



Siddick and Oldside,
EON UK Renewables



Siddick and Oldside,
EON UK Renewables



Great Orton,
Wind Prospect Ltd



Kirkby Moor,
npower renewables

WIND TURBINES

on the Carlisle to Barrow railway

Wind energy is a renewable source of power.

Wind turbines generate electricity without causing carbon dioxide emissions. Friends of the Earth wants to see annual reductions of at least 3% in carbon dioxide emissions from all sources, leading to an 80% reduction by 2050. This is necessary to avoid the most dangerous effects of climate change.

To achieve this we need to **ACT NOW** - *Not Tomorrow*

Wind energy, sited both on and off-shore, is one of the greenest forms of electricity production. As you can see looking out of the train window it is also available right now to power our homes.

The cost of electricity from a modern wind turbine in a good location is comparable with traditional generation. Best of all there is no fuel risk (either from price increases or security of supply), as we have our own plentiful supply of wind energy. The amount of energy used to make and build the turbine (known as the energy debt) is repaid within 6-12 months.

Wind farms in this area produce electricity for 80 - 85 % of the time. There is a close relationship with times of high demand and high availability, for example, a windy, chilly winter evening.

Friends of the Earth thinks the turbines on the Cumbrian coast are a beautiful symbol of hope for the future. The changes in landscape, and impacts on wildlife habitats that are caused by turbines are minor compared with the damage that could be wrought by extreme climate change.

When this guide was written in 2007, the existing onshore wind farms listed in this guide were producing sufficient clean energy for almost 30,000 homes. This saves approximately 119,000 tonnes of carbon dioxide every year and is nearly enough electricity for three towns the size of Whitehaven. When Robin Rigg comes into operation it will provide enough for 180,000 households, more than half the households in Cumbria.

See the Turbines by Bike and Train

Northern Rail claims that most of its trains can carry two bicycles, but space is at a premium during peak hours. Phone **0845 00 00 125** for further details.

Most of the route from Whitehaven to Maryport can be enjoyed on a car-free cycleway provided by Sustrans. The whole Cumbrian coast is a proposed cycleway, and already the northern section is part of the National Cycle Network (route 72) known as the Hadrian's Wall route.

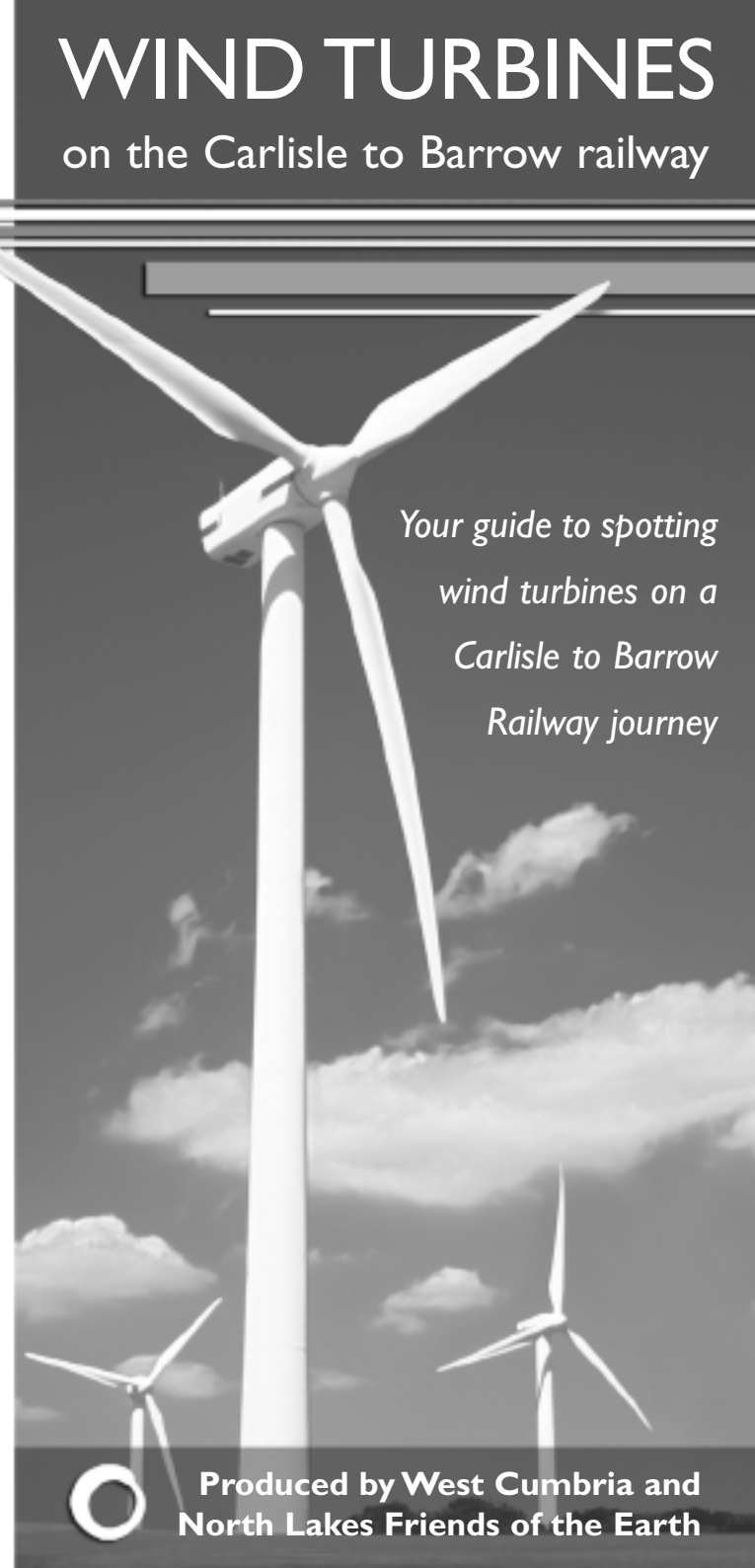
Local information

West Cumbria and North Lakes Friends of the Earth has put this leaflet together with financial help from the Local Group Support Fund from Friends of the Earth with free travel for our researchers provided by Northern Rail. Wind farm companies have provided the photos.

For further information about West Cumbria Friends of the Earth email: info@foe-wcumbria.freeserve.co.uk or telephone: 01900 814391 web: www.foe.co.uk/westcumbria

For general information about Friends of the Earth's work see www.foe.co.uk, and for the climate change campaign visit www.thebigask.com

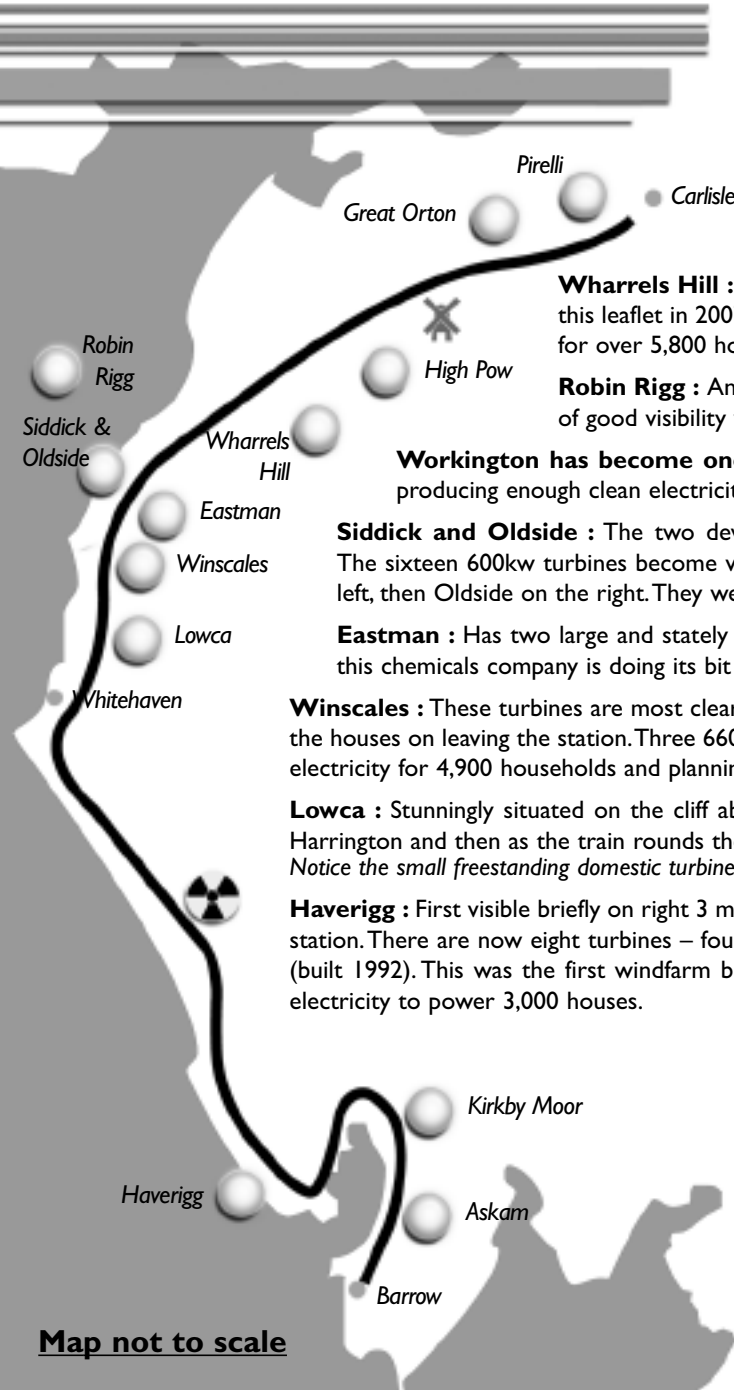
*Your guide to spotting
wind turbines on a
Carlisle to Barrow
Railway journey*



Produced by West Cumbria and North Lakes Friends of the Earth

WIND TURBINES

on the Carlisle to Barrow railway



Map not to scale

Pirelli : The famous tyre company has planning consent for a single 3MW turbine on its land in Carlisle, which will produce nearly a quarter of the electricity needed on the site. When built the turbine will be visible on the right on leaving Carlisle station.

Great Orton : In five minutes you will see the original 10 two-bladed 300kw turbines, which were an early prototype for low wind speed areas. They were built in 1992 on RAF Great Orton airfield, and replaced by the existing six 660kw machines in 2000. These were seen all over the world as the area was made infamous as the foot and mouth burial site, now Watchtree nature reserve. They provide electricity for 2,000 houses. In good visibility the turbines are clearly visible on the skyline on the right well before Wigton station and glimpsed after that. In the summer they are partly masked by trees.

Note the disused windmill at Wigton station. It was once one of several cornmills in the area.

High Pow : These three 1.3MW turbines never break the skyline and form the smallest wind farm on the route. They are in front of the transmitter mast (Sandale), visible on the left between Wigton and Aspatria. They became operational in March 2007, and provide electricity for 2,000 households.

Wharrels Hill : is the biggest and most recent development on the route. The turbines were still being erected as we did the research for this leaflet in 2007. The eight 1.3MW machines are visible on the skyline on the left on leaving Aspatria station and provide enough electricity for over 5,800 homes.

Robin Rigg : An off-shore project in the construction phase, the sixty 3MW turbines should become operational in early 2009, and on days of good visibility will be seen from long stretches of the railway line.

Workington has become one of the greenest towns in the country in terms of energy generation. It is surrounded by wind farms already producing enough clean electricity for more than 10,000 homes - almost exactly the number of homes in Workington.

Siddick and Oldside : The two developments were separate but linked, and together provide sufficient renewably generated electricity for 5,300 homes. The sixteen 600kw turbines become visible ahead and to the left on leaving Maryport and the train threads its way between them, first alongside Siddick on the left, then Oldside on the right. They were built in 1996.

Eastman : Has two large and stately 2MW turbines visible behind the Siddick turbines in the factory grounds beyond the road - providing visual evidence that this chemicals company is doing its bit to cut costs and its CO2 emissions.

Winscales : These turbines are most clearly visible just before arriving in Workington, looking ahead and left above the trees, although the tips are just visible behind the houses on leaving the station. Three 660kw turbines were built in 1999, and then eight more 850kw turbines were added in 2005. These two developments provide electricity for 4,900 households and planning permission has been given for another seven turbines.

Lowca : Stunningly situated on the cliff above the railway, the seven 660kw turbines, providing electricity for 2,500 homes, first seen on right on the approach to Harrington and then as the train rounds the headland the turbines are to the left on the cliff above the railway.

Notice the small freestanding domestic turbine at the last bungalow on the beach one minute after Nethertown station and the Sellafield nuclear complex.

Haverigg : First visible briefly on right 3 minutes after Bootle station, then 3 minutes later on approach to Silecroft station. Also visible across the estuary after Askam station. There are now eight turbines - four 600kw (built 1998), one owned by the Baywind Co-operative, and four 850kw (built 2005), replacing five 225kw turbines (built 1992). This was the first windfarm built in Cumbria, only the second commercial one in the UK and gained very positive press coverage. It provides enough electricity to power 3,000 houses.

Kirkby Moor : Eight turbines visible across the Duddon estuary on skyline on right 5 minutes after Millom station and around Foxfield and Kirkby stations, turbines become visible poking above the ridge of hills on the left. These turbines were built in 1993 on a Site of Special Scientific Interest and were therefore not supported by Friends of the Earth, however there has been no significant damage to the site. At 400kw they are the smallest commercial turbines in Cumbria, but still supply renewable electricity to 2,600 houses.

Askam : The seven turbines are visible on the left above the village on the approach to, and when stopped in Askam station. They power 2,500 houses.

Visit our website at www.windspots.org.uk for updates and latest news.
Guide produced on recycled paper using environmentally responsible methods.



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