning authority.

Lancashire County Council (Highways): No objections to the principle of the proposed development however concerns raised with regard to

structural damage of the public highway during the construction phase. Sn59 of the Highways Act 1980 enables the Highway Authority to claim compensation from the site owner for any damage that may arise from their development. A survey will be required prior to any haulage commencing. Recommends a condition be attached to ensure the survey is undertaken prior to the commencement of works.

Natural England: Not aware of any nationally designated landscapes or statutorily designated areas of nature conservation importance that would be significantly affected by the proposal. Satisfied that the proposal does not have significant impacts upon Natural England's other interests and are satisfied that the development will not have a significant impact on Whooper Swans or on the landscape.

The Wildlife Trust For Lancashire, Manchester And North Merseyside: Same comments made as for RSPB above – no objections.

Renewable Energy Agency N.W.: No response at time of compilation of report.

Forward Planning: The proposed development is a resubmission of a previous application. In the interim period two important policy considerations have arisen. Firstly, late last year the Government published a consultation document relating to Climate Change. This sets out clearly the imperative for local authorities to be positive in their approach to renewable energy schemes:

"In particular, planning authorities, working closely with industry and drawing in other appropriate expertise, should: (inter alia)

- *Look favourably on proposals for renewable energy, including on sites not identified in development plan documents*
- *Not require applicants to demonstrate either the overall need for renewable energy and distribution of for a particular proposal for renewable energy to be sites in a particular location;...*

In addition, the Panel report relating to the Examination in Public into the Regional Spatial Strategy for the North West has suggested alternative wording to policy EM17. This wording is more positive towards the generation of renewable energy. It relates to Green Belt however, it is important to note that the criteria should, *"not be used to rule out or place constraints on the development of all, or specific types of renewable energy technology"*.

It is in this context that the application should be determined. Subject to the developer being able to demonstrate that the proposal is able to meet the criteria set out in policy EP24 of the Chorley Borough Local Plan Review I would recommend that the application be approved. However, if for example there is insufficient evidence to determine that there would be no adverse impact (for example in relation to wildlife) then the application should be refused.

The proposed development lies within the Green Belt and as it does not come under the normal appropriate uses such as agriculture and fishery, then special circumstances will have to be set out as to why the proposal is acceptable.

Para 12 of PPS 22 makes this explicit: *"Policy on greenbelt is set out in PPG2. When located in green belt, elements of many renewable energy projects will compromise inappropriate development, which may impact on the openness of the greenbelt. Careful consideration will therefore need to the visual impact of projects, and developers will need to demonstrate very special circumstances that clearly outweigh any harm by reason of inappropriateness and any other harm if projects are to*

proceed. Such very special circumstances may include the wider environmental benefits associated with increased production of energy from renewable sources.”

The proposed development is limited in scale and as can be seen from the Lovejoy study into Landscape Sensitivity is proposed to be in an area of landscape of low sensitivity to wind development. Therefore the impact on the openness of the Green Belt is likely to be minimal.

Given the requirements to increase the amount of energy generated from renewables, **subject to the development satisfying the criteria in Policy EP24** I consider that the proposal would be acceptable in the green belt.

Key principles are set out in PPS22 in particular, *“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.”*, and, *“Regional planning bodies should not make assumptions about the technical and commercial feasibility of renewable energy projects (eg identifying generalised locations for development based on mean wind speeds). Technological change can mean that sites currently excluded as locations for particular types of renewable energy development may in future be suitable.”*

The fact that a proposal falls outside the optimum speed area is not a planning consideration that would warrant the refusal of planning permission.

The development appears to be in accord with policy 25 of the Joint Lancashire Structure Plan and would go towards the targets set out in policy EM17 of the submitted draft Regional Spatial Strategy for the NW (January 2006).

The Ramblers Association: No response at time of compilation of report.

Mawdesley Parish Council: Object to application on the following grounds;

- The application is contrary to Green Belt policy as set out in Policy DC1 of the Local Plan and would not be considered as exempt under the heading of very special circumstances
- Application does not meet the criteria for wind farms and individual generators as set out in clauses b, d and e Policy EP24 of the Local Plan

The Parish Council also noted that the planning application makes reference to Outline Policy SR2 in its support. The Council considers that reference to this policy is inappropriate and should be disregarded as it has not been adopted by Chorley Council and may not be either at all or in its current form of words.

National Air Traffic Services: Does not conflict with safeguarding criteria and therefore no objections are raised.

West Lancs DC – Planning: Raise no objections to the proposal, subject to Chorley BC having satisfied themselves that there are no adverse ecological impacts of the development upon the wildlife of the area, in particular migrating birds.

Martin Mere Wildfowl & Wetland Centre: No response at time of compilation of report

United Utilities: See comments of JRC above.

Defence Estates: The turbines would be 13km from; in line of sight to; and will cause unacceptable interference to the radar at Warton Airfield. The wind farm is close to the downwind leg for both runways 08 and 26. It is also in an area where there is a lot of transiting and manoeuvring of light aircraft, so any clutter would prove detrimental to the radar service provided.

Following trials carried out in 2005, it has been concluded that wind turbines can affect the probability of detection of aircraft flying over or in the vicinity of wind turbines. Due to this, the radar provider would be unable to provide a full Air Traffic Radar service in the area of the proposed wind farm.

The MOD encourages developers to submit reports suggesting suitable mitigation measures. These are considered and discussions take place with developers to find a mutually acceptable solution. These avenues have not yet been fully explored and as such Sn25 of PPS22 has not been satisfied.

Representations: A total of 148 objections have been received which may be summarised as follows;

- Chorley Council is being consistently misled about the amount of power to be produced by the proposal. The Environmental Report contains false information on the output based upon inaccurate wind data, which calls into doubt the validity of the rest of the application.
- Concern raised as to way application is being made in this manner ie, to get permission for a small development that would lead to a further request for much larger turbines once the scheme has been approved.
- Application has no proper Environmental Impact Report; noise modelling; assessment of the impact on the landscape; assessment of the interface and; no proper consultation.
- The claimed benefits of wind turbines in the original application have since been undermined by government reports into wind energy that state the benefits are a lot less than expected.
- The turbines would be totally out of character with the landscape in terms of size, shape and physical presence.
- The consequences of construction access required and heavy vehicle access on narrow roads in Mawdesley and surrounding area is not acceptable.
- The Environment Agency website shows the surrounding area as a potential flood risk, and being a moss, ground stability for such large structures is a concern.
- The site is Green Belt and no precedence on granting planning permission for industrial development are in the interests of the local community.
- The application does not provide information on future plans for the wind farm or other intentions for future development.
- If permission is granted and the wind farm experiences difficulties in the future what guarantees are there that they will not be left as an eyesore on the landscape?
- The West Lancashire landscape is precious and is rapidly developing as a tourist attraction that will be totally ruined if massive wind turbines are built in this location.

- Walkers, bird watchers, cyclists and horse riders use the area because it is tranquil, unspoilt and within a short distance of local large towns. The amenity value of the area will be totally changed if scheme is allowed.
- The site is within the Green Belt and therefore very special circumstances will need to be demonstrated for consent to be granted. The turbines must have a significant visual impact on the area with the economic argument marginal and no material benefit to the community therefore, the development cannot be considered as a very special circumstance.
- Industrial development of this kind would erode the Green Belt status of the land.
- Existing footpath network would be compromised by this inappropriate development.
- The noise from construction and during operation of the turbines would kill and drive away birds/wildlife.
- European directives; the Habitats Directive and; the Birds Directive, apply to proposed developments and highlight dangers from falling blades and proximity to rights of way and residential buildings.
- The Countryside Agency has called for turbines to be sited away from bridleways because noise and flicker can startle horses and endanger riders because of risk from thrown ice. British Horse Society has expressed similar concerns.
- Welsh Affairs Select Committee recognise the magnitude of the problem of noise and identify that there are cases of individuals being subject to near continuous noise during the operation of turbines, at levels which do not constitute a statutory nuisance or exceed planning conditions, but which are clearly disturbing and unpleasant and may have psychological effects. The statements of the developer in relation to noise and are clearly to deceive the public and the planning authorities.
- The roads and infrastructure to support the construction/operation of the turbines are totally inadequate. High numbers of HGV's, coaches, cars and vans constantly use the lane. Any increase would be irresponsible and would result in someone being hurt or worse.
- Several mature trees have already been damaged due to the traffic already generated by large numbers of cars and vans using the small lane.
- Countryside Act 1968 imposes a responsibility to preserve the countryside requiring local government to find 'substantive material reasons' why restrictions should be set aside to allow industrial developments. The contribution of wind farms is not sufficient to be substantive.
- Green house gas reduction for such a small development is nonsense due to the intermittent nature of power generation and is offset by gas production from construction, transportation, maintenance etc. Additionally, moss and peat rich land is a recognised green house gas sink holding harmful gases and even though the Moss is small, it plays a part in balancing the equation.
- The development would necessitate large numbers of lorries etc. through the village and surrounding area causing noise and pollution.
- The immense size of the turbines means they will dominate the landscape for miles around.
- Turbines would set precedent making it difficult to refuse further turbines.
- Permission should not be granted for wind farm, which would be in an area unspoiled by unsightly development and industrial pollution.

- Heavy vehicles have recently been stuck in both dark lane and Bradshaw Lane causing traffic problems.
- Planners should consider the loss of property value that can be up to 30% off and lead to negative equity and ruin, lost stamp duty and inheritance tax.
- Applicant does not live in the district and there is almost universal local opposition to proposal, as local people will have to live with the consequences of any decision favouring the wind farm.
- Environmental impact could be catastrophic. There is controversy over the evidence that both protected and migratory bird populations are being reduced due to deaths in wind turbines. Martin Mere, Mere Sands, Formby Beach and Morecambe Bay are nearby and would be affected.
- Turbines would adversely affect bat populations.
- Land is in agricultural use and is therefore already 'green' and commercially productive.
- Bird life in area would relocate resulting in a loss for the area.
- Wood Lane is the only means of access to install turbines and is totally inadequate for this purpose.
- Installation would lead to damage to ancient high banks and hedgerows.
- Local residents have been given insufficient notice to air their views.
- The turbines are of no advantage to Mawdesley residents either economically or environmentally.
- Countryside would be ruined for the financial gain of a few.
- Transport for delivery purposes would be of such weight, width and frequency that damage will be caused to the natural infrastructure of the area.
- Each turbine would need 1000 tons of concrete and possibly more, large swathes of land would have to be hard-cored to make roads for the contractors vehicles.
- Culshaw family who own Cliffs Farm have successfully obtained grants over many years to establish a wildlife haven – why allow this to be ruined?
- Mawdesley Jubilee Trail and other local footpaths will be affected by proposals.
- Downturn in the numbers of local visitors and homeowners/property desirability would affect local businesses.
- Wind speed on the moss is not sufficient to produce wind energy.
- No test has been carried out to show how the proposals would affect the land structure and water course of the area.
- Photographs submitted were shown against a grey cloudy sky.
- Turbines will be visible and will not be obscured by trees and buildings whilst travelling around the area.
- Power generated will be sold to the national grid for profit by developer and not supply Mawdesley Parish as suggested in the leaflets provided.
- Council have not consulted the local populace properly and have not allowed sufficient time for a reasoned response of interested parties.
- If application is approved it will make a mockery of hard work local residents have put into gardens and other things to enter the Best Kept Village Competition.
- Adjacent properties are within 550m of the development site and would be adversely affected by the turbines.
- There are other areas within Lancashire and possibly Chorley Borough Council that are more suitable for wind farm development.

- Proposals do not comply with Policy EP24 of the Local Plan in that; connections cannot be made underground; Mawdesley Moss clearly meets criteria ii of EP24, which is why people move there and walk in area; there are significant flocks of endangered species of birds that nest and feed on the Moss and have routes that pass directly through the turbine fields; the turbines would directly impact upon footpath network and endanger walkers eg. falling ice; turbines are not on a ridge but would still be prominent on the skyline from many locations.
- Has CBC considered what other sites would be more suitable for wind clusters.
- The mean wind speed for the area (6.3m/s) does not reach Chorley CBC's stated target of 6.5m/s for wind cluster support.
- There is no high voltage substation within four km of site.
- Lancashire RSS requiring an assessment of suitable renewable energy sites has not been completed.
- No independent assessment of LCC Biological Heritage Site or mosses at Mawdesley/Croston has been made.
- Some properties are within sightlines and shadow flicker lines of turbines.
- Application is misleading in that; there is no public road within 1000m, wagons to deliver parts are 4.2m wide whilst Wood Lane is 3m at narrowest part; developer does not have the right to widen or damage road; Nook Lane is inadequate and liable to subsidence.
- In other parts of the world turbines are not allowed within 2km of dwellings – they generate low frequency and subsonic noise which distresses people and livestock.
- The anemometry mast could be heard on Bluestone Lane – this application is larger and nearer.
- Developer has shown a total lack of sensitivity for the character and scale of the landscape.
- No assessment has been made of historical significance of 'The Nook' and will be permanently damaged if roads are to be used for the development.
- Shadow flicker would result in unnecessary risk to epileptic persons, including disabled children who use Cliffs Farm.
- New buildings would also be required to control and distribute the electricity.
- Employment benefit of scheme would be short term only.
- Outlook of nearby residential properties would be adversely affected.
- The work spent setting up the Jubilee Trail will be rendered worthless if this application is approved.
- If the turbines are approved it will be a much easier task to replace them with much larger ones.
- Are the proposed turbines necessary when proposals are in hand to establish a wind farm off the Lancashire coast.
- It is understood that the applicants currently have a business manufacturing component parts for the turbines so would these three be used as an advertising display/showroom?
- Application will result in bases remaining onsite beyond the life of the turbines.
- Information supplied by the applicant is vague and suggests matters such as the precise location of the turbines will be left to the applicant.
- 140 Whooper swans visited Mawdesley Moss during 2005/6. In 2006/7 they have not visited the Moss in such large numbers possibly because 200+ regularly found grazing at Curlew Lane. Due to crop rotation this may not be available in the future. If

wind farm erected this would remove a good potential moss land wintering area for the swans and other species.

- The applicant refuses to issue the wind data for the moss.
- The turbines are over 80m high which represents 4 times the height of St Peters Church.
- Recently the energy trend is moving away from wind power to nuclear.
- No crops suitable for Whooper swans were grown last year and the farmer had his lease terminated prior to the application being submitted.
- The traffic movements cannot be compared to being equivalent to root or forage harvesting as neither have featured to any great effect in these parts.
- Science Policy Research Unit at Sussex University estimate that it would take 2 million wind turbines to achieve around one seventh of the required emission reductions.
- Turbines are second hand therefore some other country has found them to be useless.
- If wind farms are unobtrusive and do not create noise CBC should erect one at Astley Park and then monitor the reactions from local people.
- There are no targets for the Council on wind farm clusters and therefore no requirement for the Council to override the fundamental objective that no development should take place in Green Belt.
- The suitability of the site was addressed at a workshop dated 12/5/2005 when Mawdesley was identified as being a site not suitable for wind farms. This appears to override the Lovejoy report as this was a broad brush approach to the whole area.
- Land next to the site is a shooting farm and an area around the turbines needs to be ensured for safety. As the applicant neither owns the land or has the shooting rights how can this be assured?
- Permission should only be given provided the turbines are sited as close as possible to the applicants home and no further permissions are granted for more in the area.

In addition to the above an objection has been lodged by P Wilson and Co. (Chartered Surveyors) on behalf of the occupiers of Backhouse Farm, Boundary Farm and The Barn, Backhouse Farm who are the owner-occupiers of three of the residential properties sited most closely to the site of the proposed turbines.

The objections reflect many of those outlined above and may be summarised as follows;

- The applicant has failed to demonstrate the special circumstances to outweigh the presumption against inappropriate development in the Green Belt.
- Para 13 of PPG2 advises that special circumstances may include 'wider environmental benefits'. However, these cannot be substantiated by the applicant who has not provided the wind speed/frequency data, collected 2003 – 2005.
- The wind turbines will not enhance the openness of the Green Belt in this location. Openness in this context would mean 'freedom from development'.
- The assessment in Lovejoy that damage to the landscape in the moss land areas would be less than in other areas does not amount to a 'wider environmental benefit'.
- Development will benefit the Culshaw family but do not constitute a 'wider environmental benefit'.

- Any educational benefit from proposal will primarily be to the Culshaw's activity centre at Cliffs Farm however is not 'a wider environmental benefit'.
- The proposal does not meet criteria a,b and e of Local Plan policy EP24.
- Policies EP23 and 24 do not presume that development should override or be considered exceptions to Green Belt policy.
- Non-compliance with Policies EP23 and 24 constitutes 'any other harm' for the purpose of the balancing exercise required by para. 3.2 of PPG2.
- The LCC 'Lovejoy' report is a broad scale study and does not replace a comprehensive on-site investigation and analysis in respect of any specific development proposal undertaken in accordance with a methodology recommended by the Landscape Institute and the Institute of Environmental Management and Assessment.
- The submitted landscape and visual impact assessment is deficient as demonstrated by a report produced by the Appleton Group in November 2006 which concluded;
 1. It is over reliant on broad conclusions contained within LCC studies and does not take account of impact on three other character areas in close proximity.
 2. A preliminary assessment of the site using the same criteria used in the Lovejoy report concludes that the site is not low in terms of sensitivity as the applicant suggests.
 3. The submitted photomontages have shortcomings and require additional work which could include; the use of tethered balloons flown to the height of the proposed blade tips and; long sections through the site and adjacent topography to allow proper assessment of the visual envelope for the proposal.
 4. A new study should be prepared that follows guidelines recommended by the Landscape Institute and the Institute of Environmental Management and Assessment.
- The proposals would impact on key visual receptors such as the Jubilee Trail.
- The proposals would affect adjacent shooting areas which are outside the applicants ownership and cannot be controlled by condition.
- The assessment of the impact on Whooper Swans is flawed and does not account for rotational crops/feeding patterns.

An objection has also been lodged by Cllr Kevin Joyce which has been circulated to all Councillors and is attached as an appendix (**Appendix 1**) to this report.

2 letters in support of the proposals have been received which may be summarised as follows;

- It is important to support projects to find alternative energy sources especially ones that do not have any harmful effect.
- Wind turbines are present on almost every landscape in Holland and do not ruin the landscape, create noise or affect wildlife.
- The application is in accordance with Government renewable energy policy.
- The turbines can be dismantled if better technologies are developed.
- The topography benefits from prevailing winds.
- Climate change is now a recognised scientific fact and responsible decision makers should ensure speedy permissions for such ventures.

- To actively prevent energy production from renewable sources shows disregard for the present energy situation.
- Systems using wind power are a strategic matter and reduce reliance on imported energy sources.
- The area is not an AONB or SSSI and features large pylons already.
- Any call for EIA should include a report on the impact of not adopting such renewable energy sources.
- Planners should be aware of the need for farm diversification and a move away from equine, craft centre and tea shop options which are in over supply in the area.
- There are few documented instances of birds being affected by wind turbines.
- The effects on wildlife will not be as great as climate change, disease, natural predators or shotguns.
- For a local authority to be considered 'green' it must positively encourage all 'green' endeavours.

Following the submission of the additional 'Landscape and Visual Impact Assessment' a further 7 letters in support of the application have been received. The following comments have been made;

- The turbines would settle into the landscape in time as did the old windmills of yesteryear.
- Farmland should be used to respond to the needs of a changing society just as it did in the last world war.
- The challenge of our age is the production of green energy to meet government carbon reduction targets.
- Chorley Borough Council prides itself on achieving above average re-cycling rates and being involved in green initiatives.
- The applicant should incentivise the local community in exchange for their support by offering payment of 5% of the electricity generated or 30% of the profits generated, whichever is the greater, to the local community via the Parish Council for them to spend for the benefit of the wider community.
- Support project provided the annual output from the turbines is significant in relation to Mawdesley's carbon footprint and the installation is not too disturbing to residents of Nook Lane.
- The erection of this small scale development will enhance a landscape that is very flat and featureless. There are already pylons on the moss and these are far less attractive to the eye.
- It is unusual to meet anyone when out walking on the moss so the visual impact of the turbines will affect very few people.

Assessment:

Environmental Impact Assessment.

Various objectors have raised concerns over the fact that the application has been submitted without an Environmental Impact Assessment (EIA) and this matter must therefore be clarified.

The proposals fall within Schedule 2 of the EIA regulations (3i) that states;

'The likelihood of significant effects will generally depend on the scale of the development and its visual impact, as well as potential noise impacts. EIA is more likely to be required for five turbines or more, or more than 5MW of new generating capacity'.

The EIA regulations advise that the matter of whether an EIA is required turns on the likelihood of significant environmental effects. The Circular suggests three main criteria of significance;

- Major developments which are of more than local importance

- Developments which are proposed for particularly environmentally sensitive or vulnerable locations
- Developments with unusually complex and potentially hazardous environmental effects

In this case, the development is for 3 turbines generating 2.25MW in total and the site is not within or adjoining a SSSI or Ramsar, although a Biological Heritage Site is indicated as being 350m away. Concerns over the proximity of five noise sensitive properties being sited within one 1km of the site were noted and the applicant was made aware of the need for a noise assessment to be provided before the Council could determine the application. However, based upon the appropriate regulations and circular, it was considered that a full EIA was not required under the regulations as part of this application. Nevertheless the Council has specified both the requirement for an Environmental Report (ER) and the content of that document in line with the regulations.

Policy Considerations

In determining this application it is necessary to have regard to certain key policies and planning guidance. The local plan policies in the main reflect the principle guidance as laid down in national and regional policies with the exception of EP23 and EP24 which are not in conformity with Policy 25 of the Joint Lancashire Structure Plan (JLSP). It is considered that the application must be considered against the following policy framework;

Green Belt:	PPG2, Policy 6 (JLSP), DC1, DC9
Landscape/Visual Impact:	PPS9, ER5 (RSS), Policies 20, 21 (JLSP), DC9, EP10
Environmental Benefits:	PPS7, PPS22, EM17 (RSS), Policy 25 (JLSP), EP23, EP24
Ecological Impacts:	PPS1, PPS9, ER5 (RSS), Policy 21 (JLSP), EP4
Amenity:	PPG24, EP20

Green Belt

The site lies within the Green Belt where there is a presumption against inappropriate development. The proposed wind farm does not fall within one of the appropriate uses identified in the Local Plan or PPG2 and is therefore inappropriate development in the Green Belt, which is by definition harmful. PPG2 consequently advises that there must be very special circumstances demonstrated before planning permission may be granted.

PPS22 advises that many renewable energy projects would constitute inappropriate development, which may impact upon the openness of the Green Belt. For this reason it is necessary to consider carefully the visual impact of projects and the wider environmental benefits that would accrue from increased energy production from renewable sources and that these aspects may constitute the special circumstances required by PPG2. Notwithstanding the recognition of the significance of projects for the production of renewable energy PPS22 does explicitly state that;

'developers will need to demonstrate very special circumstances that clearly outweigh any harm by reason of inappropriateness and any other harm if projects are to proceed'.

It is clear therefore that it is necessary to analyse carefully the very special circumstances which have been put forward by the applicant and to consider whether they are in fact sufficient to outweigh the normal presumption against inappropriate development as defined in PPG2.

These are contained within the applicants ER and may be summarised as follows;

- Wind turbines do not represent the kind of development that restricts the openness of the countryside, rather they enhance it inviting people to look up and out and appreciate the value of the wind and of open space.
- Greenbelt Policy allows for farm diversification. The proposed wind farm would be a form of diversification encouraged by Green Belt policy and would operate alongside other agricultural, environmental and educational activities that the farm pursue. The wind farm would enhance the role of Cliffs Farm activity centre and encourage public appreciation of the countryside.
- The wind farm would contribute a wider environmental benefit as referred to in para.13 of PPS22.
- In Chorley assuming wind power developments would be severely restricted in Landscapes such as the West Pennine Moors, virtually the only other open land is Green Belt. If wind Farms are not allowed on Green Belt there would be virtually no other developments possible in the borough.
- The County Landscape Study has identified moss land as being in the least sensitive category for wind power developments.

Taking each of the above points in turn;

- The assertion that wind farms do not restrict the openness of the countryside is difficult to reconcile as by definition they are not considered to be appropriate development under PPG2 and are therefore harmful. The visual impact of the structures cannot be questioned and is the basis upon which the requirement for the LPA to consider special circumstances is founded. For this reason it cannot be argued that the proposed turbines would not impact upon the openness of the Green Belt, or that a perception that they would enhance or form a contribution to appreciation of Green Belt would form the special circumstances required under PPG2.
- Green Belt policy allows for farm diversification and is reflected in Local Plan policy EM3. Government policy however is clear that sustaining the rural economy should not be at the expense of the character of the countryside or the protection of the environment. This is reflected in Policy EM3 which requires that diversification proposals should remain ancillary in scale to the main farming enterprise and contribute to its viability and also not impact on the open character and appearance of the countryside. The applicant has provided no supporting information to justify the proposal as a farm diversification enterprise and only makes reference to the operation of the activity centre in the ER accompanying the application. In other words, Cliff's Farm is not primarily a farming enterprise. On this basis it is considered that it would be wholly inappropriate to assess the proposal against Policy EM3 as it is not clear whether Cliff's Farm is in fact operating as a working farm. Notwithstanding, if the scheme were to be considered on this basis, the proposals do not comply with EM3 as no information has been supplied to clarify how the wind farm contributes to the viability of Cliff's Farm and would moreover, clearly have an impact on the open character and appearance of the countryside. For these reasons it is considered that farm diversification in this instance cannot provide a basis for the special circumstances required by PPG2.
- The environmental benefits of the scheme must be assessed against PPS22 and the policies contained in the emerging RSS

and JLSP policy as outlined above. It is clear that there is support for schemes for renewable energy proposals generally and that LPA's should not necessarily reject planning applications simply because the level of output is small. On the other hand objectors to the proposal have questioned the lack of detailed evidence regarding the wind speeds recorded at the site and have therefore raised doubts as to the actual output from the turbines and the overall viability of the wind farm. The policy direction seems clear given the advice contained in PPS22 and it would be difficult to sustain a refusal of planning permission purely on the basis of the likely output of the turbines. However, what is relevant here is the issue of the Green Belt and whether the environmental benefits are sufficient to be considered as special circumstances to outweigh the presumption against the development under PPG2. PPS22 states that environmental benefits may constitute special circumstances but that this would only apply where those benefits clearly outweigh the harm by reason of inappropriateness. In this case it is clear that PPS22 is not unequivocal in stating that such benefits alone provide special circumstances but rather that they should be weighed against other considerations. For this reason it is considered that it would be reasonable to expect that the output and viability of the wind farm be clearly demonstrated before it can be accepted that the scheme complies with the requirements of both PPG2 and PPS22. As the applicant has failed to produce details of the recorded wind speeds at the site and has therefore failed to demonstrate the wider environmental benefits of the scheme it is not considered that this aspect of the scheme would contribute towards special circumstances on the basis of the information supplied.

- The argument put forward in relation to the potential lack of sites for wind farm development within Chorley other than in Green Belt suggests that this alone provides the special circumstances sufficient to override the presumption against inappropriate development. This argument is flawed for the reason that at its basis would be an assumption that the need to meet renewable energy targets would take precedence over all other considerations, in this case Green Belt policy. This is clearly not the stance taken in PPS22 which does not support the view that in the absence of alternative locations Green Belt sites are automatically acceptable for wind farm development. PPS22 also clearly states that LPA's should not use a sequential approach in the consideration of renewable energy projects. This effectively prevents the Council from expressing a favour for any particular areas within the borough over others. In other words it is not possible to state categorically that development of wind farms would in fact be severely restricted in the West Pennine Moors. In summary, it is not considered that this argument can be substantiated and does not demonstrate the very special circumstances required to meet the requirements of PPG2.
- The LCC landscape assessment to which the applicant refers does identify moss land as being a type of landscape that would be of a low category of sensitivity to wind farm development. However, the report was not intended to replace a comprehensive on-site investigation and analysis in respect of any specific development proposal. In other words this is not to say that the categorisation would overcome the need to assess the localised impacts of individual proposals or other considerations such as Green Belt policy. The study referred to does not exclusively define the site at Cliff's Farm as being one appropriate for a wind farm as it's intention was to provide a broad appraisal of wider landscape areas within Lancashire and to assess how each type was sensitive to such development.

The applicant has argued however, that the designation of the commissioned study provides special circumstances in this case, which would overcome the normal presumption against inappropriate development. This argument is not accepted.

It is also the case that a detailed landscape assessment has been undertaken, which has subsequently been assessed by LCC who concluded that the visual impacts of the proposed wind farm would be acceptable. In this case the issue of the landscape is only one element of the argument put forward by the applicant and even if it is accepted that the turbines could be accommodated without detriment to the wider landscape it must be borne in mind that this does not mean to say that the effects on visual amenity at a local level would not be adversely affected and is moreover only one element to be considered in a wider appraisal of the special circumstances put forward by the applicant.

In summary, it is not considered that the impact of the proposed development on the landscape, whether it is accepted as being within tolerable limits or not, is sufficient basis to sustain an argument of very special circumstances sufficient to outweigh the presumption against inappropriate development within the Green Belt.

Landscape and Visual Impact

PPS22 requires that the visual impact of the development should be assessed using objective descriptive material and analysis wherever possible and notes that wind turbines have the greatest visual and landscape effects of all forms of renewable energy development.

Concerns were originally expressed by LCC over the content of the applicants ER. Specifically, they considered that the ER had not addressed key issues to enable them to accept the reports findings that the visual impact of the proposed turbines would be within tolerable limits. The applicant has subsequently addressed this matter by the submission of a further landscape assessment. The LCC Specialist Advisor (Landscape) has now concluded that the landscape and visual impact of the turbines at Cliffs Farm would be acceptable.

This matter is dealt with in the context of Green Belt policy in the previous section of this report. However, with regards to the assessment of the landscape it should be reiterated that the site is located within an area that has been assessed under 'A Landscape Strategy for Lancashire, Landscape Character Assessment' as being of low sensitivity to wind development. Notwithstanding, the LCC advisor notes that the;

'juxtaposition between the flat topography of the Mosslands landscape and the tall vertical wind turbines would accentuate their impact and highlight their size'.

In terms of a refusal of planning permission purely on visual impact upon the wider landscape it can be argued that this would be difficult to sustain given the detailed landscape assessment that has now been submitted and appraised by LCC. As stated previously however, it is necessary to consider this argument more closely in the light of Green Belt policy.

Environmental Benefits

PPS22 is explicit in its advice regarding the environmental benefits of projects for renewable energy in which it is acknowledged that 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. On this basis PPS22 clearly advises that local authorities should not reject planning applications simply because the level of output is small or make assumptions about the technical or commercial feasibility of renewable energy projects. For this reason it can be argued that the output from the proposed wind farm should not be used as a justification for refusal of planning permission in its own right. However, this would not take into account the wider Green Belt issues outlined above and in particular the need to demonstrate very special circumstances, which it is considered takes precedence over the normal approach taken in these matters. In this case it is considered that it not sufficient to argue that the proposal will provide a contribution towards the overall outputs as the restrictions imposed by the Green Belt location require a more detailed justification to be put forward. The environmental benefits are therefore not adequately proven in this case to justify an approval of planning permission on this basis alone.

Ecological Impacts

The main impacts of the proposed development in ecological terms has been identified by LCC Ecological Advisor as being; possible impacts on nesting birds, over wintering birds and water voles. Other concerns have also been raised in relation to the proximity of a Biological Heritage Site at Croston Moss. Supplementary information submitted by the applicant has addressed all of the outstanding issues and it is not considered that the proposed wind turbines would raise any ecological issues that would form the basis of a refusal of planning permission.

Amenity

It is considered that there are key areas where the proposed wind turbines may adversely affect amenity as follows;

Noise – The applicant has undertaken a noise assessment that has been referred to the Councils Environmental Health (EH) section. In summary EH have advised that the methodology of the noise assessment is flawed and does not provide sufficient information to enable them to arrive at a conclusion as to whether the potential impact from noise will be within acceptable parameters. Accordingly they have requested that further monitoring on site be undertaken to provide additional information. The applicant has requested that consideration be given to a planning condition requiring that noise levels should not exceed an agreed limit above the background levels. A 1996 report by the Energy Technology Support Unit (ETSU) commissioned by the DTI provides guidance on assessing noise from wind energy development and suggests that such conditions can be imposed however PPG24 at Annex 5 advises that such conditions may be difficult to monitor and subsequently enforce. On the basis that EH has requested further monitoring and do not feel able to make a recommendation at this stage it is considered that it would not be advisable to recommend that planning permission be granted. The applicant has undertaken to conduct further monitoring however the results and assessment required by EH are not likely to be available at the time the application is to be considered by the Planning Committee.

Shadow Flicker – With regards to the issue of shadow flicker the Environmental Health section, having regard to the companion guide to PPS22, have concluded that flicker effects have been proven to occur only within 10 rotor diameters of a turbine. Based upon the information submitted by the applicant, EH conclude that the distance and orientation of the nearest properties are within acceptable parameters and consequently will not be affected by shadow flicker.

Accordingly, a refusal on the grounds of loss of amenity due to shadow flicker could not be substantiated.

Visual Impact – Notwithstanding the wider visual appraisal outlined earlier in this report, the proposed turbines will be located in a position which will be clearly visible from a number of nearby residential properties and also from the Mawdesley Jubilee Trail which utilises part of the footpath network. Objections have been raised by those residents most directly affected regarding the visual impact and loss of outlook that would arise should the development be allowed. Objections further afield have also been submitted expressing concerns over the visual impact of the turbines on the wider landscape and from viewpoints further away from the immediate site boundaries.

It is clear that due to the very nature of the turbines there will be a visual impact and that the impact will most directly affect those properties closest to the site. It should also be considered that opinions on the aesthetic qualities of the structures will be divided as will opinion on the degree to which the visual impact will be detrimental to the wider landscape, which is somewhat subjective and open to individual interpretation. In terms of the appellants reliance upon the landscape assessment to determine the overall impact of the turbines within the wider landscape setting it is not considered that this necessarily addresses the issue of visual impact in terms of amenity (or outlook) to those properties most directly impacted upon.

With regards to the first issue, impact upon countryside character, it is considered that the wider landscape assessment would take precedent over any concerns regarding the overall visual impact of the proposed turbines. Accordingly, it is considered that a refusal on the basis of the visual impact of the turbines upon the wider landscape would be difficult to sustain.

In respect of the impact upon residential amenity however, the issue must be how significant the loss of amenity is considered to be against the wider policy arguments outlined above. This is a finely balanced issue, principally because it cannot be argued that the turbines would not result in any loss of residential amenity despite the separation distance as they would be clearly visible to the nearest properties and would affect their outlook. On this basis alone, it is considered that the proposed turbines would adversely affect the residential amenity of the neighbouring properties by virtue of loss of outlook. However in consideration of sustaining an argument for refusal of planning permission it is considered that this could not constitute grounds for a refusal of planning permission.

Response to Objections:

Not all the matters raised by objectors to the scheme are relevant to planning. However, there are some issues that have not been addressed elsewhere within the report and may be commented on as follows;

Construction Traffic: The issue of delivery of materials to the site is not a consideration that can be used to form the basis of a decision to refuse planning permission for the proposed development. It is noted that the lanes that provide access to the site are very narrow and are likely to present some difficulties for HGV's to negotiate and that there is a possibility of damage occurring to trees and hedgerows and to the road surfaces themselves. Notwithstanding, these are issues that are outside the scope of planning control and would likely become civil matters where the affected routes are outside the ownership or control of the applicant. It should also be noted that a grant of planning permission does not overcome other legislative requirements or constraints such as trespass or the Highways Acts. LCC Highways have commented on the scheme and raise no objections subject to a survey being undertaken prior to commencement of any work on site.

Ground Stability: Residents have expressed concerns over the ability of the moss to adequately support the proposed turbines. This is an engineering concern and is not relevant to consideration of the acceptability of the proposals in planning terms.

Impact on Footpath Network: The proposed turbines would be sited within close proximity to local footpaths and in particular the Jubilee Trail. There are issues surrounding the proposals to undertake works to upgrade part of the network to provide access to the site and to maintain the proposed turbines however, none of the formal consultation responses have raised any specific objections that would constitute a grounds for refusal of planning permission. Specifically, the footpaths would be restricted for temporary periods during construction but would essentially remain accessible to the public in the long term.

Alternative Sites for Wind Farms: Objectors have questioned the suitability of other sites within Chorley and in Lancashire in preference to development of Mawdesley Moss. Whilst it may be the case that there are other sites, this does not in itself have any bearing on consideration of this application. PPS22 specifically requires that local planning authorities '*should not use a sequential approach in the consideration of renewable energy projects*'.

JRC and Defence Estates

The objections raised by the Joint Radio Company and Defence Estates relate to the potentially adverse impacts of the proposed turbines on microwave links and radar equipment. These are issues that were for the developer to resolve with the appropriate organisations prior to submission of the application. Whilst there are clearly problems with these aspects of the proposal they are procedural matters and it is not necessarily the case that they would form valid reasons for a refusal of planning permission. It is proposed that these issues will be referred to by way of an informative attached to the planning decision.

Conclusion: The applicant has failed to demonstrate the very special circumstances required to overcome the presumption against inappropriate development in the Green Belt as required by PPG2 'Green Belts' and Policy DC1 of the Chorley Borough Local Plan Review.

Recommendation: That planning permission be refused for the following reason;

The proposed wind turbines would harm the open character of the Green Belt by reason of their siting, height and overall scale and would constitute inappropriate development for which no very special circumstances have been adequately demonstrated thereby conflicting with PPG2 'Green Belts' and Policy DC1 'Development in the Green Belt' of the Chorley Borough Local Plan Review.

The applicant has failed to submit adequate information to enable the local planning authority to assess the potential impact of noise from the proposed wind turbines and the possible affect upon residential amenity and the surrounding environment contrary to Policy EP20 'Noise' of the Chorley Borough Local Plan and PPG24 'Planning and Noise'.

Informative

The applicant has failed to resolve issues relating to microwave radio links and interference with radar installations prior to the submission of the application in accordance with Sn 25 of PPS22 'Renewable Energy'.

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MAWDESLEY MOSS WIND PROJECT - DEVELOPMENT BOUNDARY
SCALE 1:2500 VERTICAL NOT TO SCALE

NOTES ON TURBINE COMPOUNDS

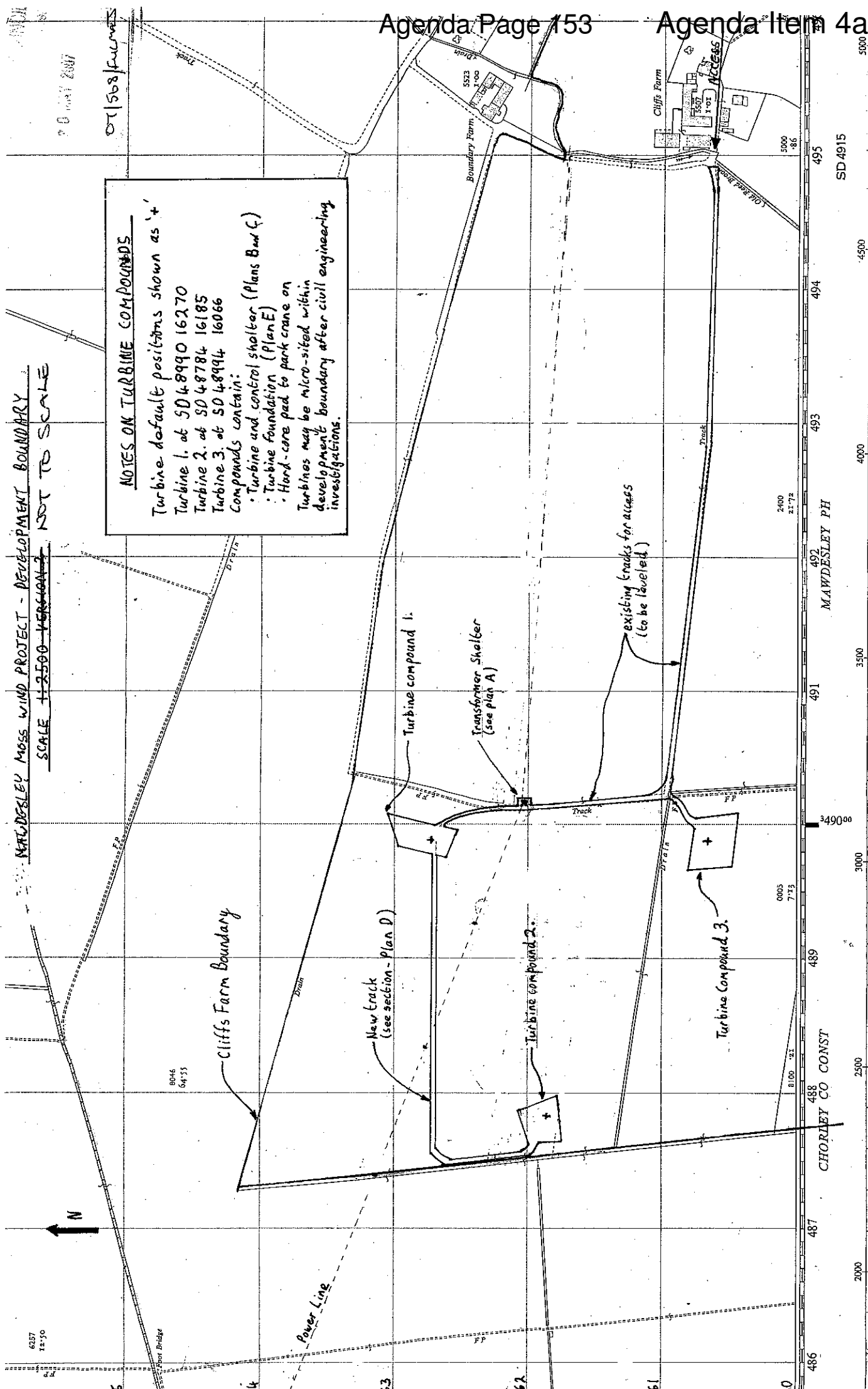
Turbine default positions shown as '+'

Turbine 1. at SD 48990 16270
 Turbine 2. at SD 48784 16185
 Turbine 3. at SD 48994 16066

Compounds contain:

- Turbine and control shelter (Plans B and C)
- Turbine foundation (Plan E)
- Hard-core pad to park crane on

Turbines may be micro-sited within development boundary after civil engineering investigations.



REFERENCE

For fuller information see Reference Card published separately.
NATIONAL GRID REFERENCE
The lines on the plan form part of the National Grid and are spaced at 100 metre intervals.

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To:
 Planning Committee
 Chorley Borough Council

From:
 Councillor Kevin Joyce
 Eccleston and Mawdesley

2nd July 2007

RE: Plan for construction of a wind farm at Mawdesley

Councillors,

I understand that you have recently received a planning application for a wind farm at Mawdesley.

I have looked into this matter in detail following a number of enquiries from Mawdesley residents opposed to the development, I thought it my duty to make the committee aware of some facts which may not be widely known. I have tried to avoid opinions and have quoted the sources for figures used.

I would be very grateful if you would consider the following points as you evaluate any planning application.

1. The environmental benefits of wind power do not justify its cost

Wind power provides a very small percentage of the electricity needs of the UK. According to DTI figures from 2005 [1]

GWh generated by UK onshore wind farms	769
GWh generated by offshore farms	204
TOTAL	973 GWh

The total electricity consumption for the same year was 407,265 GWh. Thus the combined on and offshore wind power contribution to UK electricity needs was less than **0.25%**. (one quarter of 1%)

Despite this minor contribution to the nation's energy provision it is estimated that wind farm developers across Britain could share more than £8 billion in subsidies over the next four years.[2]

In 2004 the Sunday Times launched a campaign calling for the UK government to re-examine its energy strategy and pushing for a moratorium on the future development of wind farms until their benefits have been properly established. This had the support of many environmental campaigners and economists.

Michael Howard, then Conservative Party leader, announced that a future Conservative government would rein in the controversial expansion of wind farms.

You might wonder why so many people are against wind farms when it is often said that we have a desperate need for cleaner energy. It is simply because the numbers may not add up.

Whilst it is accepted that energy generated by wind powered turbines is amongst the greenest in terms of carbon emissions (5g Carbon/kWhour, against around 400g Carbon/kWhour for coal fired) spending £8 billion to achieve this reduction does not represent financial, or environmental, value.

The use of wind power to generate 973GWh each year means that we do not need to use fossil fuels to generate those 973GWh. The carbon saving associated with the use of wind power is therefore the difference between the carbon emissions from producing 973GWh using fossil fuels and the carbon emissions from producing 973GWh using wind power.

This comes to 574,070 tonnes per year,[3] which sounds like a lot, until you consider what else might be done with £8 billion to reduce carbon emissions.

AN EXAMPLE

Let's consider low energy light bulbs. £8 billion would buy 1.6 billion low energy light bulbs (cost of £5 each over the counter at B&Q). The average house has 10 light bulbs, which means that 160 million households can be provided with energy saving light bulbs for the same cost as the wind power subsidy.

This means that for £8 billion every household in the US, UK and France could be entirely equipped with energy saving light bulbs.[4] What might be saved, in terms of carbon emissions, if this was done, bearing in mind that 19% of the total energy expended worldwide is used for lighting.

It has been estimated that if every household in the United States replaced just three of its incandescent light bulbs it would reduce emissions of CO2 by 23 million tonnes, and reduce demand for electricity in the US by the equivalent of 11 coal fired power stations.[5]

Including the households from the UK and France we would be looking at a potential CO2 reduction of around 34 million tonnes worldwide for the expenditure of £8 billion currently being used for wind power.

For considerably less than £8 billion (barely more than £1 billion actually) the UK could replace every incandescent bulb in the UK saving over 9 million tonnes of CO2 a year. This suggests that spending on wind power to reduce CO2 emissions is not a wise use of money.

The developers of the Mawdesley wind farm might consider this information to be irrelevant, because they feel they are not receiving any subsidy. They may not receive any help to build the wind farm, but they will receive subsidy for the power they produce as a result of the governments' complex renewable obligation certificates.

To quote Paul Golby, the chief executive of E-ON UK (former Powergen), **"Without the renewable obligation certificates nobody would be building wind farms"** [6]

The government has been persuaded that wind power can contribute to its green energy targets. To try and encourage energy providers to use wind power providers are obliged to buy a percentage of power from renewable sources at roughly three times the cost of traditional fuels such as coal, oil and gas.

This Renewable Obligation forces a consumer sourced subsidy to be paid to the renewable generator. This results in an increase in electricity prices to all consumers, whether or not they subscribe to a green tariff.

Critics suggest that this system operates to simultaneously penalise customers through higher bills and benefit the big power companies who least need the money. Although the government denies the scheme is a form of subsidy, many experts disagree, saying developers and suppliers are reaping hundreds of millions of pounds because of direct government intervention.

The system has been criticised by the Auditor General [7] and the House of Commons Committee of Public Accounts [8].

Prominent environmentalist, Dr John Etherington [9], is amongst many critics of the scheme and has said, **"These are effectively a hidden tax on all electricity consumers and a huge hidden subsidy to renewable energy providers."**

I attach a report by Dr Etherington which describes the subsidy process in detail and which explains how a **big wind turbine can earn £400,000 per annum of which half will be subsidy, paid by all consumers.** This is the reason that many people who have considered the numbers in detail have decided that the UK policy on wind farms is wrong.

Chorley Council should consider carefully whether it wants to support a system which many experts describe as financial folly.

2. Wind farms can cause considerable damage to wildlife

The problems caused to birds by wind farms have been described extensively in the general media.

Simply speaking, birds in flight can be killed by the spinning turbine blades.

Supporters of the wind power industry would point out that the numbers of birds killed is relatively small, and this is correct. The RSPB has raised objections to wind farms where the proposed site is within the range of a protected species (such as the Golden eagle) or on a migratory flight path.

However, leaving these considerations aside there is new research available which suggests that the impact of wind farms on bird populations may be more serious and long lasting than first thought, and may go much deeper than the actual number of birds killed.

The proposed site of this wind farm, Mawdesley, is a 6 mile drive from Martin Mere, only around 3 miles to a bird taking a direct route. As you may know, Martin Mere was designated an area of Special Scientific Interest in 1974 and Blackpool Council declared the site a Nature Reserve in 1991. The BBC nature series "Autumnwatch", hosted by Bill Oddie is to be presented from Martin Mere later this year.

Habitats at Martin Mere include open water, reed beds, grassland and small pockets of woodland and scrub. The site has a wide range of birds with many migrants in spring. The population of Martin Mere includes various ducks, geese and swans, water rail, long-eared owls, terns, little gulls, waders and warblers, bitterns, whimbrels, the marsh harrier and the osprey. The reserve is also exceptional for its plants (including orchids) and invertebrates such as butterflies, moths and dragonflies.

I attach to this letter a copy of *Systematic Review 4 - Effects of wind turbines on bird abundance - Summary Report*, produced by the Centre for Evidence Based Conservation at the University of Birmingham.

The summary is fairly detailed in its analysis of the statistics (the full report is a monster, but available from Birmingham University for anyone who wants it) and comes to the simple conclusion, that birds move away from areas around wind turbines.

I will quote from the conclusion of the summary report:

"..if impacts on bird abundance are to be avoided, the available evidence suggests that wind farms should not be sited near populations of birds of conservation importance, particularly Anseriformes."

Anseriformes are waterfowl by the way (ducks, geese and swans).

This warning has a particular significance when you consider the proximity of the proposed wind farm site to Martin Mere.

Martin Mere was left behind by glacial retreat after the last ice age and its habitat originally stretched for many miles across the county. As late as the 17th century the wetlands habitat extended some 1300ha.

As land has been developed over recent centuries the natural habitat required to support the diverse bird species became smaller and smaller. This process can eventually lead to a situation known in environmental fields as Islandisation.

It refers to the tendency for suitable wildlife habitats to become smaller and eventually encircled by non suitable habitats.

Islandisation is a massive problem for conservation. It has been described as one of the biggest threats to species survival by Sir David Attenborough.

The effects of Islandisation are very easy to visualise. If a wading bird living on Martin Mere attempts to move away from the area it finds no suitable habitat in the surrounding areas.

Islandisation means that entire populations can collapse because of quite small changes in their environment. They try to move, but end up in an entirely unsuitable environment and cannot survive.

This is a situation which is starting to affect the millions of nesting seabirds in the cliffs of the Scottish islands. Their cliff top habitats are protected, but the open sea where they gather food are not. The birds are being killed at sea, poisoned by plastic, contaminated with oil, etc... all of which encourages the remaining birds to leave for pastures new.

Unfortunately, their protected cliffs are the only suitable habitat. Birds will not consider the logic of staying where they are, they will simply move away and die.

The point I am trying to make is that to protect Martin Mere you have to protect the environment around Martin Mere, you have to avoid the process of Islandisation.

I appreciate that Martin Mere is not within Chorley Borough, but surely as elected officials within Lancashire we must bear some responsibility to protect this rare and irreplaceable resource.

I might also mention that every pub in the Chorley area which carries tourism information has a leaflet on Martin Mere. If we believe that Lancashire has a future as a tourist destination we would be insane to do anything which would risk the beauty of Martin Mere.

I was rather surprised to learn that neither Martin Mere or the RSPB have raised a complaint about the proposed wind farm at Mawdesley. I can only assume that the individuals who are actually aware of this proposed development are not familiar with the scientific studies which have been published.

3. Allowing a wind farm on the migratory path to Martin Mere may be contrary to a number of international agreements to which the UK is a signatory

This may sound a little dramatic, but unless you are a wildlife enthusiast, or a dedicated bird watcher, you may not be aware of the international importance of Martin Mere.

The Mere supports migratory populations of global significance. Consider Whooper Swans. These animals breed on wetland in sub arctic Eurasia. They pair for life, and their cygnets stay with them all winter when they migrate to northern Europe and eastern Asia. Icelandic swans tend to over winter in England and Ireland, especially at Martin Mere. Counts conducted on the Mere suggest that a staggering 11% of the entire world population of Whooper Swans visit Martin Mere.

Given this international significance it is not surprising that Martin Mere is subject to at least 2 international agreements concerning the protection of wild birds, their habitat, and their migratory routes:

(a) European Community Directive 79/409/EEC - 1979

European Community Directive 79/409/EEC (1979) [10] on the conservation of wild birds (the 'Birds Directive') was produced in response to the 1979 Bern Convention on the conservation of European habitats and species (the 'Bern Convention'). This Directive provides a framework for the conservation and management of, and human interactions with, wild birds in Europe. Martin Mere is covered under Article 4 which provides for protection of wetlands of international importance.

(b) Agreement on the Conservation of African-Eurasian Migratory Waterbirds - 1995

The Whooper Swan (11% of which may over winter at Martin Mere) is protected under the UN Agreement on the Conservation of African-Eurasian Migratory Waterbirds (AEWA) [11]. This international treaty was concluded on 16 June 1995 in the Netherlands and came into force on 1 November 1999 following ratification by the required minimum of fourteen states (comprising seven from Africa and seven from Eurasia).

The AEWA covers 235 species of birds ecologically dependent on wetlands for at least part of their annual cycle, including many species of divers, grebes, pelicans, cormorants, herons, storks, rails, ibises, spoonbills, flamingos, ducks, swans, geese, cranes, waders, gulls, and terns.

The agreement covers 119 countries from Europe, parts of Asia and Canada, the Middle East and Africa and provides for coordinated and concerted action to be taken throughout the migration system ('flyways') of the waterbirds to which it applies.

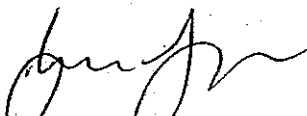
Parties to the Agreement are called upon to engage in a wide range of conservation actions which are described in a comprehensive Action Plan. This detailed plan addresses such key issues as species and habitat conservation and the management of human activities.

We should consider whether allowing a wind farm to be built in the migratory path of Whooper Swans is contrary to the terms of this international directive.

Conclusion

I do apologise for the extreme length of this document, and I am grateful to anyone who has stuck it out to this point. I have tried to avoid opinions, and I hope I have demonstrated the fact that the development of a wind farm in Mawdesley may be unwise financially, could damage the local environment, and therefore the local economy, and may contravene international agreements.

Yours Sincerely



Councillor Kevin Joyce
Eccleston and Mawdesley

References:

- [1] DTI Digest of UK Energy Statistics (<http://www.dti.gov.uk/energy/energy06.pdf>)
- [2] Sir Ian Fells, professor of energy conversion at Newcastle University (<http://www.warmwell.com/04jul25suntimeswind.html>)
- [3] "Impact of Wind Generation in Ireland on the Operation of Conventional Plant and the Economic Implications", 2004 - study by the Irish National Grid concluded "reductions in CO2 emissions ranging from 0.59 tonnes of CO2 per MWh to 0.33 tonnes per MWh" - (<http://www.eirgrid.com/EirGridPortal/uploads/Publications/Wind%20Impact%20Study%20-%20main%20report.pdf>)
- [4] There are 109 million households in the United States [Nielson Media research (2004-2005)] and around 24.7 million in both the UK [National Statistics Office (www.statistics.gov.uk)] and France [23.8 million according to INSEE (French Census figures 1999)]
- [5] Dr Matt Prescott (<http://news.bbc.co.uk/2/hi/science/nature/4667354.stm>)
- [6] Interview with Daily Telegraph published 26/03/2005
- [7] Renewable Energy REPORT BY THE COMPTROLLER AND AUDITOR GENERAL. HC 210 Session 2004-2005 (11 February 2005)
- [8] House of Commons Committee of Public Accounts. Department of Trade and Industry: Renewable Energy. 6th Report of Session 2005-6
- [9] Dr John Etherington was formerly a Reader in Ecology at the University of Wales and in 1975 was one of the first people to publish warnings about the impact of human activity on carbon dioxide emissions and the possible "greenhouse effect".
- [10] HM Joint Nature Conservation Committee (<http://www.jncc.gov.uk/page-1373>)
- [11] UN AEWA (<http://www.unep-aewa.org/>)

Wind power subsidy in the UK

by Dr John Etherington © 2006

Summary *Wind power in the UK receives a largely covert subsidy which currently doubles its value to the generator, and unlike conventional taxation-sourced support is not open to public view or Parliamentary attention. Wind power has a huge environmental impact and saves minimal carbon dioxide (CO₂) emission.*

Though there are capital subsidies available for installation of wind power in the UK, especially offshore, this account is concerned with the most important subsidy: - that on wind electricity, provided by the Renewables Obligation (RO) and other benefits, set in place in 2002. Wind power is our fastest growing renewable electricity generator, though it still represents less than 0.5% of UK electricity supply.

The crucial importance of the RO may be gauged from the statement by Paul Golby, the chief executive of E-ON UK (former Powergen), who said: "Without the renewable obligation certificates nobody would be building wind farms" *Daily Telegraph* (26/03/2005).

Renewables Obligation

The Renewables Obligation as its name suggests places an obligation on electricity suppliers to purchase qualifying renewably generated electricity but it also forces a consumer-sourced 'subsidy' to be paid to the renewable generator. The mechanism of payment results in an increase in electricity price to all consumers, whether or not they subscribe to a 'green tariff'. Few consumers are aware of this fact and neither government nor developers apprise them of it.

The RO is operated through the mechanism of Renewables Obligation Certificates (ROCs - see Figure 1) and these certificates are a marketable commodity, generating additional income for the renewable generator.

The ROC has a buy-out price which was agreed at £30/megawatt hour (MWh) in 2002 and, index-linked, has now reached £32.33/MWh. This provides a 'floor' below which the subsidy on wind and other renewables can never fall.

Climate Change Levy exemption (CCLe)

In addition to the consumer-sourced RO another small advantage is given to the renewable generator. Non-renewable fuels pay a tax of £4.30/MWh, but renewables are exempt and so, effectively, are given an extra £4.30/MWh for their electricity.

The net subsidy - about £45/MWh

From 2002 when the RO system replaced the former NFFO (Non-fossil Fuel Obligation) the price of ROC's steadily increased. Two years ago it reached about £47/MWh (buy-out price of £30 plus £17 market increment) but very recently (2006) the increment has dropped back to c. £10 giving the RO a total value of about £40/MWh.

Adding to this, the CCLe of £4.30/MWh, we have a total subsidy close to £45/MWh

Wind electricity price is inflated to £90/MWh

As of January 2006 the wholesale price of electricity has risen to about £45/MWh (compared with c. £20/MWh a couple of years ago).

The implication is that the net subsidy, currently about £45/MWh, roughly doubles the value of wind electricity to c. £90/MWh (and prior to 2005-6 price changes, it almost trebled it).

This is probably the largest per unit subsidy ever paid for any commodity and the wind power industry has gained similar advantage in most other countries through either similar direct subsidy or, as in the US, through tax-breaks to wind power companies.

At present, coal-fired generation receives a per MWh subsidy which is less than a 25th of the wind subsidy. Gas-fired generation has never been subsidised and nuclear ceased to be subsidised in 1995-6 and has incidentally repaid with interest the bail-out loan made to it some years ago.

A big wind turbine earns £400,000 p.a. of which half is 'subsidy', paid by all consumers

Many wind turbines are of 2.0 MW or greater capacity and about

120 m in height. Because of limitation by wind speed, a 2.0 MW machine produces a quarter or a little more of its rated capacity, i.e. 0.5 MW on average.

Over one year it generates $0.5 \times 24 \times 365 = 4,380$ MWh, and at the renewables price of £90/MWh, the gross earning is £394,200 p.a.

About half of this income is from the consumer-sourced subsidy, without which the machine would be close to bankruptcy.

Big earnings, big 'footprint' but not much electricity or CO2-saving

One might assume that as the wind generators are so substantially rewarded, they produce a lot of electricity but this is not so. At the moment DTI figures show that wind provides less than 0.5% of UK electricity.

If the 2.0 MW wind turbines, wind-limited as above, were to replace the output of a large, 2000 MW conventional power station it would require at least 3000 turbines spread over 750 km² of countryside. Some Footprint!

Incidentally the Replaced, power station could not be closed as its electricity is still required to fill the gaps when the wind turbines are not fully generating.

The main reason given by government for installing wind power is that it will save carbon dioxide (CO₂) emission and consequently reduce the rate of Global warming,

Government's own prediction for CO₂ saving by renewable electricity (mainly wind) in 2010 is just 9.2 million tonne CO₂, which is less than four ten-thousandths (0.0004) of global man-made CO₂ emission. Some chance, our Windmills, have, of altering the weather!

Government has been told but fails to respond

In February 2005 the Auditor General* reported that "the level of support provided by the Renewables Obligation is greater than necessary to ensure that most new onshore wind farms... are developed" and that "The Renewables Obligation is currently at least four times more expensive than the other means of reducing carbon dioxide currently used in the United Kingdom..."

Later in 2005, the House of Commons Committee of Public Accounts ** reported that "Requiring users to source supplies from uneconomic providers has the same affect as taxing users to subsidise the providers, but is not as transparent or amenable to parliamentary control" and also that "The cost of the Renewables Obligation is passed on by electricity suppliers to consumers through higher prices.By 2010, the cost of the Renewables Obligation, which does not appear on electricity bills and is not explained to consumers, is expected to reach £1 billion per annum (at 2002 prices)."

For all the impact this has had on the Commons, the Auditor General's Office and the Committee of Public Accounts might as well have saved public money and gone off to the golf course!

* Renewable Energy REPORT BY THE COMPTROLLER AND AUDITOR GENERAL. HC 210
Session 2004-2005 (11 February 2005)

** House of Commons Committee of Public Accounts. Department of Trade and Industry:
Renewable Energy. 6th Report of Session 2005-6

John Etherington PhD DIC BSc ARCS

Dr John Etherington was Reader in Ecology in the University of Wales until his retirement in the early 1990s. He was educated at Imperial College in the 1950s-60s. Much of his research and teaching was in the field of environmental chemistry and physics. He first wrote, en passant, about the impact of human activity on carbon dioxide emission and the possible "greenhouse effect" in a book published in 1975 and re-editioned in 1982.



CENTRE FOR EVIDENCE-BASED CONSERVATION

SYSTEMATIC REVIEW NO. 4

**Effects of wind turbines on bird abundance
Summary Report**

Reviewers: Stewart, G.B., Pullin, A.S. & Coles, C.F.

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Summary

Background

Wind energy is the fastest growing energy technology in the world, with a yearly growth rate estimated at 30%, reflecting policy commitments in many countries to renewable energy in order to meet greenhouse gas emission targets. Wind energy is seen as a key element of the shift to sustainable energy supplies; however, despite the clean image of wind energy, there is some evidence that wind farm developments may have potentially deleterious environmental impacts. Attention has been brought to the possible impacts on bird populations caused by displacement and direct 'bird strikes'. Here we systematically review the impact of wind turbines on bird population abundance.

Objective

The objective has been to assess the evidence on the positive and negative effects of wind turbines on bird abundance. To achieve this four questions were identified:

1. Do wind turbines effect bird abundance?
2. Are some bird taxon more vulnerable than others?
3. Does the number or power of turbines in a windfarm installation have an impact on the effect of windfarms on bird abundance?
4. Can any other ecological factors or windfarm characteristics be identified which have an impact on the effect of windfarms on bird abundance?

Study Inclusion Criteria

Studies were included if they fulfilled the relevance criteria below.

- *Subjects(s)* studied – any bird species (information was extracted on Falconiformes & Accipitriformes, Anseriformes, Passeriformes and Charadriiformes except *Laridae*).
- *Intervention* used – commercial wind installations in any country: wind farms and turbines.
- *Outcome(s)* – population size or distribution, breeding success, population mortality rate, recruitment rate, turnover rate, immigration rate, emigration rate, demography, dispersal behaviour, collision mortality, displacement disturbance, movement impeded, and habitat loss or damage. (Only information on bird abundance was extracted).
- *Comparator* – appropriate controls (e.g. reference areas) or pre-development comparators.

- *Type of study* – any primary studies

Scope of the Search

The following computerised databases were searched: English Nature's "Wildlink, JSTOR, Index to Theses Online (1970 to present), Internet search – Dogpile meta-search engine, SCIRUS, COPAC and ISI Web of Knowledge. In addition, the RSPB library was hand-searched, as were bibliographies. Recognised experts and current practitioners in the fields of applied avian ecology and renewable energy technology were contacted. Foreign language searches were undertaken to ensure that the scope of the review was truly global.

Main results

A total of 124 articles were accepted for full text viewing based upon an initial screening of title and abstract, including foreign language articles. Of these, 15 were of sufficient quality and relevance to meet the inclusion criteria reporting on the results of 19 datasets. Nine of these datasets were complete although three only reported on a limited number species. The remaining 10 datasets were incomplete. Nine did not present variance measures, one did not include turbine characteristics and three of the sites were not independent as they shared the same control.

Random effects weighted mean difference meta-analysis of six complete independent datasets with more than three species produced negative effect sizes, two of which were statistically significant, suggesting that windfarms can have a negative impact on bird abundance. Combination of the complete datasets using Random effects standardised mean difference meta-analysis resulted in a pooled effect size of -0.328 ($P < 0.0001$). The inclusion of incomplete datasets (with down-weighted dummy variances) reduced the size of the effect and its significance (-0.033 , $P = 0.002$), whilst including these data with average weighting further reduced the effect size and probability fell beyond the 0.05 significance threshold (-0.022 , $P = 0.054$).

Combination of the complete datasets with effect sizes derived from overall means of within-windfarm samples resulted in a negative and significant pooled effect size (-0.712 , $P = 0.0001$) which remained with the addition of down-weighted data with dummy variances and non-independent data (-0.257 , $P = 0.023$). Effect sizes were also derived using species as replicates and again the pooled effect size was negative and significant (-0.489 , $P = 0.035$) although the significance fell beyond the 0.05 threshold when down-weighted data with dummy variances and non-independent data was added (-0.240 , $P = 0.089$).

Meta-regression was used to investigate reasons for heterogeneity in results. Bird taxon had a significant impact on the effect of windfarms on bird abundance ($r = 0.290$, $SE = 0.070$, $P = 0.0001$) with Anseriformes (ducks) experiencing greater declines in abundance than other bird groups, followed by Charadriiformes (waders), Falconiformes and Accipitriformes (raptors) and Passeriformes (songbirds).

Turbine number did not have a significant impact on bird abundance whilst turbine power had a very weak but statistically significant effect ($r = 0.002$, $SE = 0.0007$, $P = 0.004$) with low power turbines resulting in greater declines in abundance than high

power turbines.

Bird taxon, turbine number and turbine power were combined with habitat type, the migratory nature of the species, latitude, location, size of area, time since operation of windfarm and data quality using multivariate meta-regression. Time since windfarms commenced operation had a significant impact on bird abundance ($r = 0.519$, $SE = 0.155$, $P = 0.001$) with longer operating times resulting in greater declines in abundance than short operating times. Latitude had a very weak but statistically significant effect ($r = -0.099$, $SE = 0.032$, $P = 0.002$) with high latitudes resulting in greater declines in abundance than low latitudes.

Conclusions

Available evidence suggests that windfarms reduce the abundance of many bird species at the windfarm site. There is some evidence that Anseriformes (ducks) experience greater declines in abundance than other bird groups suggesting that a precautionary approach should be adopted to windfarm developments near aggregations of Anseriformes and to a lesser extent Charadriiformes particularly in offshore and coastal locations. There is also some evidence that impact of windfarms on bird abundance becomes more pronounced with time, suggesting that short term bird abundance studies do not provide robust indicators of the potentially deleterious impacts of windfarms on bird abundance.

These results should be interpreted with caution given the small sample sizes and variable quality data. More high quality research and monitoring is required, in particular, long term studies with independent controls and variance data. Pending further research, if impacts on bird abundance are to be avoided, the available evidence suggests that windfarms should not be sited near populations of birds of conservation importance, particularly Anseriformes.