

# **Power of the Wind: The Beginning of Energy Freedom**

© November 24, 2012

By Jasmine A. Edwards

Reprinted 2013

By *Aquosus Potentia*

[www.aquopotent.net](http://www.aquopotent.net)

## Outline

- I. Introduction
  - A. Wind turbine energy: Friend or FOE
  - B. The concept of wind turbine energy
  - C. Is it environmentally and economically savvy to fully depend on wind turbine energy?
  
- II. Body
  - A. Wind power
  
  - B. Pros
    - 1. Creating more jobs
    - 2. Most compatible with wildlife
    - 3. Increase more revenue for farmers and landowners.
    - 4. Reducing the percentage of emissions
  
  - C. Cons
    - 1. Estimated 200,000 birds are killed annually
    - 2. Companies have gone bankrupt
    - 3. Too many tax breaks
    - 4. Wind is not always guaranteed to blow
  
- III. Conclusion
  - A. With revenue come jobs
  - B. Is this really the route to take with an already fragile environment and economy?

“Renewable energy has enormous promise for clean and abundant supplies; collectively alternative energy sources can contribute significantly to our economic and energy security” (Griffin, 1992, p. 575). Fossil fuels have reigned supreme for the last 200 years, and as a result, the future of our great planet has been greatly affected. America’s dependency on crude oil has caused our government to quickly lose interest in the idea of any alternative energy source. Although most may consider the energy war, the fight between the fossil fuels and renewable energy sources, a fight to the death, alternative energy sources such as hydropower, wind turbine energy, geothermal energy, and solar energy, are in a bloody battle to defeat the reigning king, fossil fuels. One energy fighting harder than most is wind turbine energy. Wind turbine energy is slowly and steadily trying to become the victor in the energy wars because wind energy is the least sought-after source. The concept of an alternative energy source is to find the cleanest way to supply energy to the consumers; what is cleaner than the wind? Although wind turbine energy presents itself as a strong alternative energy source, research has shown that it is not economically sound to make wind energy our main energy source, but adding it to the energy grid would make a great difference.

Wind turbine energy is the fastest growing energy in the world. It was greatly inspired by the classic idea of the windmill. The windmill was used as a main water system that many farmers used to for their homes and the hydration of their animals. The windmill remained mainstay in the backdrops of many lands until the 1930s, when rural areas finally received electricity. Once the rural areas were fully dependent on electricity, the windmill all but became obsolete. The windmill became a favorite to use in the Western movies of the 1930s. As technology expanded and became a lot more advanced, the design of the windmill began to

take on an extremely different look. The turbines became sleeker and longer with the ability to be able to move through the air a lot easier than previous models, while the towers became a lot taller so that they would be in better positioning for the wind. There are three main designs for the wind turbines: Darrieus wind turbine, Savonius wind turbine, and horizontal-axis propeller-type turbine. “Wind turbines cause virtually no emissions during their operation and very little during their manufacture, installation, maintenance and removal.” (“Wind Energy and the Environment,” 2012). Darrieus wind turbines are the most common design that you will find on the various wind farms across the United States. The perfect description for those who would have a hard time trying to imagine the turbines would be that of a giant eggbeater that is standing straight up.

Our economy is already on the thinnest layer of the metaphoric ice; putting all of our money and hopes into an energy source that is proving not to be a very sound economic investment is not the best idea right now. There is a silver lining in this immensely dark cloud, though, with wind farms sprouting up all over the country. The demand for jobs is increasing by the year. This past election, the main focus for both candidates was, of course, the creation of more jobs. The Republicans claimed, “expanding oil and gas production would create 3 million jobs, including 1 million in manufacturing” (Goodell, 2012, p. 2) when in actuality, the financial backing of clean energy will generate far more jobs than fossil fuels. This just goes to show that no matter how far renewable energy has come, renewable energy will never be able to match the clout that the fossil fuels hold over this economy.

Many have stated that wind energy is not useful in reducing emissions and reducing air pollutants. Although no single energy source has a direct effect on the entire environment,

wind energy is the most compatible energy source with wildlife. The environmental effects that the wind produces as an energy source are somewhat amazing and positive towards fragileness of the planet's environment. An increase in wind power on the energy grid would greatly depreciate the greenhouse gases that fossil fuels are known to pollute the air with. No matter how hard or how long renewable energy enthusiasts fight to establish dominance in the energy field, "wind energy, solar energy, and geothermal energy will never replace fossil fuels as the prevalent source of energy any time soon. But using renewable energy in tandem with traditional fuels can protect the nation's economy by extending the life of domestic fossil fuel resources" (Gagliano, 2002, p. 14). This energy war has been going on for so long that the people fighting for the credibility of the renewable energy sources will not even consider that maybe if they combine all of our energy sources on one grid, that we would be able to get ourselves out of this energy crisis a lot faster and more easily than they projected.

The United States is considered a leading innovator in this industrialized society. However, it is still considered a newborn in the wind energy field. Countries like Denmark are showing other countries the ropes when it comes to harnessing wind energy. Researchers are estimating that, "wind could provide up to 10% of the U.S. power by the year 2020; however, by the year 2030 Danish government energy plan is to have 50% of all electricity production provided by wind turbines" (Niemi, 2012, 1091). If the United States does not take more action to be a frontrunner in the energy race, it will forever be left in the dark ages.

Although wind energy is the most compatible with the wildlife, it still doesn't make up for the number of birds that are fatally harmed annually by the wind turbines. The numbers are staggeringly in the millions in countries such as Spain and Germany, where many of the wind

farms are located in areas of high migration, but in the U.S., an estimate of less than 200,000 birds are being harmed annually. With technology becoming as sophisticated and advanced as it is, researchers have learned how to adjust the placement of the wind turbines so that they are not directly into the migration paths of these birds. Despite the stigma that hangs over the wind turbines, they are not quite out of the woods yet, and many preventive measures are being used to repel the birds, as well as bats, away from the turbines. Many will argue this fact, but the truth is that wind energy will never be a huge factor in the fatalities of birds when looking at overall percentages, though.

They say home is where the heart is; the wind energy companies are firm believers in that motto. That's why the U.S. is not importing any materials from overseas to build the wind turbines. The government feels as though "Wind power is homegrown and the majority of its jobs are too; almost 500 American manufacturing plants build wind components, and more than two-thirds of a U.S.-installed turbine's value is produced solely in America" (Anderson, 2012). Fossil fuels experts are fighting so hard against the renewable energy sources because to a certain extent, they are not able to fully capitalize on them. The revenue that is generated from these wind farms is an amazing asset to the landowners who sell their property for development. Many of the landowners are struggling farmers, who with today's climate change and the fragile economy, are fighting just to keep themselves afloat. The opportunities that these land developers are offering sound like a word sent from heaven itself. In the year 2002, the land developers were offering the farmers royalty payments of up to \$2500 a year; now the royalty payments are moving upwards towards \$3500 a year. A Bush-era DOE report found that "increasing wind energy's contribution to 20 percent of our electricity by 2030

would support over 500,000 jobs and increase payments to farmers and other landowners to more than 600 million dollars a year” (Anderson, 2012). That is more revenue than most of these farmers have seen in decades.

Fossil fuels are believed to be the cause of the greenhouse effect, the harmful gases that are being emitted into our planet’s already fragile climate, though studies show that increasing the already established wind energy to our energy grid would greatly reduce the emissions, possibly the cause of severe climate change. Super-storms, such as Hurricane Sandy, are thought by some to be a direct effect of the harmful emissions that are being put into our atmosphere. Researchers have combed over every single avenue by which they could prove that wind energy is not as useful as its supporters are stating it is; they all come back to the exact same conclusion: to add wind energy to the grid. The reduction of harmful pollution will decline. There are many positive factors that can contribute to the wind energy question: no air or water pollution, zero-carbon dioxide emissions, just to name a few. “The combined benefits of wind energy all serve to make wind power far friendlier to wildlife, and humans, than other more traditional forms of energy production” (Anderson, 2012).

During his run for presidency, Governor Mitt Romney called himself “a savvy businessman who understands how the economy works and who won’t interfere in the free market” (Goodell, 2012). Although Republicans are the ones who have been championing the idea of using alternative energy sources against the use of fossil fuels, President Obama has taken some major consideration to try to increase the production of alternative energy sources so that the people of America could live in this nation and not have to fear the pollutants that are being emitted into the air by the mainstays of fossil fuels. Some believe that Republicans

are in strong support of fossil fuels remaining the one and only energy source, so they will issue any avoidance that they can to make sure that the renewable energy sources will go no further including, but not limited to, the expiration of the production of wind farms tax breaks that were passed by President Obama.

Colorado, Iowa, Oregon and Kansas are some of the states that are fighting for the extension of the production tax credit. Kansas Governor Sam Brownback stated, "I strongly support extension of this production tax credit so we can continue to build wind energy and the jobs and electricity that is associated with it" (qtd. in Carpenter, 2012). Congress is not revealing whether they are going to allow wind energy funding to continue to receive the Production Tax Credit (PTC) for more wind farms in the United States. With the loss of this tax break, there will be yet another company to go under because they can't afford to keep up with the supply and demand, so that means having to let go of countless jobs, and that basically puts our economy back at square one. It could also put us in dire straits with the private-sector investments of upwards to \$10 billion if the tax credit were to expire. For the developers of the wind turbines, this puts a major dent into the large-scale expansion that they were working towards, to further bring us into future energy freedom. "Congress faces, I think, a critical test in the next couple weeks in determining our energy future," stated Oregon Governor John Kitzhaber (qtd. in Carpenter, 2012). With the House of Representatives being majority Republican, the fate of this bill is not looking to have much future, though.

There are many things that one can say about wind turbine energy, but one thing that is shown here, after thorough research into this subject: the future of our planet would be so much brighter if the Legislature would only consider the idea of instituting wind energy, among

other forms of alternative energy, in our energy production. It would all but completely free us from having to depend solely on the fossil fuels that are doing more harm than helping in the long-term. Despite the stigma about harming wild life that surrounds renewable energy sources, if combined, alternative energy sources are not as expensive as fossil fuels. One factor should remain prevalent in everyone's mind: the farmers who are benefiting from the development of wind turbine energy are able to maintain the supply and demand for the consumers of America; that, in turn, might help lower prices for the tax-paying people who have to purchase groceries for their families. It is also beneficial to our economy because it gives the nation its pride back; because with the manufacturing of the wind turbines, we are able to provide more jobs in a jobless economy. America's economy as a whole is entirely too fragile at this point too fully depend on alternative energy sources, but because of the sophistication of the technology in today's society, that dream is not too far from a complete reality. Just like the latest smart phone or the latest kid's toy, you have to let the first series work its kinks and bugs out before you can fully rely it; the same principles apply for alternative energy sources. We need to develop them and improve them so that we can gain the most benefit.

## References

Anderson, J. (2012, November 1). Wind power is good for economy, environment. *Roll Call*.

Carpenter, T. (2012, November 14). Brownback presses Congress on wind tax break. *The Capital-Journal*, p. A1.

Gagliano, T. (2002, April). Renewing the energy debate. *State Legislatures*, 28(4).

Goodell, J. (2012, September 27). Romney's energy plan. *Rolling Stone*, p. 37.

Griffin, R. (1992, July 10). Alternative energy. *Congressional Quarterly Researcher*, 2(25), p. 575.

Niemi, E. (2010). Wind power. *Environmental World*, pp.1089-1091.

Wind energy and the environment. (2004). *European Wind Energy Association*. Retrieved from

[http://www.ewea.org/fileadmin/ewea\\_documents/documents/press\\_releases/factsheet\\_environment2.pdf](http://www.ewea.org/fileadmin/ewea_documents/documents/press_releases/factsheet_environment2.pdf)