

An energy management or efficiency

[Literature](#), [Russian Literature](#)



Energy Management and efficiency Wind Energy Wind is the movement of air from an area of high pressure to an area of low pressure. As a matter of fact, the existence of wind is made possible because the sun unevenly heats the surface of the earth. This is explained further: as hot air rises, cooler air moves in to fill the void. Thus as long as the sun shines, the wind will always blow. And as long as the wind blows, people will always harness its power to use in their lives (Burton, 2011, 28).

In ancient times sailors used the wind to explore the world by capturing the wind using sails. Farmers employed the use of windmills not only to pump water but also to grind their grains. In today's world, thanks to the great technological strides; wind turbines have been developed to wring electricity from the breeze. Thus as more and more people resort to wind energy over the past decade: wind turbine use has increased at more than twenty five percent a year-though only still proving a fraction of the world's energy.

Undoubtedly, most wind energy comes from turbines that can be as tall as a twenty story building and have three 200- foot- long (60-meter-long) blades. These contraptions look like giant airplane propellers on a massive stick. The wind spins the blades, which turns a shaft connected to a generator that produces electricity. Other turbines work on the same principle, but the turbine rests on a vertical axis (Burton, 2011, 57).

Interestingly, the biggest wind turbines generate enough electricity to supply about 600 United States homes. Furthermore wind farms can contain tens and sometimes hundreds of these turbines lined up together in particular windy spots, for example along a ridge where the wind is blowing strong. However smaller turbines erected in a back-yard can produce electricity

enough to power a single home or meet power needs of a small business. Wind is a clean source of renewable energy that produces no air or water pollution. Interestingly since the wind is free, there are minimal if not, nearly zero operational costs once a turbine is erected. Mass production coupled with technology advances are making turbines cheaper, and many governments are offering tax incentives to spur wind-energy development. Even so, not all people look at wind energy favorably. Some think that the turbines look ugly and complain about the noise generated by the machine. The slowly rotating blades can also kill birds and bats. But this cannot be compared to road carnage, destruction by power lines, and high-rise buildings. The wind is also variable in that if it is not blowing, simply there will be no electricity.

Nevertheless, the wind industry is blooming in great strides. Globally wind energy generation quadrupled between 2000 and 2006. At the end of last year, global capacity was more than 70, 000 megawatts. In energy hungry country, a single megawatt can is enough electricity to power about 250 homes. Germany has the largest capacity in wind energy production followed by Spain, United States, India and Denmark. Developments in France and China are also catching up fast (Burton, 2011, 707). Experts in the wind industry predict that if this pace of development continues; by 2050 the answer to one third of the world's electricity needs will definitely be found blowing in the wind.

Bibliography

BURTON, T. (2011). Wind energy handbook. Chichester, West Sussex, Wiley.