

On GHGs, Garnaut, green papers and governments

Key points

- The Garnaut Review Draft Report and the forthcoming Green Paper (due on 17 July) set out options for a GHG Emissions Trading Scheme (ETS) for Australia. These options are now open for discussion.
- The final shape, coverage and detail of the ETS will not be finalised until late 2008, when the enabling legislation is tabled and enacted.
- Public acceptance of the need to respond to climate change is high, but understanding of the ETS and what it will mean in practice appears to be poor, among both the general public and businesses.

ETS development timetable

When ?	What ?	Who ?
March to June 2008	technical consultations with industry on ETS design	Dept of Climate Change
30 June 2008	Garnaut Climate Change Review Draft Report handed to Government	Garnaut Review (over 1,000 individual submissions so far)
1 July 2008	First stage of GHG mandatory reporting commences	Approx. 450 large industrial GHG users/emitters
4 July 2008	Garnaut Climate Change Review Draft Report released to public	Garnaut Review
17 July 2008	Green Paper on the design of the ETS	Dept of Climate Change
July to Sept 2008	further consultations on options in Green Paper & Garnaut Draft Report	Dept of Climate Change, Garnaut Review
Aug 2008	Interim Report and Modelling Results	Garnaut Review & Treasury
30 Sept 2008	Garnaut Climate Change Review Final Report	Garnaut Review
Dec 2008	Draft legislation package (White Paper and an ETS Bill)	Fed Government
Dec 2008 to Feb 2009	consultations on the ETS Bill and the White Paper	Fed Government
March 2009	ETS Bill introduced to Parliament	Fed Government
mid 2009	ETS Bill passed by Parliament	Fed Government
1 July 2009	Second stage of GHG mandatory reporting commences	Approx. 500 large industrial GHG users/emitters
mid 2009	Consultation and drafting of ETS technical regulations	Dept of Climate Change
late 2009	ETS Act and regulations commence	Fed Government
1 July 2010	Third stage of GHG mandatory reporting commences	Approx. 700 large industrial GHG users/emitters
(late?) 2010	ETS formally commences trading	Fed Government

Sources: Dept of Climate Change; Garnaut Review; Office of Senator Penny Wong.

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What does Prof Garnaut say?

The Garnaut Climate Change Review released a draft report on 4 July. The key features of the report are (1) further detail on Garnaut's recommended options for the design of Australia's ETS and (2) initial, partial results of economic modelling by Treasury that help to indicate the potential costs of the ETS.

The full modelling results will be released in an Interim Report in August. The full recommendations of the Garnaut Review will be released in a Final Report in September. By then, Government progress on negotiating and drafting the enabling ETS legislation should be well under way.

Garnaut's draft ETS design recommendations

- The ETS should commence in 2010, followed by a two-year transition period in which special trading and other conditions would apply.
- The total GHG cap for the ETS should be set as 'trajectories', to be fixed for each five year period.
- The ETS should be as broad-based and inclusive as possible, but some industries such as agriculture, should join later in the two-year transition period. All energy and transport should be included from the start.
- All emissions permits should eventually be sold and traded through competitive pricing (i.e. auctions), but a relatively low fixed price for permits should apply during the two year transition period. All permits should be sold on a 'competitive basis'.
- Depending on the conditions and price of the initial permits, there should be no need for special payments to trade-exposed and/or emissions-intensive industries. Sectoral agreements could be used to assist them instead.
- Although the ETS is the Review's preferred mechanism, it "may have large and regressive effects on the distribution of income". All of the revenue raised from permit sales should therefore be used by Government to assist households and businesses adjust to the new ETS economy. This should be structured so as to ensure the ETS has a once-off price effect (as occurred for example, with the GST) and not an 'inflationary spiral' effect.
- Assistance with adjustments for households and businesses during the transition phase should not impede the basic price mechanisms necessary to ensure the effectiveness of the ETS in reducing GHG emissions.
- If the ETS is "heavily compromised" by political compromise or international developments, then a broad-based flat carbon tax would be preferable.

Estimates of costs

The Garnaut Review's draft report reiterates that the growth of GHG emissions will have a 'severe and costly impact' on Australia, to a greater degree than most other developed countries. Average expectations are for significant drying in southern Australia. At either end of the range of probabilities, there is a 10% chance of a small increase in average rainfall (with higher temperatures and greater weather variability) and a 10% chance of much worse drying, such that the Murray-Darling River system would all but dry up permanently.

The long-term macroeconomic modelling in the draft report is preliminary and partial (covering 65-85% of estimated market impacts), but it suggests that the cost to the Australian economy of doing nothing about climate change would, by the end of the century, be a minimum of:

- a reduction of 4.5% of GDP per year (from what it would have been in the absence of climate change and its mitigation costs)
- a reduction of 5.4% in household consumption and
- a reduction of 7.8% in real wages.

A total price for the ETS and its potential cost to the economy are not included in this draft report. The Garnaut Review does, however, say that 'substantial' revenue would be raised from the initial sale of emissions permits. The exact amount will depend on the price and the conditions that are set. It recommends that all of this revenue should be returned to the community as follows:

- 50% of the revenue raised should be used to compensate households for the resulting rise in prices, to be paid through the tax system, social security payments and household energy efficiency programs. This assistance should concentrate on households in the lower half of the income range.
- 30% of the revenue raised should be returned to business in the form of payments to trade-exposed firms and/or a reduction in business taxation.
- 20% of the revenue raised should be invested directly into the research and development of low carbon emissions and abatement technologies (more than \$3bn p.a. from 2013). This commitment should be taken globally, with all developed countries spending a similar amount on new low-carbon technology and development.
- The Garnaut Review also recommends that the Building Australia Fund be accessed to help pay for new energy infrastructure (e.g. to better enable on-grid feed-ins from household electricity generation).
- The significant structural costs of the ETS will be borne most heavily by the industries with the highest, most intensive, emissions, namely, energy, transport, agriculture and forestry.

Confirmed — government ETS commitments

What do we know will happen? At this stage, not a lot of detail is definite:

- Australia has agreed to meet the GHG reduction targets set out in stage one of the Kyoto Protocol. This agreement requires Australia to limit its GHG emissions to 108% of its 1990 levels for the period 2008-12. Australia is on track to meet this target, primarily due to reduced deforestation.
- Stage two Kyoto Protocol targets will commence from 2012. These targets are yet to be negotiated but Australia is already committed to meeting them.
- Government has pledged to reduce Australia's total GHG emissions to 60% of 2000 levels by 2050.
- The national ETS will be introduced, sometime in 2010.
- It will be a 'cap and trade' system, similar to that already operating in Europe.
- Tradable emissions permits will be required of electricity generators and other large industrial GHG emitters.
- The ETS will be accompanied by assistance and/or compensation measures for some categories of businesses and households that face higher costs as a result of the ETS.

Beyond these details, not much else has been finalised. There is now less than 12 months left before the Government aims to have its Act passed and 18 months before actual permit trading is scheduled to commence — an ambitious policy development timetable indeed.

To be confirmed — the 'known' unknowns

At this stage in the development process, the biggest area of 'known' unknowns relate to the design details of the ETS itself. But the reality of politics means the commencement date is also by no means certain. And, with so many crucial details yet to be decided, nor can the public's continuing support for and acceptance of an ETS for Australia be taken for granted.

ETS design uncertainties

Some of the essential design elements that are yet to be decided include:

- Size and trajectory of the trading 'cap' for the ETS. How much emissions in total will be allowed? How will the total change over time? This is the key detail that will determine the effectiveness of the ETS in addressing GHG emissions. It will, in part, be determined by the next round of Kyoto Protocol negotiations.
- Start-up permit allocations. Will the first permits be sold at a fixed price, as recommended by Garnaut, or be issued free, as some business groups have demanded? Free initial permit allocations are now regarded as one of the greatest sources of failure in the early stages of the European ETS.
- Exact coverage. Other than electricity generators, which industries, businesses and producers will be required to buy emissions permits? The other large GHG emissions producers in Australia are, somewhat controversially, transport and agriculture. If they are included, will it be from the beginning or later? And what about participation by industries with the potential to be net 'carbon sinks', such as forestry?
- Exact cost. How much is the ETS going to cost exactly? In total and to individual businesses and households. Estimates vary greatly, depending on the assumed price of carbon and the coverage of the ETS.
- Effect on inflation and economic activity. The introduction of the ETS has been likened to the introduction of the GST in 2000, in that both have the deliberate effect of raising prices for certain types of consumer goods and services. The ETS has the potential to cause a one-off price rise (as happened with the GST) or, more worryingly, a longer-term inflationary spiral.

ETS political uncertainties

Although the Government has committed to a start date 'sometime in 2010' and vowed not to allow any delays, this start date is not a done deal. Inconveniently, there will probably be a federal election in 2010. The government is unlikely to allow the introduction of a potentially disruptive and costly reform like the ETS to impinge upon its next election campaign. The timing would most likely need to come after the election.

In the meantime, the government will need to negotiate the passage of the enabling legislation with the opposition and senate independents. They have already indicated that its smooth passage is by no means assured. The Greens, for example, want all sectors of the economy included in the ETS without exception, while the Opposition wants significant compensation for businesses and households, in order to keep the ETS' cost effects to a minimum. This compromise could, however, blunt the very price signals that the ETS is designed to send regarding energy and emissions costs.

ETS public awareness and acceptance uncertainties

Various public polls have shown that most Australians are prepared to act in order to address global warming, in theory anyway. The concern of policy-makers and others is that the public may not remain so supportive when the costs actually hit them, and when it becomes clear that the costs will mainly be in the form of higher prices for energy, fuel and transport.

For example, according to the latest Newspoll (conducted for *The Australian*), 61% of Australians support an ETS and 56 per cent said they were prepared to pay "more for energy" to slow global warming. But the same survey showed only 46% thought petrol should be included in an ETS, with the strongest support for inclusion being among those earning more than \$100,000 a year.

Awareness and understanding of the proposed ETS among business executives is probably lower than is optimal also. A recent survey of business executives in Victoria and Tasmania by AIM, for example, indicated only 36% knew the ETS was scheduled to commence in 2010 and 80% said they had 'little' knowledge of it or were only 'somewhat aware' of it. Large corporations and businesses in the targeted industries of energy and transport are more likely to be engaged than the smaller businesses in this survey. Even so, a lot more work on education and advocacy is clearly needed before the ETS can commence.

The 'unknown' unknowns

To a greater extent than most economic policy changes, there is a huge amount of uncertainty and controversy surrounding the introduction of the ETS, relating to both its effectiveness (in reducing GHGs) and its effects (on businesses, households and the community). And since both our climate and our economy are continually changing, these uncertainties will persist even after the ETS is introduced.

As Garnaut's Draft Report notes, this high-level uncertainty is already evident, for example, in today's high (and rising) petroleum fuel prices, which "are likely to continue for some time [and] will force considerable emissions reduction below levels that would otherwise have prevailed in the years of Australia's [first stage] Kyoto commitments between 2010 and 2012". Although painful now, the current high price of oil will, in effect, make achieving our GHG reduction targets easier. This clearly illustrates the importance of direct price mechanisms in achieving GHG emissions reduction through the ETS and other means.

"Climate change mitigation decisions in 2008, and for the foreseeable future, are made under **conditions of great uncertainty**. There is large uncertainty about the climatic outcomes of varying concentrations of greenhouse gases, about the impact of various climate outcomes, and about the costs and effectiveness of adapting to climate change. There is uncertainty about the costs of various degrees of mitigation in Australia. There is large uncertainty about the extent to which the international community will make effective commitments to mitigation, and about the relationship of global to Australian mitigation efforts. ... The scientific assessments are highly uncertain, and their impacts on human activity and welfare even more so. We have no alternative to making decisions on complex issues of valuation under great uncertainty."

Prof. Garnaut, H.W. Arndt Memorial Lecture, ANU, 5 June 2008.

For further information on this topic, see our other publications on our website:

ANZ Industry Update: Emissions Trading, April 2008.

"Update on Australian Climate Change Policy", *ANZ Economic Outlook*, March 2008, pp. 21-24.

"The Road to an Emissions Trading System", *ANZ Australian Economics Weekly*, 8 June 2007.

ANZ Industry Report: Emissions Trading, June 2007.

"Sources of Carbon" *ANZ Australian Economics Weekly*, 23 March 2007.

"Carbon Trading", *ANZ Economic Outlook*, March 2007, pp. 21-24.

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