

CHANGE IS IN THE WIND



Buzz Word of the Week

Decentralized Energy Systems

small-scale power generation technologies (typically in the range of 3 kW to 10,000 kW) used to provide an alternative to or an enhancement of the traditional electric power system.

Wind farms, like these, produced almost 20% of the electricity for Denmark in 2007. In Canada, it currently accounts for 0.8% of the electricity supply, or roughly 540,000 households.

The global financial meltdown has caused a dramatic plunge in the price of oil. Six months ago, with oil at \$147 per barrel, many alternatives to fossil fuel, including large-scale wind power and other forms of renewable energy, were able to compete with heavily subsidized non-renewable energy sources. Some countries, like Denmark, were reaping the profits of having turned to alternatives like wind energy a decade ago.

So, at the current price of \$67 a barrel does renewable energy still make sense? It does according to the basic assumptions behind supply and demand and business cycles. If these assumptions are true, our economy will eventually recover and fuel prices will go up.

Sooner or later this is going to happen because fossil fuel is a limited, finite resource. Given the pressures of population and industrialization in countries like India and China, it will likely be sooner rather than later. In the meantime, the price of the sun and the wind remains the same... essentially free.

Indeed, in a place like BC's northwest we are especially blessed. A wind energy map of Canada reveals our area to have a huge number of "hotspots" largely along the coastal range. The number of dams and our massive investments in hydropower are also in our favour.

A common critique of renewable sources like wind and solar power is the inconsistency of the resource. We cannot control when the sun shines or the wind blows, but with huge water reservoirs we can store hydro energy at times we don't need it for those dark, windless nights when we do.

When wind generators are whirring and solar panels are humming, we can slow down hydro-power generation and let the water rise in our reservoirs. The extra "power" this represents can then be used later when we need it by letting the water flow faster. This gives us a huge advantage over nuclear and fossil fuel generation, which take days or even weeks to start up.

One lesson the credit crunch is teaching us is that it's no longer business as

usual. Renewable energy sources now present economic opportunities that will strengthen communities while also addressing the pressures on our environment like climate change.

Some BC communities, like Dawson Creek and Chetwynd, have figured this out and are actively constructing renewable energy systems while also taking unprecedented conservation measures.

These types of decentralized energy systems increase our resilience to fluctuations of the stock market and global economy. Perhaps, during this economic crisis, we should take the opportunity to do the same?

In The Neighbourhood

In BC many opportunities exist to use wind to generate electricity. There are currently no utility-scale wind farms in operation in the Province, however, BC Hydro has signed Electricity Purchase Agreements with three wind farms in British Columbia.

The wind independent power producers industry is growing in BC and more wind projects are expected to be bid into future power calls. (Source: BC Hydro)

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