

## What It's All About

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### Why the Attraction?

It is understandable that many people would imagine, look at a picture of, or even actually see industrial scale wind turbines and easily believe that, because wind is a “free”, clean and renewable source of energy, they thus contribute significantly to reducing fossil fuel use, emissions and other environmental impacts.

It is understandable that the conclusion is drawn that wind plants are different than centralized generation plants, because they are more spread out in the countryside.

It is understandable that many see some other countries, states or provinces implementing industrial wind plants and are led to believe that their country, state or province is missing out on opportunities to do its part in saving the planet, or to participate in new industries, with associated employment opportunities.

It is understandable that many see wind turbines as embodiments of beauty as well. They evoke sailing ships and rural Dutch, or family farm windmills, and perhaps offer some measure of a return to a simpler, more natural, pre-industrial way of life.

It is even understandable for these reasons that environmentalists and naturalist organizations, and prominent individuals from these groups, support industrial wind power, often with the proviso that wind plants must be properly sited, particularly with respect to the impacts on wildlife.

It is understandable that politicians have to support industrial wind plants, given the weight of the above considerations. After all they have to look out for the best interests of their constituents.

What else might drive certain countries, states or provinces to aggressively pursue the implementation of industrial wind plants? This will be covered in the third section below, but first, the following is a closer look at the considerations already mentioned.

### A Closer Look

The first point, the effectiveness of wind plants to deliver on their promise, has been extensively dealt with in the other pages on this site and will not be repeated here.

Although geographically dispersed, wind plants are just another form of generation plant feeding electricity to the grid for consumption elsewhere. However, their placement is often inconsistent with the grid's current design for distribution from the existing central plants. Further, they are usually placed in rural areas, where the grid is weakest and distant from demand centres for electricity. All this leads to the need for additional investment in the grid to accommodate them. Further, this geographic dispersion does not meet the basic purpose of distributed electricity generation, which is to produce electricity where it is consumed.

Alternative energy investment is projected to be a major part of the next major speculative bubble, which is expected to be larger than the current sub-prime mortgage fiasco. The enthusiasm that surrounds these technologies is very reminiscent of the abandon with which people embraced stocks in the twenties, dot.com start ups in the late twentieth century, and more recently, the extremely questionable and extensive sub-prime home mortgage loans, with all the subsequent financial manipulation to “legitimize” the resulting unviable and unsupported mountain of debt. There are other speculative “bubbles” in more distant history, but the recent, familiar ones should suffice for examples. This next bubble will burst when it becomes apparent to sufficient numbers of people that alternative energy sources do not live up to their promise. Wind plants, the poster child of this movement, will have a major part in this. Manufacturing industries established to produce wind turbines, with considerable government financial support, will be of no value. Germany has already funded its wind turbine manufacturing capabilities to the tune of \$40 billion. In North America will have another situation like the current automotive industry crisis, because we did not make the correct strategic industry decisions now.

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Here is what Eric Jansen said in the February 2008 issue of Harper's in connection with investment bubbles.

*"We have learned that the industry in any given bubble must support hundreds or thousands of separate firms financed by not billions but trillions of dollars in new securities that Wall Street will create and sell. Like housing in the late 1990s, this sector of the economy must already be formed and growing even as the previous bubble deflates. For those investing in that sector, legislation guaranteeing favorable tax treatment, along with other protections and advantages for investors, should already be in place or under review. Finally, the industry must be popular, its name on the lips of government policymakers and journalists. It should be familiar to those who watch television news or read newspapers."*

Here is a quote from a stock promoter.

*"Green chip stocks: A new way of life. A new generation of wealth" and "Wind Power: The World's Best Energy Solution Is Fast Taking Shape Right Now...And Its Returns Will Blow You Away."*

What are the most useful decisions and investments we can make with respect to renewable sources of energy? For immediate commercialisation, one of the most important characteristics is that the technologies be a truly distributed generation means. Good examples of this would be solar and geothermal applications for individual buildings. We have already lost opportunities for this to Germany, which is well on the solar path already. Another characteristic is strong research and development programs in all areas of alternative energy and storage technologies. From that we can leverage to new industries that are truly sustainable. It is very advisable not to try and pick the future winners today through heavy investment in their commercialisation, like we are doing with wind power.

Above all, if we are to have any hope of reducing harmful emissions, and if we really care about the environment, conservation must take the central place in our strategies and plans. This means we have to recognize and act on the reality that we do not have a supply problem: we have a serious demand problem. This is where substantial investment should be made today. It is the one sure winner that we can chose with confidence now. We have no choice in this. There are no easy or, even non-easy, alternatives that provide the needed impact.

Wind turbines are arguably beautiful. Further, they have become a cultural icon, and looking good is half the battle. "What makes [them] such a powerful icon is that [they] are unbelievably simple and telegraphic," according to Allen P. Adamson, managing director of a corporate branding firm. Adamson further says that the wind turbine has "transcended its literal functionality to become an iconic symbol of the ideal," and "Right now it stands for 'Don't confuse me with the facts.'" Seth Godin, author of "All Marketers Are Liars," says that they play to American mythology, which "is all about supply, feeding our assumed right to be wasteful." However you view them, beauty should not trump beauty. It would not make sense to put large displays of paintings by the masters in an area of natural beauty. There would have to be some much greater purpose involved.

Naturalists and environmentalists have to realize that they are stepping outside of their area of expertise in using their prominence, admirable objectives and apparently scientific orientation to advise on what energy sources are the best for us. For our part we have to be careful not to be overly influenced by their celebrity status, or otherwise admirable purpose.

### Who is Chasing Wind Power and Why?

Let's now look at what are all the drivers of the wind power movement.

As already discussed, on one hand we have: governments, especially in Europe, implementing wind plants and pledging to do more (especially those that have industries manufacturing wind turbines that supply the world); wind industry associations extolling the virtues; some environmentalists, naturalists, and energy and climate change scientists; most media outlets; and conventional wisdom/public opinion in general supporting industrial wind power. On the other we have some environmentalists, energy and climate scientists; and citizens groups in areas that will be affected that oppose them. Opposition from these groups is particularly pronounced in the UK, which has relatively small amounts installed and no industry in this area to support.

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The EU has set emissions targets which must be met by 2020 or the offending countries face financial penalties. What's a European government to do? They look to industrial wind to meet these targets. Should wind power not deliver, and there is ample and growing evidence that it will not, then they can claim that they made the attempt with the instrument of choice. Maybe, in this case, there will be some relief from the financial penalties. If a government does not make the attempt, and others do, it may have difficulty obtaining relief, even when wind ultimately is recognized as not effective.

Countries, states and provinces that have significant fossil fuel electricity plants are aggressive early adopters (Denmark, Germany, Spain, the US, and China). In Canada, Alberta is the early adopter. It is 90 per cent dependent upon fossil fuel generation for its electricity (50 per cent coal).

Countries that have the most energy independence concerns are also aggressive early adopters (Denmark, Germany, Spain, and the US). This consideration explains why the UK government is so eager about massive adoption.

Countries that have established industries for wind turbine manufacture (Denmark, Germany, Spain, China, India) have an interest in promoting wind power domestically and around the world.

Countries that have a history of small scale wind installations (the US, many European, China) seem to be naturally tempted to evolve to industrial-scale implementations.

### Conclusions

In summary, the main characteristics of those that are aggressive either as early adopters or with political pledges for future implementations are:

- EU member countries because the EU has set emissions reductions targets with penalties for their not being met
- Countries that use fossil fuels extensively for electricity generation
- Countries with energy independence concerns
- Countries with a history of small scale installations

Regardless of the questionable merits of even these countries aggressively adopting wind power, there is no valid reason (other than political) why in any other country, state or province should follow their lead.

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