

THE AUSTRALIAN GREENHOUSE STORY

(in 7 papers)

Paper No. 3. What Happened Next

The Australian Government in 1997 knew it had an easy path into the first commitment period (2008-2012). It needed to do almost nothing to meet its target and that is exactly what it did do – almost nothing. The government concentrated on maintaining 'business as usual'. As a result, the consumption of energy rose and is still rising year by year at an ever increasing rate despite the few initiatives that have been undertaken, and recently despite substantial increases in the cost of petroleum. In the process it has become clear that the initiatives so far attempted have, in the main, been as close to useless as it is possible to get although, in fairness, they were probably designed initially for no purpose other than to create awareness. That they have remained at this level, however, is largely because any suggestion of tougher initiatives has always been met by strong opposition from influential segments of industry. That opposition has frequently been backed by threats that the introduction of tougher initiatives would trigger an exodus of industry offshore to countries not yet required to comply with Kyoto.

Attempts to introduce renewable energy have not met with marked success. Wind farming, for example, could produce stationary energy in reasonable quantities and at competitive cost, particularly along the southern coast. It has, however, attracted wretched publicity from those who place greater importance on aesthetically pleasing views than on an environmentally acceptable climate.

Consequently few wind farms have been established and the larger and more efficient wind farms and wind turbines that have a reasonable prospect of



producing baseload levels of energy have not been introduced at all.

It is arguable that Australia took, and is still taking, far too long to introduce measures that would produce a significant reduction in greenhouse emissions. Initiatives like MRET which compels the use of a small quantity of renewable energy could, for example, have been increased. Instead, governments at all levels have concentrated on very low level 'reforms' and regulations which may cause small emission reductions in some areas but have no ability to prevent massive emission increases in other areas. New and existing housing, for example is subject to increasing regulation to make it more sustainable. Any savings in energy that result however, are swamped by additional energy consumption in areas such as air conditioning which has come to be regarded as an essential element of life. In addition we continue to build even larger homes that result in higher energy consumption.

There are many suggestions of possible partial solution to greenhouse including:-

- hydrogen as a source for stationery and portable energy;
- geothermal energy from hot sub-surface rock;

- photovoltaic cells in space or even on the Moon to collect energy from the sun in perpetual daylight conditions and without interference from cloud;
- nuclear energy which creates no GHG but produces waste with sizeable problems of its own;
- wave and tidal energy;
- reduced petroleum use;
- wind energy;
- Cap and Trade (with an Emissions Trading Market).

Each of these potential sources of energy or energy reduction however, currently costs more than equivalent fossil fuel if no requirement is imposed on its suppliers to remove the greenhouse gas emissions their products create. In the result relatively little has been done to advance any of these potential solutions. In theory at least some of the energy sources suggested have the potential to provide cheap baseload energy but the research and overall capital costs involved in getting them to a commercial stage are very high.

Apart from the potential energy solutions mentioned (and many others not mentioned) the sole answer to the problem of Australia's rapidly increasing greenhouse emission problems is said to be what we call 'geosequestration' or 'carbon capture and storage' (CCS). This involves the liquefying of CO₂ emitted in the coal-fired production of electricity and

pumping it at high speed and in massive quantities to either empty oil or gas wells or saline aquifers for 'long term' storage and possible absorption into the surrounding rock.

The point which should be made from all this is that to a large extent Australia, since 1997, has pushed or allowed itself to be pushed, into a position where CCS now appears to some people to be the only solution available rather than just one solution in a range of many possible solutions. It is as if we had allowed ourselves to be driven into a mental ghetto, the avenues of escape from which have been cut off, not by being blocked by others but by our collective unwillingness to try them out.

In consequence, governments, state and federal, are commencing to build up the campaigns that will be necessary to persuade us, rightly or wrongly, that geosequestration is the only way to go. This should not be the case. Geosequestration is anything but a good solution although it may be a partial solution as subsequent papers in this series will discuss. There are other solutions with far greater potential that must be tried simultaneously with CCS. The probability is that no single solution exists at present and that a range of solutions will be necessary at least in the foreseeable future. Whatever the result either in the short or the long term, however, we need to commence exploring all the alternatives now because the introduction of any one of them on a commercial basis is at least 20 years away.

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