

## What next....?

The government has explicitly stated that the potential for significant offshore wind 'farm' schemes should not curtail plans for onshore developments. That curtailment is precisely what should be happening. Our beautiful Norfolk landscape is a precious and finite resource as well. Renewables belong offshore, not onshore.



Please sign our West Norfolk Land Based 'Wind Farms' Petition which we will be submitting to King's Lynn and West Norfolk Borough Council on the 1st June 2010. You can email us your thoughts on [petition@creakesaction.com](mailto:petition@creakesaction.com) or by calling 07900 450357.

If you are concerned about any of the issues arising from this leaflet, or require more information or copies of past Newsletters, or feel you can help in any way, please register on our website:

[www.creakesaction.com](http://www.creakesaction.com)

or

Donations to our fighting fund, with cheques made payable to C.A.P.E., may be sent to:  
The Treasurer, Cornflake Barn, Bluestone Road,  
South Creake, Fakenham, Norfolk NR21 9LY

You can write to Henry Bellingham MP, voicing your concerns, at The House of Commons, London, SW1A 0AA or email: [bellinghamh@parliament.uk](mailto:bellinghamh@parliament.uk)

CAPE are most grateful to our supporter Howard Gleave for all the investigation, research\* and analysis on which the material in this Newsletter is based.

*\*Much of the factual material was drawn from three expert reports, all available on the Country Guardian website: <http://www.countryguardian.net/>*

1. "Wind Energy: Facts and Fiction" by J.A. Halkema, a Dutch energy expert, retired electrical engineer and former board director of international company Brown Boveri Nederland and
2. "The Case against Wind 'Farms'", 2006 Edition, by Dr. J. R. Etherington, a professional environmental scientist
3. "Wind Report 2005" by E.ON, one of Europe's largest power companies

### \*References

1. E.On Wind Report 2005 page 4
2. The Case against Wind Farms Dr J.R. Etherington page 5
3. E.On Wind Report 2005 page 22
4. J.A. Halkema "Wind Energy: Facts and Fiction" page 6
5. E.On Wind Report 2005 page 9
6. The Case against Wind Farms Dr J.R. Etherington page 13
7. Carbon Dioxide "Savings" from Wind farms, Dr Mike Hall 6/1/2009 "Cost Implications"
8. The Case against Wind Farms Dr J.R. Etherington page 79. Renewable Energy Foundation [ref.on.re.strategy.27.07.09[1].pdf] Section 19
10. <http://www.guardian.co.uk/environment/2010/jan/06/power-line-scotland-green-energy>
11. [http://www.trec-uk.org.uk/resources/supergrid\\_costs1.pdf](http://www.trec-uk.org.uk/resources/supergrid_costs1.pdf)

Creakes Action for Protecting the Environment

Thank you for taking the trouble to read this newsletter

CAPE NEWSLETTER

April 2010

# The True Cost of Wind Turbines

Don't be misled by the glossy brochure hot air about Jack's Lane wind turbines

Wind "farms" belong off shore

Don't allow our wonderful countryside to be turned into a desecrated industrial landscape.

These massive turbines will produce intermittent higher priced electricity made possible only by higher taxes and larger electricity bills we shall all have to pay.



Creakes Action for Protecting the Environment

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## Fact 1

Wind energy is worse than just intermittent. It is generated in essentially unpredictable peaks and troughs. This will require

90% of all the electricity theoretically available from wind to be backed up by conventional, CO2-emitting power stations<sup>1</sup>, or by nuclear power.



## Fact 2

Wind energy is only viable thanks to massive public subsidy that doubles the wholesale cost of electricity<sup>2</sup>.

Without this subsidy, wind turbines would not be built.



## Fact 3

Wind energy requires a massive expansion of huge, highly visible, electricity pylons.



## Fact 4

Even when backed up by conventional power stations fluctuating wind energy risks destabilising the power system, causing massive power cuts<sup>3</sup>.

## Subsidies Hide The True Cost

Wind energy is only financially viable thanks to massive and sustained public subsidy that more than doubles the wholesale cost of electricity. It will also require the staggeringly expensive duplication of dedicated conventional generating capacity in addition to the capital cost of the wind turbines themselves.

We, the UK energy consumers, will pay for all this. The cost of 44 Gigawatts (GW) of new UK back-up generating plant alone has been estimated at around £66 billion by 2020. Bodies such as the National Audit Office and National Grid have expressed concern that the money being poured into wind 'farms' is crowding out investment in other renewables that are capable of generating electricity in a more stable manner.



## The CAPE Perspective



If wind energy is to be used, it should be generated offshore, not onshore. Although still an ineffective and expensive way of cutting carbon emissions off shore wind "farms" will create far more support jobs than onshore wind energy and avoid the destruction of another precious resource: our countryside.

## Wind: An unreliable energy source

The wind is a fluctuating and inherently unreliable energy source. This is true for energy generated by one turbine or many thousands covering thousands of square kilometres. Wind energy depends on conventional power stations, constantly on line, producing CO2, ready at short notice to provide back up for 90% of total installed wind generating capacity. And wind energy cannot be stored, at least not commercially. This fatally compromises wind energy's carbon emission reduction potential. Once wind energy has achieved its planned maximum extent within the future energy mix it will actually replace only 4% of traditional power production.

## Put the industrial wind "farms" off shore

Rather than arguing that no use should be made of wind energy, we call pragmatically for onshore wind 'farm' development to be halted and moved offshore. Offshore wind turbines typically produce more electricity, albeit still intermittently. Although more costly, the economic argument against systematic "off shoring" cannot be invoked without the Government performing a complete volte-face. The entire wind energy business model is dependent on public subsidy. Moving wind turbines offshore will at least avoid desecrating vast tracts of precious countryside in one of the world's most densely populated countries, Britain. Unlike onshore wind 'farms' it could also generate significant employment in coastal communities in the same way that North Sea oil has created an offshore support industry.

## Peaks & Troughs

Wind energy advocates claim that wind turbines can deliver a constant amount of electricity

capable of "supporting" a stated number of homes. That is not so. The annual energy output is made up of numerous, largely unpredictable, peaks and troughs. Wind generated electricity output is at its lowest when atmospheric pressure is high, during the summer but also the winter, when the demand for power is highest. Wind energy is "junk" energy.

## Reducing CO2 is good for you – but not at this cost

Wind energy is a very expensive way of reducing CO2 emissions. The UK's CO2 reduction target for 2010 represents the annual CO2 emissions of only one medium-sized, coal fired power station. This is the equivalent of only 20 Boeing 747 Jumbo Jets' annual CO2 emissions. China is building two power stations each week. Even the "UK Renewable Energy Strategy" published in July 2009 for 2020 and beyond will deliver annual savings of just 7% of UK emissions and a mere 0.1% of current world emissions. This small amount comes at extreme cost. Not a good bargain.

## The Infrastructure Can't Take It



The power pylon infrastructure required to distribute wind energy will also require significant expansion. These pylons will be massive structures up to 65 metres high and add significantly to the visual intrusion of the wind turbines themselves. The cost of upgrading the UK's electricity network is estimated at £4.7 bn, although the separate

European underwater "super grid" agreed to by nine countries in January 2010 is estimated to cost between €30 bn and €50bn (that's around £27 – £44 billion).

As the proportion of total UK generating capacity accounted for by wind increases, wind intermittency and the accompanying energy fluctuations will pose an as yet unresolved risk of destabilisation of the entire UK and European electricity grids. E.ON itself acknowledges the risk of large-scale power cuts. To help manage this risk, wind energy companies are frequently forced to "dump" wind energy to avoid overloading the existing infrastructure. This further reduces wind energy's much vaunted but flawed green credentials.