RFQ and Bid Suggestions: How to Spec a

superwind

qual·i·ty ˈ/kwäləd ē/ **wind** /wind/ **tur·bine** /ˈtərˌbīn,ˈtərˌbin/ - ***noun***

OK, it may sound funny that we are spelling it out in this document, but over the last ten years we have had a number of good customers try our wind turbines, have great success – but when the need or project scale escalated to full force deployment, or received government funding, suddenly military professionals & project managers alike were handed hobby wind turbines, not the superwind turbines they had proven in the field, and were counting on for future success.

Professional Procurement Managers have suggested we offer the following company and product points so no one gets us mixed up with shaky "R&D only companies", Asian hobby turbines manufactures, or folks caring more about selling shares than the wind equipment they may build.

How is our company different?

1. We are not looking for Investors – we are not selling stock. We are a self-sustainable privately owned company, managed by experienced wind industry leaders.

2. We sell fully developed, real-world tested products of the highest quality; this accomplished with no government funding or subsidies. We do not experiment on our customers.

3. Our Products are made with pride in Germany and the USA. None are ITAR restricted.

How are our superwind turbines different?

A quick visit to our website www.missioncriticalenergy.com and you will see what our equipment looks like, as well as all product attributes. But more importantly, a visit to the site will also give you an idea of the serious mission critical projects we help support as well as just some of our highly respectable, notable, and good ***repeat customers,*** who rely on our products to do what we advertise.

Below Is the technical data for both the superwind 350 series wind turbines as well as the superwind 1250, but before one starts to 'copy and paste' those specs, here are some important points one should consider including in a RFQ or Bid Statement to help avoid ending up with equipment that will not survive (at any price) like a superwind.

We are also stating here (for the record) this is not an attempt to rig or manipulate a bid, instead it is only suggested clear language that separates a superwind from what many consider to be hobby wind turbine equipment . Thank you to those purchasing professionals who contributed to this document!

Other Professional Procurement Managers have used or recommended the following:

for any 350 watt turbines or the 1250 watt turbine

1. The Turbine must have Rotor Blade Pitch Over-speed Control, with no external weights or counterbalances or springs for speed regulation and power regulation. [1.a the blades must not bend in high wind conditions or for high wind over-speed control] [1.b a furling tail/vane/rudder is not desired over-speed control,] see item #4.0 below.

2. The Wind Turbine must have non-electric over-speed protection [2.a turbine shall not rely on the battery power to stop in high wind conditions.] [2.b Turbine shall not rely on turbine amperage output or high amperage limits to slow or stop turbine] see item #4.0 below.

3. The turbine and its designed/designated battery charging system must be able to provide 100% complete charging to the batteries, have a dump load diversion charge controller with an outdoor rated aluminum dump load resistor block.

4. The turbine's Cut-out Wind Speed is : NONE [4.a no cut out wind speed – the turbine never stops making power.] [4.b Turbines who utilize furling tails to stop or avoid wind flow, turbines with battery high voltage breaking systems, and turbines that stop with high amperage limit based braking all have cut-out speed restrictions]

5. The Turbine's operation is autonomous [during normal operations – including high winds and storm events, the turbine requires no outside controls or human interaction to operate]

Again, all of our wind turbines have the above 5 features. Now we will divide the specifications between the 350 watts series turbines – the superwind 350 – and the superwind 1250 (1250 watts).

SUPERWIND 350 TECHNICAL DATA (including the C, HD and SV models)

- **rated power** **350 Watts**
- **rated wind speed** **12.5 m/s**
- **cut in wind speed** **3.5 m/s**
- **cut off wind speed** **none**
- **rotor diameter** **1.22 m**
- **number of blades** **3**
- **blade material** **CFRP (Carbon Fibre Base)**
- **rotor speed** **500-1300 rpm**
- **generator/ magnets** **permanent magnet, 3-phase / Neodymium**
- **voltage output** **12VDC, 24 VDC or 48 VDC**
- **connection** **charge controller**
- **speed regulation** **passive pitch control**
- **power regulation** **passive pitch control**
- **main brake** **electro dynamic – generator short-circuit**
- **weight** **11.5 kg**
- **rotor thrust (operation)** **64 N**

SUPERWIND 1250 TECHNICAL DATA

nominal power	**1250 Watts**
nominal wind speed	**11,5 m/s**
cut in wind speed	**3,5 m/s**
cut off wind speed	**NONE**
rotor diameter	**2,40 m**
number of blades	**3**
blade material	**glass fiber/carbon fiber reinforced plastics**
rotor speed	**300 – 600 rpm**
generator/ magnets	**permanent magnet, 3-phase, Neodymium**
nominal voltage	**24 VDC or 48 VDC**
speed regulation	**rotor blade pitch**
power regulation	**rotor blade pitch**
brake 1	**generator short-circuit**
brake 2	**disc brake**
weight	**45 kg**
rotor thrust (operation)	**190 N**

We welcome you to contact us directly with any questions that might help you or your team better understand the products they are acquiring, or to receive our customer references .

Global Inquiries & North America :

Mission Critical Energy Inc. www.missioncriticalenergy.com
1801 North French Rd
Getzville , NY 14068 USA

Phone +1-716-276 8465 Email : power@missioncriticalenergy.com

European Inquiries:

superwind **GmbH** www.superwind.com
Am Rankewerk 2-4
D-50321 Bruhl/Germany

Phone:+49-(0)2232-577 357 Email: power@superwind.com