

# Mid-size Wind Turbines, the missing piece of the puzzle for Microgrids



Although solar power for microgrids is efficient and largely cost-effective, it still cannot generate power during the hours of darkness. Adding small wind turbines increases renewable energy supply potential around the clock. This means that a solar-wind hybrid project can result in a consequent reduction in the amount of power needed to be supplied by a backup generator - usually present in a microgrid because of the lack of night-time generation from solar. The main advantages of adding small wind turbines for microgrids are an increase in renewable energy supply, a reduction in the amount of backup power required from a diesel generator and a reduction in the strain imposed on energy storage, thus extending battery life.

Wind turbines not only enable a reduction in the consumption of diesel used to fuel backup generators, but they also lessen the strain imposed on the battery energy storage element, and therefore give extended battery life. The presence of the wind turbines thus complements both the energy production and energy storage components of the microgrid. These types of hybrid solar-wind microgrid systems have demonstrated a significant reduction of the amount of diesel fuel required, along with a considerable reduction in the amount of associated pollution.

## Wind Turbines offer the following benefits:

- ⇒ Have a Smaller Footprint than Ground Mounted Solar Panels
- ⇒ Wind Turbines Operate Day and Night
- ⇒ Reduces Diesel Consumption
- ⇒ Extends Battery Life



**Air Voltaics LLC offers The Next Generation Mid-Sized Wind Turbines for Microgrid Projects**

**Contact us today for more information or visit our website at [www.AirVoltaics.com](http://www.AirVoltaics.com)**

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