Submission by Eriks Velins: Senate Select Committee on Climate Policy

Question
a. The choice of emissions trading as the central policy to reduce Australia's carbon emissions, taking into account the need to:

i. reduce carbon emissions at the lowest possible cost,

Answer
I fully support the use of a well designed emissions trading system operating within a declining emissions ceiling in an efficient energy market, as emissions trading is a market based solution to managing greenhouse gas emissions and will therefore result in the lowest possible cost to the country, despite its failure by the EU to achieve any meaningful reductions to-date, even after a number of changes to it and many years of operation.

In order to have an effective emissions trading system, Australia will need to replace much of its present transport and energy infrastructure, probably Australia's largest capital investment in the future. This will result in restructuring Australia's economy towards more services and emergent high-tech leading edge industries. Very great care must therefore be taken in its design and implementation, as it is much more about the economy than about climate. Hence this process must be opinion, assertion, dogma and beliefs free, lest Australia ends up in a mess of unimaginable proportions when favourite 'solutions' are imposed upon it by its political leaders. Unfortunately conflicting Federal and State policies over many years have corrupted the transport and electricity markets and the proposed emissions trading scheme will be ineffective in such an environment unless deficiencies in both the proposed system and the markets are rectified.

For example,
<u>with respect to transport:</u>

There are a number of market based options which governments can use to reduce emissions from transport, an area so far ignored in the proposed system.

1. Rejection by the previous Federal Government of tax reform for petroleum fuels has resulted in distortions with respect to the market share of petrol, diesel and automotive LPG. A rational system based on the energy content of each fuel would result in a greater market share of diesel, thereby reducing crude oil imports as well as emissions, due to the higher efficiency of the diesel cycle. It could also be designed so as to maintain cash neutrality. Of course, increasing that tax, as many governments overseas have already done, will accelerate change to fuel efficient private and public transport.

2. The provision of subsidies and a sympathetic fringe benefits tax prop up the local vehicle manufacturing industry. Subsidies have also been provided to encourage the use of particular fuels and blending components. Consumers are not aware of the true cost of their purchases and vehicle producers do not receive the necessary market signals to manufacture cars which the consumers actually want to buy. Nor do the refiners get market signals to manufacture the optimum fuel which should be used to operate them. Furthermore, the inability by consumers to buy low sulphur petrol, as a result of Federal Government policy, has precluded the purchase of state-of-the-art internal combustion engines with their higher efficiency.

3. The mandatory use of imported bio-diesel in NSW, grown on land cleared of its original rainforest, is creating an environmental catastrophe overseas, even as the Federal Government is funding foreign aid programmes to eliminate such clearing. This mandated use should be stopped.

4. The rejection by governments of the concept known a 'peak oil'. Whilst crude oil will never run out, its price will rise, initially to the level where it will encourage efficiency and substitution, then production of alternatives eg GTL naphtha or diesel from coal or gas. As these are very capital and time intensive projects, they will be able to make but a marginal contribution to supply and the price will rise further to a level where it again will trigger a recession.

Global production of crude oil has been flat for some five years, with the growth in demand being made up of condensates from the production of natural gas and heavy oil derived from tar sands. Global demand fell in 2008 and could do so also in 2009. Another supply/price crisis created by inadequate capital investment in recent years in the oil industry is plausible once the economy recovers from this recession. That could take place some years before the impact of any emissions targets be felt. This next price crisis/recession will force the restructure of our transport industry and the Government should treat this possibility as a matter of some importance.

5. Australia has the fourth cheapest petrol in the OECD, largely due to its low taxes on transport fuels. The consumer has enjoyed the benefits of this policy for many decades, as has the economy with its cheap transport. All indications are that the era of cheap fuels is over. In the absence of price signals today to change consumer behaviour, the Government should re-introduce fleet fuel efficiency targets for all new vehicles sold in Australia, as replacement of our vehicle fleet will take at least a decade.

and with respect to electricity:

Before any emissions trading scheme is even considered, the various distortions in the electricity market must be removed. The market for energy must first be

considerably strengthened, for there is inherent scope, if not yet capability, to reduce emissions in a non-distorting economic manner.

1. The mandatory use of MRET by regulation has imposed the use of non-commercial energy based of politically preferred 'solutions' and resulted in higher costs of electricity than would otherwise have been the case. MRET is in direct conflict with a market based commercial emissions trading system and will reduce the global competitiveness of Australia's energy intensive export industries. It should be terminated, for the implied subsidy has not created new industries, nor developed new products, nor provided many 'jobs', nor created material and reliable electricity generating capacity. The total cost of, and production from, MRET remains hidden from the taxpayers. However, the maintenance of subsidies remains at the whim of the government of the day, which has used, and continues to use, subsidies for short term political purposes. Yet, even as debate continues on emissions trading, MRET is achieving similar objectives to emissions ceilings, but in the absence of public scrutiny and accountability.

2. The conflicting economic objectives between private and public electricity generators have resulted in de facto retail price control and/or subsidy, as a result of which electricity consumption is higher than it would otherwise be and therefore even more capital will have to be spent to reduce emissions from it, yet construction of real new capacity or replacement of obsolete capacity has almost ceased. It is ironic that state-of-the-art black and brown coal power generators could reduce emissions by roughly half, were there financial certainty, and nowadays, the availability of public and private funds to invest. In the absence of new capital investment, Australia is heading towards a period of blackouts, as noticed in Victoria during the last two summers.

3. The rejection by Federal and State Governments of the commercial zero emissions' nuclear fission option based on beliefs, rather than on technology and economics, will ensure that Australia can not meet even its proposed modest emissions targets, whilst retaining its present economic structure. At least many other countries are benefiting from Australia's uranium.

Question
ii. put in place long-term incentives for investment in clean energy and low-emission technology, and

Answer
Any aspect of an environmental policy should be consistent with sustainable development objectives and principles, which appear to have been ignored in the present proposal.

Thus, the first steps in providing incentives for capital investment are to eliminate market distortions and set up a simple, but stable, long term capital investment

framework, perhaps with accelerated depreciation allowances. In the short term, there is scope to maximise the use of currently available commercially proven state-of-the-art technology, which, on its own, could reduce emissions from transport and electricity generation by a good half, underpinned by sound, effective R&D for the longer term. None of such measures requires an emissions trading system or MRET.

Capital investment only takes place if there is adequate reward for that investment as determined by the market environment, that sovereign, technical, commercial and environmental risks can be managed, that there is demand for the product and that access is available to state-of-the-art technology and finance, for any new project today in Australia must be globally competitive. However, every major investor would rank options on a global basis and chose those offering the best returns for their portfolio. Australia is therefore handicapped by its investment framework.

The emissions trading scheme, as currently proposed, is distorted and provides no incentive to replace or build new infrastructure. It does not approach reduction of greenhouse gases in a systematic manner due to the granting of numerous exemptions. Conflicting signals are provided by MRET and other subsidies. Nor does it provide any incentive to improve efficiency, given that any meaningful improvement is invariably associated with new capital investment. The uncertainty created by such an investment climate does, however, provide the incentive to shut down industries, particularly our ageing domestic market energy intensive ones.

R&D will play some role in creating long term energy options, but Australia can, at best, contribute only to the development of niche technologies. One recent success has been coal bed methane. In the longer term, the obvious options are electricity from hot rocks, particularly solving the long distance transmission loss problem and nuclear fusion. Australia, however, is one of the very few developed countries which has so far refused to be involved in the International Thermonuclear Experimental Reactor project (ITER). Water currents may also offer unique opportunities; and carbon capture and sequestration, in which Australia has become a global leader, offers options for the coal industry. All such research should continue to receive public funding.

Question
iii. contribute to a global solution to climate change.

Answer
The longer term climate remains uncertain, as it always has been. Current forecasts of climate change by the Intergovernmental Panel on Climate Change (IPCC) are based on two flawed assumptions used in its models, (1) the omission of ‘peak oil’ as a possibility, even as there is increasing evidence of its occurrence now, or in the near future, and certainly within the time frame used by

the IPCC and (2), the use of 1990's economic data as the starting point for its estimates of long term global energy demand, despite the availability of excellent recently made available data. The effect of the current recession has also been ignored. Some economists have used very low and inappropriate discount rates in their policy recommendations, yet much of the Government's policy thrust is based on such discount rates.

The cost to Australia of even a modest reduction of its emissions of greenhouse gases will be many billions of dollars. At this stage, the Government has not prepared an environmental impact assessment of this huge capital investment, something which is mandatory for every private capital investment proposal, large and small. One must therefore assume that such an assessment is being prepared.

Australia's total contribution to global emissions of 1.4% is not challenged. Yet there is no evidence that Australia can manage its climate on its own and, unless all of the major emitters participate in a similar, if not a global, scheme, the impact upon Australia's climate by a reduction of just Australia's emissions, no matter how large or small, will be zero.

It is, however, reassuring to read that some government organizations are finally starting to work on adaptation policies, which will have to be implemented in any case, as real need becomes evident, just as the failure by governments to manage Australia's top environmental priority, water, has finally become evident.

Hence, Australians will face two major, but competing, tax imposts, the emissions trading scheme and the adaptation policy. I suspect that there will not be sufficient funds for both approaches and sooner or later a choice will have to be made. I favour the proven time-tested approach of adaptation, this being a no regrets policy with investment made at the right time using the latest technology and with immediate local impact.

Question
b. … protection or development of terrestrial carbon stores such as native forests and soils:

Answer
No government has yet published an evaluation of how forests or vegetation planted to soak up carbon dioxide as part of an emissions off-set scheme have coped with drought and whether such concepts remain valid for Australia over the longer term. Regular bushfires in Victoria have highlighted the large volume of carbon dioxide which they can generate. Academic studies have indicated that one half of the bushfires have been set alight by arsonists. Emissions from bushfires must now surely be treated as anthropogenic. Yet the Government has refused to accept such emissions in its emissions inventory and targets.

Given the 'precision' with which temperature increases are being forecast by the Government and targets proposed based on such forecasts, it would be logical to include the full carbon cycle in the system, if we only knew what it was, could measure it and forecast its variability. Clearly much more research must be done in this area.

Question
c. ...environmentally effective…

Answer
Given the lack of an environmental impact statement by the Government on the proposed emissions trading scheme, it is not possible to determine whether it will be effective. But it would appear to be self-evident that Australia's 1.4% contribution to global emissions can not influence Australia's climate, let alone the world's, even if our politicians set the emissions target to zero. In the meantime Australia will have to cope with any local impacts arising from climate change.

Question
d. …fair and equitable

Answer
A fair and equitable contribution would be the internationally agreed proportion of total emissions to be reduced to prevent further temperature rises, in Australia's case, that proportion of its 1.4% contribution.(See answer to Question c)

Question
e. …appropriate investment signals…

Answer
The proposed emissions trading scheme does not give appropriate investment signals other than for dis-investment or delay of investment, due to the uncertainty of the investment framework created by conflicting government policies and the positioning of this distorted market system in a distorted energy market. (See answer to Question a ii)

Emissions trading will, however, in the absence of very strong governance, create a new financial instrument and opportunities for fraud in a market that will have many of the features of the water trading market and the recently unraveled financial market. It will also give the Government a huge new revenue stream which it can use for its political priorities, which are unlikely to be in the energy industry, as has been regularly demonstrated by all those governments which operate water and electricity industries and which industries are now suffering the lack of capital investment.

30th March, 2009