AIRGENESIS® LLC Wind Turbine System - a revolutionary design

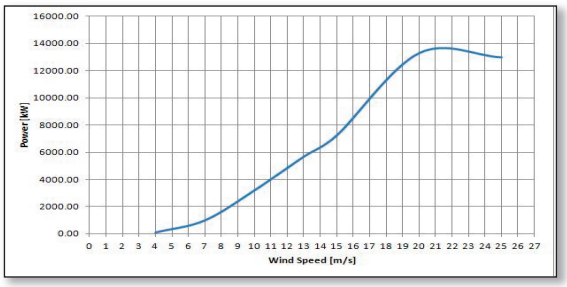
Overview

Airgenesis has a revolutionary turbine design and is seeking a strategic partner to commercialize and market a new generation cost-effective high power turbine based on the Airgenesis design. **U.S. Patent # 8178991, # 8247918, #8253268, & #8482150. Australian Patents #2010307248 and #2012216636, plus an additional 250 International Patents and Patents Pending.**

Airgenesis' turbine is capable of generating 11MW and will produce power at wind speeds outside current recognized thresholds. Using two rotors of equal diameters at a 30° offset, the Airgenesis design and power curve have been tested and validated and is able to achieve capacity factors much greater than all conventional designs. Advantageous characteristics of Airgenesis' turbines include excellent performance at both low and high wind speeds. This results in very low production cost per MW ($750,000 per MW versus over $1.2 million per MW) making wind power economically viable in lower wind resource regions and without government subsidies. Most of the heavy equipment is mounted at the base of the turbine. This reduces maintenance costs significantly.

Double Rotor Configuration

Power Generation Capability of Double Rotor Turbine at 1524 m



AG-11 Power Curve

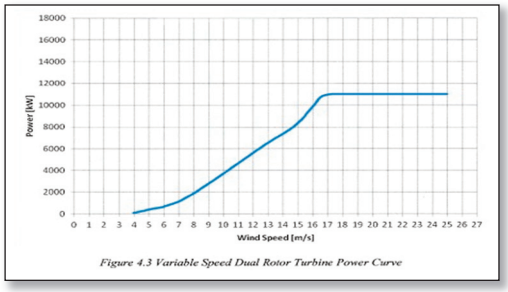


Figure 4.3 Variable Speed Dual Rotor Turbine Power Curve

Key Attributes:

- 11 mw per tower
- 3 times the mw production of current land technology
- Estimated 80% more efficient
- Increased energy to grid production per unit
- Operational at velocities outside current recognized thresholds
- Estimated production cost of $750,000 per mw
- Ease of maintenance with minimal downtime
- Continued power generation during performance of repairs and maintenance. To include replacing generators and clutch assembly.
- Unprecedented wind yield is achieved by incorporating multiple sets of 48.8 meter blades.
- Better control of electrical output regardless of wind velocity
- Reduced tonnage and stress loads atop tower
- Extensively tested and validated by outside sources.(To include certification of power curve)
- Greatly reduced operational costs compared with conventional systems
- Airgenesis targets constant electrical output at low wind velocities in curcumstances that traditional systems cannot operate

Technical data:

Tower Type	I-Beam & Tubular steel
Hub heights	78m and 93m
Max. diameter	10.36 to 3.66m
Max. section length	15.24m
Power Regulation	Pitch regulated
Rated power	11,000kw
Cut-in wind speed	3 m/s
Rated wind speed	16.7 m/s
Cut-out wind speed	40 m/s
Max. altitude	2,133m
Rotor diameter	103m
Electrical	
Frequency	50hz/60hz
Transformer	12mw
Generator type	Perm. Magnet
Nacelle	
Height for transport	3.66m
Height installed	3.66m
Width	3.66m
Length	4.877m