

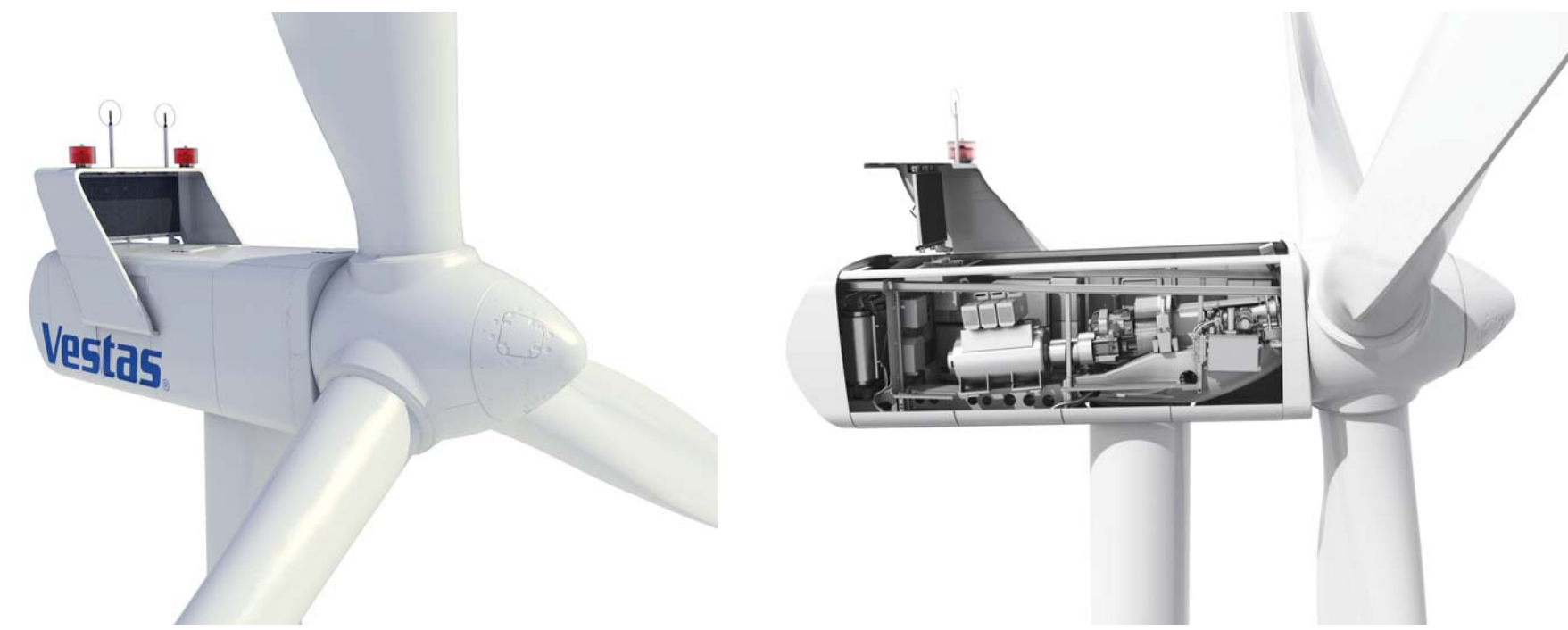
The Turbine



This wind energy project will consist of one Vestas V100 wind turbine. Vestas, a Danish company, is a long time pioneer in wind energy. It's new V100 model represents cutting edge design and technology, built on extensive testing and the experience gained from the 7800+ 2MW class turbines Vestas has installed worldwide since 1999.

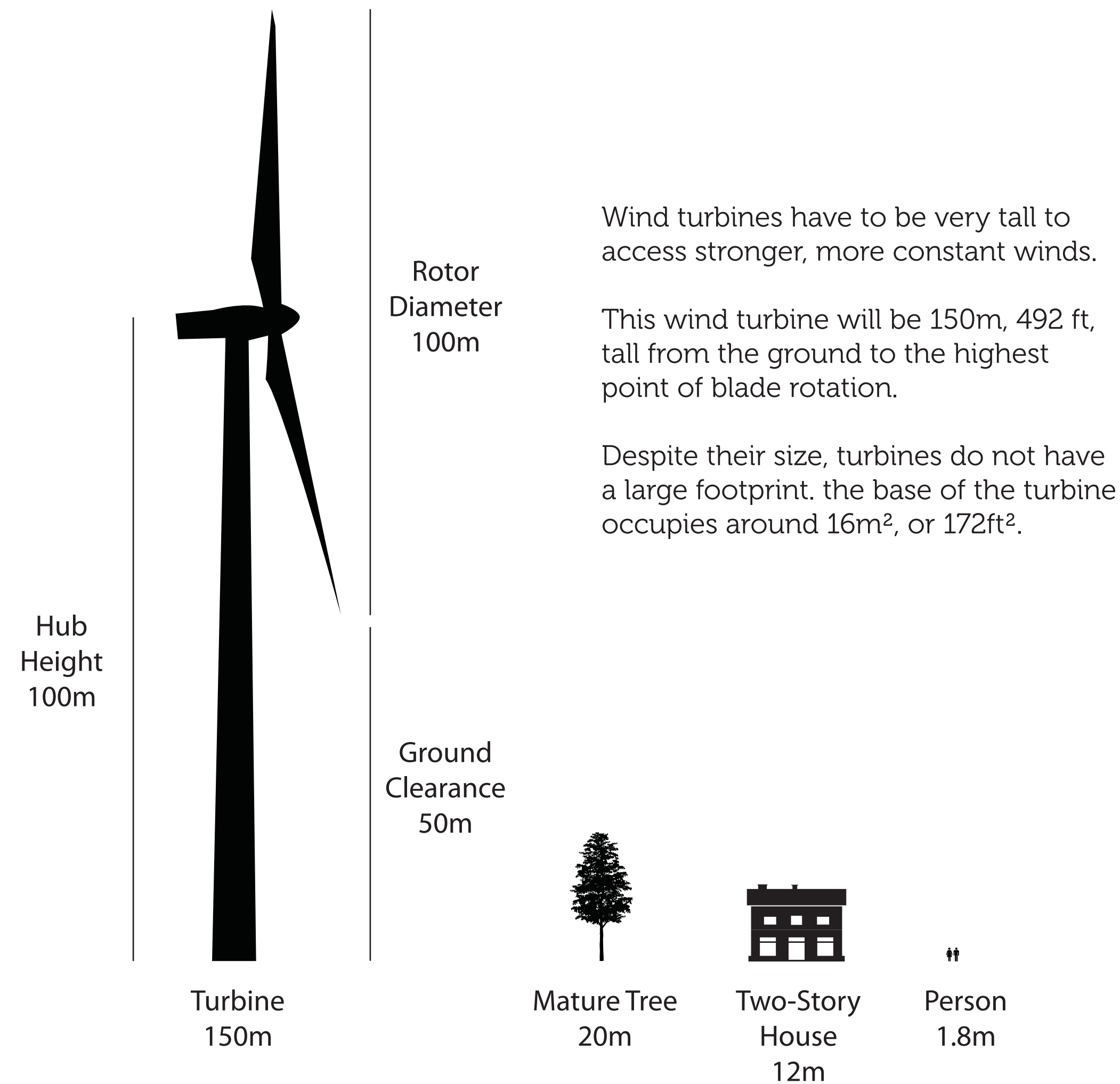


The Nacelle



The housing that contains all of the generating components of the turbine. Inside you will find the generator, gearbox, drive train and brake assembly. Numerous sensors monitor operations 24/7 to provide immediate maintenance and emergency alerts.

The Height



The Blades



The V100 blades are about 50 metres, 164 feet, long. Each of the three are made using lightweight composite materials to improve energy efficiency.

The longer the blade, the more wind it is able to capture energy from. The total swept area of the rotor is over 1.9 acres.

Because they are so long, the tips of the blades can travel at very high speeds. However, the entire rotor spins at a maximum of 15rpm, which appears quite relaxed to the observer.

Manufacturer Specs

Generator Max Capacity: 2MW
 Cut-in Wind Speed: 3m/s (11kph, 6 knots)
 Cut-out Wind Speed: 20m/s (72kph, 39 knots)
 Maximum Output at: 12.5m/s (45kph, 24 knots)
 Operating Temperature Range: -20C to 40C
 (-30C with cold weather package)

Sound Power
 max: 105 dB(A)

Rotor Diameter: 100m
 Swept Area: 7850m²
 Revolution Speed: 8.8 - 14.9 rpm
 Brake System: Blade Pitch Control + Hydraulic Disk Brake

Tower Height: 100m, Tubular Steel