

# Wind/Solar Off-Grid Lighting Solution (RPU)

www.ariswind.com Mount Vernon, NY 10550, USA

#### Aris Wind's Off-Grid Remote Power Unit (RPU)

The complete renewable lighting solution

A renewable off-grid lighting solution with the power, efficiency & reliability to work in a wide range of environments & remote locations

The off-grid RPU, utilizing Airsynergy's patented technology, is the natural choice for providing reliable, independent lighting on roadways, walkways, parking lots and recreation areas.

The Airsynergy "enhanced" wind turbine technology enables a shorter and smaller, yet more powerful wind power generator.

Windpower (Permanent	Magnetic Generator)
Rated power output Rated wind speed Cut in wind speed	300w 9 m/s (20 mph) 2 m/s (4.5 mph)
Solar Power	
Number of panels Rated power output Panel size	1 or 2 mono or poly crystalline panels 250w per panel 64.6 in (1640mm) x 36.3 in (922mm)
LED Lighting	
Number of lights	1 or 2 lamps arms/fixtures
Wattage/Fixture	60w, 80w, or 100w
Control System	
Charge controller Voltage to battery	airsynergy hybrid controller 24v
Batteries	
Type Number Capacity (amp-hrs)	Absorbent glass mat (AGM) (2) 12v batteries for 24v storage 150/200/230 amp hour options
Tower	
Material Powder coat paint	Galvanized steel White (std), Green/Brown (opt)

The RPU utilizes Airsynergy's award winning "enhancement unit" technology to provide a more powerful and consistent energy supply.

# How Airsynergy's patented 'enhancement unit' works:

The RPU utilizes a duct augmented wind turbine (DAWT) system. Air is accelerated by the enhancement unit, increasing blade rpm and the turbine power generation. The enhancement unit also enables the turbine to "cut on" sooner and quickly increase power output at low wind speeds. This is a critical feature in this off-grid lighting and auxilliary power application - a steady trickle charge for many hours/day maintains higher battery voltages and more powerful and reliable lighting, and an improved battery life.

Base product includes one lamp arm with an 80w LED lamp, one 250w monocrystalline solar panel and a 150 amp-hr battery system. Additional product configurations are available. Aris Wind can recommend best configuration for specific wind and solar resources, and lighting duty.



Dimensions above in feet-in rounded to nearest inch and (mm)

### **Key Benefits**

- Works reliably in low wind resource areas, including many urban settings
- Maximizes LED lighting capacity (and output lumens)
- Sustainable, independent renewable power
- Standby energy storage for up to five days
- Aesthetic design enabling customer to showcase their brand/message on tail fin or optional banners
- Batteries & controller securely located in tower
- Pogrammable light dimming feature
- No underground electric wiring required
- Tilt-up tower allows installation with lifting equipment or portable hydraulic lift
- Increases opportunity to power small auxilliary loads beyond lighting (USB charging ports, etc)

### **Optional Extras**

- Portable hydraulic lifting device
- Additional solar panel
- Additional LED light
- Remote monitoring system

Aris has licensed the Airsynergy Enhanced Wind Turbine technolgy for the US/Caribbean territories & seeks end users and installer/dealers.

To learn more please contact Aris Energy Solutions (contact info below). Aris seeks end user customers and HVAC installer/dealers.



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- 100% renewable, resilient power
- Easy to install
- Eliminates underground wiring
- Patented shroud feature for smaller, shorter, quieter more efficient wind turbine
- Web based monitoring and control

#### Features:

- 30' Tower
- 80w LED
- 300w Generator
- 250w Solar Panel
- 2 230 Ah batteries
- 24v System
- White Powder coated 2 piece tower

Offers branding via banners/tail fin logo



Light throw of dimmable 80w LED

