

Recommendations for the Senate Select Committee on Climate Policy

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8 April 2009

Emissions trading is undoubtedly an important tool in meeting Australia's emissions reduction targets, and in promoting the transformation to a low carbon economy.

The debate between different policy tools is now moot. The efficiency and flexibility offered by market based approaches is clearly preferable to command-and-control style regulation. Although some observers have claimed that the price-based instrument of a carbon tax is preferable to the quantity-based instrument of a cap and trade scheme, the momentum in international negotiations is clearly with the cap and trade approach, and the costs of institutional switching at this stage are prohibitive². In this submission, I argue that a hybrid approach of an emissions trading system with a price floor is desirable and feasible.

Australia has taken a big step in the right direction with the draft Carbon Pollution Reduction Scheme (CPRS) bill. However, the scheme outlined in the draft bill has several design flaws that must be addressed in order for it to be effective. Four recommendations are addressed in this submission:

1. Implement a stronger conditional target of 25% by 2020 (in the event of a substantial international agreement)
2. Explicitly state the importance of the transition to a low carbon economy
3. Place a limit on the proportion of credits that can be purchased internationally
4. Establish a price floor in the permit market
5. Establish a broader innovation framework.

The first and fifth recommendations are independent from the other three. Recommendations 2, 3 and 4 are related and should be considered together.

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² Hepburn, C., *Regulation by Prices, Quantities or Both: A review of instrument choice*, Oxford Review of Economic Policy, Vol 22, No. 2, Pg 238

Recommendation 1 – A Stronger conditional target of 25% by 2020

The objects of the draft bill are as follows:

“The first object of this Act is to give effect to Australia’s obligations under:

- (a) the Climate Change Convention; and*
- (b) the Kyoto Protocol.*

The second object of this Act is to support the development of an effective global response to climate change.

The third object of this Act is:

- (a) to take action directed towards meeting Australia’s targets of:
 - (i) reducing greenhouse gas emissions to 60% below 2000 levels by 2050; and*
 - (ii) reducing greenhouse gas emissions to between 5% and 15% below 2000 levels by 2020; and**
- (b) to do so in a flexible and cost-effective way.”*

There is an inconsistency in these objects. The target of 15% by 2020 is too small to support an effective global response to climate change, and is not consistent with the second object. Nor is it consistent with the findings of the Garnaut Review. According to the bill commentary, the Government accepts the findings of the Garnaut Review, including that:

“global action that reduces the risks of dangerous climate change and builds confidence that deep cuts in emissions are compatible with continuing economic growth and improved living standards.”³

Instead, the 2020 targets in the draft bill imply that Australia has taken the opposite position – that deep cuts are not compatible with growth and high living standards, and that when these two imperatives clash, economic growth takes precedence. If this legislation is enacted as drafted, Australia is set to play a disruptive and self-serving role in international negotiations. This is a clear rejection of the Australian public’s desire to take strong action on climate change.

For Australia to play a constructive role in international climate negotiations, and for the Government to keep its election commitment to take strong action on climate change, the legislation should comply with the recommendations of the Garnaut Review, and **set the target of an emissions reduction of 25% by 2020 if there is a substantial global agreement.**

³ CPRS Bill Commentary, pg 7

Recommendation 2 – Explicitly state the importance of the transition to a low carbon economy

In the press release accompanying this draft legislation, the Minister for Climate Change stated that:

"This is all about creating the jobs of the future. The CPRS is a whole of economy reform that will, for the first time, put a price on carbon and encourage investment in new, low pollution technologies [...]"

"This legislation will provide the robust framework that is required to set up Australia's economy for a low pollution future."

These essential goals are not stated explicitly in the draft legislation, despite the fact that the bill commentary states that the CPRS is the "primary tool" in managing the transition to a low-carbon economy. It should be noted that this goal is distinct from the third object of the bill, which states the emissions reductions targets. It is theoretically possible to achieve these targets without any kind of domestic transition to a low-carbon economy, through the purchasing of international credits and offsets, and/or a contraction of the overall economy. Economic transformation is a related but not identical goal that is equally important.

To this end, an object should be added to the bill similar to the following:

The fourth object of this Act is to support the transition of Australia's economy to a low carbon economy

The draft legislation should also be adjusted in support of this object. A properly designed CPRS will help to create new jobs and industries, encourage investment in low carbon technologies, and help to drive technological innovation and social behaviour change. Recommendations 3 & 4 concentrate on two important and complementary adjustments to the CPRS bill that will support the proposed fourth object.

Recommendation 3 – Place a limit on the proportion of credits that can be purchased internationally

The draft bill allows an unlimited number of credits to be purchased from international carbon markets. This produces the most economically efficient outcome, and makes the cheapest abatement options open to buyers of credits.

However, it is not in Australia's interests to purchase the majority of our emissions credits from overseas. While credits that are purchased from other countries will help to reduce global carbon emissions and fulfil our international obligations, they will not create jobs, drive economic reform, or encourage investment in low pollution technologies in Australia.

This would result in a cost being imposed on the economy, without the associated benefits of creating new jobs and industries. Examples of the potential winners from domestic emissions reductions include

- renewable energy technologies
- energy efficient and climate-sensitive building design and construction
- efficient appliance design
- developers of smart meters and electricity infrastructure
- low carbon transport technologies.

A second argument against purchasing all, or the vast majority, of our emissions reductions from overseas is that it may violate the supplementarity principle in Article 17 of the Kyoto Protocol. This principle requires that the purchasing of international credits and offsets be "supplemental" to domestic emissions reductions – i.e. domestic reduction take priority. The meaning of this principle is hotly contested and there is currently no consensus. Nevertheless, by placing no limit at all on internationally purchased credits, Australia is risking falling out of step with emerging international norms in this regard.

It does not automatically follow that having no upper limit on international permits will automatically mean that 100% of our reductions will be purchased abroad. In fact, most economic modelling⁴ predicts that with a properly functioning international carbon market, the percentage of reductions achieved domestically is quite high.

However, under a different set of assumptions to those generally used in the modelling, this result may not hold. For example, modelling generally does not include the effect of developing countries entering the carbon market, other than through the Clean Development Mechanism. This does not allow the possibility of trading emissions reductions from avoided deforestation.

⁴ See for example: Hatfield-Dodds, S., Jackson, E.K., Adams, P.D., Gerardi, W., *Leader, Follower or Free Rider? The economic impacts of different Australian emissions targets*, The Climate Institute, 2007; Ellerman, A.D., Wing, I.S., *Supplementarity: An invitation to monopsony?* MIT Joint Program on the Science and Policy of Global Climate Change, 2000

This example is particularly relevant in the light of the current push to have deforestation emissions reductions tradeable, for example through the Australia-Indonesia Forest Carbon Partnership of June 2008. If this push is successful, there will potentially be large volumes of very cheap abatement opportunities available on the market. The Garnaut Review⁵ points to estimates that Indonesia's annual emissions from deforestation could amount to several times Australia's total annual CO₂ emissions, and that the cost of avoiding these emissions could be as low as US\$1-2/tCO₂⁶.

It follows that we can not be certain that the majority of Australia's emissions reductions will be achieved domestically.

In this situation, it is reasonable to propose **a concrete ceiling of 50% on the proportion of emissions that can be purchased internationally**. This could be implemented either as a limit for each market participant, or an overall limit.

This will help to ensure that Australia is not left behind in the inevitable global transition to a low carbon economy, by helping to drive innovation locally and encourage green investment and jobs growth.

Some commentators have argued that purchasing large volumes of international abatement would amount to buying our way out of our international obligations, and refusing to shoulder our share of the burden. A stronger argument is that it is in Australia's national interest to ensure that a significant portion of the transformation occurs at home, rather than being outsourced. With a highly skilled workforce and a history of ingenuity, Australia is well placed to develop new export industries based on the green economy. These nascent industries need a supportive legislative environment to grow.

⁵ The Garnaut Climate Change Review, Chapter 10, pg 238

⁶ The Garnaut Climate Change Review, Chapter 10, pg 235

Recommendation 4 – Establish a price floor

In the early years of the scheme, when international negotiations are ongoing, there is likely to be a high degree of volatility in the carbon price. For this reason, the Garnaut Review recommended a fixed price in the early years of the scheme. Instead, the draft bill proposes a price cap of \$40/tCO₂ indexed at 5% for the first 5 years of the scheme.

While this manages the risk of high prices, the risk of very low prices is arguably more prevalent, given the current financial turmoil and the possibility of large volumes of low cost abatement becoming available, as discussed above. Under the very low reduction target of 5% by 2020, the risk is even higher.

Sustained low prices would be very damaging for the credibility of the scheme in the early stages, rendering it ineffectual in its stated purpose. The price signal would be too low to encourage investment in low carbon technologies, and plans for the revenue from the permit auctions would be jeopardised.

The European Union Emissions Trading Scheme has suffered several highly publicised and damaging price crashes, firstly due to an over allocation of permits⁷ and more recently due to the global financial crisis, that have caused a loss in investor confidence. It is important that the Australian scheme avoids this situation.

It is acknowledged that an indirect mechanism exists in the draft bill for correction of the market should the prices fall to very low levels. The ability of the Minister to take account of the carbon price when setting future emissions caps in theory allows for tighter caps to be set in the event of low prices. As there is no limit to the “banking” of permits between years, a tighter future cap should encourage the hoarding of permits and immediately raise prices.

However, as the sole mechanism for correcting damaging prices, this mechanism is inadequate, as can be seen by examining a hypothetical “price crash” caused by any of the factors outlined above. Four limiting factors are obvious on examination:

- The cap is set only once a year, leaving potentially many months after a price crash occurs before any action can be taken.
- The level at which the cap can be set is limited by the gateway for that year, which was defined long before it was known that the price would crash.
- The effect of the lower cap in 5 years time is diluted by the higher caps in the next four years.
- The Minister’s ability to tighten the cap in response to low prices is diluted by the other considerations the Minister must make (as outlined by the draft bill), including having reference to the most recent review of the independent advisory committee, which reports only every 5 years.

⁷ Additionally, there was no provision for the banking of permits between Phase I and Phase II, creating a glut of useless permits when Phase I ended

Taken together, these limitations imply that there is very little scope for actual observations of the operation of the scheme to allow for corrections to the price, should it be too low.

A solution to the risk of low carbon prices is to establish a price floor. This could be implemented by the scheme administrator agreeing to enter the market to buy permits should the price fall below the floor. The revenue for this intervention could be generated by establishing a reserve price when the permits are auctioned. The option of a price floor was criticised in the Garnaut Review as being “damaging to the normal operation of the scheme”. The Draft of the Garnaut Review goes further, explaining the following:

“A floor price is incompatible with international trade in permits as it would effectively create an unlimited liability for the Australian scheme administrator.”⁸

One way around this problem is to implement a limitation on the proportion of international permits that can be used by each market participant, (as in Recommendation 3 above), and for the Australian scheme administrator to commit to purchasing only Australian-sourced emission units. With this design, the liability of the scheme administrator is limited, and Australian investors in low-carbon technologies are partly insulated from international price crashes.

The level of the price floor could potentially be set through a mechanism similar to that of the emissions cap, by defining the actual price floor for the coming 5 years, and a range (similar to the gateway) for the subsequent 5 years. The main considerations in setting the price floor would be economic factors (similar to those currently contained in Part 2, clause 14(5)(c)(iii) of the draft legislation), and a consideration, based on industry consultation, of whether the level of the price floor is sufficient to allow investment in desirable technologies and practices. International experience suggests that a level of around \$20/tCO₂ would be appropriate.

There is an inevitable trade-off here between the economic efficiency of the scheme, which is reduced by the use of a price floor, and the need to provide a clear price signal that allows for investor certainty.

⁸ Draft of the Garnaut Climate Change Review, pg 344

Recommendation 5 – Broader Innovation Framework

Improving the design of the CPRS is a necessary but not sufficient response to the goals of meeting Australia's emissions reduction targets and transforming the economy to one of low emissions intensity. Due to a number of market failures (mostly regarding uncertainties and positive externalities), the Stern Review found that "carbon pricing alone will not be sufficient to reduce emissions on the scale and pace required"⁹. Similarly, the Garnaut Review also found that relying on market forces alone will result in "suboptimal levels of investment in innovation"¹⁰.

The government appears to recognise this situation, and plans to implement a number of associated policies, namely an expanded Renewable Energy Target, investment in renewable energy technologies, investment in the demonstration of carbon capture and storage, and action on energy efficiency¹¹.

However, international experience suggests that further measures will be required. As a first step, the Government should adopt a broad strategic framework for innovation in support of the transition to a low carbon economy, similar to the Dutch "Energy Innovation Agenda"¹². The Dutch model broadly focuses on:

- *research and development of sustainable techniques and systems*
- *applying new sustainable energy systems and learning from this experience, thus reducing the complexity and reducing costs*
- *integrating sustainable systems by removing obstacles.*

For each of seven themes within the Agenda, a set of goals are specified to help channel research and development funding and provide certainty to business in those sectors. The progress towards these goals is analysed to learn from past success and failures, and to remove bottlenecks¹³ that are identified.

Similarly (although less comprehensively), Stern emphasises the importance of developing a portfolio of technology options through:

*"a combination of government interventions including carbon pricing, R&D support and, in some sectors, technology-specific early stage deployment support."*¹⁴

Furthermore,

*"Government has an important role in directly funding skills and basic knowledge creation for science and technology"*¹⁵

⁹ Stern Review on the Economics of Climate Change, Chapter 16, pg 1

¹⁰ Garnaut Climate Change Review, Chapter 18, pg 426

¹¹ Commentary on the Exposure Draft of the Carbon Pollution Reduction Scheme Bill 2009, pg 8-9

¹² See <http://www.senternovem.nl/energytransition/index.asp>

¹³ Bottlenecks include, for example, the need for improved electricity distribution infrastructure

¹⁴ Stern Climate Change Review, Chapter 16, pg 359

The current Australian Government policies go only part of the way towards providing the kind of comprehensive support for low carbon innovation that is becoming common internationally. The danger exists that Australia will miss out on the very real opportunities presented by the inevitable decarbonisation of the global economy.

¹⁵ Stern Climate Change Review, Chapter 16, pg 362