

The Turbine



Vestas V100

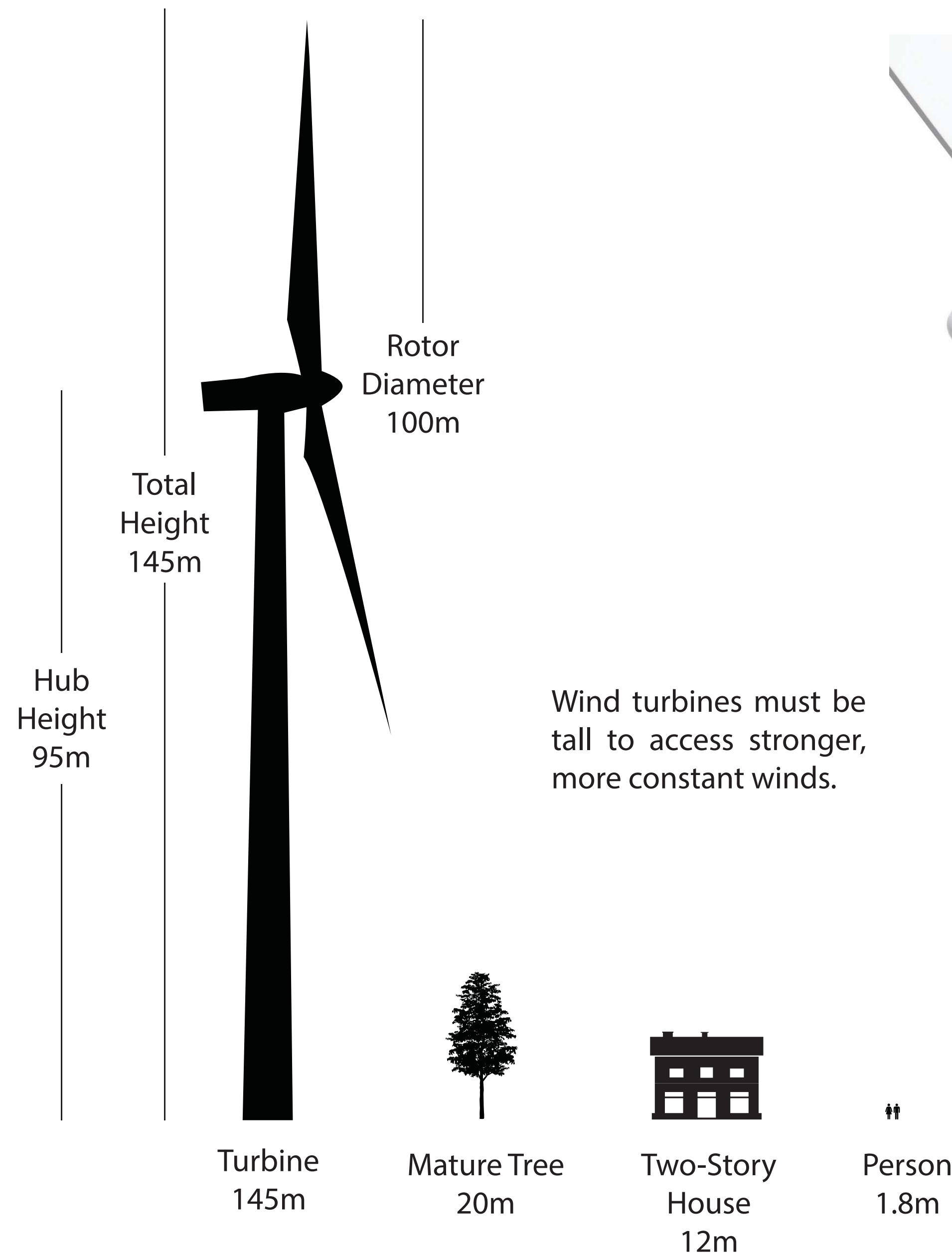
Vestas, a Danish company, is a long time pioneer in wind energy.

The V100 model represents cutting edge design built on extensive experience gained from the 9700+ 2MW class turbines installed worldwide.



Brenton Community Wind Project

Equivalent to consumption of **690** homes
5 352 tonnes of CO2 emissions annually
100% of power is consumed in local area
 Anticipated turbine Installation - **2016**



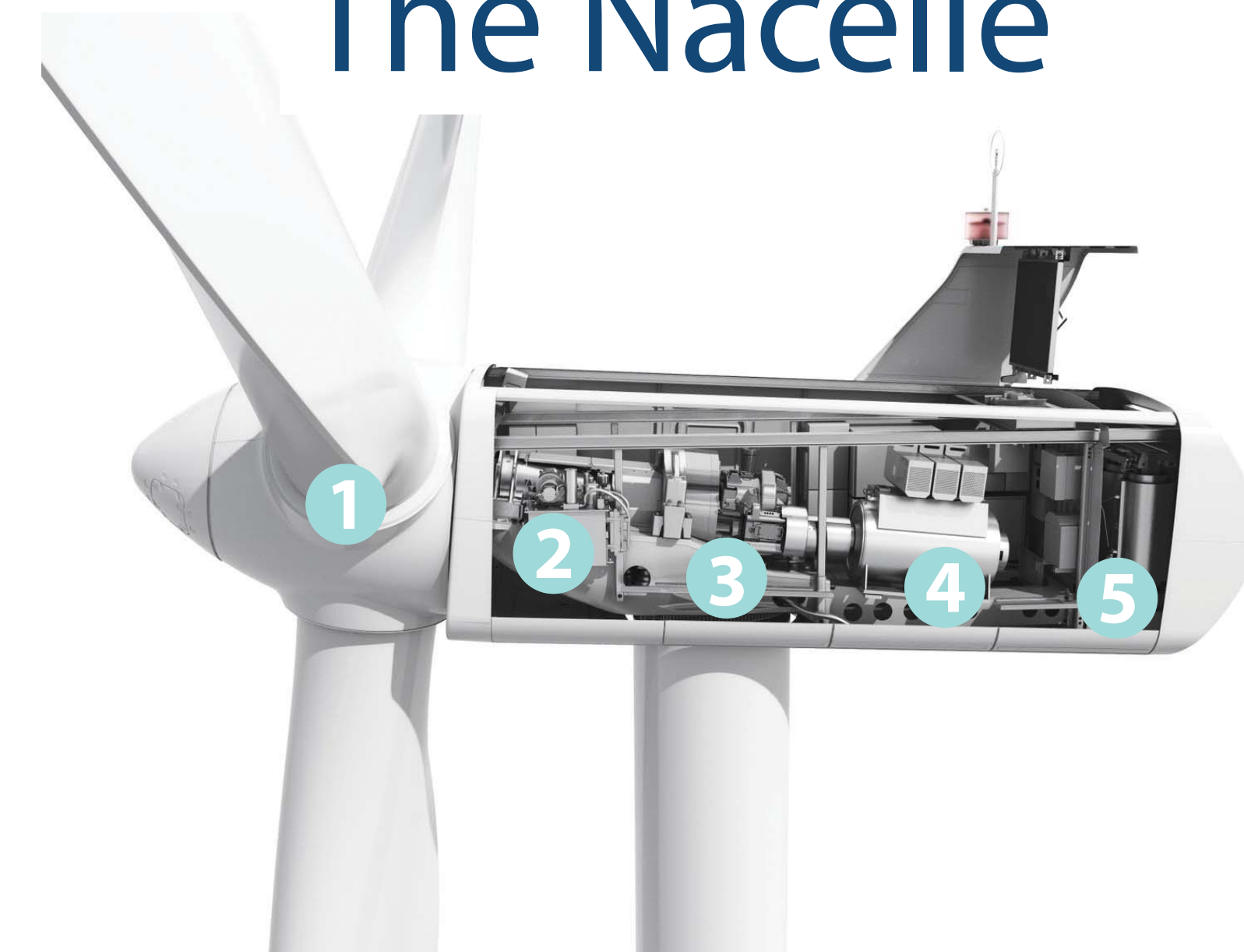
Wind turbines must be tall to access stronger, more constant winds.

Manufacturer Specs

Generator Max Capacity:	1.99MW
Swept Area:	7850m ² (1.9 acres.)
Revolution Speed:	8.8-14.9 rpm
Cut-in Wind Speed:	11km/h (6 knots)
Cut-out Wind Speed:	72km/h (39knots)
Maximum Output at:	45km/h (24knots)
Operating Temp. Range:	-20°C to 40°C
Max Sound Power:	105 db(A)
Brake System:	Blade Pitch Control + Hydraulic Disk Brake

Sensors throughout the nacelle feed operational data to a manned control centre. Any irregularities can be identified 24/7/365.

The Nacelle



- 1 Rotor Hub
- 2 Brake Assembly
- 3 Gearbox
- 4 Generator
- 5 Monitoring Systems

The Blades

Length:	50m (164ft)
Material:	Fiberglass Composite
Swept Area:	7850m ² (1.9 acres.)
Revolution Speed:	8.8 - 14.9 rpm

The longer the blade, the more wind it is able to capture. Due to the length of the blades, the tips can travel at very high speeds. However, the spinning rotor appears quite relaxed to the observer.

