
***"We love the turbines at Mablethorpe. We cannot hear any noise. They are not at all ugly, in fact we think they're graceful. They break up the flat landscape and look lovely against the sunset."***
Mr and Mrs Rollinson
Nearest uninvolved neighbours to Bambers Farm Wind Farm, Mablethorpe, Lincolnshire.
Note – Wind farm owned and operated by Ecotricity

# Climate change in the UK

***The main driver for wind farms and all forms of renewable generation is the threat of climate change which could have huge impacts in the coming years, both locally and globally.***

The Government's Chief Scientific Advisor Sir David King described the threat of climate change as the "most severe problem that we are facing today, more serious even than the threat of terrorism." (Jan 2004)

As part of the Kyoto agreement, the government has committed the UK to reduce carbon dioxide emissions by 60% of 1990 levels by 2050. The government also has targets of generating 10% of the UK's electricity from renewable sources by 2010, 15% by 2015 and 20% by 2020.

Wind energy is currently the only viable renewable technology that is making significant progress towards this target.

A scientific paper, published in the journal 'Nature'[4], found that up to 37% of all species of wildlife in the regions it studied could be committed to extinction by climate change that is likely to occur between now and 2050.

Closer to home May to July 2007 were the wettest since the England and Wales precipitation record began in 1766, whilst summer 2006 was the warmest ever recorded in the UK.[5]

The Environment Agency have warned that two-fifths of householders are unaware they live in flood risk areas. A significant proportion of these householders live in the East of England.

Extreme weather events are becoming more common and whilst such events do of course occur naturally, it is the frequency and ferocity with which they are happening that has been linked to climate change.

## *How we can all 'do our bit'*

Electricity could be used a lot more efficiently by everyone – this is very easy to do. Being more energy efficient in our homes, schools and workplaces can go a long way towards reducing carbon dioxide emissions from fossil fuel power stations.

***Here are some ideas:***

- Always turn off the lights when you leave a room unoccupied
- Don't leave appliances such as televisions and DVD players on standby
- If you're not filling up the washing machine, tumble dryer or dishwasher, use the half-load or economy programme
- Only boil as much water as you need (remember to cover the elements if you're using an electric kettle)

For more information see *www.energysavingtrust.org.uk*

***References***

(1) Ffynnon Oer turbines have a tip height of 93m.

(2) Based on an annual electricity consumption per home of 4700 kWh, which is derived from a total UK domestic electricity consumption of 117.589 terawatt-hours (TWh) and 25.2 million UK households giving 4,666 kWh per year per household. UK energy consumption is as stated for 2004 in The Digest of UK Energy Statistics 2005 The number of UK households is as stated for 2003 in the Mid-year Household Estimates published in 2004 by the Office for National Statistics.

The energy predicted to be generated by the proposal is derived from monitoring wind speeds in the area and correlating this data to wind speeds measured at Met. Office stations. This enables a calculation to be made to estimate the average annual energy production for the site based on 8 turbines each of rated capacity of between 2.5 and 3MW. The energy capture and equivalent homes figure relating to this project may change as more information is gathered.

(3) East of England renewable energy statistics, April 2007, Renewables East

(4) C.D. Thomas et al., 2004, Extinction risk from climate change, Nature, vol 427.

(5) Data from *www.metoffice.gov.uk*

***Printed on recycled paper.***

RWE Group

npower renewables




Photograph showing a turbine at Ffynnon Oer Wind Farm, South Wales.[1]

# Introducing – Cotton Wind Farm – Green Energy for Huntingdonshire?

***npower renewables, the UK's leading wind farm operator, is investigating the potential for a wind farm at Cotton Farm on land occupying the disused WWII aerodrome west of the village of Graveley and to the south east of Offord D'Arcy, Cambridgeshire.***

Wind power is an essential part of the UK's commitment to tackling climate change.

Renewables Developer Kim Gauld-Clark said, "Our early studies show that the site at Cotton Farm has the potential to accommodate a medium scale wind farm. Over the coming months we will commission various studies to ensure we can fully assess the benefits and impacts of a wind farm in the area."

The proposal would comprise up to eight wind turbines with a maximum generating capacity of 24 megawatts (MW) of clean renewable electricity.

With this capacity a wind farm at Cotton Farm could meet the average annual electricity needs of between 6,900 and 10,000 homes each year[2]. This figure already takes into account predicted fluctuations in wind speed.

Not only would the wind farm supply a large number of homes with clean, sustainable electricity, it would also make a valuable contribution towards reducing carbon dioxide emissions.

Every unit of electricity produced by wind power replaces electricity that would have been produced by conventional sources and energy production is one of the major causes of climate change.

Cotton Wind Farm will prevent the emission of thousands of tonnes of carbon dioxide over the course of a year, helping to meet the UK Government's commitment to the Kyoto Protocol.

# Why choose Cotton Farm?

The selection of a wind farm site is a sensitive process. Just because a site is windy does not necessarily make it an ideal location. The site must satisfy a number of criteria, which include:

- A good wind speed
- A local electrical grid connection
- Suitable separation distances from existing houses
- Located in an area which will not have a detrimental impact on aviation safety; and
- Located outside any nationally designated landscapes

Over the coming months we will be investigating:

- Landscape and visual effects, i.e. how the turbines might look in the landscape and from local viewpoints
- Noise effects – to ensure the wind farm is quiet enough to meet strict guidelines
- Wildlife surveys – ensuring the proposal does not adversely affect local wildlife
- Ground conditions and flood risk; and
- Cultural Heritage – including any potential impact on listed buildings and archaeology

Once this information has been gathered we will decide whether to continue work on the proposal.

# Why Wind?

***Answers to some of the frequently asked questions about wind power.***

***Why do anything?***
By reducing our use of coal, oil and gas we're not only making a valuable contribution to combating climate change, we are also reducing the UK's dependence on imports of these fossil fuels. This can help the UK reduce its vulnerability in terms of security and price increases in foreign markets. We are strongly positioned to achieve this as the UK has 40% of the European wind resource.

***Can farming continue on site?***
Yes, wind farms only take up a small proportion of the land they are sited on. As such they are a form of rural diversification that can help maintain the viability of farm businesses whilst working in harmony with existing land uses. There will be no need to stop existing farming practices at Cotton Farm.

***Aren't they noisy?***
Before planning permission can be granted for a wind farm, it must be demonstrated that it can adhere to strict noise guidelines. Modern wind turbines and well-designed wind farms are quiet in operation and standing at the base of a wind turbine a normal conversation can be held without difficulty. We strongly urge anyone with concerns about noise to visit a wind farm so they can experience this for themselves.

***Why not put them offshore?***
Government policy is clear that both offshore and onshore wind farms are needed in order to achieve the UK's renewable energy objectives. npower renewables is the developer and operator of the UK's first major offshore wind farm North Hoyle, off the coast of North Wales. There are now a number of operational offshore sites but the economics of the larger, more distant sites are still proving prohibitive. We continue to develop and need both types of wind farms.

***So why don't we just save energy instead?***
We need to do both. If we are to tackle climate change seriously we need to both reduce our use of electricity and generate more of the electricity we need in a clean and sustainable way. Whilst npower renewables work to develop renewable energy schemes, our sister company npower have a dedicated team promoting energy efficiency. More on energy efficiency can be found on the opposite page.

## *Further information*

***Information can be found at the following websites:***

npower renewables: *www.npower-renewables.com/cottonfarm*

The British Wind Energy Association: *www.bwea.com* and *www.embracetherevolution.com*

## *Have your say*

We urge you to fill out the enclosed postcard. This is your opportunity to have your say on the development at this early stage.

You can also make comments by emailing: *cottonfarm@npower-renewables.com*

Or by writing to:
Cotton Wind Farm
npower renewables
East of England Office
2nd Floor, 2 Kinsbourne Court
96-100 Luton Road
Harpenden, Herts. AL5 3BL

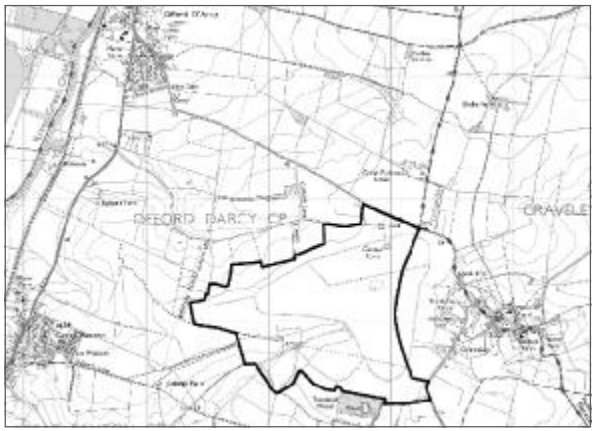
## *Who are npower renewables?*

npower renewables is the UK's leading wind farm operator, dedicated to generating electricity using sustainable, environmentally-friendly resources.

We are a leading developer and operator of onshore and offshore wind farms in the UK with over 16 years' experience in the wind energy market. We are also active in developing and operating hydroelectric schemes.

We currently manage 19 wind farms and 16 hydroelectric schemes totalling around 460MW of installed capacity. We also operate co-firing biomass plant through our parent company RWE npower.






Indicative Site Boundary

# Facts about Cotton Wind Farm

1) The project is likely to comprise up to 8 wind turbines capable of producing between 2-3 megawatts each, with a total capacity of between 16-24 MW.

2) If this is the case, then each year Cotton Wind Farm could generate enough clean electricity to meet the needs of between 6,900 and 10,000 homes[2]. There are 2082 homes in Offord D'Arcy, Graveley, Great Paxton, Little Paxton and Yelling parish areas. (ref: 2001 census statistics)

3) Independent noise consultants have been appointed to carry out background noise studies at a number of the closest homes to the site, to ensure that the location is suitable and can be designed appropriately.

4) At sites where wind farms have gone ahead, local companies can be best placed to win some of the construction contracts. Materials such as concrete and road stone are often sourced from companies close to where we have built wind farms.

5) The East of England region has a target of installing 647MW of onshore wind capacity by 2010.[3] Current installed capacity is 89MW or 14% of this target. A wind farm at Cotton Farm could contribute up to a further 24MW of installed capacity, the equivalent of 3.7% of this regional target.

6) npower renewables has delivered a range of community benefits in association with its operating wind farms. These measures benefit those communities living closest to each wind farm. At Cotton Farm npower renewables would expect a similar benefits package to be operated.

7) Turbines on the site would coexist with current land use practices, providing sustainable farm diversification benefits.

8) Energy from the wind farm will feed directly into the existing local electricity distribution network via new underground cables. Therefore, if demand is sufficient, electricity from the wind farm will be used in the local area.

9) There a number of ponds on site in which our surveyors have found great crested newts. As these creatures are protected, this will be taken in to account when designing on-site access tracks to minimise any disturbance.

10) The site is located between two roman roads. As such we are carrying out trial excavations to see if we can find any archeological features on site and to make sure the development doesn't compromise the cultural heritage of the area.

11) We have been collecting wind data on site and are confident that the area has a strong enough wind resource to support a viable wind farm.

# What next?

The next stage of the project is to carry out background noise monitoring at some of the closest residential properties to the site. Once this is complete and the data has been analysed we can draw up a draft layout for a wind farm at the site, ensuring that the wind turbines will be quiet enough to meet strict national guidelines.

It is our intention to present this layout at a public exhibition that will be held in a local venue over 2 days when npower renewables' staff members will be on hand to answer any queries and detailed information will be displayed. Please look out for the next issue of this newsletter which will advise on the date and location of this exhibition.