



Honda Swindon Wind Turbines

We're looking at the potential for up to 3 turbines at the Honda site in Swindon next to the A419. If built the Honda Swindon Wind Turbines would help to power the onsite activities of the Honda plant.

The Honda Swindon Wind Turbines could generate over 17GWh/yr¹, offsetting thousands of tonnes of carbon dioxide per year². The turbines 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).

Three turbines at this site would generate enough energy to power the equivalent of approximately 5,400 homes² although the energy would actually be used by the factory itself. At times when the factory was not operating any power the turbines generate would pass into the local grid system.

To date, Honda UK has been working on energy conservation measures and last year achieved a 37% reduction in total energy per manufactured car compared with 2000. To reduce imported energy further, Honda UK now needs to look towards self generation, which is important to further reduce their emissions in line with Honda's environmental commitments.

Project Details

Site address: *Honda Swindon Manufacturing Plant, South Marston*
Status: *Application pending*
Turbines: *3*
Capacity: *6.9MW (2.3MW per turbine)*

Estimated electricity output

Generation: *Approximately 17.8 million 'units' (kWh) annually.*¹
Equivalent homes: *5,389 annually*³

Turbine Dimensions

Hub height: *79m*
Rotor diameter: *82m*

Annual emissions savings

Carbon dioxide (CO₂): *approximately 7,500 tonnes*²

What size would the turbine be?

- The Honda Swindon Wind Turbines would be 79m to the hub and 120m in height to the blade tip.

Does the electricity generated come directly to my home?

- Not directly. The turbines would be connected to Honda's existing grid system at the site. However, when the factory does not require the electricity that the turbines are generating it will flow into the local grid system and is then accessed by local homes.

What wind speeds are needed to produce power?

- The proposed Honda Swindon Wind Turbines are designed to generate electricity in wind speeds of between of 2.6 m/s (5.6 mph) up to 34 m/s (76 mph).

Would there be any danger if there were strong winds?

- The Honda Swindon Wind Turbines are designed to shut down in the event of hurricane wind speeds of over 34 m/s (76 mph) in order to protect the internal and external structure of the turbines.

What would happen if the turbines broke down?

- The Honda Swindon Wind Turbines would be remotely controlled. In the event of any technical problems software inside the turbines would notify Ecotricity immediately via email.

How long would the turbines 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 Swindon Borough Council when the application is submitted.

- The Environment Agency – Swindon Borough Council - RSPB - Natural England – Ofcom - MoD
- English Heritage - BT – Highways Agency - Wiltshire County Council

How noisy would the wind turbines be?

- Independent background noise surveys and computer modelling are used to accurately calculate noise levels in order to ensure that the project will comply with standards set out in Government endorsed guidelines. Potential noise is 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.

Would the construction of a new turbine spoil the landscape?

- The vast majority of the study area is located outside any nationally or internationally designated landscape. The proposed development is not expected to have significant impacts on any Conservation Areas or their settings, on any Scheduled Ancient Monuments or their settings, or on nearby Listed Buildings and their settings. This whole area has been developed as a industry centre for Swindon with multiple business's being located around the Honda site, therefore this area is considered a brown field site.

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 can fully mitigate against any impacts.

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

▪ Access on to the proposed site would be from the A419 and then straight on to the Honda Swindon site via the A361 junction. 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 to any public highway. The component delivery would be timed to avoid rush hour traffic within the area and in full agreement with the Highways Agency, Highways Authority and Police.

What else is Honda of the UK Manufacturing Ltd doing?

▪ Honda have been working for some time to reduce their emissions levels at this site and all their sites over the globe. Through considerable investment in the infrastructure of the plant Honda have been able to reduce total energy per manufactured at the site by 37%. However, energy reduction is only stage 1 of Honda's strategy to minimise their impact on the environment. They are now looking to install various forms of onsite generation such as solar panels and biomass, not just these wind turbines.

Where can I view copies of the application?

▪ Copies of the application will be on display at Planning Department, Swindon Borough Council, Wat Tyler House, Beckhampton Street, Swindon, SN1 2JH for a 16 week period after submission.

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

The Planning Department
Honda of the UK Manufacturing Ltd Wind Turbines
Ecotricity
Axiom House, Station Road
Stroud, Gloucestershire
GL5 3AP

Please contact Ecotricity if you wish to buy a copy of the main application documents.

Endnotes:

¹ This figure assumes a 29.4% capacity factor as per the 2008 UK onshore wind park performance, deduced from the "onshore wind load factors" in table 7.4 of the Digest of UK Energy Statistics (DUKES) 2009, from the Department of Business, Enterprise and Regulatory Reform (BERR). Please note that the actual performance of the Honda Swindon Wind Turbines 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 derived using a carbon dioxide offset ratio of 430g carbon dioxide per kWh of wind generation as used by the BWEA and ASA. It should be noted that future changes in the power generating mix and fuel costs in the UK over the life of the wind park means this figure may change over time.