



What is the future of Clean, Renewable Energy? The answer is Wind Power.

Utilizing wind turbines to generate electricity is a relatively new technology, but the idea of using wind for energy is an aged old concept. Since the earliest recorded history, wind power has been used to move ships, to grind grain & to pump water. With recent advances in wind technology, today's sophisticated wind turbines are increasingly being recognized as a clean, "green" way to generate much needed electricity. Why is this largely untapped natural energy source starting to get the attention it deserves now?

1. It's domestic-it doesn't rely on foreign fuel sources.
2. It's abundant-today's wind technology could provide up to 20% of America's electricity. Currently, coal provides 52%, nuclear 20%, natural gas 15%, hydro 7%, petroleum 3%, & other 3%.
3. It's clean-quite simply, there are no emissions.
4. It's affordable-& becoming more so. Nationally, the cost per kilowatt hour has improved from about \$0.30 cents to under \$0.05 cents over the past 30 years, a decrease of over 80%.
5. It's renewable-as an inexhaustible source of energy, it won't ever run out!
6. Federal tax credits are available up to 30% for residential & commercial wind plus 15-year property tax exemptions for both segments.

How does wind power work?

Wind is created when the sun heats the earth unevenly, causing air current movement. Wind turbines harness the energy of the moving air in a clean conversino process. The mechanical energy of the spinning blades is used to create electrical energy through a generator.

A complete small wind system typically consists of a:

1. Rotor (usually 2-3 blades),
2. Drive shaft with support bearings,
3. Generator,
4. Tail (to keep turbine properly aligned with the wind),
5. Tower,
6. Foundation/guy wires to stabilize the structure,
7. Electronic & power control equipment.

What should be considered in siting a wind turbine?

Some things that need to be considered prior to the installation of a wind turbine system include, but are not limited to:

1. It's potential impact on neighboring properties,
2. Site soil & terrain conditions,
3. Permitting requirements: check with your town,
4. The qualifications & experience of the installer.