SUBMISSION ON

CARBON POLLUTION REDUCTION SCHEME BILL 2009

EXPOSURE DRAFT (10/03/2009)

and

COMMENTARY CARBON POLLUTION REDUCTION SCHEME BILL (Exposure Draft)

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THE TARGET AND THE STATED AIMS

There is much in the beginning of the commentary with which I would concur. However, I am concerned that the actual targets and some of the provision of the bill do not agree with the stated aims in the Commentary.

Below are some quotations from the Commentary relevant to this submission

1 Quotations from Commentary (not in all cases continuous)

Rationale for the Carbon Pollution Reduction Scheme

"Climate change is the greatest social, economic and environmental challenge of our time.

"The Garnaut Climate Change Review Final Report paints a bleak picture of Australia at the end of this century should greenhouse gas emissions continue unchecked. There would be major declines in agricultural production across much of the country. The Great Barrier Reef and other reef systems, such as Ningaloo, would be effectively destroyed, with serious ramifications for tourism industries and biodiversity. Coastal infrastructure would be at risk of damage from storm surges and flooding. Key Australian export markets would have significantly lower economic activity, feeding back into lower prices for Australian exports and poorer terms of trade.

"The Garnaut Final Report suggests that emissions are tracking at the upper bounds of the scenarios modelled by the IPCC in the Fourth Assessment Report. New data and scientific understanding, unavailable for the Fourth Assessment Report, suggest that the rate and magnitude of climate change over the next century may be at the high end of the range estimated by the IPCC. Trends in global mean temperature and sea-level rise are also at the upper end of the range of projections.(5) There is increasing concern about the stability of the Greenland and west Antarctic ice sheets, with major implications for sea-level rise.(6)

"The IPCC's Fourth Assessment Report suggests that, in a 'business as usual' world where world-wide economic growth continues, based on fossil fuels, the best estimate of temperature rise by the end of the century would be 4 degrees Celsius.(7) The report says that climate change caused by this temperature rise is very likely to have widespread and severe consequences, including significant species extinctions around the globe, increased danger of wildfire, real threats to food production, and severe health impacts, with dramatic increases in morbidity and mortality from heatwaves, floods and droughts.(8)"

"Referring to Australia's region, the Lowy Institute for International Policy has noted:

> *Where climate change coincides with other transnational challenges to security, such as terrorism or pandemic diseases, or adds to pre-existing ethnic and social tensions, then the impact will be magnified.(9)*

"The findings of the Garnaut Final Report suggest that, in the long term, the costs of inaction will be greater than the costs of mitigation. The aggregate costs of action are modest, and the benefits of action (and the cost of inaction) increase over time, becoming more pronounced in the second half of this century and beyond.

"Analysis presented in the Garnaut Final Report builds a strong case for responding to climate change with mitigation action. The Garnaut Final Report observes that 'the overall cost to the Australian economy is manageable and in the order of one tenth of 1% of annual economic growth'(10) and concludes that 'the costs of well-designed mitigation, substantial as they are, would not end economic growth in Australia, its developing country neighbours or the global economy; unmitigated climate change probably would'.(11)

"The Garnaut Final Report also predicts that, in a world of unmitigated climate change, real wages will be 12% lower by 2100 than in a world without climate change. This is due to the reduced demand for labour in the second half of the century as a result of climate change.

"The Government accepts the key findings of the Garnaut Climate Change Review Final Report that:

> A fair and effective global agreement delivering deep cuts in emissions consistent with stabilising concentrations of greenhouse gases at around 450 parts per million or lower would be in Australia's interests
>
> Economies can respond more efficiently to new circumstances when businesses and individuals have certainty about long-term direction.
>
> Starting as soon as possible on a gradual adjustment to a low-carbon economy will give them the opportunity to plan their adjustment pathways and manage changes in technology, equipment and skills requirements, and will minimise the risk of stranding existing long-lived assets (12). This will help to reduce the costs of mitigation.
>
> The Australian community stands to gain from a comprehensive response to climate change. Modelling conducted by the CSIRO suggests that taking action to reduce Australia's greenhouse gas emissions could catalyse strong jobs growth over the next 10 years – in the transport, construction, agriculture, manufacturing and mining sectors.(13) A comparison can be drawn with the process of Australian tariff reform.

Reducing Australia's carbon pollution

"The Government has committed to a medium-term national target range of reducing emissions by between 5% and 15% of 2000 levels by 2020, and a long-term emissions reduction target of 60% below 2000 levels by 2050.

"The Government's climate change policy is built on three pillars—reducing Australia's carbon pollution, adapting to the impacts of climate change that we cannot avoid, and helping to shape a global solution.

"Meeting the emissions reductions targets will be challenging. Australia's emissions have been growing rapidly since 1995. Monitoring and reporting of Australia's emissions by the Department of Climate Change (14) suggest that, while Australia is likely to meet its Kyoto Protocol target of limiting emissions in the 2008–2012 period to an average of 108% of 1990 levels, emissions will increase to 120% of 1990 levels by 2020 (after the expanded Renewable Energy Target is taken into account) without additional policy measures. (15) This indicates considerable momentum in national emissions.

The Government will manage the transformation to a low-carbon economy through:

- the implementation of the Carbon Pollution Reduction Scheme (the primary tool for driving reductions in greenhouse gas emissions)
- an expanded national Renewable Energy Target
- investment in renewable energy technologies and in the
- demonstration of carbon capture and storage
- action on energy efficiency.

"To avoid adverse income or distributional effects arising from the Scheme and ensure the most vulnerable households in society are protected, the Government is introducing changes to the tax and transfer systems and the introduction of new energy efficiency measures to help alleviate increases to the cost of living arising from the Scheme.

"The Government has established the $2.15 billion Climate Change Action Fund to provide targeted assistance to business, community sector organisations, workers, regions and communities to smooth the transition to a low pollution economy. The Fund will assist in breaking down market barriers that may raise the cost of responding to a carbon price, and to encourage investment in low-emissions technology. It will also provide targeted assistance for sectors, businesses, regions, communities and workers that may be disproportionately affected by the introduction of the Scheme because of their economic reliance on industries that are more exposed to a carbon price.

"The Fund will operate between 2009-2010 and 2012-13 (with an additional $300 million committed over the period 2013-14 to 2014-15).

2 Comments on Quotations

Emissions targets

The Commentary and other Government documents acknowledge the gravity of the situation and express the intention to take action. However, given the gravity of the stated situation and Garnaut's recommendation of a 25% cut to 2020 to obtain the 450 ppm global result desired by the Government, I am puzzled as to why the Government is not adopting the higher Garnaut targets of 25% reduction with international agreement and 10% without international agreement and committing itself strenuously to seeking inert national agreement, rather than adopting the weak 5% or 15% targets. These targets are ostensibly partly justified by projected population increases that may not eventuate, although it is likely that they will be reached if Australia has to take millions of climate change refugees.

Also considering the Treasury's and Garnaut's advice that deep early cuts are better than deferred deep cuts, I am puzzled as to why the Government is not doing more sooner.

Australia's emissions are only 1.5 percent of world emissions, but as a developed country with ambitions to be prominent on the world stage, it is imperative that we lead by example. Australia aspires to a lead role in solving the world economic crisis. If the economic crisis is a tsunami, global warming is Noah's Flood; in other words, its effects on human life and civilisation will be far more severe and long lasting if measures are not quickly taken to reign in carbon emissions. Effects could include mass starvation from drought or melting of the Himalayan snows affecting major Asian rivers. The gravity of the situation is acknowledged in the rationale document, quoted above:

> *Climate change is the greatest social, economic and environmental challenge of our time*.

I believe that Australia should offer to the international community a target for itself of 25% reduction by 2020 and be prepared to increase this if there is a clear trend to higher targets, e.g., if the United States of America commits to a target exceeding 25% or if a higher target is necessary to get developing countries on board.

Measures to reach targets

The Government is to be commended for an expanded national Renewable Energy Target, although it needs to be further expanded, investment in renewable energy technologies and action on energy efficiency.

Demonstration of Carbon Capture and Storage

It is probably a realistic prediction that the world will be using fossil fuels and coal for decades at least into the future, and that, if successful, carbon capture and storage will help to mitigate emissions.

However, it would not be wise for Australia to invest in carbon capture and storage to the detriment of renewable energy technologies, or geothermal power, which is potentially base load and of which Australia has massive resources. Aggressive

development of renewables and geothermal could see Australian electricity generation independent of fossil and nuclear fuels within decades.

Some overseas countries may not be so well placed, and carbon capture and storage whether developed in Australia or elsewhere, may help to reduce their emissions.

There will also be need for heating, transport and industrial processes which may take longer to become independent of fossil fuel. (See comments on Transport)

The drive to obtain carbon capture and storage should not be used to artificially prop up fossil fuel industries, especially coal, for uses that can be better superseded by less carbon intensive fuels and sources of electricity.

THE BILL AND THE SCHEME

Notwithstanding the less the ideal target, the Government is to be commended for making an effort to reduce Australia's carbon emissions.

Flexibility and voluntary effort

On reading the Bill and part of the Commentary I realised that the Carbon Trading System was not the whole of the scheme to reduce emissions, and that targets for liable entities were set at a lower level than that needed for the targeted emission level

This is partly because emissions below the threshold are not counted, so there has to be something to compensate for this.

I was at one stage concerned that the scheme was so rigid that voluntary effort could have no effect on reducing emissions, but there is some scope for them to be influential in this "slack zone".

The concept of upper and lower gateways means there is a range of emissions reduction possibilities in any given year. However, I am concerned because:

- A lower gateway exists, which therefore limits possible emissions reductions
- The emissions reduction targets are effectively set five years in advance.

The latter provision does not perhaps reduce the role of voluntary action , but does tend to lock in the level of emissions permitted to the large emitters. The Government should make the system more flexible, perhaps taking a rolling average of actual emissions over three years and setting reduction targets based on this, to take advantage of situations such as if the consumption of electricity per capita from fossil fuel sources were drastically reduced by the uptake of renewables, insulation, appliance efficiency and voluntary frugality. Fixing targets for five years in such a scenario would limit incentives to electricity generators to become more efficient. On the other hand, the Scheme should have the capacity to make allowances for lower production caused by unfavourable economic conditions.

It is important that:

- People should be able to affect the level of emissions, particularly by reducing them, through voluntary efforts

- The public should be reassured on this count, as some critics of the scheme are of the opinion that individuals cannot do this, and this could have a negative effect on energy saving and uptake of solar energy.

Free Permits

Industries

There is a case for free permits to prevent carbon leakage. For instance, supposing that Australian iron and steel smelters produce less CO2e per unit of production than an overseas competitor in a country without a carbon trading scheme, some protection for Australian smelters is justified. However, if, for example, Australian aluminium smelters use more CO2e per unit of production than overseas competitors, such protection is not justified on the basis of carbon leakage.

The scheme provides for assistance for industries to become more energy efficient. In both of the above examples and for industries below the threshold for free permits such assistance could be given. All industries that are viable in a carbon constrained world should be given assistance to become less carbon intensive per unit of production. If an industry becomes uneconomic in Australia because of the carbon price, structural adjustment and retraining for its workforce should be made available.

However, propping up industries that are more carbon intensive than World's Best Practice by issuing them with free carbon credits will not help reduce emissions world-wide. By supporting industries that produce less CO2e than their overseas competitors per unit of production and assisting all industries to reduce their carbon intensity the Government can assist investment to flow to energy efficient industries.

An alternative could take the form of a carbon intensity-based import duty, which replaces any existing tariff and is levied on products that compete with less carbon intense Australian products or simply an overall carbon import tax.

Free Permits for Coal fired Power Stations (Part 9 Division 3)

These cannot be justified on the grounds of carbon leakage. The competitors of coal fired power stations are not imports, but other energy producers in Australia.[1] Nevertheless, coal fired and other power stations should be eligible for assistance to become more energy efficient. This could occur through such means as more efficient equipment, use of solar energy to dry coal or pre-heat water for boilers, conversion to a less carbon intensive fuel, geosequestration or chemical sequestration.

The stated justification of the issue of coal fired generation free units to maintain investor confidence (Sect 174). This is hardly driving change in the pattern of investment in Australia, which will be necessary to transform the economy to a low carbon economy. Rather providing such permits would reinforce old habits of investment and hinder the building of a low carbon economy.

[1] However, a higher price for electricity could reduced competitiveness of import/export exposed industries. This can be compensated for by the assistance recommended under "Industries".

Nevertheless, coal fired power stations are not going to close en masse in the near future. People and industries may reduce their electricity consumption but if they really need electricity, they will buy it where they can get it, including from coal fired power stations. Nevertheless the public and manufacturing industry may need some assistance, but this should largely take the form of increasing efficiency.

Section 187)(2) (b)of the Bill which mandates provision 95% from generation of coal and Section 181 may discriminate against those supplementing with solar power or changing fuel. I am also concerned that the Bill proposes to give free credits to facilities not completed in June 2007. (181. (3) This encourages building of new not-necessarily-efficient coal fired power stations.

I am also concerned that provisions prohibiting changing the nature of facilities may inhibit solar boosting and fuel change, as to natural gas, which is less greenhouse intensive than coal..

Waste facilities and coal mines generating electricity from Methane

Facilities whether waste facilities or coal mines, which flare methane have CO2 credited to them in accordance to emissions after the methane is burned, which are lower than if the methane had simply escaped t to the atmosphere, although this might not have happened in the near future in the case of coal mines

References to above and below
Amendment to Act

1.123 methane captured and combusted Amendment to National Greenhouse and Energy (Measurement)Determination 2008

More or less answered by example 1.5 but what of closed facility that burns methane? Should be facilities be given credit of converting to electricity rather than flaring? But then electricity generation will economic benefits (being able to sell electricity).Should powers station ETS be quoted?

Section 20 Landfill emissions from activities prior to 2008 are not counted.

Questions arise over the case of landfill facilities which have not accepted waste since 2008 and which burn historical emissions to produce electricity. They emit CO2 but less CO2e is produced over the long term than if the historical emissions were simply allowed to escape to the atmosphere. These facilities may be below the threshold limit of emissions, but in any case should not be penalised for generating electricity from burning historical emissions. (*The case of facilities generating electricity from current emissions is more contestable but needs to be examined – see above)*

They also reduce potential emissions from fossil fuel power stations nearby.

For instance (where x is the amount of CO2 emitted from the landfill after burning its historical emissions to generate electricity and y is the amount of CO2e that would be vented to the atmosphere if nothing were done, and 100x is this the mount of CO2

that would be emitted by the local power station if the landfill facility did nothing at all):

The situation is:

- No action by waste facility - total emission from the two facilities 100x + y tonnes CO2e (y is a number of times greater than x since methane is many times more greenhouse intensive than CO2.)
- Waste facility generating electricity from waste methane - total emissions 100 x tonnes CO2e (99x from the power station and x from the waste facility), resulting in an equal amount of electricity going into the grid.

Credits for Reforestation

The Act makes provision for maintenance of existing plantation forests, which should be maintained, and not cleared prior to maturity to plant a carbon credit forest.

There need to be safeguards to ensure that existing native forests will not be cleared for planting of forests for reforestation credits. There is also a need for protection of significant stands of non-forest native vegetation.