

“Say NO to the Cambridge Wind Farm”

The Reasons Why.



Stop the Cambridge Wind Farm - StopCWF

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www.stopcwf.org.uk

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1. INTRODUCTION

This document explains why residents of South Cambridgeshire should say "**NO**" to Your Energy's wind farm proposal.

You can say "**NO**" by:

a) Joining StopCWF at www.stopcwf.org.uk or by completing the form at the back of this document.

b) Writing a letter of objection to the South Cambridgeshire District Planners:

David Hussell

Director of Development Services
South Cambridgeshire District Council
South Cambridgeshire Hall
Cambourne Business Park
Cambourne CB3 6EA

c) Send copies of your objection letter to:

Andrew Lansley, MP, CBE

153 St Neots Road
Hardwick
Cambridge CB3 7QJ

and

Your Local District Councillor

South Cambridgeshire District Council
South Cambridgeshire Hall
Cambourne Business Park
Cambourne CB3 6EA

2. VISUAL INTRUSION

16 x 100m high wind turbines (6 times as high as Boxworth church) represents a development that is completely out of scale with the rural landscape in which it will be placed. These massive turbines destroy the surrounding characteristic Cambridgeshire landscape of wide views, broad skies and lack of visual clutter.

The wind farm would be visible for over 20kms in various directions, i.e. from Ely, Huntingdon and the other side of Cambridge.

The area swept by each turbine is equivalent to 1¼ times the area of a football pitch.

This is **industrialisation of the landscape**, not a few nice windmills! Once an area becomes industrialised, there is always the danger of further industrial development.

3. LIMITED REDUCTION IN CO2

Although the impact on the surrounding area will be enormous the amount of electricity produced is small and the reduction in emissions of CO2 will also be small.

- **Not much power:** Even with 16 large turbines, Cambridge Windfarm will produce less than 3% of the output of “Sizewell A” - a small nuclear power station on the Suffolk coast which is due to close down in around two years time. Whereas the proposed offshore wind farm – “Greater Gabbard”, 27 kms off the coast at Orford – will produce up to 50% of Sizewell A’s current output. It would take more than 45 Cambridge Farms to replace Sizewell A’s output. Clearly, the place to produce wind energy is offshore where the winds are stronger and more constant and there is no destruction of the environment. The Conservative Party have reviewed their policy in the light of the complaints of residents around existing onshore wind farms and are now proposing a halt to onshore wind farms.
- **Not much CO2 reduction:** This is because wind energy is randomly intermittent. Wind farms cannot produce electricity when there is no wind or there is too much wind. However, electricity is required all the time. This means that backup conventional power stations have to be on standby and no existing generating capacity can be removed. Wind energy is additive to energy production – it is not a replacement. Consequently, the actual CO2 reductions are much less than is claimed.

4. REDUCTION IN QUALITY OF LIFE

People living in the vicinity of much smaller wind farms have experienced a massive reduction in their quality of life through:

- **Noise:** Wind farms create noise (at the turbine, the noise is similar to a jet aircraft at 250 feet). However it is not just the volume, but the quality of the noise that creates the most distress to local residents. Reported as being like a “broken washing machine”, it will be as noisy at night - when people want to

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sleep - as during the day. Also, unlike most background noises, it becomes impossible to shut out of your mind because the noise levels continually increase and decrease as the blades rotate.

- **Light Effects:** There will be "flicker" effects from the blades passing in front of the sun. This can produce strobe effects inside the rooms of a house and people have reported having to shut curtains in the day or having to move rooms in order to avoid this effect.
- **Illness:** Dr Amanda Harry, a Plymouth G.P., who has studied people living near the Bears Downs windfarm in Cornwall has found that 93% of those questioned "*felt that their lives had been affected adversely*" (Western Morning News 06.01.04; Sunday Telegraph/Sunday Express 25.01.04). Symptoms reported have included: headaches, tinnitus, sleep problems, stress, anxiety and depression

This wind farm would be the largest wind farm in the U.K. that is close to residential areas. The impact on people living within the vicinity will be immense. However, no real understanding of just how badly people will be affected will be available until after they are built by which time it will be too late!

5. A14 SAFETY

The Chief Constable of Cambridgeshire Police has already branded the safety record of the A14 as **unacceptable**.

There have 7 deaths and 200 serious accidents since 1999 on the stretch of road between Girton and Godmanchester – the area where the sight of the wind turbines will be greatest.

The presence of 16 giant turbines rotating at different synchronisations next to the A14 will cause "driver distraction", particularly as the nearest one will be only 250m from the carriageway. It is virtually impossible to prevent to stop your eyes being drawn to such large moving objects. Furthermore, in the morning and evening rush hours along the A14, the sun will be shining directly through the blades causing shadow flicker and glint.

The exit from the Cambridge Services area – with its extremely heavy lorry traffic (often foreign drivers from the East coast ports of Felixstowe/Harwich) is right next to the turbines, causing an additional hazard.

The whole road is characterised by heavy traffic allied to sudden changes in speed and requires constant driver vigilance. An additional distraction represents a totally unacceptable increase in the risk of further accidents with the resultant human misery and economic disruption.

6. TV INTERFERENCE

Wind turbines interfere with microwaves and electromagnetic signals.

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They cause a reception shadow of up to 10km when they stand between a TV transmitter and houses with TV aerials pointing through a wind farm towards the TV transmitter. Viewers in such locations will have their signal scattered, causing some or all of the following problems as the blades rotate; loss of detail, loss of colour, loss of sound quality, “ghosting” and screen flicker.

The proposed Cambridge wind farm stands directly in line between the TV transmitter at Sandy and the villages of Swavesey, Over, Willingham and parts of Fen Drayton.

Whilst planning conditions may be applied to force the developer to pay for any remedial work, it is likely to take months, if not years to assess the extent of the problem, agree the remedial actions and get the work carried out. Meanwhile, local residents have to put up with the problem, or pay for a solution themselves.

e.g. Millhouse Green wind farm, on Royd Moor, near Barnsley started to cause TV reception problems as soon as the turbines were erected in 1994. For more than 2 years, locals suffered loss of reception and then poor reception as adjustments to aerials and re-tuning took place. Eventually a new TV relay station was built.

7. WILDLIFE KILL

Wind farms kill bats and birds – 6,450 birds were killed in Spain in one year by 400 turbines. Although the blades rotate slowly because they are so long the blade tips travel at speeds up to 170mph which birds and bats find difficult to avoid.

The European Bats Agreement passed a resolution highlighting “the existing evidence of mortalities of bats from turbines” and expressed concern of “the negative impacts of wind turbines on bat populations as well as their prey and habitats”.

The site of the proposed wind farm is home to various protected species, viz; badger, great crested newt, golden plover, barn owl and pipistrelle bats. These animals are likely to suffer loss of habitat at least, and death at worst if the turbines are constructed.

8. DECLINE IN PROPERTY VALUES

The value of properties in the vicinity of the wind farm could decline by up to 20%. In addition sales will also be difficult to progress until the wind farm is built because the planning application will show up in property searches and potential purchasers will tend to look in other villages unaffected by the wind farm.

A court case in Cumbria ruled that a wind farm near a house had caused a fall in value of 20% and because the sellers had not disclosed that they had to refund 20% of the purchase price to the buyers.

9. HEALTH AND SAFETY

In freezing conditions ice can form on the turbine blades when they are stationary and then be thrown off at high velocity when they start up again. It has been shown

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that lumps of ice weighing as much as 20-32kgs can be thrown up to 550m with impact speeds of 170mph

10. CONSTRUCTION IMPACT

The construction process will have a major impact on the local area. Hedges will be uprooted to widen access to accommodate the movement of the massive turbine blades and towers

Each turbine requires foundations of concrete (one of the worst creators of CO2) the size of a 25m swimming pool. Several miles of service roads and cable trenches will need to be constructed and all the aggregate, sand, cement and spoil will be moved by heavy lorries. There will be at least 3,000 lorry trips required to build this wind farm.

11. NO LOCAL BENEFIT

There will be no local employment benefits as the turbines are likely manufactured abroad and the wind farm is monitored remotely

There is no local electricity grid so the villages affected will receive no benefit and in fact will pay more because wind energy is more expensive to produce.

Your Energy have mentioned in interviews that they will donate money to the local area, but a Director (Charles Sandham) stated that this would only be for energy saving measures e.g. the provision of energy saving light bulbs!! Other wind farm operators have been more supportive of community needs.

12. ECONOMICS OF WIND POWER

Wind energy is up to 3 times more expensive to produce than from conventional means:

Electricity Generating Costs (pence per kWh)¹

Offshore wind	7.2p*
Onshore Wind	5.4p*
Coal	2.7p
Nuclear	2.3p
Gas OCGT	3.1p
Gas CCGT	2.3p

(* includes 1.7p cost of standby generation)

The only reason that so many wind farms are being proposed is that the developers are able to make huge profits because the government is fixing the market by requiring the power companies to generate a rising percentage of their electricity from renewable sources - 4.9% in 2004/5 growing to 10.4% by 2010. If they do not achieve their targets, they face massive (i.e. many £millions) fines.

¹ Royal Academy of Engineering, March 2004

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All companies producing electricity from renewable sources are issued with Renewable Obligation Certificates (ROCs) by the government regulator OFGEM, at the rate of one ROC per MWh energy produced.

All companies failing to produce the targeted amount from renewable sources either have to buy spare ROCs or pay the massive fine. There is an open market for ROCs (they are auctioned regularly) and their price is increasing.

At the end of the year the fines do not go back to the government (i.e. back to the taxpayers), but are shared out amongst those companies with Rocs - who are therefore in effect being paid twice.

The cost of this subsidy is borne by consumers in the form of increased prices – we all pay an extra 2% on every electricity bill to subsidise the production of renewable energy!!

13. HUGE PROFITS FOR YOUR ENERGY

The projected annual income of the Cambridge wind farm is:

Sale of electricity	£1.3m
Subsidy receipts (ROCs & Buyouts)	<u>£4.4m</u>
Income	£5.7m

The projected profits per year of the Cambridge wind farm in years 1-10 are:

Operations & maintenance	£0.12m
Landowner rents	£0.29m
Finance costs ²	£2.08m
Total Costs	<u>£2.49m</u>
Profit	£3.21m

Annual profit in years 11-25 is £5.29m (because debt is repaid after 10 years).

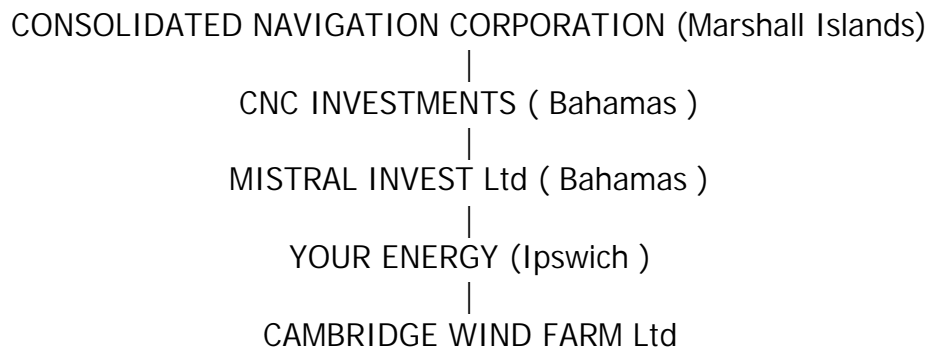
Over the 25 year life of the windfarm, Your Energy will receive up to £142m in income. Given the total estimated construction and maintenance costs are only around £50m, this means a profit of c £90m and a return exceeding 150%!!

It is unacceptable for a private company to make this kind of money from a regulated market at the expense of consumers who have to fund the subsidy through their electricity bills - and this is only one wind farm!!

² Assumes 100% debt financing of capital cost (£20.8m) at 10% pa for 10 years. Sufficient free cash to repay debt is generated after 10 years.

14. WHO ARE YOUR ENERGY / CAMBRIDGE WIND FARM ???

The driving force behind this application is Your Energy who have an office in Ipswich. For each of their planning applications they create a wholly owned subsidiary company, in this case, "Cambridge Wind Farm Ltd". However Your Energy is controlled and owned by companies in the Bahamas and the Marshall Islands. This complicated structure means their profits may end up offshore (**tax free?**) – unlike their wind farms!



Last year, Spurness Wind Energy Ltd (a project vehicle of Your Energy) sold a wind farm site in the Orkneys with planning permission for only four turbines to Scottish and Southern Energy plc for £8.3m. As Charles Sandham, (a director of Your Energy), said at their presentation in Boxworth when asked how much money the company would make ***"it's the stuff that dreams are made off"***.

So it seems that Your Energy's business model may be based on the sale of planning permissions! Their website has no reference to currently operating wind turbine power stations in their ownership. If this is correct, then their commitment to the people of this area is zero!

Other people opposed to onshore wind farms:

- David Bellamy
- Conservative Party
- Professor Ian Fells (Energy conservation Newcastle University)
- Prince Charles

15. OFFSHORE NOT ONSHORE !

Wind farms are best located OFFSHORE because:

- The wind streams are stronger and more reliable.
- There are no adverse effects (noise, flicker, visual intrusion etc) upon local residents
- Rural landscapes are not industrialised
- There are often employment benefits for the local onshore community

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- Much greater amounts of power are produced by offshore wind farms because the turbines can be larger and many more can be constructed.

Consider also:

- The offshore wind generation potential for our region is OVER 10 TIMES GREATER than the onshore wind generation potential. (Onshore wind potential = 5,000 GWh, offshore wind potential = 53,000 GWh)
- Our region can produce OVER 12 TIMES the amount of renewable energy required to meet the regional 2010 targets using OFFSHORE WIND ONLY. (2010 regional target = 14% = 4,300GWh).

These are the Government's own statistics.

16. CONCLUSION

The proposed wind farm will produce renewable energy and reduce CO2 emissions - but these effects will be small and will be completely outweighed by the negative impacts on the local people and countryside.

It will;

- 1) Industrialise an agricultural landscape.
- 2) Reduce the quality of life of local residents through noise and visual intrusion.
- 3) Increase the risk of accidents on the A14 with consequent injury to people and economic disruption.
- 4) Adversely impact safety in local skies through the disruption of radar safety services at Cambridge Airport.

The only reason this totally inappropriate location has been selected is the "dash for cash" by onshore wind farm developers.

THIS IS GREED, NOT GREEN.