**Future Wind Turbines Ltd.**

This Vertical Axis Wind Turbine is a cost effective, autonomous self-starting wind energy generator, with 3 vertical, 2.25m high, aerofoil blades. Designed from the outset for mass production, and performance now verified by test and Loughborough University.

It is 1.95 m in diameter, and the top is 8m, high if installed on a braced pole, in a field. Without planning permission being required.

It is compatible with existing solar panel infrastructure, with the common 48-volt output. However, it provides complimentary energy, overnight and in winter, which is a much more valuable resource than solar produced summer daytime energy.

The manufacturing cost of the turbine is less than £1200

**Construction: -** The turbine consists of -3 vertical aerofoil blades, polyester/fibreglass pultrusion, with a 250mm chord and a TUBBY, Naca 0021 profile with an inbuilt vortex generator to give greater efficiency at high angles of attack. The spokes from the generator are common to the vertical blades.

**Performance: -**In rural England where the average wind speed is 5.5 m/s (24/7/365). This turbine produces 1,200 kW.hr, per year. It turns at 120 rpm. The Chief Designer is a retired 50 years experienced, Aeronautical Design Engineer**.** The generator/starter motor is also the high wind speed brake. At the rated wind speed of 12 m/s .1 kw of power is being produced at 200 rpm,

**Utilisation: -**The biggest potential market for these VAWT is existing solar farms, they have the infrastructure to export energy which lies idle in winter and on a night when energy costs are at a premium. The return on investment is less than 6 years, there is no maintenance on these sealed for life units with a life of 25 years.

**Maturity: -**The physical design is complete and most of the mass production tooling and supply chain is established.

**Offer: -** We have the parts for 5 prototypes for 2024, and then 40 further pre-production prototypes for in field assessment early 2025. And looking for companies to trial one in early 2025

[www.futurewindturbines.com](http://www.futurewindturbines.com)

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