

**SUBMISSION TO THE
INQUIRY INTO THE REGULATORY
ARRANGEMENTS FOR TRADING IN
GREENHOUSE GAS EMISSIONS**

March 1998

RECOMMENDATIONS

- The AAA supports “no regrets”, cost-effective and equitable strategies that will achieve real outcomes. Once no-regrets measures are exhausted, greenhouse gas trading schemes may be beneficial in meeting greenhouse targets.
- To estimate GHG emissions from motor vehicles for the purposes of GHG emission trading, it is recommended that the appropriate unit of measurement is fossil fuel consumption.
- Greenhouse sinks should be included in any GHG emissions trading scheme.
- Individual motor vehicles or motorists should not be required to hold a permit for emissions under a GHG trading scheme, because it is too costly to measure and verify these emissions and manage the permits. Rather, it is recommended that permits for emissions should be purchased, held and be available for trading by one or other stage of the petroleum products industry, and emissions should be estimated based on the correlation between fuel consumed and GHG emissions
- Under a domestic GHG emission trading scheme, ideally a petroleum supplier should not require a permit for fuel exported to another country, and businesses importing petroleum products for consumption in Australia should be required to have a permit. However, this recommendation is conditional on international trading partners adopting similar rules.
- In order to establish a mature permit trading market, consideration should be given to allocating the first round of GHG emission permits free to incumbent operators.
- Access to the market trade in GHG emissions should not be restricted.

1. INTRODUCTION

The Australian Automobile Association (AAA) welcomes the opportunity to make a submission to the House of Representatives Standing Committee on Environment, Recreation and the Arts Inquiry Into the Regulatory Arrangements for Trading In Greenhouse Gas Emissions. The Association is also a member of the Australian Industry Greenhouse Network and endorses the views expressed in its submission to the Committee.

The AAA is the Federal secretariat of the State and Territory motoring clubs, its members being the:

- NRMA Limited
- Royal Automobile Club of Victoria (RACV) Ltd
- The Royal Automobile Club of Queensland Limited
- Royal Automobile Association of South Australia, Inc.
- The Royal Automobile Club of W.A., (Incorporated)
- The Royal Automobile Club of Tasmania
- Automobile Association of Northern Territory Inc.; and
- Royal Automobile Club of Australia

The AAA represents over 6 million motorists, being the total membership of these clubs and associations.

2. BACKGROUND

To date, Australia's greenhouse response strategy is based mainly on 'no-regrets' measures: those which reduce greenhouse gas (GHG) emissions but with no net cost to the economy. Because of their zero net cost, it is important that no-regrets measures to reduce emissions be implemented before resorting to other, more costly methods of reducing greenhouse gas emissions. No regrets measures include tree-planting, vehicle tuning, and use of car parking charges (BTCE, 1996). Indeed, as there is some uncertainty regarding the extent and timing of the 'greenhouse problem', it may be prudent to delay introducing any costly measures until more information is available.

It is inevitable that measures to reduce GHG emissions will be introduced. To date, these have included ad hoc regulations and voluntary schemes in Australia. No-regrets measures should be introduced before any trading regime (with its administration and compliance costs) is introduced.

Nevertheless, trading schemes would appear to have much merit once no-regrets options are exhausted, and it is sensible to examine some of the issues in advance of needing to introduce a trading regime. To ensure that a trading scheme operates efficiently, it would need rules about how to trade, how to measure and monitor emissions, how to integrate carbon sinks, how to allocate permits initially and other rules if it were to function effectively.

Recommendation:

AAA supports “no regrets”, cost-effective and equitable strategies that will achieve real outcomes. Once no-regrets measures are exhausted, greenhouse gas trading schemes may be beneficial in meeting greenhouse targets.

3. MEASURING, VERIFYING AND MONITORING EMISSIONS

In this submission, the focus of greenhouse emissions is on fuel consumed by motorists. However, we remind the Committee that greenhouse gases are emitted during the vehicle production process and that there are whole-of-life greenhouse issues associated with the use of motor vehicles.

There are ways of measuring actual emissions of certain pollutants from large individual sources. This monitoring is generally undertaken by the polluter (eg. in NSW and USA), with compliance returns being provided to the responsible authority. The returns are typically subject to audit, thus providing a reasonably reliable compliance check. In Victoria, the Environment Protection Authority regulates emissions of prescribed pollutants, but not across all industries. CO₂ is not one of the pollutants.

It is impractical to measure the emissions from every vehicle at all times during a year. However, as there is a good correlation between fuel consumed and CO₂ emitted, it may be possible to measure fuel consumed and then calculate CO₂ emitted. Cornwell et al (1997) states that the relationship between the consumption of fossil fuels and CO₂ emissions is well enough understood for quantities of fossil fuel consumed and related carbon contents to be measured instead.

Recommendation:

To estimate GHG emissions from motor vehicles for the purposes of GHG emission trading, it is recommended that the appropriate unit of measurement is fossil fuel consumption.

4. MECHANISMS TO INTEGRATE EMISSIONS TRADING AND CARBON SINKS

Carbon sinks absorb (or sequester) CO₂. Carbon sequestration will increase if land clearing is reduced, if there is an increase in the number of trees growing, or due to improved land management techniques.

Carbon sinks are an important element in reducing greenhouse gas emissions. One of AAA's Constituent members, Royal Automobile Club of Victoria (RACV) supports Greenfleet, a state-based initiative developed by the Foster Foundation, a not-for-profit environmental education organisation. Each year motorists are invited to contribute \$25 for 7 trees to be planted that year and cared for. These trees will take out of the air over their lifetime as much CO₂ as the average car produces in a year.

We also note that AAA is affiliated with the Federation Internationale d'Automobile (FIA) and that AAA is an inaugural member of the FIA's International Federation for Carbon

Sequestration. This organisation has sponsored a pilot project of reforestation in Mexico which will reabsorb the equivalent emissions of the FIA's Formula One World Championship.

AAA is not in a position to advise on the best regulations for incorporating greenhouse sinks into an emissions trading scheme, but supports their inclusion.

Recommendation:

Greenhouse sinks should be included in any GHG emissions trading scheme.

5. ALLOCATION OF THE RIGHT TO EMIT GREENHOUSE GASES

The right to emit greenhouse gases would be contained in a permit. Permits would need to specify the net emissions allowed during the specified permit period. The net level of emissions nationally (the emission cap) would also have to be specified for each permit period.

The amount by which the emission cap is reduced over successive permit periods also needs to be specified in advance in order for the permits to become a secure asset. The ways in which this is done will affect market participants, and further discussion is presented in Cornwell et al (1997).

A trading market would need a sufficient number of prospective permit sellers and buyers for permit prices to actually reflect the values of the participants. However, the costs of being part of the market (that is, buying and selling permits) may be quite high. Participants would need to know the rules, and their emissions (or fossil fuel consumption) during the permit period would need to be measurable and verifiable. This is relatively easy for an electricity generator. The company might measure the coal it used during the year, record this, have this audited, and submit to the market authority. It could also predict emissions for the next year and set about purchasing the appropriate number of permits, sell any spare permits, or buy additional ones. The costs of doing this would be small compared with the size of their business, especially as such information may be required for accounting purposes anyway.

The issues are different for motorists. Firstly, it would be costly for each motorist to measure all fuel consumed and get this verified to the satisfaction of the market authority. Second, depending on how they are traded, motorists may have to purchase more permits during the year, and may have trouble buying permits to the exact size they wanted. In addition, managing millions of permits, and verifying that only the emissions allowed under each permit are emitted would be an impossibly costly system to administer.

For these reasons, the permit scheme is best limited to large emitters. Cornwell et al (1997) suggest that targeting energy suppliers rather than end users of energy may represent the best compromise between efficiency and administration, monitoring and transaction costs. In the case of motoring, this would mean that it is preferable that petroleum companies purchase a permit for emissions in the market. The emissions could be estimated from the fossil fuel to be sold. That is, a petroleum refiner might purchase a permit for, say, a specific amount of

petrol production over 12 months, which is something which could be measured and verified. Alternatively, permits for various greenhouse gases could be purchased, but care would need to be exercised when setting the caps for the various greenhouse gases to ensure that there was not a serious imbalance in the various transport fuels produced (eg petrol, diesel, LPG).

Recommendation:

Individual motor vehicles or motorists should not be required to hold a permit for emissions under a GHG trading scheme, because it is too costly to measure and verify these emissions and manage the permits. Rather, it is recommended that permits for emissions should be purchased, held and be available for trading by one or other stage of the petroleum products industry, and emissions should be estimated based on the correlation between fuel consumed and GHG emissions.

- A domestic emissions permit scheme aims to control emissions within Australia. In the case of motoring, it is the emissions produced when driving a car which are relevant. Ideally, petroleum products refined in Australia for export (ie. consumption in another country) should not be required to be covered by a permit, and product imported for consumption in Australia should require a permit, as GHG's will be emitted when the fuel is consumed. However, this would be conditional on international trading partners adopting similar rules and the Australian tradeable permit regime "interfacing" with an emerging international tradeable permit scheme.

Recommendation:

Ideally, under a domestic GHG emission trading scheme, a petroleum supplier should not require a permit for fuel exported to another country and, businesses importing petroleum products for consumption in Australia should be required to have a permit. However, this recommendation is conditional on international trading partners adopting similar rules

There are several options for the allocation of permits. DFAT (1997, p 114):

- auctioning permits,
- issuing them free of charge based on historical emissions, or
- allocating them based on historical and expected future emissions.

Certainly the current right to emit GHG's without cost suggests that implementation would be more willingly accepted if permits were allocated free initially. Auctioning the first permits into an immature market could result in companies paying too much or too little for permits. It might be preferable to issue the first round of permits free, to allow some time for participants to build up some expertise through small trades.

It appears that there are no issues specific to the transport sector here, although the existing right to emit suggests that most industry would support free initial distribution of permits.

Recommendation:

In order to establish a mature permit trading market, consideration should be given to allocating the first round of GHG emission permits free to incumbent operators.

6. REGULATORY MECHANISMS AND TRANSACTIONS COSTS

Regulations would be required to ensure that a market for trading emissions permits resulted in the desired outcomes. These would include rules about how to offer permits for trade, how to purchase permits, and rules around the development of any derivative products in the market (such as futures and options). If, as recommended in Section 5 above, permits are issued to the petroleum industry rather than to individual motorists, these issues are not directly relevant to our members, and the AAA is not in a position to comment on such matters.

Transactions costs of different market players is not something on which the AAA can comment.

7. ROLE AND RESPONSIBILITIES OF GOVERNMENTS AND OTHER STAKEHOLDERS

The Federal Government would have a role in ensuring the market operates under the rules specified. This would include disseminating information widely about the market to market participants and also the community.

The Federal Government would also have the role of deciding how the emissions cap is reduced over time in accord with meeting international agreements. It should consult widely with interested stakeholders in these deliberations, including State governments, industry, consumer groups and others.

Environmental groups may wish to purchase permits and hold these rather than emit GHG's under that permit. This is a way of non-government stakeholders reducing GHG emissions and it is important that such groups be able to access the market.

Recommendation:

Access to the market trade in GHG emissions should not be restricted.

8. THE IMPACT OF EMISSION TRADING ON THE ENVIRONMENT AND INDUSTRY AND THE ECONOMIC AND SOCIAL WELFARE OF THE AUSTRALIAN COMMUNITY

An emission permit trading system is likely to affect the price of petrol, but it is not possible to predict the actual price change at this stage, as the price of permits will depend on how many permits are available, and how much some companies and industries are prepared to pay for the right to emit. However, price changes would affect motorists, the petroleum industry and the automotive industry.

Any petrol price change is likely to initially have a modest effect on petrol demand, as it is generally accepted that distance travelled is remarkably unresponsive to changes in fuel prices (a price elasticity of around -0.1). However over time individuals may be prompted to switch to more fuel efficient cars, thus reducing petrol consumption. In the longer term each 1% increase in petrol price has been found, all else being equal, to lead to a reduction in petrol consumption of about 0.6% (Industry Commission 1994).

The overall effect on the petroleum industry will depend on how much emissions permits cost (although initially they should be issued free). The overall effect on the petroleum industry also depends on other uses of petrol, including air travel, which is growing very rapidly. The AAA is not in a position to estimate the effect on the petroleum industry.

The impact of permit trading on the automotive industry will depend on the degree to which consumers are prompted (as a result of permit trading being introduced) to change demand patterns. At present, smaller more fuel efficient vehicles are typically imported, while the local industry specialises more in larger vehicles. Many existing environmental policies are specific to the automotive industry, such as fuel consumption targets. The impact of a GHG permit trading scheme should not be seen in isolation from these.

9. REFERENCES

Bureau of Transport and Communications Economics (1996) *Transport and Greenhouse*, Report 94, Australian Government Publishing Service.

Cornwell, A., Travis, J. and Gunasekera, D. 1997, *Framework for Greenhouse Emissions Trading in Australia*, Industry Commission Staff Research Paper, AGPS, Canberra, December.

Department of Foreign Affairs and Trade (DFAT) 1997, *Australia and Climate Change Negotiations: An Issues Paper*, September.

Industry Commission, 1994, *Urban Transport*, Report No. 37.