



Climate Change Alert September 2008

Solving a Diabolical Problem - Garnaut Suggests Targets and Trajectories for Emissions Reduction

- Garnaut proposes that Australia commit to an emissions reduction target of 10% from 2000 levels by 2020 and 80% from 2000 levels by 2050.
- In the absence of an international agreement, Garnaut recommends a lower reduction target of 5% from 2000 levels by 2020.
- Whilst much “softer” than anticipated, these targets will still have a profound effect on the Australian economy and represent an approximate reduction of 30% or more from 2020 “business-as-usual” levels.

Summary

Professor Garnaut's Supplementary Draft Report (**the Report**), entitled 'Targets and Trajectories' was released on 5 September 2008, following the release of his Draft Report in July (see our [July 2008 Alert](#)). Garnaut has controversially made much softer recommendations than anticipated, and it is likely that these recommendations will strongly influence the targets and trajectories to be set by the Government, which will be crucial in determining the cost of emissions trading for businesses and households.

The Report proposes a pessimistic view about the likely success of global climate change abatement and emphasises the importance of international agreement in order for Australia's efforts to be effective. Garnaut has advised the Government not to focus on a single trajectory, but to consider a set of possibilities, with the Report modelling several mitigation scenarios to deal with the international uncertainty. The Report also provides the first estimates of the cost of mitigation which suggest that in the long run, the cost to the Australian economy from tackling climate change is less than the cost of doing nothing.

Per Capita Allocation Basis

In order to achieve international agreement, Garnaut suggests that the allocation of emission rights at an international level must move towards a system based on equal per capita emissions by 2050. In effect, this means that each person, no matter where they live, must have the same level of emissions as every other person (i.e. the bigger the country the more emissions that country can generate).

This system is appealing to developing countries as it factors in the problems associated with reducing global emissions at the same time as increasing the quality of life for a growing population. In many cases, developing countries will be allowed to increase their emissions levels, reflecting their very low per-capita starting points.

However, Australia currently has one of the highest per-capita emissions levels in the world. It is also expected to experience significant population growth over the coming years due to high levels of immigration. Because of this population growth, Garnaut calculates that a 10% reduction in actual emissions below 2000 levels by 2020 will equate to a 30% reduction in per capita terms.



Recommended Mitigation Scenarios

The Report sets out a number of scenarios to deal with the uncertain outcome of international negotiations in Copenhagen in 2009:

- > **550 parts per million (ppm) scenario:** If an international agreement is reached, the international target should be to stabilise GHG emissions at 550 ppm, which equates to an Australian emissions reduction target of 10% on 2000 levels by 2020 in absolute terms (30% in per capita terms) and 80% by 2050 (90% per capita). This scenario would require a carbon price of approximately \$35 by 2020. In terms of typical environmental impacts, this scenario is expected to result in temperature increases of 2.5 degrees or more by 2100, the destruction of the Great Barrier Reef and 8-39% of species worldwide would face extinction.
- > **450ppm scenario:** Garnaut suggests that given Australia's particular vulnerability to the effects of climate change we would be better served by a more stringent target of 450ppm. This equates to a reduction target of 20% by 2020 (40% per capita) and 90% by 2050 (95% per capita). However Garnaut has "reluctantly concluded" that international agreement on this more ambitious target is not feasible because no other country has committed to it. In terms of typical environmental impacts, this scenario would be expected to damage but not destroy the Great Barrier Reef and 5-23% of species worldwide would face extinction.
- > **Ad hoc mitigation:** In the absence of a comprehensive international agreement, Garnaut suggests an interim target of 5% by 2020 (25% per capita).

- > **The CPRS:** In the event that post-Kyoto international negotiations fail completely, Garnaut suggests Australia should maintain its emissions trading scheme until 2020 in the hope of future international agreement.
- > **Current trajectory:** both the 450 and 550 scenario require a substantial turnaround given that, at current rates, Australia's emissions are set to increase 20% on 2000 levels by 2020. An important qualification to note is that both the 450 and 550 scenarios assume that from 2020, carbon capture and storage (CCS) technologies will be able to capture 90% of coal-fired electricity generators' emissions.

What does this mean for Australia's CPRS?

Garnaut recommends that Australia commence its emissions trading scheme in 2010, regardless of whether any international agreement is reached.

Contrary to the Green Paper's proposal to set a cap on the carbon price, Garnaut proposes that permits be sold at a fixed price during the "transition period" between 2010 and 2012 while the Kyoto Protocol is still in operation. He suggests that the fixed price would avoid interference between the implementation of the trading scheme and Australia's global negotiations, and will also provide assistance to EITE industries in the early stages of the scheme.

Garnaut proposes a price of \$20 per permit in 2010 (equivalent to \$20 per tonne), rising by 4% each year plus CPI, which he says reflects the price path that would occur under a global agreement on the 550 scenario. Garnaut predicts that when the fixed price is removed after 2012 the price should settle at about \$23 under a 550 scenario, which represents a smooth transition to a floating price regime.

Costs and benefits for Australia's economy

The Report also provides modelling on the costs and opportunities of the proposed scenarios and draws a comparison between unmitigated climate change damage, and the "manageable" cost of taking action against climate change.

The Report suggests that:

- > **Unmitigated climate change:** Would cost Australia approximately 8% of gross national product (GNP) by the end of this century and wages would be cut by 12% in real terms.
- > **Cost of mitigation:** The 550 scenario would cost the economy 1.1% of GDP by 2020, with the GNP growth rate declining by 0.1% each year until 2050. After 2050 there would be a net benefit to the economy because of the climate change damage avoided. The 450 scenario would cost Australia a total of 1.6% of GDP by 2020.
- > **Impact on households:** The Report estimates that even the modest 10% reduction target would see electricity prices rise by up to 40% by 2020 and fuel costs rise by about 5c per litre at the \$20 carbon price.

Reactions to Garnaut's Targets and Trajectories

As can be expected, there have been strong reactions to the Report at both ends of the spectrum:

- > **Business groups** have supported Garnaut's cautious approach and his emphasis on the international context, but the [Business Council of Australia](#) and the [Australian Industry Group](#) still suggest that the 10% may



be unreasonable as this equates to a 34% reduction below business as usual projections.

> **Environmental groups** and **leading climate scientists** have widely criticised Garnaut's targets as being too soft, because the levels that Garnaut has proposed would result in devastating environmental consequences and damage our international reputation. **The Australian Conservation Foundation** says that a reduction target of 25-40% by 2020 is needed.

The Next Step

The Garnaut Review will release its Final Report by 30 September 2008 and the Australian Treasury will release its economic modelling in October 2008 after formal consultation with business. Both the Treasury modelling and Garnaut's Reports will be considered by the Federal Government when it sets national targets and trajectories for carbon emissions in December 2008.

Businesses should consider how the various trajectories proposed in Garnaut's Supplementary Report will impact on them. Professor Garnaut welcomes any input on his Supplementary Report prior to the release of his Final Report on 30 September 2008.

If you would like further clarification in relation to this or any other climate change topic, please contact one of the people below.

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