

## **“Carbon Capture and Burial – a Stupid Answer to a Silly Question.”**

*A statement by Viv Forbes, Chairman of the Carbon Sense Coalition.  
7th May 2009*

The Carbon Sense Coalition today called on the Australian Federal Parliament to stop playing Global Warming politics and focus instead on the irresponsible damage being contemplated by the Cap-N-Tax promises.

In testimony this week to the New Zealand Parliamentary Enquiry into the ETS, the Chairman of Carbon Sense, Mr Viv Forbes, said that it was impossible to achieve the gigantic cuts in carbon dioxide emissions suggested by various western governments without a crash program of Carbon Capture and Burial (CCB). He expanded on those comments today:

“There is no evidence that CCB would provide any climate or environmental benefits whatsoever – just a huge misuse of investment capital and a massive increase in the cost of living for any society silly enough to tread this path.

“Most coal and power companies are behaving irresponsibly by not warning the public clearly of the likely consequences of Cap-N-Tax and Carbon Capture and Burial. They have failed their shareholders, their customers and the Australian public by their inaction. Their ignoble attempts to now seek special exemptions from the monster they have allowed to grow will disgust most Australians.

“It does not take much engineering, financial or biological knowledge to uncover the logistic, economic and environmental stupidities of CCB.

“Australia currently relies on carbon fuels for 90% of its electricity needs and coal for over 70%. Every tonne of coal burnt in an existing power station needs about 2 tonnes of oxygen. But to get 2 tonnes of oxygen from the air requires 8 tonnes of air – the other 6 tonnes are nitrogen which comprises 75% of the atmosphere. Therefore the power station is currently taking in about 8 tonnes of gases for every tonne of coal burnt.

“Therefore 9 tonnes of material must come out. After removing the minor quantities of ash and real pollutants such as NOX and SOX, there is still about 9 tonnes of three harmless gases going up the stack – the unchanged 6 tonnes of nitrogen, 2.6 tonnes of carbon dioxide and the rest is mainly water vapour.

“These three harmless gases are the natural gases of life in the atmosphere, necessary and beneficial for all life. Any nurseryman could tell Canberra that all vegetation around the power station will show enhanced growth in the lush atmosphere now enriched with the extra carbon dioxide and water vapour.

“To extract the 2.6 tonnes of CO<sub>2</sub> from every 9 tonnes of exhaust gases, compress it, pump it hundreds of kilometers in specially constructed pipelines and then bury it in carbon cemeteries is environmental and economic lunacy.

“All of this can undoubtedly be done – the real question is should it be done?”

“These are the likely effects:

- Undetectable effects on the climate. There is no proof or evidence that CO<sub>2</sub> controls the climate.
- About 30% of the power station electricity will be wasted in separating, compressing and pumping of CO<sub>2</sub>. Thus a power station now using 1 million tonnes of coal per annum will need 1.5 Mt of coal to produce the same output of usable power for electricity consumers or other industries.
- A 50% increase in coal used will require a similar increase in coal mine capacity and transport and handling facilities – a huge waste of community land, resources and capital.
- The resource life of every thermal coal mine will be reduced by 30%.
- Capital costs for every power station forced to wear this ball-and-chain will rise 30-100%, and electricity charges must rise by a similar amount to cover the parasitic power losses and the increased capital and operating costs.
- No wonder some greens support CCB – it will make coal fired electricity so expensive that even piddle power from windmills will look attractive.
- The same dismal story will emerge at every cement plant and steel works that is forced to install CCB.
- The figures for gas powered facilities are similar in principle, and only slightly better.
- The use of oxygen instead of air in the boilers merely shifts the nitrogen separation costs from the end of the process to the beginning.

“A typical 1,000 MW power station could burn about 3 million tonnes of coal per year, requiring 300 trains per year to supply the coal. If CCB is installed, the extra power needed will call for another 150 trains of coal. And if trains were used to haul away the captured CO<sub>2</sub>, the mass of material moved would require another 1,150 trains per year, each train carrying 10,000 tonnes.

“Australia currently uses 128 million tonnes of coal per year to generate electricity. The CO<sub>2</sub> produced by all of these stations could total over 300 million tonnes py. If triple header trains were used to transport this as liquefied CO<sub>2</sub> it would require 30,000 trains per year or 600 trains per week. No matter what method of transport is used, the tonnage realities are still there and it will require immense energy to capture, compress, transport and bury the CO<sub>2</sub> anywhere.

“The easiest place to capture large quantities of CO<sub>2</sub> is at a large coal-fired power station, not at a million backyard barbeques. This is why some governments are already mandating the installation of CCB equipment at new power stations.

“The Cap-N-Tax proposals from Prime Minister Rudd now promise to cut 25% off Australia’s 2000 levels of production of CO<sub>2</sub>. A 25% cut is roughly equivalent to asking us to capture and bury almost 50% of the exhaust CO<sub>2</sub> from every coal fired power station in the land. This is fairyland stuff and it is time our political and corporate leaders came down to earth.

“Any combustion engineer can confirm the basic figures here. There is no need to waste \$1.5 billion extracted from taxpayers, shareholders and electricity consumers on “CCB research”.

“It is physically possible to do it, but it can never be “economic”, because it will clearly have huge costs and no one can quantify any measurable climate or environmental benefits.

“Moreover, the oceans of Earth are naturally removing carbon from the biosphere and burying it in vast deposits of limestone, dolomite and buried coral reefs and plant material.

“By this and other natural processes, Earth will eventually lose its vital atmosphere and become a dead planet like the dusty Moon and red Mars. To deliberately assist this process is anti-life and anti-green. Recycling to the biosphere some carbon that has been buried for millennia in coal deposits will prolong the era of luxuriant life on our green planet.

“Of even greater concern is the fact that the process of Carbon Capture and Burial will steal from the biosphere 2.7 tonnes of oxygen for every tonne of carbon buried. This morbid process would better be called “Oxygen Capture and Burial”. Leaving the carbon dioxide in the biosphere will allow plants to use it. The green world will flourish, extract the valuable carbon and return the oxygen to the atmosphere for survival of the animal world.

“If we are ever silly enough to build the CCB White Elephants, they will be as useful to us as the pyramids were to the Pharaohs – we will be creating our own burial tombs.”

“If Carbon Capture and Burial is the answer, it must have been a very silly question.”

To see the written submission from the Carbon Sense Coalition to the New Zealand Parliamentary Enquiry into the ETS see: <http://carbon-sense.com/2009/05/04/ets-nz/>

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***Viv Forbes is a geologist, financial analyst, soil scientist and farmer, with extensive experience in the carbon energy, carbon food and investment industries. He is proud to have gained experience and earned income from all of these vital industries.***