

EMISSIONS TRADING SCHEME DISCUSSION PAPER

(Executive Summary)

March 2008

Executive Summary

The Garnaut Climate Change Review's approach to mitigation was initially set out in the Interim Report in February 2008. This paper focuses on the key role for an emissions trading scheme (ETS) in those mitigation efforts. It recommends an approach for Governments to consider in developing and delivering an effective ETS. Further consideration, informed by detailed economic modelling, will be given to these issues in the full reports of the Review.

The centrepiece of the ETS is a greenhouse gas emissions market. A price on carbon is needed to address the market failure of unpriced greenhouse gas emissions.

A Global Challenge: Climate change is a global issue requiring global solutions. Australia's efforts both internationally and domestically need to be situated in this context. Reducing the risks of dangerous climate change to acceptable levels requires a comprehensive global agreement, which will be difficult to achieve and take time to build. Emissions targets for Australia will eventually be defined through such agreement.

It is not in Australia's interests to free ride, nor to act in isolation. We should set an emissions budget and specific reduction targets prior to the emergence of a comprehensive global agreement, but comparable in adjustment effort to those accepted by other developed countries.

Target and trajectories: Australia should declare the ambitious emissions budgets and target trajectories that it would be prepared to accept in the context of an effective, comprehensive global agreement. Along with the design of the ETS we can announce a set of trajectories of permit releases over time, consistent with our emissions budgets. The trajectories should embody rising degrees of constraint. Any shift in trajectory should only be triggered by movement towards stronger effective international mitigation commitments.

To live within our emissions trajectories, Australia can require a permit to be acquitted against any emissions, and can allocate permits for specified amounts of emissions that sum to the budget. Economic efficiency will be maximised and the costs of abatement minimised if there are no constraints on how each permit is used.

Design of an effective ETS: An ETS is established to reduce emissions, but the emissions limit is a decision to be made outside of the scheme itself. In developing the ETS design, the singular objective should be to provide a transactional space that enables the transmission of permits to economic agents for whom they represent the greatest economic value.

A number of guiding principles can be applied in order to achieve this objective, including scarcity, tradability, credibility, simplicity and integration. These principles define a solid framework within which an effective market can be designed.

Intrinsic and extrinsic features: An ETS has two types of design features: those that are essential to the operational efficiency of the scheme, referred to as intrinsic features, (for example the scheme's coverage, permit allocation rules, compliance rules and governance); and those that are defined outside of the scheme's operation, but still have considerable influence on the scheme's economic impact, referred to as extrinsic features (for example, defining the emissions limits and principles for compensation). Both these design feature types exist within a broader context of factors that affect the operation of the scheme but are beyond the influence of policy decisions on ETS design, known as exogenous factors (for example the evolving global environment agreement as well as the evolving scientific and technological knowledge bases).

Permit Allocation: The price of permits, the increase in the price of electricity and other emissions-intensive products, and structural change in the economy in response to the

restriction on emissions, will not be affected by the method of permit allocation. Transaction costs will be lowest if they are auctioned; any free allocation of permits will involve elaborate assessment and political processes.

Trade-exposed emissions-intensive industries (TEEIs): Until our major competitors have broadly similar emissions constraints, payments to TEEIs are justified for reasons of environmental and economic efficiency. Payments should be calibrated in a timely and precise way to the effects on the value of sales of particular commodities.

International Trade: The costs of abatement can potentially be substantially reduced, and therefore more ambitious targets achieved, by international trade in permits. However, linking with an economy that has a flawed domestic mitigation system will result in the import of those flaws. Variations in the quality of mitigation arrangements across countries mean that the decision to link with particular markets is a matter for fine judgement, but ultimately global mitigation will only be successful if countries can trade in emission permits. Opportunities for international linkage of the Australian ETS should be sought in a judicious and calibrated manner.

Governance: Sound governance arrangements are necessary to issue permits and to ensure that permits are acquitted in line with emissions. In Australia, there is a place for an independent institution playing a central role in administration of the ETS, within policy parameters established by legislation. In this report, we refer to such an institution as the Independent Carbon Bank.

Market Failures: Outside the ETS, there is a role for Government action to correct ongoing market failures associated with research, development and commercialisation of low-emissions technology, extended electricity transmission infrastructure, public transport efficiency, and energy efficiency. Effective policies in these areas can reduce the price of permits, the price of emissions-intensive products, and pressures for structural change in production and expenditure.

Compensation: This is a difficult reform, and a permit price that is high enough to secure levels of emissions within targets and budgets will have major effects on income distribution. The losers from such changes (households, and low-income households in particular, but in some circumstances domestic and foreign shareholders in highly emissions-intensive businesses) may feel that they can make a case for compensatory payments. The case for substantial measures to reduce the impact of the reform on living standards of low-income households is strong, and will affect political support for and perceptions of stability of an efficient ETS.

Also amongst the income distribution losers will be workers and communities dependent on emissions-intensive industries that may be unable to adjust readily to alternative employment. There is potential for disproportionate burdens to fall on coal-based energy-intensive regions, unless carbon capture and storage (CCS) technologies prove to be commercially viable at an early date. Assistance to established coal-based electricity generators with early testing and deployment of CCS would be a cost-effective, pre-emptive form of structural adjustment assistance.

Public finance: Alongside the generation of large amounts of revenue from permit sales, the Government will face large demands for increased expenditure associated with extrinsic features of the ETS.

Governments will need to assess competing priorities within a tight budget constraint. The political acceptability of the introduction of the ETS would be enhanced by government commitment to transparently return to the community through the mechanisms outlined above or in other ways, all of the revenue generated by the sale of permits.

Next steps: The Review is carrying out extensive economic modelling on the impacts of climate change, and the costs and benefits of mitigation and adaptation to climate change. The modelling will inform the full reports of the Review, scheduled for end June and end September. The Review will continue to engage with the public and the community on these issues as it finalises its full reports.

Summary of Australian ETS model for discussion:

Design decision	Proposal
Setting an emissions limit	<p>Government should set the emissions limit for Australia. This emissions limit should be expressed as a trajectory of annual emissions targets over time, which define long term budgets.</p> <p><i>Trajectories</i></p> <p>Four trajectories should be specified upon establishment of the ETS. The first up to 2012 will be based on Australia's Kyoto commitments. The other three for the post-2012 period reflect increasing levels of ambition. Movement between them should be based on determining the comparability of Australia's response to international effort.</p> <p>The Review will provide advice to government on trajectories and interim targets for an Australian ETS. This will be informed by economic modelling currently underway and further analysis, and presented in the full reports.</p>
Changes to the emissions limit	<p>Deciding to move from one trajectory to another should only be made on the basis of international policy developments and/or agreements (which should allow for new information and developments of an economic or scientific kind).</p> <p>Conditions which would lead to a movement from one trajectory to a more stringent trajectory would be specified in advance.</p> <p>Once on one trajectory, government provides five years notice before movement to another. Any gap between the domestic trajectory and international commitments during this period would be reconciled by the independent authority purchasing international permits.</p>
Coverage	<p><i>Gases:</i> Six greenhouse gases as defined by the Kyoto protocol.</p> <p><i>Sectors:</i> Stationary energy, industrial processes, fugitives, transport and waste from scheme outset. Agriculture and forestry to be included as soon as practicable.</p>
Domestic offsets	<p>Domestic offsets should be accepted without limits, but will have a small role, given broad coverage.</p>
Point of obligation	<p>Set at point of emissions where practical. Where transaction costs are lower than the cost of distortions that may arise, upstream or downstream may be appropriate.</p>
Permit issuance (or release)	<p>Permits released according to emissions reduction trajectory. All permits auctioned at regular intervals. (Note, some permits may be used in lieu of cash in providing transitional assistance to traded-exposed, emissions-intensive firms at risk.)</p>

Design decision	Proposal
International linkages	Opportunities for international linkage of the Australian ETS should be sought in a judicious and calibrated manner.
Price controls	Not supported.
Inter-temporality	Unlimited hoarding allowed. Official lending of permits by the independent authority to the private sector allowed, but may be subject to limits, in terms of quantity and time, determined by the independent authority.
Treatment of TEEIs	Some industries rely significantly on emissions-intensive production processes, and are substantially unable to pass costs of emissions through to customers because price of commodity or good is determined on international markets. Transitional financial assistance (possibly in the form of free permits) should be provided to account for distortions arising from major trading competitors not adopting emissions limits (or pricing).
Governance	Policy framework set directly by government. Scheme administered by independent authority.
Compliance and penalty	Penalty to be set as a compliance mechanism. Penalty does not replace obligation to acquit permits; a 'make-good' provision would apply. Alternatively, the use of revenue from a financial penalty could be used to purchase abatement.
Use of permit revenue	<p>Auctioning of all permits will be the source of a substantial amount of government revenue. Governments will need to assess competing priorities for this revenue, which may include:</p> <ul style="list-style-type: none"> ■ Payments to TEEIs (to correct for market failures); ■ Payments to households; ■ Structural adjustment to support declining communities; ■ Payments to firms to correct market failures in relation to new technologies; ■ Support for public infrastructure; and ■ Cash reserves to purchase international permits/offsets to reconcile domestic emissions with international commitments. <p>The political acceptability of the introduction of the ETS would be enhanced by government commitment to transparently return to the community through the mechanisms outlined above or in other ways, all of the revenue generated by the sale of permits.</p>