

# Fleeter Wood Wind Farm proposal

(formerly called Townhead)

Novera Energy is progressing proposals to submit a planning application for the Fleeter Wood Wind Farm (formerly known as the Townhead Wind Farm), on land southeast of Dearham, Maryport.

Environmental studies and the Environmental Impact Assessment to support the proposal have been conducted throughout the summer and autumn and it is anticipated that the planning application will be submitted in December 2007.



Novera's 15 MW Mynydd Clogau Wind Farm in Powys, mid-Wales

## November 2007 Newsletter

Novera is always keen to ensure that the local community is able to raise any issues and discuss and influence the proposal before a wind farm design is finalised.

Novera's first newsletter for the project (then known as Townhead Wind Farm) was sent to more than 1,800 people in the local area informing local residents of the wind farm proposals and advertising public consultations. A first set of public consultations was held at the end of September in Dearham Methodist Church hall and at Dovenby Hall, with around 270 people attending over the two days.

The comments made at, and subsequent to, the first consultations have now been considered by Novera and its design team and have been considered in the updated layout of the proposed development. A number of changes have now been made to the current design – for more details see inside.

One obvious difference is the proposal's new name, Fleeter Wood Wind Farm. The name change was made following feedback from the public consultations and as a result of the relocation of the turbines in comparison to earlier layouts. Fleeter Wood is a piece of woodland within the site and the planning application will be made in the new name, Fleeter Wood Wind Farm.

We believe it is important to continue to keep local people informed about our plans and this newsletter provides you with an update on the project and also gives information about how you can get involved with the proposal.

We will carry out a second public consultation exercise following the submission of the planning application, which is likely to take place early in 2008. This will give people an opportunity to consider the proposal, as submitted, and to ask the Novera team any further questions they may have.



## Novera Energy plc – who we are

Novera Energy plc is a leading independent UK renewable energy company. We develop, own and operate a diverse portfolio of wind, landfill gas, hydro and energy from waste projects. We are listed on the London Stock Exchange: Alternative Investment Market (AIM) and currently operate 122 megawatts (MW) of renewable generation assets across 58 sites in England, Scotland and Wales. For further information please visit our website which is [www.noveraenergy.com](http://www.noveraenergy.com)

As a responsible developer and operator of renewable energy schemes across the UK, including wind farms, Novera Energy's approach to development involves consulting widely with local communities and those with an interest in the proposed development.



*“Climate change is the most severe problem we are facing today.”*

Sir David King, UK Government’s chief scientific adviser

Today climate change is a daily concern of people and governments around the World. It is stated as the key reason for people at Novera’s public consultations for supporting wind farms such as Fleeter Wood. Climate change isn’t a new phenomenon. Over the millennia we know that global temperature has fluctuated because various factors change the levels of carbon dioxide in the atmosphere.

However, it is now widely accepted throughout the scientific community and internationally at government level, that the recent rise in global temperature (global warming) is being driven by the increase in greenhouse gases emitted as a result of human activities and that the increase and rate of increase in greenhouse gases, such as carbon dioxide, is far greater than has been seen during the known history of our planet. Studies have shown that the majority of this carbon dioxide is derived from the burning of fossil fuels, with laboratory analyses showing that the levels of carbon dioxide in the atmosphere are now 35% greater than they have been for at least the last 650,000 years (Source: A Simple Guide to the Climate Change Controversies, The Royal Society 2007).

## Fleeter Wood Wind Farm design evolution

The Fleeter Wood site was selected by Novera Energy as suitable for a wind farm following a two year site selection process. This confirmed that the Fleeter Wood site:

- is subject to no international or national designations
- is an exposed location with good wind speeds
- is in proximity to a grid connection point
- is large enough to accommodate an economic generating capacity, and
- could be developed with minimal environmental effects.

Initial feasibility studies then were carried out and an initial layout was designed consisting of 8 turbines forming a small cluster in the centre of the site.

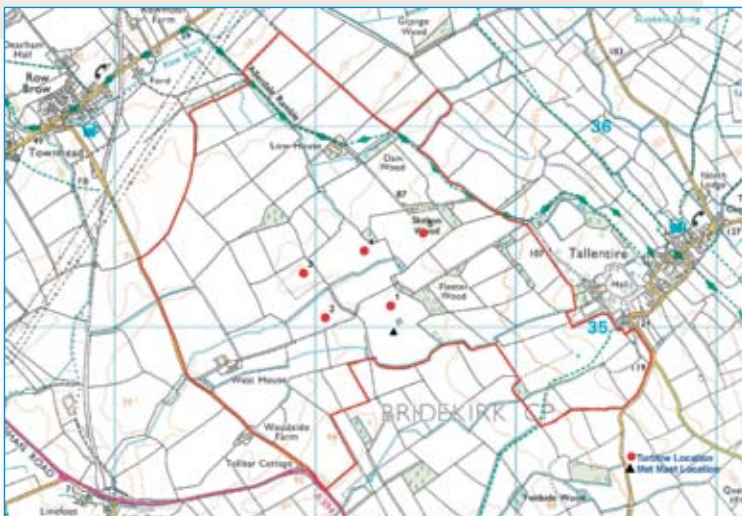
Novera then undertook a full programme of technical and environmental assessments that were carried out this year and are now being completed (see next page). The wind farm design has now been finalised, based on the results of these studies and consultation responses from the local public, Allerdale Borough Council and a number of statutory consultees.

The wind farm proposal now comprises five turbines, the locations of which are shown below. The plan also illustrates the proposed location of the met mast.

This finalised layout takes account of a number of additional site design constraints which were identified by the studies. The key site design constraints which have been taken into account include:

- designing a turbine layout which minimises the visual impacts of the wind farm
- maximising the separation distances between turbines and residential areas (particularly Tallentire and properties on the Dovenby to Dearham road)
- locating turbines to avoid watercourses and habitat areas for bats, birds, red squirrels and other wildlife
- locating turbines to avoid telecommunication links, gas and water pipelines.

*Final layout of the (now-called) Fleeter Wood Wind Farm*



*The site is located approximately 5.5 km east-southeast of Maryport*



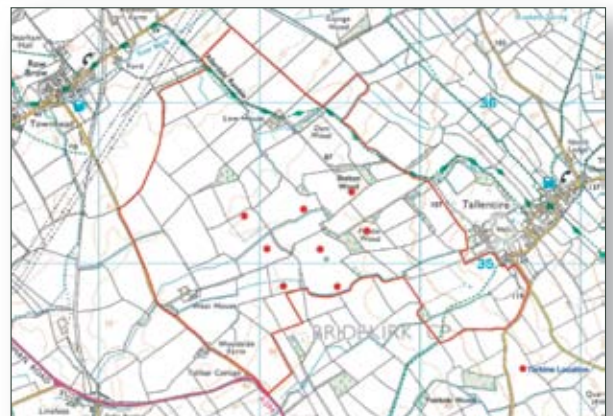
## Fleeter Wood Wind Farm Details

Location	5.5 km east-southeast of Maryport
Site area	276ha
Number of turbines	5
Blade tip height	Up to 105m
Generation capacity	approx. 2 MW per turbine (approx. 10 MW total)

**Equivalent average annual domestic electricity demand to be supplied: approximately 5,500**

(This calculation is based on the BERR’s (previously known as the DTI) current figure for average annual household electricity demand of 4,700 kWh; Digest of UK Energy Statistics, 2005.)

*Initial layout of the (as was) Townhead Wind Farm*



## What will be the effect on us in the UK?

It is predicted that our UK climate will become warmer, with drier summers and wetter winters and an increased occurrence of extreme weather events, such as storms and flooding. Sea levels around the UK are expected to rise due to the melting of polar ice sheets and glaciers and also the thermal expansion of the water in our seas. There are also increased risks of storm surges in coastal and low-lying areas. Our natural landscapes and the native wildlife they support are predicted to change and we may see the extinction of many species which are commonplace today.

## Environmental Studies

An Environmental Statement (ES) will form part of the planning application for the wind farm which is to be submitted to Allerdale Borough Council. The ES will detail all of the environmental surveys and assessments undertaken, and will address the following issues:

- Landscape and visual
- Ecology
- Recreation and tourism
- Ornithology
- Aircraft safety and radar
- Traffic, access and highways
- Cultural heritage
- Telecommunications
- Socio-economics
- Hydrogeology
- Noise

A comprehensive range of environmental studies have been carried out in order to inform the wind farm design process.

### Ornithology

We have been carrying out bird surveys at the site since November 2006. Several species of bird have been identified using the site including farmland birds such as yellow hammer and song thrush and other species, such as lapwing and curlew. None of the birds using the site are protected species.

In designing the wind farm we have taken account of where the birds are using the site and have avoided siting turbines in well used parts of the site.



*Tree Sparrow, Courtesy of Eddie McGuire, Atmos Consulting*

### Ecology

We have also surveyed for signs of badger, otter, water vole, red squirrel and bats. We have not found any badgers or water voles at the site and the available habitat on and around the wind farm site is considered to be of low quality for otters. Otters have been found to forage within the site however and we will ensure that their needs are accommodated during the construction period.



Red squirrels have been historically recorded in the vicinity of the site and have long been known to be resident in and around Tallentire. Red squirrels need cone bearing trees for feeding but prefer to live in broad-leaved habitat. In the case of the proposed Fleeter Wood Wind Farm, the layout will avoid felling suitable areas of red squirrel habitat to minimise any potential impacts on them. We know that bats are using the site for foraging.



*Common pipstrelle bat, Courtesy of Chris Baker, Atmos Consulting*

We are at a critical point where decisions made now can have a real impact on limiting our greenhouse gas emissions and as a result how the future climate will change. The exciting challenge we face is to make and influence decisions that will achieve the critical greenhouse gas emissions reductions needed, by using renewable sources of energy and reducing emissions of greenhouse gases. Every small contribution adds to the overall impact and we have the opportunity to make a very positive difference to our world and the one that future generations will look after.

It is also likely that there are several small bat roosts located in some of the woodland in and around the site. Bats principally fly above hedgerows and in the case of our site we are minimising hedgerow loss as part of the development and are also avoiding felling areas of potential roosting habitat in the woodlands on site.

### Cultural Heritage

We are currently assessing whether the Fleeter Wood Wind Farm would have an effect on archaeology and other cultural heritage resources. This has involved looking at the Historic Environment Record, as well as data held by English Heritage. As part of this work we have undertaken a geophysical survey to help determine whether buried archaeological remains might survive within the site. In consultation with Cumbria County Council's archaeologist, we have undertaken a survey of the turbine and track locations on the Fleeter Wood site. Early indications are that the likelihood of undiscovered archaeology remains existing on the site is low.

### Noise

An assessment of noise levels from the proposed wind turbines is being carried out. Existing background noise levels were measured at a selection of the closest houses to the proposed wind turbine locations, chosen in agreement with Allerdale Borough Council Environmental Health Department. The results of this survey have been used to calculate the maximum levels of noise (noise limits) that would be permitted at the site according to government guidelines (ETSU-R-97 report for the DTI, The Assessment and Rating of Noise from Wind Turbines, September 1996).

A recognised computer model has then been used to calculate the maximum levels of noise that may be produced by the type of wind turbines proposed for the site. The final design of the Fleeter Wood Wind Farm will, therefore, ensure that the scheme falls within the acceptable limits specified in the guidance when operating.

### Tourism and Recreation

We have undertaken a survey of tourists visiting Cumbria to gather their views on the proposed development in order to help us assess whether the wind farm would have an impact on tourism in this part of Cumbria.

The responses from tourists in and around the site have indicated that the majority of respondents were supportive of wind farms, and would visit the area again were Fleeter Wood Wind Farm to be constructed. Importantly, over 80% of respondents indicated that the wind farm would have no effect on their key recreational activities in the area.

The Allerdale Ramble runs through an outer part of the site and although it is a nationally recognised route, our surveys did not show it to be particularly well used. However, we have sought to maximise the distance between the turbines and the route. Based on the final layout, the closest turbine would be in excess of 250m from the route.



*David Sacks, Getty Images*

### Traffic and Transportation

A study has been undertaken to determine the most appropriate route to deliver turbine components to the proposed wind farm site. The study has shown that there are two delivery options available. Turbines could either be transported from Workington via the A595 and A954 or from the M6 via the A595 and A594. With either scenario the site will be accessed via the unclassified road off the A594.

## Community Fund

We have received some useful suggestions concerning Novera's proposed annual community trust fund, which would be based on an annual developer contribution of £2,000 per MW of installed capacity. This fund will be allocated by local people to benefit local projects and will result in up to £20,000 per year being invested locally, equivalent to over £500,000 during the life of the wind farm.

Ideas that have already been suggested by people at the public consultations include;

- Improvements to Dearham village hall
- Activities for teenagers
- Hands-on wildlife area for local schools
- Contributions to the Cumbria Community Foundation
- Carbon dioxide emissions reduction scheme
- Support for local music groups
- Support for pensioners
- Support for pre-school groups
- Red Squirrel conservation
- Support for Scouts and Guides

We would like to hear of any other initiatives or projects which local people would like to see supported by the fund once the project is operational. (See contact information.)

## Other local benefits

The local economy is also set to benefit from the Fleeter Wood Wind Farm. It is estimated that local companies will be able to bid for about £3.6 million worth of construction contracts. Novera Energy has a policy to utilise, when practicable, local contractors for construction, operation and maintenance work. A number of personnel would be directly employed during the construction period and once operational, an engineer would be required to undertake site supervision and maintenance.

Additional indirect expenditure in local shops, service stations and accommodation is also expected.

## Project Timetable

Assuming planning permission is granted, an approximate timetable for the development is given below, although this is potentially subject to change as the project progresses.

- **26th and 27th September 2007**  
First public consultations (already held)
- **June – October 2007**  
Environmental Impact Assessment progresses
- **Late 2007**  
Planning application to be submitted
- **Early 2008**  
Second public consultations
- **2008**  
Planning committee decision
- **2009**  
Construction begins
- **Post 2010**  
Operational wind farm

## FURTHER INFORMATION

The British Wind Energy Association:  
[www.bwea.com](http://www.bwea.com) and [www.embracewind.com](http://www.embracewind.com)

BWEA Fact sheets:  
<http://www.bwea.com/energy/briefing-sheets.html>

The Government's independent advisory body on sustainable development:  
[www.sd-commission.org.uk](http://www.sd-commission.org.uk)

The Department for Business, Environment and Regulatory Reform (BERR, formerly the Department of Trade and Industry) renewables site:  
[www.dti.gov.uk/energy/sources/renewables/index.html](http://www.dti.gov.uk/energy/sources/renewables/index.html)

The Royal Society for the Protection of Birds:  
[www.rspb.org.uk/ourwork/policy/windfarms/index.asp](http://www.rspb.org.uk/ourwork/policy/windfarms/index.asp)

BBC Weather Centre:  
[www.bbc.co.uk/climate/impact/](http://www.bbc.co.uk/climate/impact/)

Royal Institute of Chartered Surveyors:  
[www.rics.org](http://www.rics.org)

Royal Institute of Chartered Surveyors report; Impact of wind farms on the value of residential property and agricultural land (RICS, November 2004).

Royal Institute of Chartered Surveyors Research report; What is the impact of wind farms on house prices? (RICS Research and Dr Sally Sims and Peter Dent, Oxford Brookes University, March 2007).  
<http://www.rics.org/Environmental/landconsultancy/Energy/Renewableenergy/Wind+farms+FiBRE.htm>

Report on the Impact of Wind Farms on Residential Property Prices – Crystal Rig Case Study (Edinburgh Solicitors' Property Centre, February 2007), available from ESPC.  
See: [www.espc.com](http://www.espc.com)

MORI survey on public attitudes to wind farms; Public Attitudes to Wind Farms, A survey of Local Residents in Scotland (MORI Scotland, 2003).

The Government Office North West's Submitted Draft Regional Spatial Strategy for the North West of England (January 2006):  
[http://rpg.nwra.gov.uk/uploads/rpg\\_docs/rp\\_kMqZ\\_Submitted\\_Draft\\_Regional\\_Spati.pdf](http://rpg.nwra.gov.uk/uploads/rpg_docs/rp_kMqZ_Submitted_Draft_Regional_Spati.pdf)

## CONTACT INFORMATION

For further information about Novera Energy visit  
[www.noveraenergy.com](http://www.noveraenergy.com)

Additional information, including the planning application documents for the project will be available on the website once it has been submitted.

In the meantime, if you require further information, have ideas for the community trust fund or would like to support the Fleeter Wood Wind Farm proposal please

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