

## Letter to the Editor

Written By Terence Cardwell\*

The Editor  
The Morning Bulletin

I have sat by for a number of years frustrated at the rubbish being put forth about carbon dioxide emissions, thermal coal-fired power stations and renewable energy and the ridiculous Emissions Trading Scheme.

Frustration at the lies told (particularly during the election) about global pollution. Using Power Station cooling towers for an example. The condensation coming from those cooling towers is as pure as that that comes out of any kettle.

Frustration about the so-called incorrectly-named man-made 'carbon emissions' which of course is Carbon Dioxide emissions, and what it is supposedly doing to our planet.

Frustration about the lies told about renewable energy and the deliberate distortion of renewable energy and its ability to replace fossil fuel energy generation. And frustration at the ridiculous carbon credit programme which is beyond comprehension.

And further frustration at some members of the public who have not got a clue about thermal Power Stations or Renewable Energy. Quoting ridiculous figures about something they clearly have little or no knowledge of.

First, coal-fired power stations do NOT send 60 to 70% of the energy up the chimney. The boilers of modern power stations are 96% efficient, and the exhaust heat is captured by the economisers and reheaters and heat the air and water before entering the boilers.

The very slight amount exiting the stack is moist as in condensation and CO<sub>2</sub>. There is virtually no fly ash because this is removed by the precipitators or bagging plant that are 99.98% efficient. The 4% lost is heat through boiler wall convection.

Coal-fired Power Stations are highly efficient with very little heat loss and can generate massive amount of energy for our needs. They can generate power at an efficiency of less than 10,000 b.t.u. per kilowatt and cost-wise that is very low.

The percentage cost of mining and freight is very low. The total cost of fuel is 8% of total generation cost and does NOT constitute a major production cost.

As for being laughed out of the country, China is building multitudes of coal-fired power stations because they are the most efficient for bulk power generation.

We have, like, the USA, coal-fired power stations because we HAVE the raw materials and are VERY fortunate to have them. Believe me, no one is laughing at Australia - exactly the reverse, they are very envious of our raw materials and independence.

A major percentage of power in Europe and U.K. is nuclear because they don't have the coal supply for the future.

Yes, it would be very nice to have clean, quiet, cheap energy in bulk supply. Everyone agrees that it would be ideal. You don't have to be a genius to work that out. But there is only one problem---It doesn't exist.

Yes - there are wind and solar generators being built all over the world but they only add a small amount to the overall power demand.

The maximum size wind generator is 3 Megawatts, which can rarely be attained on a continuous basis because it requires substantial forces of wind. And for the same reason they only generate when there is sufficient wind to drive them. This of course depends where they are located but usually they only run for 45% -65% of the time, mostly well below maximum capacity. They cannot be relied upon for a 'base load' because they are too variable. And they certainly could not be used for load control.

The peak load demand for electricity in Australia is approximately 50,000 Megawatts, and only small part of this comes from the Snowy Hydro Electric System (The ultimate power Generation) because it is only available when water is there from snow melt or rain. And yes, they can pump it back but it costs to do that. (Long Story).

Tasmania is very fortunate in that they have mostly hydro electric generation because of their high amounts of snow and rainfall. They also have wind generators (located in the roaring forties) but that is only a small amount of total power generated.

Based on a average generating output of 1.5 megawatts (of unreliable power) you would require over 33,300 wind generators.

As for solar power generation, much research has been done over the decades and there are two types. Solar thermal generation and Solar Electric generation, but in each case they cannot generate large amounts of electricity.

Any clean, cheap energy is obviously welcomed but they would NEVER have the capability of replacing Thermal power generation. So get your heads out of the clouds, do some basic mathematics and look at the facts, not going off with the fairies (or some would say the extreme greenies.)

We are all greenies in one form or another and care very much about our planet. The difference is most of us are realistic. Not in some idyllic utopia where everything can be made perfect by standing around holding a banner and being a general pain in the backside.

Here are some facts that will show how ridiculous this financial madness the government is following. Do the simple maths and see for yourselves.

According to the 'believers' the CO<sub>2</sub> in the air has risen from .034% to .038% in air over the last 50 years.

To put the percentage of Carbon Dioxide in air in a clearer perspective: If you had a room 12 ft x 12 ft x 7 ft or 3.7 mtrs x 3.7 mtrs x 2.1 mtrs, the area carbon dioxide would occupy in that room would be .25m x .25m x .17m or the size of a large packet of cereal.

Australia emits 1 percent of the world's total carbon Dioxide, and the government wants to reduce this by twenty percent or reduce emissions by .2 percent of the world's total CO2 emissions.

What effect will this have on existing CO2 levels?

By their own figures they state that the CO2 in air has risen from 0.034% to 0.038% in 50 years.

Assuming this is correct, the world CO2 (in the air) has increased in 50 years by 0.004 percent.

Per year that is 0.004 divided by 50 = 0.00008 percent. (Getting confusing - but stay with me).

Of that, because we only contribute 1%, our emissions would cause CO2 to rise 0.00008 divided by 100 = 0.0000008 percent.

Of that 1%, we supposedly emit, the government wants to reduce it by 20% which is 1/5th of 0.0000008 = 0.00000016 percent effect per year they would have on the world CO2 emissions based on their own figures.

That would equate to an area in the same room, as the size of a small pin!!!

For that they have gone crazy with the ridiculous trading schemes, Solar and roofing installations, Clean coal technology, Renewable energy, etc, etc.

How ridiculous is that?!

The cost to the general public and industry will be enormous. Cripple and even closing some smaller business.

T.L. Cardwell

*To the Editor I thought I should clarify. I spent 25 years in the Electricity Commission of NSW working, commissioning and operating the various power units. My last was the 4 X 350 MW Munmorah Power Station near Newcastle. I would be pleased to supply you any information you may require.*

\* Terry is now retired and is in excellent health at age 69. Nobody paid him to write the article which was, (to their credit), published by the local press.