

Climate change matters

When RES first started developing wind farms more than 20 years ago, the issue of global warming was largely at an academic level. Now, in 2009, few people question that climate change is under way and that mankind's love of fossil fuels and the consequential rising of atmospheric CO₂ levels is a significant factor. Sir David Attenborough has summed up the feelings of many scientists: "If you take one moment in time, you can't be sure what the trend is. Now, when we look at the graphs of rising ocean temperatures, rising carbon dioxide in the atmosphere and so on, we know that they are climbing far more steeply than can be accounted for by the natural oscillation of the weather. What people must do is to change their behaviour and their attitudes. If we do care about our grandchildren then we have to do something."

Recently, scientists have predicted that, should global temperatures rise by just 3°C more, we could reach the point of no return. If the ice caps melt, sea levels will rise and the lives of billions of people around the world will be affected. Changing patterns of weather appear to be starting to affect the historic timings of the traditional seasons. In turn, this could affect wildlife and lead to the loss of some types of plants or animals from certain regions.

The North East England Climate Change Adaptation Study, published by Sustaine in 2008, projects climate changes across the region



to the 2050s. Key findings from those projections show that the projected climate impacts will threaten human health, our quality of life, economic activities, biodiversity, soil and water resources, landscape and agricultural land uses. For example:

- increased flood risk, from rivers, flash flooding, and rising sea levels
- increased likelihood of storms and other severe weather events that may affect buildings, transport infrastructure and business activities
- changes in the growing season, seasonal temperatures and rainfall patterns affecting the region's biodiversity and its agriculture, forestry, tourism and leisure activities
- changes in the suitability of habitats for plants and animals, with some areas becoming less suitable for existing species and the possibility that new species will move in as conditions change.

The UK Government has also set a target to cut emissions of carbon dioxide by 80% by 2050.

To achieve this, a whole range of cleaner energy technologies will have to be developed – from onshore and offshore wind to tidal, biomass, solar and wave – as well as measures to green our transport and reduce energy demand.

The proposed wind farm at Park Head is one step towards creating a low carbon, sustainable energy supply. The UK is the windiest country in Europe and it makes sense to use this natural, clean and abundant resource.

RES has worked hard to ensure that Park Head wind farm is well designed, minimising any environmental impacts, whilst maximising the amount of clean, green energy that can be obtained from the wind. We are committed to creating important economic benefits for the local community from the project. It is important that projects like Park Head Wind Farm are built as soon as possible if we are to produce home grown, clean energy, make a positive contribution to the fight against climate change and reap the benefits of a shift to a low carbon economy.

PARK HEAD WIND FARM

RES
power for good

March 2009

Welcome

RES is pleased to introduce our plans for a new wind farm at Park Head Farm, near Netherwitton, Morpeth. The time is right to step up development of cleaner, greener energy sources. Renewable energy can reduce climate-changing pollution, provide a reliable supply of electricity to homes and businesses, create 'green collar' jobs and bring important economic benefits, both locally and nationally. As the most advanced of the new renewable energy technologies, onshore wind power has a vital role to play in meeting our needs in the next few years.

Every part of the UK is now looking at the contribution it can make to a more sustainable and secure electricity supply and the Park Head Wind Farm is an exciting project that can help the region achieve its renewable energy targets.

What are we proposing?

We are applying for permission to erect nine wind turbines on agricultural land around Park Head Farm, near Netherwitton, Morpeth.

Each turbine would be up to 127m high, to the tip of the blade. The layout has been designed following more than two years of comprehensive site studies aimed at reducing the visual and ecological impact of the project, whilst ensuring that the wind farm generates a substantial amount of clean, green power.

The wind farm has a potential installed capacity of 20.7MW. This means it is likely to generate enough electricity to power approximately 10,700 homes¹, equivalent to 21% of the annual consumption of all the houses in the Castle Morpeth District.

We are confident that this is a very good site for a wind farm and that our sensitively-designed project will be an asset to the area. We expect to submit a planning application in the Spring. The plan (top right) shows the layout of the proposed wind farm and the map (bottom right) shows the site location.

¹Based on a conservative capacity factor of 27.9%, derived from wind speed measurements on site. This figure may change in the future as further wind speed monitoring data becomes available. An average household electricity consumption figure of 4,700kWh/year was used in the calculation.

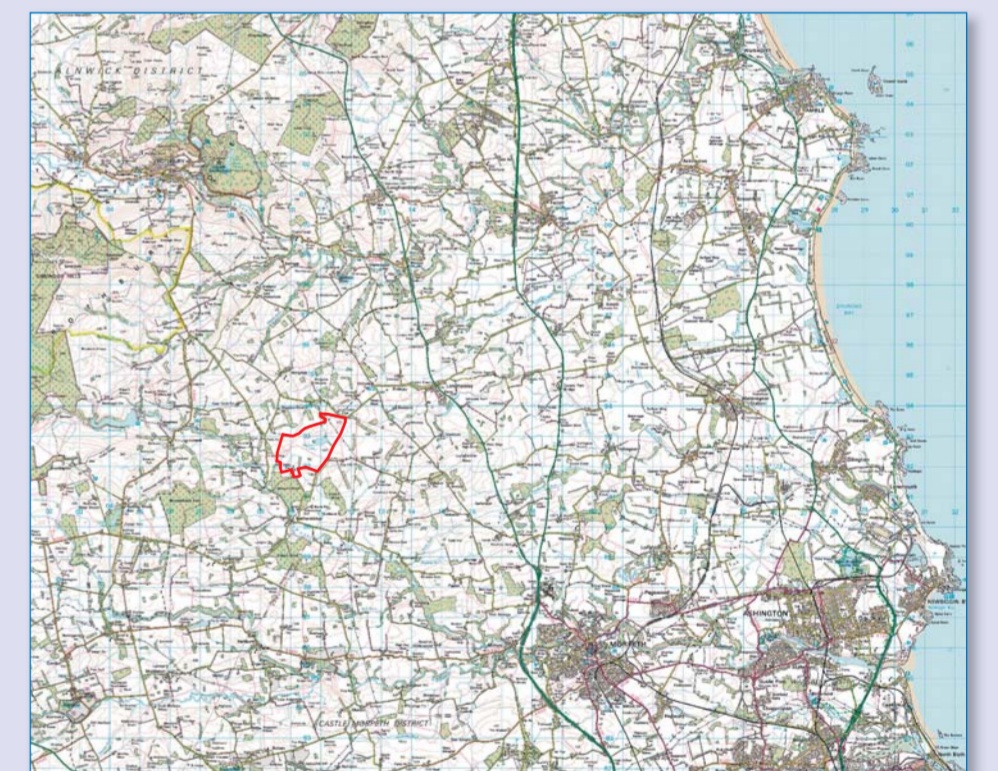
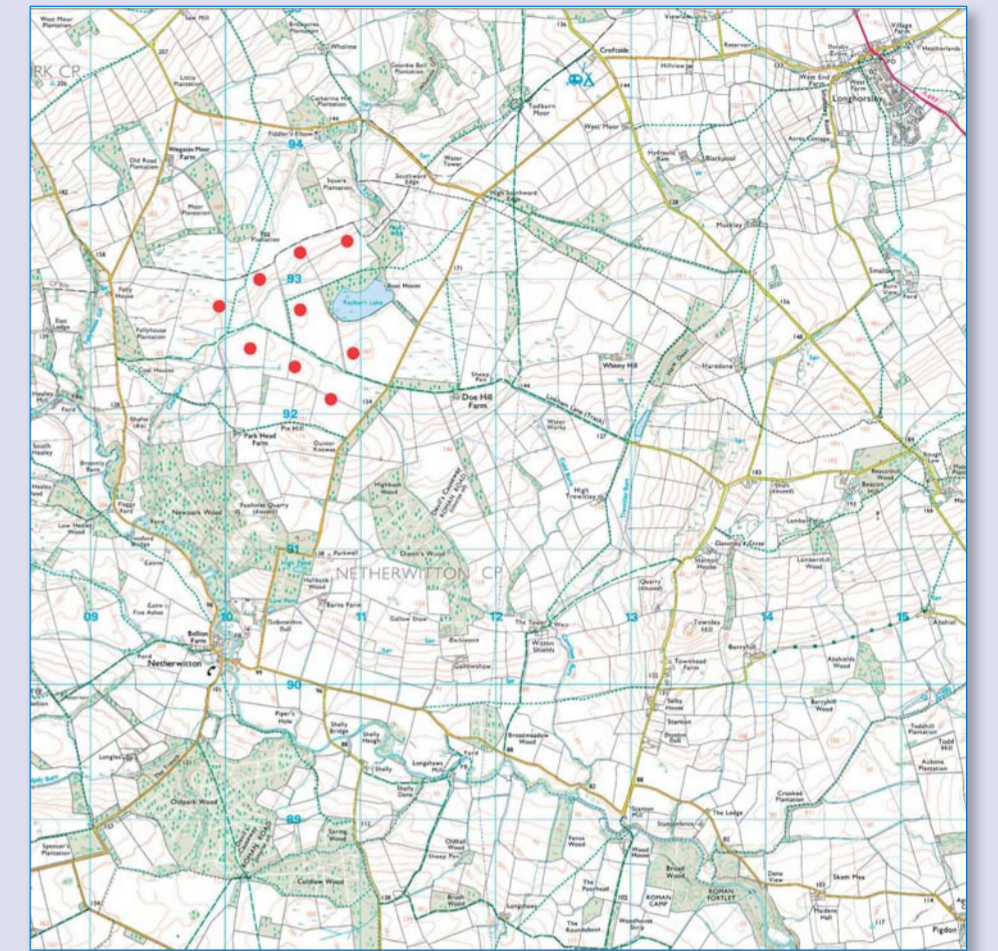
The North East's renewable energy boom

The North East of England is aiming to generate at least 10% of its electricity from renewable sources by 2010, which equates to at least 454MW. There is also an aspiration to double this to 20% by 2020.

Northumberland has a vital role to play in achieving these targets, with its own target of at least 212MW by 2010, the equivalent of approximately 80-100 modern wind turbines.

It is expected that this target will be increased. However, at the current pace of development Northumberland is unlikely to achieve more than 40MW of renewables by 2010.

With its established engineering skills, particularly in the offshore sector, and the region's excellent natural resources, the North East's reputation as a UK hub for renewable energy technology is growing.



"If we do care about our grandchildren then we have to DO something."

Sir David Attenborough

COME ALONG TO OUR EXHIBITIONS AND FIND OUT MORE!

We will be holding exhibitions, to present the full details of the proposals as follows:

Thursday 23rd April: 3pm – 8pm at Wingates Village Hall

Friday 24th April: 10am – 3pm at Netherwitton Village Hall

We look forward to meeting you and explaining our plans in more detail.

RES

For those receiving this newsletter by post, we obtained your address through a national post code database. If you do not wish to receive further information from us about this proposal, please write to us and let us know.

For further information, please contact:

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Hertfordshire WD4 8LR

Tel: 01923 299328
email: parkhead.windfarm@res-ltd.com

Any more questions?

We would be happy to cover any issues in more detail in forthcoming newsletters. If you would like to see anything discussed in more detail, don't hesitate to let us know.

More information about wind power can be found at the following websites:

The Sustainable Development Commission's report into wind power:
www.sd-commission.org.uk/publications.php?id=234 The British Wind Energy Association: www.bwea.com

General information about the role renewables can play in UK electricity generation:
<http://www.berr.gov.uk/energy/sources/renewables/explained/index.html>

Wind With Miller – fun stuff for kids: <http://www.windpower.org/en/kids/index.htm>

Information about renewables for your home or community:
<http://www.energysavingtrust.org.uk/Generate-your-own-energy>



Who are we?

RES is one of the world's leading independent wind energy companies and is part of the Sir Robert McAlpine Group, a British, family owned construction and engineering firm. At the time of writing, RES has successfully built over 3,500 MW of wind power capacity around the world and has developed or constructed over 10% of the UK's wind energy. From more than 25 years in the wind industry, RES has gained a high level of expertise in the technical, environmental and financial disciplines essential for the development of a successful wind farm. Our reputation for quality is second to none and we pride ourselves in being a power for good in a world facing stark energy choices.

RES is the holder of a Queen's Award for Enterprise in the Sustainable Development category, recognising RES's 'comprehensive approach to the environmental and social impact assessment prior to the commencement of every wind farm project'. We were also listed in the Sunday Times Top 25 Green Businesses in 2008.



Benefiting local people and the economy

It is our policy to ensure that each wind farm development brings tangible benefits to the local community. The usual mechanism for this is through the provision of a community fund, which is paid annually and relates to the size of the wind farm.

We are proposing a community fund of around £2,000 per installed MW, which equates to over £40,000 per year. The fund will be handed over to an independent local body to manage, such as the parish council(s) or an entirely new independent trust, to be identified through consultation with local people. We would encourage anyone with a view on how the community fund should be managed or spent to discuss this with us at any time during the planning process.

Why wind?

- No polluting emissions
- Will never run out
- Helps in the fight against climate change
- Efficient and reliable
- Economically viable
- Improves our energy security
- Tried and tested technology
- Safe:
 - Quick and easy to install
 - No long-lasting legacy

Wind power works! It is the technology that can help us meet urgent short term targets on climate change and help us keep the lights on. As thousands of projects across the UK and around the world show, wind energy is already successfully generating carbon-free power and bringing jobs and economic benefits to communities.



Leading by example

RES recognises that renewable energy has to go hand-in-hand with improving energy efficiency and reducing energy demand. That is why RES's award-winning UK head office is a pioneering example of a 'low carbon' office, with electricity and heat provided from its own wind turbine, solar panels, biomass grown on site and natural cooling.

The number of staff employed by RES in the UK increased from 190 to 306 during 2008, and this number is expected to continue to grow throughout 2009, despite the current economic climate. RES opened new offices in Newcastle in November to cater for the increasing numbers and is proud to be contributing to the region's growth in the green energy economy. The company plans to draw on both the skilled workforce of the North East and the region's significant potential for green energy.



A local landmark

As at many other wind farm sites around the UK, the project is expected to be of interest to local schools and visitors to the area. Some schools choose to follow the progress of a wind farm application as a project for their students, offering opportunities for learning about a whole range of curriculum subjects, from energy and the environment to citizenship, history and art.

For example, we have previously sponsored the energy education charity CREATE (www.create.org.uk) to work with schools around our wind farm sites to help them to reduce their energy bills. In Yorkshire, we are currently working with 3 schools who are introducing the Diploma in Engineering later this year. If your school is interested in such a project, please contact us, as our educational centre in Hertfordshire can provide educational materials.

If you're a member of a group such as the Scouts, WI, Round Table, Rotary, Probus Club, etc., or work for a local company, and would like us to come and give you a presentation on the wind farm, don't hesitate to drop us a line.

The project team



Tracey Siddle

Tracey Siddle is the Project Manager responsible for the Park Head wind farm proposal. Her role is overseeing the entirety of the proposal and coordinating teams of internal staff and external consultants to ensure that all the necessary studies and assessments are carried out thoroughly. She has also coordinated the compilation of the Environmental Statement to accompany the planning application. tracey.siddle@res-ltd.com



Amy Bambridge

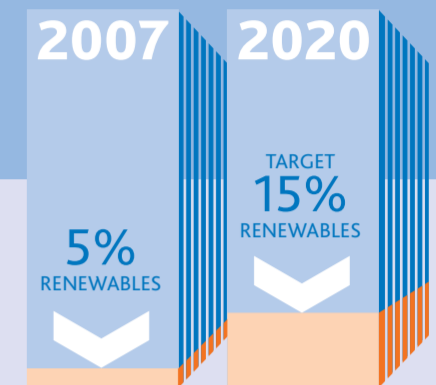
Amy Bambridge is the Community Relations Manager for Park Head Wind Farm. Work on community environmental management projects led her into the wind industry. She handles all of the local community work and is the first point of contact for enquiries about community funds and the consultation process. amy.bambridge@res-ltd.com

Our changing energy supply

The UK is currently undergoing a radical change in the way it generates electricity. A transition is under way from large centralised conventional generators – coal, gas, and nuclear – to smaller, more geographically dispersed renewable generation, such as wind and biomass. At the moment, the UK's electricity primarily comes from three sources: gas (50%), coal (25%) and nuclear (13%). Despite our abundant natural renewable resources, we generate just 5% of our energy from renewables. We are increasingly dependent on imported fuels, particularly gas, which is not good for our economy or our security. The government estimates that, if things don't change, we could be dependent on imports for 75% of our primary fuel needs by 2020.

As conventional fuel resources decline, we need to make use of home-grown energy sources that will never run out. Indigenous and renewable, wind power has an important role to play in keeping the UK's lights on.

The UK has an ambitious target of producing 15% of its total energy supply from renewables by 2020. That would mean approximately 35-40% of the UK's electricity coming from renewables within 12 years, with wind power (the most mature renewable technology) providing the bulk of this total.



Interested in a wind farm visit?

Visiting a wind farm can be useful in helping people learn more about wind energy and understanding at first hand what the project proposed for their area might be like. "We always offer local people a group visit to an operating site as a way of helping people to make informed decisions about wind farms, because there are so many false rumours in circulation. It's a particularly effective way to dispel the myth that turbines are noisy, for example," says Amy Bambridge, RES's Community Relations Manager.

If you would be interested in seeing an operating wind farm in action, please contact Amy on 01923 299328 or email amy.bambridge@res-ltd.com.

If you would like to know where the UK's wind farms are situated, please go to www.bwea.com/ukwed/ for an up-to-date map.

Why is this a good site for a wind farm

The Park Head Wind Farm will harness the clean and natural power of the prevailing winds and turn it into useful energy for homes and businesses.

It is located in the vicinity of a 'broad area of least constraint for medium scale wind energy development', according to the North East of England Regional Spatial Strategy to 2021, which recognises that onshore wind is likely to be the most significant renewable energy source in the region.

While Northumberland benefits from excellent wind speeds and good grid connections, making it an attractive place for wind farm development, there are many things to consider when finding a suitable site. As Tracey Siddle, the Project Manager, explains. "Choosing an appropriate site involves consideration of a range of issues. We have to ensure that the local

environmental impacts of the wind farm will be absolutely minimal and take into account local planning policies, environmental designations and proximity to homes. We also have to consider technical issues such as wind speeds, land availability, a suitable grid connection close to the site and good transport access."

Environmental impact assessments are a compulsory part of the planning process for projects such as this. The detailed studies on the Park Head site have been going on for over two years, and are co-ordinated by RES's in-house team of scientists, with most carried out individually by independent consultants.

Tracey further explains, "For example, we have been undertaking investigations into the hydrology around the site, looking at water flows in the area. We have also had some detailed ecological monitoring work carried out,

investigating populations of bats, birds, amphibians and mammals, as well as mapping local plant life. We have also looked at the local landscape, archaeology and effect on TV reception. All of this information is helping us to design an acceptable layout of the turbines and we are confident that the site is suitable for a wind farm."

The findings from the site studies will be written up as a comprehensive Environmental Statement, which the Council will take into account when deciding whether or not to grant planning permission for the wind farm. The results will be presented at the exhibitions in April, and once the planning application has been submitted, copies will be made available locally, such as in Council offices, libraries or village halls.

