

Financial Justification for Wind Turbines

By: Matthew Gladen

Wind Turbines are the center of much debate and controversy in many communities. Some say that installing wind systems and turning to wind energy does not make financial sense. Others say that the industry has evolved and it makes sense to turn to wind energy, especially when you consider the rising cost of electricity purchased from a utility. This creates a confusing conversation between groups of opposing opinions leaving most average people unsure of the positives and negatives of wind power.

Much of the confusion is because there is no consistent answer. The reality is wind energy makes sense in some locations and for some people, and it doesn't make sense at other locations and for other people. There are many variables that affect the financial feasibility of a wind system. Average energy consumption, current utility rates, property location and elevation, area terrain and characteristics are just a few of the many factors that must be considered when determining if a wind generator is right at a property or location.

Considering the marketplace and current wind turbine installation incentives available, there has never been a more favorable economic time to install a wind turbine, but that said it has been our experience that wind energy makes the most sense for users who are spending \$700 or more monthly on electricity.

One consistent factor, spanning all wind energy projects and prospective locations is multiple energy sources are required if consistent energy is always needed. Most wind turbines are installed to work in conjunction with your local utility company, effectively using the utility as a "battery" to store surplus power created by the wind turbine and to provide additional power required when the wind is not producing enough power to meet your electrical needs. "Off Grid" systems, or systems not connected to work with a utility connection, frequently utilize wind energy because of its cost efficiency in comparison with other energy generators, but these systems always work with multiple sources of energy production such as solar panels or gas/diesel generators.

Financial Justification for wind energy must be determined on a case by case basis. Many areas have "Wind Site Assessors" that are trained to evaluate and estimate wind speed and characteristics at a proposed wind turbine location and can use that information to extrapolate the projected power output of a wind turbine based on the projected or known output curve of the turbine. The data is then used to determine the size of wind turbine needed for the property and estimate general installation costs. Knowing this specific data about a proposed wind system location and its estimated output enables the assessor to determine financial justification for moving forward with a wind turbine project. Property assessment reports can often be obtained for only a few hundred dollars, a low cost investment to help a property owner seriously considering wind energy determine if it makes financial sense to install.

Most wind energy professionals, at no cost, will answer your basic questions and help you determine if you should consider moving forward with the cost of a wind site assessment or

property evaluation. This common industry practice allows you to discuss your wind turbine interest with multiple wind energy professionals allowing you to get a better idea of the positives and negatives of wind energy in your area, but ultimately if you are serious about determining the financial return of a wind energy system, you should invest in a wind site assessment or property evaluation to determine the financial justification of a wind system.

Matthew Gladen is part of the executive management team of [FESCO Direct LLC](#). FESCO Direct LLC is a well know wholesale distributor supplying [new and used wind turbines](#) to wind turbine installers globally; also offering full service installation services to retail customers.