



## A Technological Answer To Global Climate Change

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The government has said for some time that it does not see an Emissions Trading Market as the way to go in reducing greenhouse gas emissions. It favours technological solutions. Over the past year or so it has pursued this line more aggressively, pointing out that the world needs to reduce atmospheric CO<sub>2</sub> at a much faster rate than Kyoto provides. This, it says, can be achieved only through technological solutions.

Some may describe this approach as legalistic in that it portrays Kyoto as a 'one shot wonder' which produces a once only tiny reduction in CO<sub>2</sub> emissions before it concludes at the end of 2012. The Treaty's supporters, on the other hand, portray it as a small step designed to get the show on the road before rapidly accelerating emission reductions with successive treaties every five years.

The government has been notably silent on exactly what technology it has in mind but the following would certainly feature in its thinking.

### **Nuclear Energy**

Recent statements by several Ministers indicate the use of nuclear energy is under discussion. There are approximately 30 nuclear power plants under construction worldwide at the present time and the increasing cost of fossil fuels has induced a number of European nations such as Sweden to freeze their previous proposals to phase out old nuclear power plants. Nuclear power, it is said, would be cheaper than fossil fuel power if oil prices exceed \$28.00 a barrel. The current price is significantly more than twice that figure already.

Nuclear energy has been an emotive issue. Australians turned their backs on it collectively many years ago and well before Chernobyl because of its connections with the manufacture of nuclear

weapons. Times have changed and many might now consider the possibility of world nuclear conflict is not great and consequently the use of nuclear energy for peaceful purposes is justified. The issue of terrorism will be seen by some as a reason for continuing present policy but the likelihood is that we will shortly be debating the issue.

The key may well be whether Australians are prepared to accept nuclear energy rather than energy from some other source at two or three times the cost.

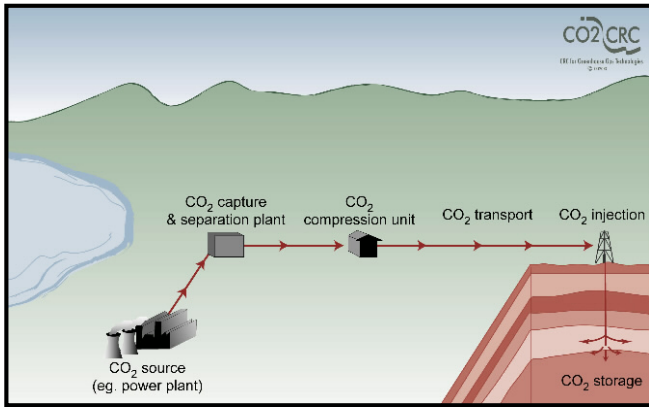
### **Geothermal Energy**

Considering the production of hot rock energy is well established in other parts of the world and its technology, well developed, it is amazing that individual governments in Australia haven't gone out of their way to explore its possibilities. Government financial contribution towards the development of geothermal energy is virtually non-existent. Even legislation, particularly in Victoria, has been slow in forthcoming and did not become a reality until earlier this year after a good deal of prompting from the McKean & Park Future Law Team.

The ANU estimated several years ago that potential hot rock energy in Western Victoria exceeded the reserves of brown coal energy available in Gippsland. The infrastructure for such a development is already largely in place and the smelters at Portland and Point Henry are consumers of the best part of 25% of Victoria's electricity. Government support would therefore appear to be fully justified.

### **Geosequestration**

The coal industry and those dependants on it, continue to press for the acceptance of this fossil fuel so long as its CO<sub>2</sub> residue can be captured, liquefied and pumped into underground wells and aquifers instead of being emitted into the atmosphere. At one time, geosequestration was regarded as the silver bullet of greenhouse gas emissions but it faces real problems notably:



- It will be costly. The cost may be of the same order of magnitude as the cost imposed by an Emission Trading Market;
- It is still 20 years away on a commercial basis;
- CO<sub>2</sub> is a lethal gas and proposals in Victoria require it to be piped around the Melbourne metropolitan area and close to a number of

rural towns and cities before being pumped into empty wells in the Ottway Basin. Many will regard this as nothing more than a massive and extremely dangerous toxic waste dump which will always be liable to leak and under the additional pressure at which the CO<sub>2</sub> will be stored subject to blow-outs, potentially lethal to the citizens of towns like Warrnambool and Port Fairy.

The McKean & Park Future Law Team concludes that technological solutions are important but should not be undertaken otherwise than in conjunction with an Emission Trading Market.

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