

House of Representatives
Standing Committee
on
Environment, Recreation and the Arts

**Inquiry into the
regulatory arrangements for trading
in
greenhouse gas emissions**

MTIA SUBMISSION

MARCH 1998

INTRODUCTION

The present inquiry seeks submissions on how an emissions trading regime might be implemented in Australia. MTIA is happy to offer its views on the principles which industry believes should underpin an emissions trading system.

However, the following submission is made without prejudice to consideration of other possible approaches to meeting Australia's greenhouse gas reduction target which might have less impact on business competitiveness, economic growth and job creation. It is therefore not an endorsement of emissions trading as a preferred approach.

Before any emissions trading system is considered, a full assessment must be undertaken of other options for meeting Australia's obligations under the Kyoto Protocol, taking account of

- administration and compliance costs
- the need for an extensive education campaign to overcome industry uncertainty about the scheme's operation
- the potential to introduce unintended distortions into both the domestic and international marketplace which could impair significantly Australia's competitiveness; and
- the disadvantage which could face Australian industry through the exclusion of developing countries.

Consideration of the scope of any potential emission trading regime is at an early stage and, in MTIA's view it would be premature to be debating in detail a number of the issues covered by the Committee's Terms of Reference.

BACKGROUND

In December last year, after months of negotiations, the parties to the Framework Convention on Climate Change agreed to a document (the Kyoto Protocol) setting limits on the amounts of greenhouse gases to be emitted into the atmosphere by so called Annex One countries in the first "budget period" of 2008-12. Annex One countries are predominantly developed countries, including Australia. A list of the parties required to meet emissions targets is attached.

Under the protocol, parties agree to "ensure that their aggregate anthropogenic carbon dioxide equivalent emissions of ... greenhouse gases... do not exceed their assigned amounts." The assigned amounts are calculated from the base year of 1990. Australia is one of three countries whose assigned amount allows for a slight increase over its 1990 level of greenhouse gas emissions - with an increase of 8 per cent.

It must be noted that this constitutes a major challenge to Australia. In the period 1990 to 2010 Australia's population is expected to grow by 30 per cent and

at present, fossil fuels provide 94 per cent of our energy needs. There will therefore be a need for some very real energy efficiency gains in order to ensure that our greenhouse gas emissions do not increase at a commensurate rate.

Once Australia has ratified the Kyoto Protocol, the Australian Government, industry and the community will need to focus on how a reduction in greenhouse gas emissions will be achieved.

The Prime Minister's statement of 20 November 1997 *Safeguarding the Future: Australia's Response to Climate Change* contained a range of measures aimed at meeting this challenge. These included:

- funding to support renewable energy
- energy market reform
- the implementation of an Automotive Industry Environment Strategy
- establishment of the Australian Greenhouse Office
- measures to encourage tree planting and revegetation; and
- the development of energy efficiency codes and standards for housing and commercial buildings, appliances and equipment.

The outcome of the Prime Minister's Greenhouse Statement is estimated to be a reduction in greenhouse gas emissions from a "business as usual" increase of 28 per cent from 1990 to 2010 to an increase of 18 per cent. This is about a one third reduction in emissions over those which would have occurred in the absence of these measures. It is arguable that the inclusion of land use change in the Kyoto Protocol will make up the difference between the 8 per cent increase required by the Protocol and the 18 per cent increase resulting from the Prime Minister's package. However, this is not guaranteed and more may need to be done.

MEETING OUR OBLIGATIONS UNDER THE KYOTO PROTOCOL

There are essentially two possible approaches to ensuring Australia's obligations are met:

- "command-and-control" measures - regulation or direct control of emissions either through limiting the amount of emissions or specifying the production processes or equipment to be used; or
- market based instruments.

Research work undertaken by the Industry Commission last year concluded that market based instruments are generally more cost effective than command and control approaches.¹

This approach is consistent with that taken by Australian Governments in the Inter Governmental Agreement on the Environment which stated that

"Environmental goals having been established, should be pursued in the most cost effective ways, by establishing incentive structures, including market mechanisms, which enable those best placed to maximise benefits and/or minimise costs to develop their own solutions and responses to environmental problems."²

There are five basic categories of economic instruments that fall within the market based approach:

- charges and taxes
- subsidies and tax concessions
- financial enforcement incentives
- deposit refund systems
- property rights and market creation.³

An emissions trading regime falls into the latter category with business buying and selling emissions permits at a price determined by supply and demand.

Before any approach is decided, a full cost-benefit analysis of the various proposals will need to be undertaken to determine which method is the most economically efficient both in terms of Government administration and for industry; and most effective in terms of achieving environmental outcomes.

To date, Australia has relied on voluntary "no regrets" measures to reduce our greenhouse gas emissions, however, the Prime Minister signalled in his November 1997 statement that industry may be required to go beyond a "no regrets" position.⁴

1 Cornwell, Antonia, Travis, Johanna & Gunasekera, Don ; Framework for Greenhouse Emissions Trading in Australia; Industry Commission Staff Research Paper; December 1997; p2

2 Inter Governmental Agreement on the Environment (IGAE); 1992; Section 3, Clause 3.5.4

3 Role of Economic Instruments in Managing the Environment; Staff Research Paper, Industry Commission; July 1997 p97

4 Safeguarding our Future: Statement by the Prime Minister of Australia the Hon John Howard MP; 20 November 1997; p4

Industry's preferred approach to meeting our Kyoto obligations would be to work with Government, through programs such as the Greenhouse Challenge to reduce greenhouse gas emissions through voluntary measures. MTIA has signed a Facilitative Agreement with the Greenhouse Challenge Office and many MTIA members are already participating in the Greenhouse Challenge in their own right. MTIA has been very supportive of this program and believes that this is an effective mechanism for reducing greenhouse gas emissions.

ISSUES

A greenhouse gas emissions trading regime would be very much more complex to implement than other domestic emissions trading systems already in place internationally, most notably the US SO₂ emissions trading system.

The following outlines a number of issues which would need to be resolved before emissions trading could commence. The list is by no means exhaustive, but it does reflect the challenge Government and industry would face in developing an equitable and workable emissions trading system

ALLOCATION AND DESIGN OF QUOTAS

The success of emissions trading would be very dependent on the initial allocation of emissions permits. Industry is strongly of the view that permits should, in the first instance, be issued free of charge. The actual allocation process must be equitable to ensure that companies which have participated voluntarily in programs such as the Greenhouse Challenge are not disadvantaged by the choice of base date for the calculation of emissions.

A related issue is the impact the discussion of the possible introduction of an emissions trading regime will have on voluntary emissions reduction. There is a risk that participation in voluntary programs could cease if there is a belief that emissions permits are to be distributed on the basis of emissions at the time the trading scheme commences.

As an ABARE paper argued:

"two sets of conditions need to be met for quota schemes to reach their full potential. First, they need to be carefully designed to provide the best incentives to their owners and users. Second, a number of conditions need to be met to ensure that the markets in which the quotas are traded are efficient."⁵

⁵ Rose, Roger; *"Tradable quotas for efficient natural resource management"* in ABARE; *Outlook 97, Proceedings of the National Agricultural and resources Outlook Conference, Canberra, 4-6 February 1997; Volume 1 Commodity Markets and Resource Management; p107*

The paper went on to point out that

"It is important that quota shares meet the conditions for effective property rights - that is, they are enforceable, transferable and the costs and benefits arising from their use are exclusive to their owners."⁶

The initial design of the quotas will be critical to the success or otherwise of a tradeable quota system. Issues such as the duration of the permit, allowable emissions under each permit, the overall emissions cap and the coverage of gases are all issues which need to be considered.⁷ It has been argued that

"duration of permits would need to represent a balance between the requirement to allow the designated central authority sufficient control over the desired level of emissions abatement and the need to provide participants flexibility in meeting reduction targets".⁸

Any uncertainty in the value or duration of permits would greatly reduce their attractiveness to industry.

The enormity of the task of initially allocating the emissions permits must not be underestimated. The allocation between industry sectors and between and within industries will have a significant economic impact, right down to plant level. The criteria for determining the size of the allocation for various facilities will need to be carefully established as these decisions will impact on the economic viability of individual enterprises. The allocation process has the potential to interfere seriously with the operation of the marketplace by altering patterns of competitive advantage within and between industries.

Once the permits are issued, calculating whether their terms are being met is also fraught with difficulty. Experience with the NSW load based licensing system, and more recently with the Industry Handbooks issued under the National Pollutant Inventory, demonstrate that even an apparently straightforward formula-based approach can produce unreliable results. The administration of the permits within companies has the potential to be onerous and generate large compliance costs.

6 Ibid; p114

7 Gunasekera, Don and Cornwell, Antonia; *"Economics Issues in Emission Trading"*; Paper prepared for the "Kyoto - The Impact on Australia" Conference; Melbourne; 12-13 February 1998; p1

8 Ibid; p1

Also of importance is the nature of the players in the permits market. MTIA members have expressed strong opposition to a totally open market which would allow for speculation in permits or purchase of permits by those who have no need for them.

In order to maximise the cost effectiveness of the system, any emissions trading should be on a national basis rather than a series of State-based schemes.⁹

REDUCTION IN EMISSIONS

While it is generally believed that Australia will meet its Kyoto target through the measures in the PM's November statement and land use change, this is unlikely to be the case for the next "budget" period (post-2012). If Australia were to introduce domestic trading in greenhouse gas emission permits, the system would need to incorporate a mechanism for reducing emissions over time. It has been suggested that emission levels could be reduced by

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- empowering the central authority to announce changes in the emissions allowed under each permit:
 - empowering the central authority to repossess compulsorily a number of permits from permit holders at any time...; and
 - having the central authority actively participate in the market, buying and/or selling emission permits until the allowable total emissions load is changed to the desired level."¹⁰

It would be critical to the functioning of the system that the means for reducing the overall emission cap was well known in advance and was structured in such a way as to avoid disadvantaging any players in the market place. Industry is of the view that the most predictable and equitable approach to reducing emissions is through participation in the market for permits by Government, the last of the three alternatives listed above. In order to reduce the overall emissions cap the Government would purchase permits and remove them from the marketplace permanently, thereby reducing the total emissions possible.

COVERAGE

As mentioned above, the design of a greenhouse gas emissions trading regime would be more complex than a single substance scheme such as the US SO₂ trading system.

⁹ Cornwell, Travis and Gunasekera; op cit; p24

¹⁰ Gunasekera and Cornwell; op cit; pp2-3

While, for simplicity, it would be tempting to commence with one gas, probably CO₂, it would be far preferable for the scheme to have a comprehensive coverage from the outset, including all greenhouse gases, sectors and sinks. This would ensure the burden of emissions reduction was spread across more sources, thereby reducing the total cost to all participants in the trading scheme.¹¹

Although a comprehensive coverage of gases is favoured, it is suggested that the "currency" of the emission permits be CO₂ equivalents, based on the global warming potential of each gas.

LINKAGE WITH INTERNATIONAL EMISSIONS TRADING

The design of any domestic emissions trading system could not be undertaken in isolation from the development of an international regime. This raises the question of relative costs of abatement internationally and the impact this would have on the price of permits.

Trade will occur in permits between sellers whose abatement costs are less than the permit price and buyers whose abatement costs exceed the permit price. If nationally costs are relatively high, permit prices will also be relatively high or there would be no incentive to sell permits. The implications of this for an international trading regime is that "the price of permits in an Australian domestic system would be expected to be much higher than the price in a system that included the US..."¹². It has therefore been argued that

"a permit system with a cap on permit quantities in Australia (based on Kyoto) could be a very bad idea in the near term because any participation in a multi-country system would most likely lead to a large fall in the permit price in the future. Why pay a high price today in terms of economic costs?"¹³

It is important that Australia be actively involved in the design and implementation of any international trading system and a system which will disadvantage Australia economically must be opposed vigorously.

GUIDING PRINCIPLES FOR AN EMISSIONS TRADING REGIME

11 Ibid; p3

12 McKibbin, Warwick J; *"Global Emissions Trading: Prospects and Pitfalls"*; Paper prepared for the "Kyoto - The Impact on Australia" Conference; Melbourne; 12-13 February 1998; p9

13 Ibid; p9

On the basis of the above, MTIA proposes the following guiding principles in the event that Government and industry choose to go down the path of a domestic greenhouse gas emissions trading regime.

A key feature of the market must be **equity** with all players in the "market" treated fairly. Windfall losses and gains must be minimised. Existing property rights must be respected and initial permits must be allocated at no cost. There must also be a mechanism for new entrants and expanding businesses to gain access to emissions permits. The system must also allow for economic growth. As indicated above, Australia's population is forecast to grow 30 per cent in the period 1990-2010. If Australia is to avoid significantly higher levels of unemployment, strong economic growth is essential.

The system should maximise voluntary action by all sectors to reduce greenhouse gas emissions. In particular, measures must be taken to avoid disadvantaging companies which have already taken action to reduce their emission levels.

The scheme must feature **certainty**. If emissions reductions are to be achieved by Government through the permit system, the timetable for reductions and the mechanism for reducing either the number of permits or their emissions value must be known to the market in advance. This advance knowledge of the schedule of reduction will be crucial to investment decisions.

Any system must be set up in such a way as to minimise the impact on Australia's **competitiveness**. If an international trading regime is established, the impact on Australia's economy must be assessed carefully to ensure that Australian business is not disadvantaged due to our relatively high abatement costs. If no international system is established, the option of an emissions trading regime must be assessed against alternative means of achieving greenhouse gas reductions to determine which has the least impact on Australia's international trading position.

The Inter Governmental Agreement on the Environment stated that environmental measures "should be cost-effective and not be disproportionate to the significance of the environmental problems being addressed"¹⁴. On the specific issue of climate change, Governments indicated that Australia should not implement greenhouse response measures "that would have net adverse economic impacts nationally or on Australia's trade competitiveness."¹⁵

Of particular concern is the role of developing countries in addressing global warming. This is an issue whether a trading system is domestic, international

14 IGAE; Section 3, Clause 3.4 (iii)

15 Ibid; Schedule 5, Clause 2

or both. Anything which increases costs for Australian companies without similarly affecting our competitors places Australia at a disadvantage.

In order to provide maximum flexibility to the system, the scheme should have **broad coverage** of all emissions and sinks. It should include all six gases covered by the Kyoto protocol and they should be traded as CO₂ equivalents to reflect their global warming potential. Credits should be allowed for sinks and carbon sequestration and land use changes should be covered. The scheme should also be national.

It is important that Australia become actively involved in the evolution of any international trading regime to ensure that our national interests are protected.

CONCLUSION

Australia faces a number of issues in determining the best means for meeting our obligations under the Kyoto Protocol.

Tradeable emission permits are only one of a range of available options.

The overriding concern to MTIA is that the avenue chosen for reducing our emissions must meet the twin goals of cost effectiveness and improved environmental outcomes.

Tradeable permits have the advantages of allocating resources to the highest value use, reduced information needs for regulators and potentially more certainty regarding emissions levels. However the difficulties associated with establishing an efficient market, setting the overall level and the initial allocation of permits and the transaction costs associated with the trading system are not trivial.¹⁶

The virtues of a domestic trading system must not be overstated. It has been observed that

"Market illiquidity has been a characteristic of domestic quota systems in general, with less trade in quotas occurring than would be expected in a competitive market. Nevertheless, the overall assessment is that these schemes usually have resulted in substantial cost savings over a purely regulatory approach."¹⁷

¹⁶ Industry Commission; July 1997; pp12-13

¹⁷ Brown, S., Donovan, D., Fisher, B., Hanslow, K., Hinchy, M., Matthewson, M., Palidano, C., Tulpulé, V., and Wear, S; The Economic Impact of International Climate Change Policy; ABARE Research Report 97.4; Canberra; 1997; p71

Before Australia proceeds down the path of emission permit trading, a full assessment must be undertaken of other options which could equally meet the test of cost effectiveness and environmental outcomes proposed above.

MTIA
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PARTIES WITH EMISSIONS TARGETS UNDER THE KYOTO PROTOCOL

Australia
Austria
Belgium
Bulgaria
Canada
Croatia
Czech Republic
Denmark
Estonia
European Community
Finland
France
Germany
Greece
Hungary
Iceland
Ireland
Italy
Japan
Latvia
Liechtenstein
Lithuania
Luxembourg
Monaco
Netherlands
New Zealand
Norway
Poland
Portugal
Romania
Russian Federation
Slovakia
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Spain
Sweden
Switzerland
Ukraine
United Kingdom of Great Britain and Northern Ireland
United States of America

