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Wind not a magic wand that will solve SA's energy woes

By: Kelvin Kemm

Published: 17 Sep 10

The Minister of Energy, Dipuo Peters, recently publicly jumped on the Irish CEO of a wind energy company that is trying to sell large wind energy systems into South Africa.

I think the Minister was quite correct. I congratulate her. That CEO was worrying me with many of the claims he was making about how wind energy was going to be the solution to all South Africa's energy problems. It is not.

In fact, it is my opinion that all grid-related wind energy projects should be cancelled immediately. There is currently talk of paying a subsidy to the producers of wind-generated electricity of something like six times the actual selling price of electricity.

Imagine buying a pair of shoes for R600 and then reselling them for R100 in the interests of the people of South Africa. The people of South Africa would be paying the 'missing' R500.

The wind energy proponents say that a subsidy is okay because, in a few years, improved technology will bring down the price of wind energy until it is genuinely competitive. I do not believe that. Certainly, technology will improve, but so will the technology for burning coal and the technology used in nuclear energy.

There is no technology breakthrough on the horizon for wind that will suddenly reduce its cost by one-half or more. The wind technology system is reasonably simple, and there is no immediate prospect of some quantum jump forward.

I also feel in my bones that wind is going to give much more trouble than people think. When you have many gear-boxes turning at constantly varying speeds, as well as mechanical bearings on large windmill blades, that is trouble waiting to happen.

I have seen video clips of wind turbine blades dramatically tearing themselves off their bearings. I have seen a clip of an entire windmill destroying itself in seconds.

I have a colleague in Germany who telephones me from time to time. He lives near some of these large wind turbines and he tells me stories of houses in the area having developed large cracks owing to the low-frequency vibrations that are transmitted through the ground from the wind turbines.

Another wind turbine problem has also just come to light in the US. It has been found that an array of wind turbines come up on radar as if they were aircraft. Also, the array of very large turbines masks the radar images of real aircraft coming in. Further, arrays of 100-m-high wind turbines can look like storm activity on weather radar. This is a dangerous state of affairs.

So wind power is not this magic wand that will solve all our problems.

Wind is intermittent and will always be. That reality of life has to be taken into account in the planning of any

wind energy. If you are lucky, you will actually get out 25% or, perhaps, 30% of the nominal installed capacity. I think it will turn out to be much less when unforeseen problems and maintenance are taken into account.

The wind proponents argue that, at any time, wind is blowing somewhere. That is a very silly argument. To say that, when there is no wind in the Cape, it is blowing in Durban does not help. If one has to start shunting wind energy all over the country, it will be very wasteful.

My associate in Germany, Dr Holger Thuss, tells me that the price of coal-fired electricity has gone up in some areas as a result of wind energy. What happens is that, as soon as the wind blows, they ramp the coal-fired electricity down to make use of the wind.

When the wind stops, they rapidly bring the coal-fired electricity back on line. This is the most inefficient way to use coal-fired electricity and so its costs have increased.

I have said before that I am in favour of all forms of electricity generation, including wind, but it must be genuinely economically beneficial.

I believe that any future value for wind energy in South Africa will be in standalone systems designed to take the intermittent nature of wind into account. These would typically be small systems in towns or villages that could feed a pumped-storage 'battery' and then use the stored electricity at peak-demand times.

I do not see any future for wind power in South Africa that feeds directly into the national grid. I believe that we should scrap this idea right now, before it wastes resources that could be better employed elsewhere.

Much of the thrust behind wind energy is a political push to be producing what is seen to be 'green energy'.

Since it now seems that industrially produced carbon dioxide has little or nothing to do with any perceived climate change, we really need to rethink all this. The Minister of Energy is on the right track as far as I am concerned.

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Tel: +27(0)11 622 3744 | Fax +27(0)11 622 9350 |
newsdesk@engineeringnews.co.za
<http://www.engineeringnews.co.za>