

## **Wind Power-Pie in the sky...**

Wind generated electricity gets a lot of attention. This leads many people to believe it's the silver bullet that will solve American energy issues. But nothing could be further from the truth. Even the most optimistic wind experts see wind supplying only 20% of America's electricity demand. In my opinion, wind energy will never exceed 5% regardless of the subsidies we pour into it.

Frankly, there just are too many problems with wind energy: Wind zealots guild the lilly when they discuss productivity, wind farms have huge real estate requirements and the national electrical grid needs to be rebuilt for wind energy to grow much beyond its present 1%. Moreover, Europe is just now discovering their wind farms failed to replace emissions-belching coal generation plants – which of course is the primary purpose of green energy.

On the good side: Wind energy emits nothing. When backed-up by natural gas generation – not coal – wind can decrease overall CO<sub>2</sub> emissions. Plus, wind energy while may be intermittent, it isn't volatile. The electricity generated by wind farms is generally sold at fixed prices in long-term contracts to utilities and other big users. Natural gas and to some extent coal have the opposite problem: They provide a constant source of power, but prices can fluctuate wildly.

### **Intermittant Nature of Wind**

Wind blows only part of the time, so wind generates electricity only part of the time. For instance, Texas wind farms on average produce at only 9% of their capacity when electricity demand is the highest. Yet, wind advocates tend to avoid discussing the intermittant nature of wind. And when they do, they tend to be about 50% too optimistic.

We have only to look at Europe. There, pushed by the Green Party, Denmark and Germany have operated vast windfarms for a decade. What's their experience? According to their government reports their wind farms produce at only 20% of capacity. That means a 1,000 MW windfarm produces on average only 200 MW. Because peak generation comes at night, in some years only 5% of Danish wind generated electricity actually is used by Danish consumers.

### **Wind Cannot Replace Coal**

Wind energy needs a backup for those days when there is not wind. Unfortunately, that task often falls to coal generation plants. The problem is that coal generation plants always emit CO<sub>2</sub> because they cannot be readily turned-on or -off. Maybe wind energy lessens the tonnage of CO<sub>2</sub> emitted, but to call wind energy carbon-free misses an important point.

It's my understanding that not a single coal plant has been retired by wind energy in Denmark or Germany. Since reducing CO<sub>2</sub> was the stated goal that set them to install thousands of wind turbines over the past couple decades, one cannot say that wind energy has been successful for Europe.

### **Huge Real Estate requirements**

The wind may be free but real estate isn't. Wind farms require huge amounts of real estate – the DOE says that if wind were to deliver 20% of the country's electricity, wind farms would require more real estate than New Jersey, Connecticut, Rhode Island, Delaware and Washington DC combined.

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## **Wind energy stimulus dollars spent overseas**

[Financial Times 2009](#)

More than eight out of 10 US stimulus dollars spent on wind energy farms have gone to foreign companies, according to a report by the Washington-based Investigative Report Workshop, a non-profit journalist group. Officials in Barack Obama's administration say the \$22bn set aside in the \$787bn stimulus for alternative energy funding is designed to create or retain jobs and stimulate economic activity. But the report shows the majority of jobs are likely to have been created overseas. The 11 US-based wind farms that received cash grants from the US Treasury have imported 695 of the 982 wind turbines that are to be installed. Since the manufacture of turbines is by far the largest employment generator in wind energy, it is estimated to have created 4,500 jobs overseas - far in excess of the jobs created in the US from these grants.

## **Beware windpower's "homes served" claims**

[MasterResource Energy Blog 2009](#)

False statements about "homes served" by wind developers and their lobbyists are bad enough, but it is discouraging to hear politicians, reporters, and others adopt and regurgitate them. The concept is always misleading since residential users of electricity account for only 37% of all U.S. electricity use. Using "homes served" when talking about wind turbines and "wind farms" is both false and misleading for several reasons. First, the design of the machine inherently denies any ability to directly power any sizeable electrical load. Second, the machines do not operate as a block, but operate only as independent power generators provided a grid source is present. Finally, no wind turbine has ever been tested as an actual base load electrical power source anywhere data has been made available.

## **Denmark's 20% Wind Stats Mislead**

[National Wind Watch 2008](#)

Wind proponents often claim 20% of Denmark's electricity is produced by wind power. This statistic does not stand up to scrutiny, however.

Denmark has the world's highest concentration of wind turbines in the world. Its 5,267 turbines (2005) produce the 'equivalent' of about a fifth of its annual demand for electricity. However, almost half of that generation is exported, often at dumping prices. Moreover, in 2005 as much as 9% of its electricity consumption was satisfied by nuclear-based energy produced elsewhere.

Despite its 'green' reputation, Denmark remains amongst the world's biggest consumers of coal and producers of carbon dioxide per capita. Moreover, many Danes feel that the proliferation of these large machines and supporting facilities has restricted public access to many parts of the countryside, detracted seriously from the former charm, beauty and peace of their landscapes and coastlines, and impacted badly on many home environments and wildlife habitats.