



INVESTING IN WIND POWER – How To Put Your Money Where Your Mouth Is

The wind power industry is the world's fastest growing energy provider – and that sounds like a great place to invest your extra cash! But can the average person invest in wind power companies? Yes! With a little bit of effort, a variety of wind investment opportunities can be uncovered.

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INVESTING IN WIND. To start, identify publicly owned companies with wind energy interests. (Only public companies issue stock; privately held entities are not open to public investment.) These companies will fall into two categories: “pure play,” those whose business is exclusively focused on wind power; and diversified corporations with a range of operations, including some wind power holdings. For a list of companies operating in the wind industry, visit the Member Directory on AWEA's Web site, www.awea.org/directory.

Next, decide whether you are willing to invest in a **diversified company**. Several large, diversified companies are developing wind projects in the U.S. – this is one powerful sign that the industry is maturing. The largest company involved in developing U.S.-based wind projects is FPL Energy, a subsidiary of Florida Power & Light. GE Power Systems, a subsidiary of General Electric, is in the process of purchasing Enron Wind, the only American wind turbine manufacturer. “The trade-off with diversified companies is that some of their interests may not be aligned with the investor's conscience,” said Maria Clendenin, a financial consultant with Merrill Lynch. “For example, a utility with some wind power holdings may also own nuclear plants. There's no way to invest selectively in their wind operations.” If your intent is to support clean energy development, then investments in diversified companies should be thoroughly researched and evaluated.

Pure play investments can offer a clearer decision, but a slightly more complicated purchase process. Three examples of publicly traded, purely wind energy companies – NEG Micon, Vestas, and Nordex – trade on the Copenhagen stock exchange. Since the U.S. media doesn't give international firms as much coverage as U.S. companies, investors should be prepared to spend more time researching foreign interests like these. Each produces annual reports and other materials in English that can help with your investment decisions.

THE BASICS of investing in wind power. Americans can purchase stock in foreign companies through one of the following processes:

ADR/ADS – Some foreign companies trade on the New York Stock Exchange in the form of American Depositary Receipts (ADR) or American Depositary Shares (ADS). Nokia, Ericsson, and BP/Amoco are examples of such firms. ADR/ADS purchases can be made in U.S. dollars and are therefore very straightforward. A certified securities trader or stockbroker can make such transactions on your behalf.

Over-the-counter – The stock of foreign companies that do not trade on the New York Stock Exchange can be purchased “over-the-counter” (OTC). OTC purchases are made in the currency of the host nation, not in U.S. dollars. Many brokerage firms have OTC desks to handle this very specialized form of trading. It takes more effort for American brokers to track these companies, the foreign markets in which they operate, and the currency exchange rates involved, so it is best

to work with a firm that has an OTC specialist. American investors can purchase NEG Micon, Vestas, or Nordex stock through an over-the-counter trade.

If you are interested in investing in a wind energy project, contact Keith Raab at the Energy & Environmental Capital Network (734.996.8367, ext. 238), a network that channels venture capital and other forms of investment toward wind energy and other environmentally sound technologies.

For information about “green” mutual funds and other environmentally and socially responsible investments, visit the Social Investment Forum Web site at www.socialinvest.org.

PURCHASING WIND POWER. In some cases, the most convenient way for Americans to support wind power development is by participating in green power programs. Green power is electricity generated using renewable resources that generally have a lighter environmental impact than other energy sources. It usually costs a little bit more than electricity from fossil and nuclear sources for two main reasons.

- 1 The environmental and human health costs of conventional power generation (such as acid rain and air pollution) are not fully reflected in electricity’s market price. That makes conventional generation seem cheaper than it really is and discounts the value of renewable energy options like wind.
- 2 Because renewable energy technologies are younger and the industries much smaller than traditional energy interests, they have not had the opportunity to enjoy economies of scale and the prolonged learning curve that benefit today’s more established technologies. But times are changing. The cost of wind energy has dropped 80% since 1980 and the decline continues as the industry matures.

Wind energy is an especially good choice when buying green power because

- it is one of the cheapest and cleanest renewable energy sources available;
- it does not require extraction or consumption of fuel; and
- it does not produce air pollution.

THE BASICS of purchasing wind power. If local environmental benefits (acid rain reduction, air quality improvements) are important to you, you’ll want to be sure that the wind power you purchase is located in or will be delivered to your region. Therefore you should choose to purchase green power from the grid or build your own, on-site wind plant.

Green power from the grid. In states that have restructured their electricity markets to allow customers to choose among energy service providers, such providers may offer green power products. These providers try to compete by differentiating themselves and their products from the traditional energy resource mix and appealing to consumers who place value on environmental stewardship. In states that have not restructured, where utilities continue to have a monopoly over customers in their service territory, more than 200 utilities offer their customers an optional green service to support renewables development. Sometimes these services are called “green pricing.”

On-site renewable generation. Electricity generating equipment installed at the location it serves can increase electricity system reliability, provide more certain electricity costs, and in some cases help manage waste streams.

Some consumers and investors are interested in supporting the global benefits of wind development (like reduction of greenhouse gas emissions) but do not have the option of

supporting local wind projects. Since project location doesn't matter in such cases, **Tradable Renewable Certificates (sometimes called renewable energy credits, or green tags)** are a good option to consider. A green tag is created only when a given quantity of electricity is generated from a renewable source. The green tag represents the attributes associated with that electricity (for example, avoided pollution from not burning fossil fuels) and its price reflects the premium market value of those attributes. Obviously, green tags are limited in quantity, and by purchasing them you can be assured that the renewable energy they represent is being generated – somewhere. The National Wind Coordinating Committee (www.nationalwind.org) offers information about opportunities and guidelines for green tag products.

For more detailed information about green power programs, green tag certification, and on-site wind power development, visit AWEA's Green Power Resource Center, www.awea.org/greenpower. Contact the Green Power Network for a list of green power providers and products, www.eren.doe.gov/greenpower.