



## **Wind Energy Basics: A Guide to Small and Micro Wind Systems**

Paul Gipe

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Say windmill and everyone has an immediate image of the family farm with its windmill pumping water; say wind turbines and some may envision the massive “wind farm” in California with its five thousand UFO-like wind turbines. What this book addresses is closer to the latter—utilizing the wind to create energy—but for the former—people who want to live “off the grid” or who wish to create electricity and sell it back to their utilities.

Initially this would seem to have a tiny market in the United States—and probably does. But as Gipe points out, there are over two billion people around the world who don’t have access to electricity who would be very interested in ways to generate some power. In the U.S. the need is smaller, though there are still many rural areas out of reach of utilities, Alaska coming foremost to mind.

What Gipe has written isn’t really a how-to book, but more like a what-you-need-to-know-first manual. He covers the mathematics and physics of wind energy, design aspects of wind turbines, problems and strategies for their use and tips and considerations for their hook-up and maintenance. His resources section covers a number of companies manufacturing wind turbines and what some of the pros and cons of each company’s product might be.

Gipe is a leading authority on wind and other renewable energies and the author of *Wind Energy Comes Alive* (Wiley, 1995). *Wind Energy Basics* is clearly written with numerous graphs, charts and photographs to help clarify what is often a complicated subject. Although some of the math might be daunting, the reader should come away with enough knowledge to make an informed decision about how to approach the purchase, installation, use and maintenance of a small wind turbine for home or small-business use.

*Mark Terry*