

Remanufactured Wind Turbines Grow In Popularity

By: Matthew Gladen

Everyone knows that wind turbines are considered a green technology and offer among the most affordable sources of renewable energy, but remanufactured wind turbines offer buyers even greater advantages than new wind turbines of similar nameplate capacity. Remanufactured wind turbines are proving more reliable, and are even better for the environment than newly manufactured wind turbines.

In the 1980's thousands of wind systems were installed in the western part of the United States and other European Countries. New technologies in wind generator design have allowed a single modern turbine to produce as much power as 100 or more older turbines. Wind farm operators and utility scale projects financially benefit from the largest production turbines. Farms, rural manufacturers and factories as well as other smaller projects are able to benefit from the upgrades by remanufacturing the used wind systems.

Wind turbines are mechanical machines that harness the wind's kinetic energy and transform it to mechanical energy used to power an electrical generator. A wind system is similar to a car or boat in the fact that they all consist of moving and non-moving parts, and may have a body, computer, transmission and gears, and other specialty parts. As with a car or boat, people may choose to restore a model because of its reliability, performance, durability, ease of operation and other factors.

Wind turbines being removed from service are now being purchased and firms specializing in wind turbine remanufacturing are restoring the machines to "like new condition". Properly remanufactured systems are completely disassembled and thoroughly cleaned and inspected. All wear parts are replaced and the PLC control should be replaced with an updated model for increased reliability and ease of operation. All quality remanufactured wind turbines should be remanufactured to original specifications and include some type of warranty; 2 years or longer is common.

Buyers considering a remanufactured wind turbine must be cautious. A buyer should pay special attention to the exact condition of the equipment. A buyer should understand there is a difference between a used and a remanufactured wind turbine. A used wind turbine is frequently in "as-is condition", meaning the turbine may be at the end of its useful life or may not even work at all. Other companies may try to sell a wind turbine that has not been completely or properly remanufactured. Buyers of remanufactured wind systems should carefully research the remanufacturer of the system and all of the parties that may be involved in the proposed wind energy project.

Considering the risk involved why would anyone considering installing a remanufactured wind generator? The answer is simple. It makes financial and environmental sense.

Here are the facts:

- Quality remanufactured wind systems exist and are easy to find. The total price of a remanufactured wind system installed is much less than the total price of a new wind system of similar nameplate capacity. This shortens the amount of time the investment takes to pay for itself and increases the projects overall rate of return.
- Many of the used wind systems coming available, while much smaller than the modern utility sized systems are ideally sized for stores, farms, manufacturers, factories, and other large rural power users to offset their usage from their utility company saving them money.
- Using a remanufactured wind system is keeping an otherwise useless turbine and tower out of a scrap yard.
- Buyers are able to rely on proven technology without the "tests and trials" of newer systems.
- Many users of remanufactured wind systems experience immediate financial gains when considering grants, incentives, and financing in comparison to monthly electricity bills.

If you are considering a wind energy system, a refurbished wind system may be a good option. For more information on remanufactured wind generators you are encouraged to contact a qualified wind energy professional or reputable dealer of remanufactured wind system equipment.

Matthew Gladen is certified by the Midwest Renewable Energy Association as a Wind Site Assessor, and is a senior member of the executive management team of [FESCO Direct LLC](#). FESCO Direct Wind Energy Division is recognized globally as a quality source for used and [remanufactured wind turbines](#). The company's focus is providing quality equipment at affordable prices offering specially discounted pricing to renewable energy professionals. For the convenience of retail customers the company offers services ranging from general consulting and planning through permitting and installation in select North American and European markets.