

Proposal for Extension of Dun Law Wind Farm

ScottishPower's Dun Law wind farm, which straddles the A68 to the north of Oxton, has been operating successfully and generating green electricity since the year 2000.

RES Developments Ltd (RES) and ScottishPower Renewables (via CRE Energy Ltd, a ScottishPower company) have submitted a planning application to Scottish Borders Council seeking full planning permission for an extension to the existing wind farm. This newsletter gives details.



ScottishPower

renewables

"Scotland is witnessing a radical change in the way it generates electricity. The transition to renewable energy is underway and onshore wind farms are the starting point. Scotland has tremendous potential to host and to benefit from wind farms.

"Nationally and regionally, there's intense competition for what will be a finite number of wind farm planning consents. This is a great incentive to developers to adopt high quality in site selection and scheme design. We believe our proposals for the Dun Law extension are an excellent example.

"The investigation, design and planning of the wind farm extension has taken over two years. The RES / ScottishPower Renewables team believes the site is highly suitable for more turbines and that a sensitive design has minimised the local impact.

"When designing the wind farm extension, RES and ScottishPower Renewables were aware that the potential visual impact of the additional turbines could be an issue and that it is important that the design should complement the existing wind farm. By careful choice of turbine size and turbine siting, we have been able to produce a layout that will appear well balanced.

"Please take time to browse through this newsletter to learn more about the proposal, and if you agree that we have a well planned and designed project then we would welcome your support.

"If you would like to find out more, then please come along to the forthcoming exhibitions we will be hosting. Details of venues and dates are listed below and at the back of this newsletter."

RAY HUNTER
Scottish Wind Farm Development Manager
Renewable Energy Systems UK Ltd

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PROJECT EXHIBITIONS

Come along and see the details of what we're planning.

- **Humbie Village Hall**
Thursday 9 June 2005, 12 noon to 8pm
- **Oxton Village Hall**
Friday 10 June 2005, 12 noon to 8pm

Our staff will be on hand to describe the project and answer any queries you might have.

The existing Dun Law wind farm



GOVERNMENT COMMITMENTS AND TARGETS

The Rio Earth Summit in 1992, by recognising a problem existed, marked the start of international action on global warming. Five years later, in 1997, the Kyoto Protocol set international targets and timescales for improvement.

As part of this, the UK signed a legally binding agreement to reduce greenhouse gas emissions by 12.5% by 2008-12. Additionally the Government has set a UK target to have 10% of its electricity supplied from renewables by 2010 and 15% by 2015. It has acknowledged the need to treat these targets merely as a starting point and further increases in renewables targets are to be expected.

The Scottish Executive's renewables generation target for 2010, at 18%, is higher than elsewhere in the UK. The Executive recognises the environmental need for renewables, and also sees that Scotland, as a wet and windy country, 'enjoys' an enviable level of renewable resource. But it also sees the economic potential of developing that resource. It is therefore fully committed to renewables and has set an ambitious 2020 aspirational target for 40% of national electricity production to come from renewable energy sources.



WHY DEVELOP WIND POWER?

For at least 2,000 years wind has been harnessed to produce energy. Wind turbines reduce polluting emissions because, if we're generating from the wind, we won't need to rely so heavily on non-renewable fossil fuel sources.

Some industry experts believe that the turning point into a decline in hydrocarbon extraction levels could occur by 2008 or even sooner. In the next few years the UK is expected to become a net importer of oil and gas*.

In the longer term, the Executive sees the key to exploiting Scotland's renewable future to be the development of new technologies such as offshore wind, biomass, wave and tidal power, which are all at different stages of technical and commercial development. But in meeting the 2010 target, it is expected that the major part will be met by the now established and economically competitive technology of onshore wind.

*(http://news.bbc.co.uk/2/hi/uk_news/scotland/4481841.stm)

"The wind is pure energy, raw and restless, an endlessly sustainable natural resource... Wind turbines, elegant giants of engineering, can harness that wild energy for our own purposes. Scotland is the hall where the winds of the world meet in boisterous play - so let's make use of it. We in Scotland are on the threshold of a renewables revolution."

Magnus Magnusson KBE,
writer and broadcaster
(www.embracewind.co.uk)

WHY EXTEND DUN LAW?

RES developed the original Dun Law wind farm and received planning consent in 1997. By the time RES built the wind farm in 2000, ScottishPower Renewables had already agreed to buy the project and have operated Dun Law wind farm since its completion. Contractual technicalities related to government support at the time had prevented the original wind farm being any larger than it currently is, but RES and ScottishPower Renewables had considered for some time that the site has potential for more turbines on immediately adjacent land. In 2000 RES carried out a thorough review to identify potential wind farm sites in Scotland and from that study, along with ScottishPower Renewables' experience in operating the existing wind farm, the two companies agreed to consider the Dun Law extension in detail.

RES and ScottishPower Renewables' site criteria includes the following requirements:

- Consistency with local authority planning guidance
- Absence of protective natural heritage designations
- Good access
- A relatively close grid-connection point
- A viable wind resource

In the case of Dun Law extension, the site meets all of the above criteria and is in line with Scottish Borders Council's indicative guidance on wind farm development.

The 35 proposed additional wind turbines will increase the capacity of Dun Law wind farm by just under 30 Megawatts. The combined wind farm would then generate approximately 120 GWh per year of green electrical energy, equivalent to the annual electricity needs of 24,000 homes, helping in the fight against climate change and bringing local economic benefits.

The new turbines alone would provide emissions savings of 67,200 tonnes of carbon dioxide (the main greenhouse gas) every year.



Panoramic photograph of the existing Dun Law wind farm from Soutra Aisle



Illustrative panoramic montage of the existing Dun Law wind farm plus the proposed extension from Soutra Aisle

THE EXTENSION PROPOSAL IN DETAIL

The proposed wind farm extension will span the moorland both to the east and the west of the existing wind turbines and involves a number of land holdings.

Thirty-five turbines are proposed, each with an overall height to blade tip of 75 metres. The proposal will make as much use as possible of existing wind farm infrastructure including the main access points to the site from the A68 and the existing wind farm track network. Additional new tracks are required, as is a new substation and control room.

The substation will be located as close as possible to the existing 132kV electricity transmission line that runs across the site and the output from the wind farm extension fed directly on to that transmission line, avoiding the need for any new overhead power lines.

While the new turbines are larger than those on the existing wind farm, with an additional 11.5m height, great care has been taken in siting of the new turbines in relation to existing ones to ensure that the existing and new turbines fit well together.

Key details are:-

- Number of new turbines
35
- Turbine Rating
Nominally 850 kW
- Capacity of wind farm extension
Nominally 29.75 MW
- Indicative hub height
49 metres
- Maximum overall height to blade tip
75 metres

LOCAL BENEFITS

Construction work will be carried out by RES on behalf of ScottishPower Renewables. The on-site elements of civil engineering and electrical work are worth in the order of £3 million. Both RES and ScottishPower Renewables have policies and track records of using local contractors and suppliers wherever possible during the construction period, for work such as civil engineering, transport and plant hire firms. This generates local employment during that period. There is also a strong likelihood that the turbines will be sourced from Scotland.

Once operational, the Dun Law extension would contribute significantly to local authority funding via business rates.

Wind farms are an important form of rural diversification. Income, via land lease arrangements with the host estates, filters into the local economy and helps support local employment.

RES and ScottishPower Renewables believe that wind farms create great opportunity for local community benefit, and that these should be designed to reflect local needs and circumstances. The communities of Channelkirk, Humbie and Oxton have already benefited significantly from the community fund set up for the existing wind farm. If the extension were to go ahead, the new turbines would result in the existing community fund being increased to allow even greater benefit for local projects.

DESIGNED TO MINIMISE IMPACTS

In designing the Dun Law extension RES and ScottishPower Renewables were aware that views from the closest settlements would be important. In consultation with Scottish Natural Heritage, Scottish Borders Council, East Lothian Council and Midlothian Council, RES and ScottishPower Renewables identified a number of key viewpoints and designed the wind farm to ensure that the turbines would either be shielded from view by the landscape or that the vista of turbines would be balanced and visually pleasing.

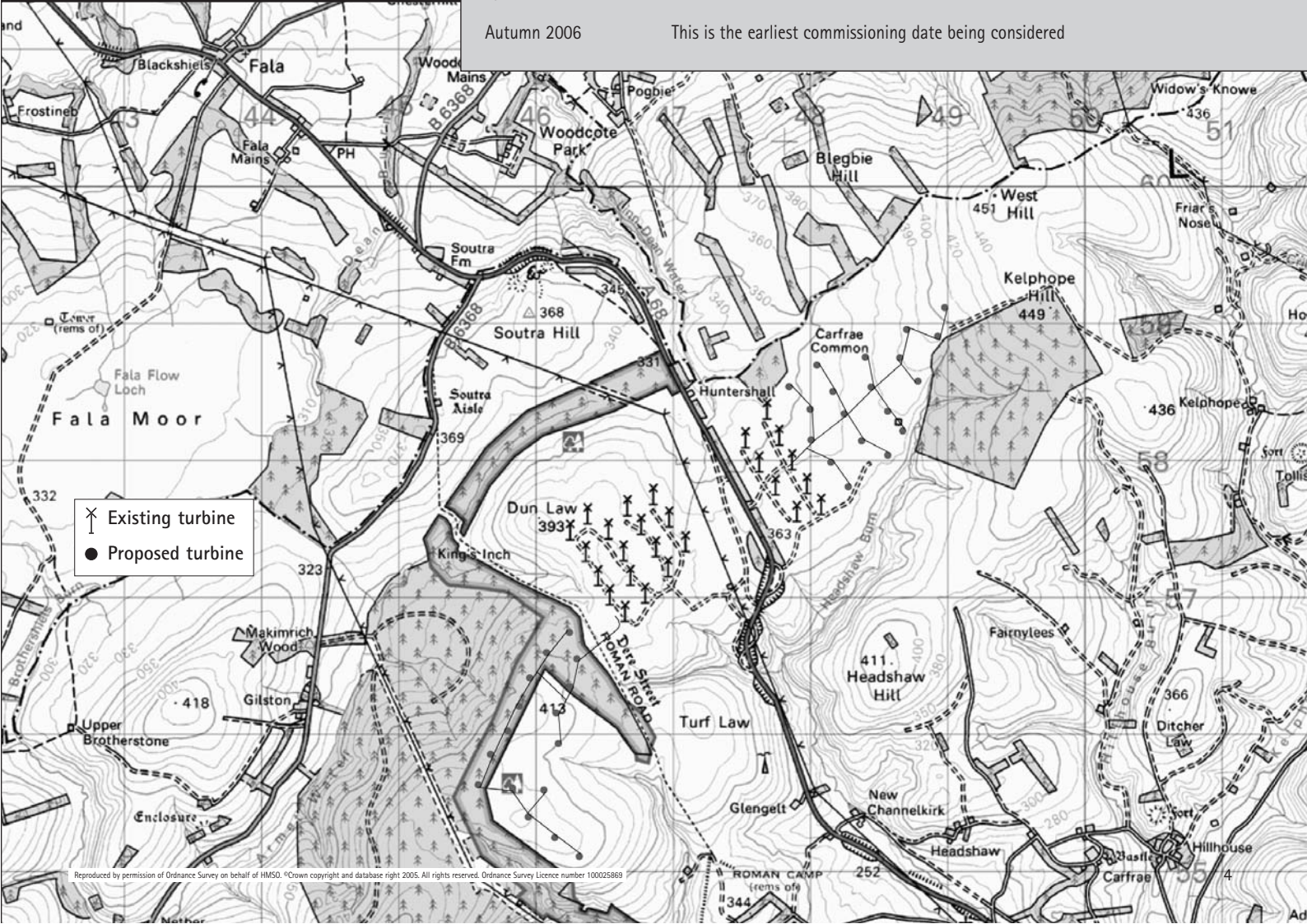
Aided by the expertise of a landscape architect – with extensive experience of designing wind farms – the aim has been not only to ensure that the wind farm functions well, but that visual appearance is given high priority. RES has repeatedly been complimented on the design of the existing wind farm, particularly on the way that it does not dominate the surrounding landscape – the extension succeeds in retaining this characteristic.

To make sure the scheme will fit well with the natural and historic heritage of the area, RES and ScottishPower Renewables employed independent experts to carry out exhaustive research on the site's birds, plants, animals, ground conditions and historic sites. Possible effects on noise conditions, water supplies and telecommunications signals were also investigated

This design process was undertaken carefully and thoroughly and resulted in a number of different layouts being examined before a final layout was achieved. Examples of the visualisations will be available to view at the forthcoming public exhibitions and full details of the assessment and all visualisations are included in the Environmental Statement accompanying the planning application. Copies of the Environmental Statement will be available for viewing at the forthcoming exhibitions.

EXPECTED PROJECT TIMESCALE

Spring 2005	Planning application lodged and public exhibitions held (see front page for exhibition details)
Summer 2005	Scottish Borders Council will consider the application
Late 2005	Scottish Borders Council are expected to make a planning decision
Early 2006	Pre-construction activities could start
Spring 2006	Earliest construction
Autumn 2006	This is the earliest commissioning date being considered



YOUR QUESTIONS ANSWERED

With all these applications isn't Scottish Borders in danger of being swamped with wind farms?

With ambitious renewable energy targets for Scotland there will be a decade of intensive wind farm development throughout the country. Current interest in Scottish Borders reflects a good level of suitability.

The planning system will ensure that developments are of a number, scale and type appropriate to the area. Not all proposals will succeed, and there is intense competition between developers. Competition encourages high quality in site selection and in scheme design, and gives the planning system a lot of choice as to which wind farms should go ahead. We believe that this is a good thing.

Why build more wind farms in our countryside when there are opportunities such as offshore wind, tidal or wave power?

Electricity supplies are most secure if they come from a variety of sources. In the longer term, we'll see our electricity coming from a wide variety of renewable sources. For now though, onshore wind is the most economically competitive and technically advanced renewable option that we have.

The seabed slopes away from Scotland's coastline at a much higher rate than offshore England and Wales. This makes it a much deeper environment and significantly reduces the ease with which offshore wind farms could be developed. Government policy is therefore to concentrate offshore development around England and Wales creating limited possibilities offshore Scotland.

Scotland is already more than self sufficient in electricity, so why do we need more?

We have to look to the future.

A number of nuclear and some fossil fuel power stations are reaching the end of their lives and if we do nothing, we'll no longer be self-sufficient in power. We need to make big decisions about our future and to plan for a generation mix that gives us secure, clean, affordable supplies. Renewables will be the cornerstone of that mix. At present only around 13% of electricity production in Scotland is from renewables. We've got tremendous potential to tap into this hugely underused resource both to help the environment and also to create an economic opportunity for the country.

How much impact can one wind farm really have on global warming?

On its own the extended wind farm would have the capacity to displace 67,200 tonnes of carbon dioxide emissions annually and generate enough clean, green electricity to provide the average electricity needs of 24,000 homes. That's a significant contribution.

However, we shouldn't be complacent. Electricity forms only around one quarter of our total energy consumption and we should all individually be doing our bit to prevent harmful emissions by reducing our energy usage and ensuring that all energy we do use is used efficiently.



RES CONTACT

If you have any queries or require further information, please contact RES at:-

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ScottishPower

renewables



FINDING OUT MORE

Project Exhibitions will be held at:

- Humber village hall - Thursday 9th June, 12 noon - 8 pm
- Oxton village hall - Friday 10th June, 12 noon - 8 pm

RES and ScottishPower Renewables staff will be available to provide information, answer questions on the proposed development and listen to your views. You will also be able to review the Environmental Statement and see visualisations of how the wind farm will look.

The Environmental Statement will be on display locally at:

- Scottish Borders Council Headquarters, Newton St Boswells, Melrose, TD6 0SA
- Galashiels Area Office, Albert Place, Galashiels, TD1 3DL
- Galashiels Library, Lawyers Brae, Galashiels, TD1 3JQ

For further information about wind energy in Scotland and the rest of the UK, as well as RES and ScottishPower Renewables, visit the following web sites:

- www.res-ltd.com
- www.scottishpower.com
- www.bwea.com
- www.scottishrenewables.com
- www.yes2wind.com
- www.embracewind.com

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