

15 February 2011

Mr M Bassett
Planning and Development Department
Broxtowe Borough Council
Foster Ave
Beeston
Nottingham
NG9 1AB

Dear Mr Bassett

**Planning Application Ref: 10/00717/FUL
Wind Turbine, Severn Trent Sewage Treatment Works, Hall Lane, Giltbrook**

Nottingham Pro-Wind Alliance is a newly formed group aiming to support renewable energy projects within the Greater Nottingham area, as part of a wider existing Pro-Wind Alliance.

Having examined Severn Trent's proposal, we would like to support this proposal.

We welcome Severn Trent's commitment to generate their own energy on their sites where this is possible, in this case using a wind turbine to provide electricity from their Newthorpe sewage treatment works. We agree with Severn Trent that the reduction in carbon emissions outweighs the relatively limited impact on the greenbelt.

If Broxtowe is to play its part in meeting national, regional and local targets to achieve reductions in climate change emissions and to increase generation of electricity from renewable sources, then this is the sort of proposal which it should be supporting.

There are a number of legitimate concerns for local residents including flicker, noise, TV interference and impact on wildlife. We consider that Severn Trent has adequately addressed these issues. However, it may be that planning conditions should be imposed to ensure there is no unacceptable impact on local residents or wildlife.

It should be noted that, amongst other features, the site is separated from residential properties by the A610, A6096 and the Nottingham-Sheffield railway line.

There are a number of points we would like to make in support of the application, in part in response to some of the objections which have been made.

- (1) There is popular support for use of renewable energy, including wind energy. A DECC report on attitudes to renewable energy published in November 2009 shows around 80% support for wind power (page 7):
http://www.decc.gov.uk/assets/decc/what%20we%20do/uk%20energy%20supply/energy%20mix/renewable%20energy/planning/perception/1_20091105094703_e_@@_renewableresearchmgmtsummary.pdf

Experience of wind turbines being built is that once they are operating there is usually much less nuisance experienced in the surrounding area than was

anticipated at planning stage. That is perhaps partly due to appropriate planning conditions ensuring that turbines are not permitted to cause nuisance to neighbours by way of noise, flicker, or TV interference, and that impact on wildlife is carefully considered and mitigated.

- (2) Wind turbines save substantial amounts of carbon emissions. A House of Commons report in 2006 (Postnote 268) looked at carbon intensity of various methods of generating electricity, taking account of full lifecycle impacts including manufacture and decommissioning. It found that the carbon footprint of onshore wind was 4.64gCO₂eq/kWh (mostly due to manufacture and construction). That compares to around 500gCO₂eq/kWh for gas powered electricity generation and double that for coal. (<http://www.parliament.uk/documents/post/postpn268.pdf>)
- (3) Wind turbines over their 20 - 25 year lifetimes will produce far more energy than is consumed in manufacturing a turbine. Turbine manufacturers typically calculate 'energy payback' times in the range of 3 to 9 months. For example, attached is a Vestas life cycle assessment which estimates for a 3MW onshore turbine an energy payback time of 6.6 months (page 36). (http://nottfoe.gn.apc.org/LCAV90_juni_2006.pdf)
- (4) It is true that wind turbines do not usually operate at their maximum design power. Their output depends on wind speed. They do usually operate for more than 80% of the time. The government estimates that onshore turbines generally achieve a 'load factor' around 27% (Digest of UK Energy Statistics 2010, Table 7.4). That would mean that a 3.4MW turbine as proposed by Severn Trent would be expected to produce around 8,047 MWh electricity per year (3.4MW x 27% x 8766 hours). Severn Trent's actual estimate is between 3,595MWh and 6,346MWh per year based on wind monitoring, which would be equivalent to the annual electricity needs of around 1,350 households, offsetting between 37,100 and 65,491 tonnes CO₂ over the turbine's lifetime (Environmental Statement, Sections 16.2-16.3). This should be considered as a conservative estimate.
- (5) We note that Nottinghamshire Wildlife Trust have been consulted and generally support the recommendations arising from Severn Trent's ecological survey which they consider to be adequate for this type of application.

Yours sincerely,

Judith Dare

The Pro Wind Alliance (ProWA) is an association of local individuals and groups who are convinced that renewables are vital for the future and who are therefore in favour of developing properly designed local renewable generating capability. ProWA aims to provide objective information, backed by sound research and references. Nottingham ProWA is a local branch active within the area around Greater Nottingham.

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