Sainsbury's Hams Hall Distribution Centre Wind Park

The site is within the Distribution Centre staff and lorry carpark. The Sainsbury's Hams Hall Distribution Centre Wind Park would be a 2MW turbine project that would generate approximately 4.86 GWh/yr[1]

The Sainsbury's Hams Hall Distribution Centre Wind Park would offset hundreds of tonnes of carbon dioxide per year[3] and would repay its 'energy debt' (i.e. the energy used in manufacturing and installation) in approximately 6-9 months (compared to its expected lifetime of up to 30 years).

The Sainsbury's Hams Hall Distribution Centre Wind Park would provide enough energy for approximately 1,472 homes[2] although the energy would actually be used by the Distribution Centre itself. This would make up about 20% of their annual electricity need based on 2006 figures provided by Sainsbury's.

Project Details
Site address: Hams Hall Industrial Site, Coleshill, Birmingham
Status: Currently at public consultation
Turbines: 1
Capacity: 2MW

Estimated electricity output
Generation: Approximately 4.86 million 'units' (kWh) annually[1].
Equivalent homes: 1,472 annually[2]

Turbine Dimensions
Hub height: 79m
Rotor diameter: 82m

Annual emissions savings
Carbon dioxide (CO2): over 1,797 tonnes[3]

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What size would the turbine be?
▪ The Sainsbury's Hams Hall Distribution Centre Wind Park turbine would be 79m to the hub and 120m in height to the blade tip.

Does the electricity generated come directly to my home?
▪ No, the turbine would be connected to the Sainsbury Distribution Centre existing grid system.

What wind speeds are needed to produce power?
▪ The proposed Sainsbury's Hams Hall Distribution Centre Wind Park turbine is designed to generate electricity in wind speeds of between of 2.5 m/s (5 mph) up to 22-28 m/s (49-62 mph).

If the turbine was not moving would the supply of electricity be affected?
▪ No. The Sainsbury's Distribution Centre would still be connected to the National Grid and would draw extra electricity direct from there so their supply was not affected.

Would there be any danger if there were strong winds?
▪ The Sainsbury's Hams Hall Distribution Centre Wind Park turbine is designed to shut down in the event of mean wind speeds of up to 28 m/s (62 mph) in order to protect the internal and external structure of the turbine.

What would happen if the turbine broke down?
▪ The Sainsbury's Hams Hall Distribution Centre Wind Park turbine would be remotely controlled. In the event of any technical problems software inside the turbine would notify Ecotricity immediately via email.

How long would the turbine last?
▪ Turbines are designed to be operational for up to 30 years. They can be decommissioned quickly and easily at the end of their operational life span and the land can be returned to its original use.

Who has been consulted?
▪ To date, Ecotricity has consulted many bodies about the proposed development, some are listed below. Consultations are ongoing and anybody can comment on the planning application by writing to North Warwickshire Borough Council.

- The Environment Agency – North Warwickshire Borough Council - RSPB - Natural England - Ofcom
- Crown Castle - CSS - Orange - T-Mobile - BT - BBC

How noisy would the wind turbine be?
▪ Using background noise surveys and computer modelling we are able to accurately calculate noise levels in order to ensure that the project will comply with standards set out in Government endorsed guidelines. Potential noise problems are minimised through careful site selection. We ensure that our sites are located at a distance from properties where any noise does not exceed recommended noise limits. The best measure of the noise produced is to go and actually listen to one of our turbines.

Would the construction of a new turbine spoil the landscape?
▪The study area is located outside any nationally or internationally designated landscape. The proposed development does not have significant impacts on any Conservation Areas, Scheduled Ancient Monuments Listed Buildings.

I have heard about 'shadow flicker', would this affect me?
▪ Shadow flicker occurs under a rare set of conditions when the sun passes behind the hub of a wind turbine and casts a shadow. When the blades rotate, shadows pass over the same point causing an effect called 'shadow flicker'. The seasonal timing and duration of this effect can be accurately calculated using computer software. By using this software Ecotricity chooses the sites and layouts for wind parks which minimise the risk of shadow flicker occurring at residential

properties. In the unlikely event that shadow flicker does affect properties, Ecotricity would monitor the situation carefully and if local residents' homes are affected, an independent technical expert would be brought in to assess the impact and determine what mitigation strategy would be best to rectify the issue.

How would the lorries gain access to the site during the construction phase?

▪ Access on to the proposed site at Sainsbury's Hams Hall Distribution Centre would be gained through the existing access point for the distribution trucks. A survey undertaken by Ecotricity and Enercon has confirmed that all the roads along the proposed route are wide enough wider than 4m) to deliver the turbine components without any permanent improvements being made. The transportation would be timed to avoid rush hour traffic within the area.

Why not build offshore?

▪ The main problem is that it costs more money. So that we can continue supplying our customers with energy at the same cost as their regional supplier we need to keep our installation costs to a minimum. However, in order to meet our energy needs (and targets) in a way that minimises the chances of dangerous climate change, all forms of renewable energy will be required including solar, hydro and onshore and offshore wind.

Where can I view copies of the application?

▪ Copies of the application will be on display at North Warwickshire Borough Council, Planning Department, South Street for a 16 week period after submission.

Details will be available on the Ecotricity website (www.ecotricity.co.uk/sainsburys-hams-hall). You can send any questions via email to sainsburys-hams-hall@ecotrcity.co.uk. Or by post to:

Sainsbury's Hams Hall Distribution Centre Wind Park
The Planning Department
Ecotricity
Axiom House, Station Road
Stroud, Gloucestershire
GL5 3AP

Please contact Ecotricity if you wish to buy a copy of the main application documents. Charges will be as follows:

▪ Paper copy £90
▪ CD copy £25

Notes:

1 - This figure is based on the average performance (capacity factor) between 2002 and 2006 of UK onshore wind energy projects deduced from the "onshore wind" "load factors on an unchanged configuration basis" in table 7.4 of the Digest of UK Energy Statistics 2007, from the Department of Business, Enterprise and Regulatory Reform (BERR, formerly DTI). Please note that the actual performance of the Sainsbury's Hams Hall Distribution Centre Wind Park may vary.

2 - This figure is based on a "medium" UK domestic electricity consumption of 3,300kWh/pa used by OFGEM and Energywatch. Future changes in average domestic electricity consumption means this figure may change over time.

3 - This figure is based on an assumption that the proposal would offset only gas-fired electricity generation and is therefore likely to be conservative; the offset figure is derived from the BERR document Digest of UK Energy Statistics 2007, table 5C at 101 tonnes of carbon per GWh electricity supplied (equivalent to about 370gCO2/kWh) for gas-fired generation. However, it should be noted that future changes in the power generating mix and fuel costs in the UK over the life of the wind farm means this figure may change over time.

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