

## WIND POWER: THE FACTS ON COST AND CO2 REDUCTION

### Cost of production per mwh:

Vic coal \$35; Natural gas \$50; Wind \$120/130 [data source Origin Energy] plus cost of providing backup power source, not known but likely to be circa \$25. This brings the effective cost of wind to \$145/155.

So wind is 4 times the cost of coal. Why is the Government not telling us this and what the impact will be on our future power bills and on business closures? If wind reaches 20% of our capacity power bills will be 50% higher! The sole purpose of imposing this extraordinary impost on us is to reduce CO2 emissions. The Vic. Government has for years refused to carry out a public examination of these costs and their effectiveness in reducing CO2 emissions. The following provides an insight into how costly and ineffective wind is in reducing CO2 emissions.

### Cost of reducing CO2 emissions by installing wind turbines per 1 tonne of CO2:

Vic coal produces 1.4 tonnes of CO2 ; Natural gas produces 0.4; Wind produces zero.

The weighted average of these in Vic produces 1 tonne [Sustainability Vic]

So the Vic Gov't, Sustainability Vic and wind industry claim savings of CO2 from using wind as 1 tonne per mwh.

This is a total misrepresentation. Wind is intermittent and unreliable. It has to be supported by alternatives which can be called in when the wind drops out, lessens or blows too hard and which must be capable of quick response. Coal is far too slow and so has no role to play. The solution is provided by gas generators. As we speak these are being installed "in tandem" with wind turbines. When the wind blows the gas is turned down which results in a saving of 0.4 tonnes of CO2 per mwh, not 1 tonne.

Wind costs around \$100 per mwh more than gas power so the cost of each tonne of CO2 saved from using wind is \$250 per tonne!

It is actually even more expensive! Firstly, wind turbines consume electricity to air condition the massive "engine" compartments; to power braking and alignment of the blades; to provide lighting etc. This power is drawn from the grid thus incurring CO2 emissions. Secondly, to enable backup power to be available "at call", some element of gas generation will actually be in operation but not generating power [in spinning reserve] and so will be generating CO2 emissions as a direct consequence of wind power. Because of these two factors the ability of wind turbines to reduce CO2 emissions is much less than 0.4 tonnes per mwh. It could well be nothing or even create greater emissions than would occur if there were no wind power. In the light of the factors mentioned above, it would be very reasonable to conclude that wind power enables savings of 0.2 tonnes of CO2. On this basis the cost of each tonne of CO2 saved by using wind is \$500!

What else can be done? Well, as one example, if we replaced coal generators [1.4 tonnes] with gas [0.4 tonnes] this would save 1 tonne of CO2 per mwh and this would only cost \$50 minus \$35 = \$15 per tonne. Instead our Government promotes wind as the answer at a cost to the community [us!] of \$250 to \$500 per tonne to achieve the same reduction in CO2. Alice in Wonderland looks quite sane by comparison. We are being conned!