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The Endless Power of the Wind

Wind energy has been known for centuries. It helped the Persian civilization in agricultural activities through the use of windmills between 900 and 500 B.C., and also was a driving power of Egyptian navigation (“History of Wind Energy”). To have an idea what the predecessors of modern wind turbines look like, one can watch an American western movie: a cowboy, under a scorching sun, finds refreshment in water pumped by a windmill. American ranchers and farms in late 1800s used them to generate electricity and as an irrigation system (“History of Wind Energy”). Currently, there are three great reasons to revive this source of energy: it is a domestic source, it is one of the cleanest energies available, and can help consumers to save money.

Being a domestic supply of energy, wind provides a great deal of advantage for a nation’s economy. There is no need to trade it on international market, which always has complex regulation and most the time demands a well-structured logistic to buy, transport, distribute, and store

tradable commodities. By eliminating all these activities, the government can concentrate its financial muscle in R&D and on implanting wind farms, according to its policy. Recently, Denmark gave us a powerful example of wind turbine energy production. For a whole day, Denmark relied upon wind farms for the entire country's energy needs. As the country produced a total of 140 percent of the necessary energy, the 40 percent of excess was distributed between Germany, Norway and Sweden (Kliegman).

Wind is the considered one of the cleanest sources of energy, according to the U.S. National Renewable Energy Laboratory ("Life Cycle Assessment Harmonization"). The study conducted by NREL took in consideration the entire cycle of a given technology. It includes, for example, extraction, maintenance, distribution, operation, site installation and waste management. That is to say the study tracks the lifetime of a variety of energy sources. The result showed that wind Life Cycle Assessment is equal to nuclear and others renewable sources in the amount of extraction to waste management ("Wind Power Results – Life Cycle Assessment Harmonization"). In addition to this benefit, using the wind to generate power does not affect the food chain, the water supply, or causes contamination by pesticides, fertilizers or nuclear radiation. This combination of factors makes the wind one of the most promising alternatives when it comes to renewable energy.

For consumers the most attractive feature of wind power may be its savings. For example, in a comparison of two winter days between 2014 and 2015, it was proved that consumers of Mid-Atlantic and Great Lakes regions saved \$ 1 billion ("Wind generation sets records, saves consumers money as

extreme cold grips nation”). Rural owners also can benefit from wind energy in two ways. One is by owning their own turbine and generating the power to run the property, and the second one by allowing wind developers to install turbines in their properties. Each turbine represents an extra income around \$ 2,000 to \$ 5,000 per year (“Farming the Wind: Wind Power and Agriculture”).

It is interesting to observe how humanity revives and old technology to solve present problems. Man is like a pendulum; it goes far in one direction and then returns to its origin or old concepts. The future of wind power still has many challenges to get over. However, in terms of protecting the environment and savings it is one of most promising technologies we have. Perhaps its greatest virtue is being inexhaustible; while the sun shines there will be wind.

Works Cited

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