



## Advice to Pres. Obama (# 4): Go for Wind Power, Seriously

Posted by [Jerome a Paris](#) on January 23, 2009 - 11:15am in [The Oil Drum: Europe](#)

Topic: [Policy/Politics](#)

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There is no silver bullet to either the financial crisis, the economic crisis, the housing crisis, the industrial crisis, the jobs crisis or the energy crisis we're in right now. But there is one sector of activity which can help in every single one of these: wind power.

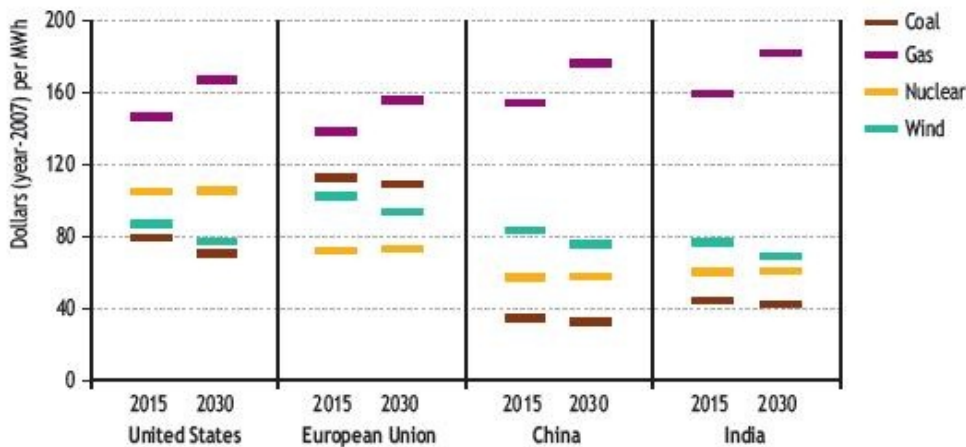


*the [GTK 1100 crane](#), the largest in the world, able to lift 100 tons 460ft high. It is a product of the Grove company, part of the (US) Manitowoc group, but manufactured in Northern Germany for now.*

This is part of the [Advice to President Obama series](#)

- it is a competitive source of power. For structural reasons (its long term cost of production is set by financing terms upon construction, and does not vary in the short term) , it requires [feed-in tariffs to be kept in place](#) to protect it from short term price fluctuations in a market context, but overall it will be **one of the cheapest sources of power** - and one with a price guaranteed not to increase over time;

**Figure 6.8 • Electricity generating costs in selected regions**



Note: Costs include a carbon value of \$30 per tonne of CO<sub>2</sub> in the European Union. In 2015, coal refers to supercritical steam. In 2030, coal refers to IGCC for the United States, ultrasupercritical steam for Europe and China, and supercritical steam for India. Gas refers to CCGT.

Source: IEA analysis.

*The most recent report of the International Energy Agency notes that wind is competitive with coal and nuclear even without subsidies*

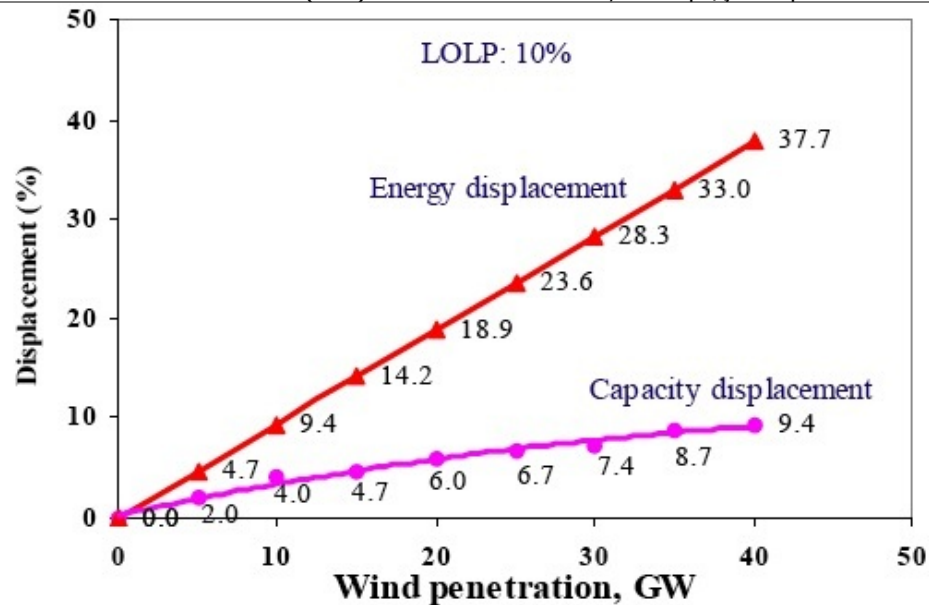
- it is an industry that **creates jobs - lots of them**, and of the well-qualified, non-offshoreable kind in sectors (construction, mechanical construction) in desperate need for them. A recent [study](#) by the European Wind Energy Association suggests that the construction of wind farms generates 15 jobs over one year per MW built, and 0.4 permanent jobs per MW installed. A plan to bring wind to 30% of electricity generation by 2020 would require the construction of 30GW of wind power per year (4 times the current level) and would create half a million permanent jobs - and this could happen at no cost to the taxpayer or rate payer;

Employment/MW (2007)	Jobs	Jobs/Annual MW	Jobs/Cumulative MW	Basis
WT manufacturing - Direct	64,074	7.5		Annual
WT manufacturing - Indirect	42,716	5.0		Annual
Installation	10,665	1.2		Annual
Operations and maintenance	18,657		0.33	Cumulative
Other direct employment*	15,204	1.3	0.07	75% annual/25% cumulative
<b>Total employment</b>	<b>151,316</b>	<b>15.1</b>	<b>0.40</b>	

\* IPP/utilities, consultants, research institutions, universities, financial services and other.

*With 8GW built per year, and 60GW installed, Europe had more than 150,000 jobs in the industry last year*

- it is a sector that directly helps **reduce dependence on fossil fuels and carbon emissions**. A MWh of wind eliminates a MWh of coal-fired or gas-fired power. It does not eliminate coal-fired or gas fired *plants*, but it allows for these to be used less (ie to **burn less gas or coal**), and that is what matters. Reducing coal-fired generation has to be one of the overriding goals of any serious climate change policy, and wind is one of the most effective ways to do it. And if the transportation sector is to switch from oil to electricity, this will be even more important:

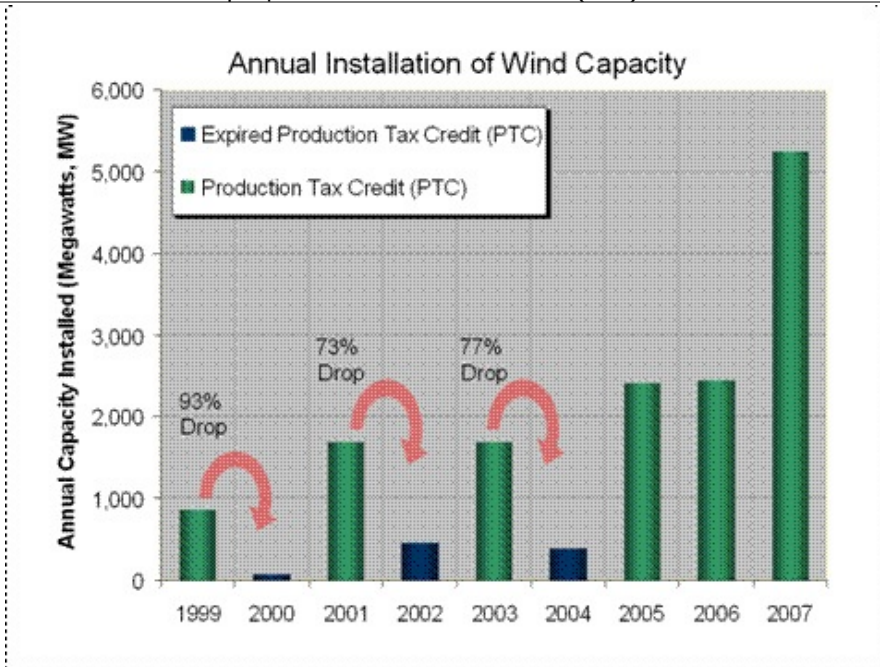


**Figure 9. - Conventional capacity and energy displacement at various levels of wind penetration**

*A [study by the UK network operator](#) suggests that generation displacement does happen almost one for one, even if capacity replacement is more limited.*

- it is a sector which is **fully scalable**. one of the arguments against wind is that it is too small to have an impact. This may have been true, but it is no longer the case when wind power is larger, by turnover, than gas-fired power plant construction, in both the EU and the USA, and its penetration is already reaching 10-25% in various regions and is not limited, in the USA, by the geographical constraints and population density found in Europe. It means heavy industry, qualified jobs, large scale power generation; **Intermittency can be dealt with**, as the European experience shows, by a combination of smart grid management and rare use of the existing fossil-fuel-fired capacity - again, it does not matter that we still need lots of MW of thermal power, as long as we require few MWhs of it.
- it brings jobs everywhere: manufacturing jobs in crucial sectors that hurt right now: construction and mechanical engineering), and **permanent activity in rural areas** that desperately need it. Wind farms require a lot of space, but do not prevent the land underneath from being used as before (for farming or otherwise) and bring in significant income streams for the local landholders and communities, as well as jobs that cannot be taken away;
- it requires **no import of fuels**. It does not replace oil (or not yet, ie as long as electric cars are not around) but it does replace natural gas, whose long term availability is very much in doubt and which availability will soon be depending on LNG imports from places like Qatar, Nigeria or Russia.

Wind power's development will require, at some point in the near future, a significant volume of **investment into the national grid** - but that's exactly the kind of much-needed things that a voluntarist federal policy can bring about, by banging heads in the various separate regions together and fast tracking permitting procedures. It will **require consistent regulation rather than subsidies** (nothing has hurt the industry worldwide more than the haphazard way the PTC has been extended, or not, over the past few years) - the private sector has been busy investing in the sector when the rules in place did not prevent it. A clear set of rules (whether a long term extension of the PTC, a simple feed-in tariff or a simple Renewable Portfolio Standard (RPS)) will work.



*Inconsistent regulation has killed the industry 3 times in the last decade - and will likely have damaged it once again in 2009, after a record year in 2008*

Together with plans towards energy savings (and in particular energy efficiency improvements in the existing housing stock, a policy that will employ construction workers and help reduce energy use with no pain for consumers), boosting wind should be a no-brainer: **it works, it costs very little**, and it creates a sustainable infrastructure for the future.



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