



SPICER HILL WIND FARM EXTENSION

Traffic Addendum

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Prepared For:

JG Pears Ltd

Prepared By:

Green Cat Renewables Ltd

	Name	Title	Date
Checked by	Calum MacLennan	Engineer	8/1/15
Approved by	Glen Moon	Senior Project Manager	8/1/15

Spicer Hill Traffic and Transportation- Addendum to ES

Site Access

The existing entrance to the Spicer Hill Wind Farm on Whitley Road, 1.3km to the west of the junction between Whitley Lane and Royd Lane would be used to provide access to the extension site.

Construction Traffic

There are four main components of construction traffic. These comprise of:

- Delivery of the turbine components (blades, tower sections and turbine nacelles);
- Deliveries of crushed stone for the site access tracks and crane hardstandings;
- Concrete deliveries for the foundation pour; and
- Personnel trips to and from the site.

The table below gives an estimate of the volumes of traffic likely to be involved during the construction phase.

Spicer Hill Extension - Construction Traffic

	Load	Number of deliveries	Type of vehicle
Aggregate for site tracks and crane hardstandings	~2,160 m ³	270	Standard Heavy Goods Vehicles
Concrete for turbine foundations	~1,540 m ³	153	Standard Heavy Goods Vehicles
Reinforcement steel	90 tonnes	5	Standard flatbed lorry
Cabling		1	Standard flatbed lorry
Personnel	-	6-10 arrivals a day at peak	Cars / Light good Vehicles
Turbine components	-	15 articulated lorries	Specialised non-standard articulated vehicles

Aggregate deliveries

In total 270 deliveries will be required on site over a period of 1 month –an average of 13 deliveries per day. All crushed stone for the internal access tracks and crane hardstandings would be delivered from a local quarry, which is likely to be that on Lane Head Road in Shepley, four miles to the north of the site. Deliveries would arrive by the A629 and Birds Edge Lane, and return via the same route.

Concrete deliveries

Deliveries of concrete during the foundation pour represent the most intensive period of traffic associated with the development. In total 153 deliveries will be required on site over a period of 3 days – 1 for each turbine. This would result in 51 deliveries per day, arriving at the rate of ~8 per hour over a 6 hour period.

Ready mix concrete is likely to be sourced from Penistone and delivered via the A629 and Royd Lane.

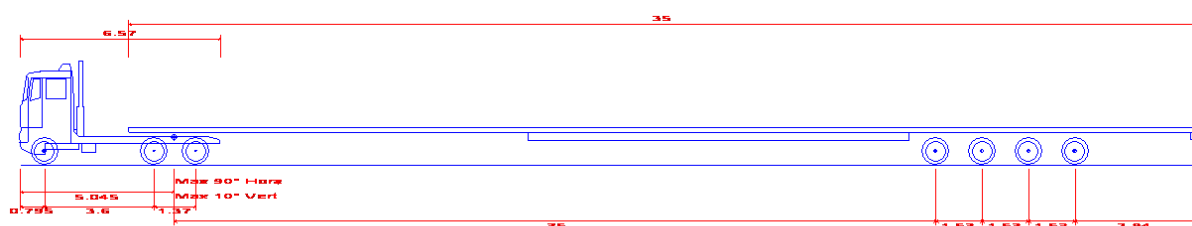
Turbine components

Each turbine requires 5 deliveries on specialist Turbine Delivery Vehicles (TDV). There are three different types of components to be delivered to site:

- Turbine blades – 35m in length, which are the longest components transported to site;
- Turbine tower sections– three sections per turbine. The longest of these is 22.5m long; and
- Turbine nacelles – these are the widest components transported to site, 5m in width.

Access roads typically need a minimum clearance width of 5.5m and a minimum clearance height of 4.6m, with the transport vehicles requiring a minimum ground clearance of 0.15m. Roadways, bridges and access tracks along the access route will have to be able to withstand loads up to a maximum axle load of 12 tonnes and a maximum overall weight of up to 120 tonnes.

The specification of the blade delivery vehicle (the longest required) is provided below.



Extendible turbine blade WTDV 35m	
Overall Length	38.545m
Overall Width	2.600m
Overall Body Height	3.425m
Min Body Ground Clearance	0.350m
Track Width	2.600m
Lock to Lock Time	6.00sec
Kerb to Kerb Turning Radius	7.450m

The turbine components are likely to arrive from an east coast port, which is likely to be Hull. The route to site would follow:

- M1 to J36;
- Head north on the A61;
- Turn west onto the A616;
- Turn east onto the A628; and
- Turn north onto Royd Lane.

This is the route successfully used for the delivery of the original Spicer Hill turbines.

Cranes

Two cranes are generally required to lift the turbine sections and blades into place on site. The largest crane proposed to be used on site, Liebherr Crane LTM 1500-8.1, is 21.4m long and 3.2m wide. The crane has 8 axles, all of which have axle loads of 12 tonnes, with the total vehicle weight of 96 tonnes.

The minimum carriageway width required is 3.5m, with access roads needing a minimum clearance width of 4m and a minimum clearance height of 4.6m, with the transport vehicles requiring a minimum ground clearance of 0.2m. Roadways, bridges and access tracks along the access route will have to be able to withstand loads up to a maximum axle load of 12 tonnes and a maximum overall weight of up to 120 tonnes.

Personnel

At peak times there will be between 6-10 vehicles per day carrying personnel to the site. These will be light vehicles – cars or vans.

Route Management Plan

A Traffic Management Plan (TMP), or similar document, finalising traffic management measures will be produced during the post-planning stage and agreed with West Yorkshire Police, Barnsley Council and the Highways Agency. The TMP will finalise:

- The route to be followed by the Turbine Delivery Vehicles (TDVs) and HGVs;
- The schedule of deliveries. Deliveries will be scheduled outside of peak hours to minimize impact on the road network;
- Suitable escort arrangements for each turbine convoy, from the port of entry to the site access itself;
- Traffic management measures during delivery;
- Confirmation of construction traffic numbers and construction phasing;

- Information to be supplied to the general public regarding the movement of abnormal loads, and any road closures or diversions; and
- Considerate construction methods to be employed such as wheel cleaning and road sweeping.

Operational traffic

Once erected the wind turbines would operate automatically. Typically, Enercon maintenance teams are scheduled to conduct quarterly checks on the operation of turbines. These are undertaken in light commercial vehicles such as vans, cars or similar vehicles

Decommissioning traffic

The amount of site traffic during decommissioning would be less than that during the construction stage.