

Introduction

The South Australian Government supports the need to explore the most effective and efficient means by which Australia can contribute to the global reduction in greenhouse gas emissions as required under the United Nations Framework Convention on Climate Change.

South Australia welcomes the opportunity to contribute to the debate on the regulatory arrangements required for trading in greenhouse gas emissions and anticipates a cooperative and collaborative approach between the Commonwealth and other States and Territories in the development of any such scheme.

It appears that an emissions trading scheme has the potential to be an effective and efficient mechanism to reduce greenhouse gas emissions. Nevertheless, any policy instrument introduced should be flexible, with measures in place for reviewing, adapting and refining approaches due to changing circumstances. The application of any such policy instrument would need to be closely monitored to ensure that it does not result in any unforeseen distortion of the market, or unfair penalisation of a particular sector.

In aiming to achieve a reduction of greenhouse gas emissions, trading emissions rights should be viewed as one of a range of measures and should not be pursued to the exclusion of other policy instruments such as demonstration and education programs.

There are considerable complexities involved in developing, implementing and monitoring an emissions trading scheme. On the particular issue of Commonwealth/State legal/constitutional rights a more detailed legal analysis will only be possible when the comprehensive detail of a proposed scheme is known. For the purposes of this Inquiry a list of broader level legal principles are included in Appendix I for consideration.

Terms of Reference

Mechanisms for measuring, verifying and monitoring emissions and the compliance with contracted arrangements.

The mechanisms for measuring, verifying and monitoring emissions and the compliance with contracted arrangements are crucial requirements of a trading system. Unless the market can be satisfied that the mechanisms are in place and subject to scrutiny, the integrity of the system may be compromised; however, it must be acknowledged that the measurement and forecasts of emissions could contain a certain degree of error.

South Australia suggests a gradual and phased approach to the development of the emissions trading market with expansion occurring as the capability to accurately measure and monitor emissions is developed.

Currently available mechanisms for measuring and monitoring emissions, which could be used or adapted in emissions trading, are:

- The National Greenhouse Gas Inventory which accords with the Intergovernmental Panel on Climate Change methodology and provides annual assessment of emissions on a national scale. There are intentions to prepare these at the State level.
- The methodology developed under the Greenhouse Challenge Program for monitoring emissions at the individual company level.

The inquiry will need to consider how regulatory arrangements for trading greenhouse emissions will fit with existing Commonwealth initiatives such as the Greenhouse Challenge Program as there is potential for duplication of monitoring and reporting and other administrative matters (and hence expense), if such current and future Commonwealth initiatives are not coordinated.

Mechanisms to integrate emissions trading with the development of carbon sinks (such as timber plantations, gas aquifer reinjection, soil rehabilitation etc), including the science, measurement and security of such arrangements.

Carbon sinks offer the opportunity for CO₂ sequestration through the absorption and fixing of atmospheric carbon in the wood produced in tree and other vegetation growth. South Australia supports the trading of credits from carbon sinks such as timber plantations and revegetation initiatives as it will increase the overall flexibility of a system designed to reduce greenhouse gas emissions.

While the amount of CO₂ absorbed ranges widely by species, growth factors and location, there is an opportunity to establish base line sequestration levels for plantations which could form the basis for trading emissions. Currently, it is estimated that profitable, fast growing plantations in South Australia sequester approximately 14 tonnes of CO₂/hectare/year (this varies with site conditions and management practices).

It is therefore suggested that, at least in the initial phase, trading of credits from carbon sinks develop in parallel with trade in emissions and not comprise a single

system until more research is carried out to determine adequate ways to measure the uptake of CO₂ by trees and other forms of vegetation.

The allocation of the right to emit greenhouse gases.

It is important to recognise that the allocation of the right to emit greenhouse gases is integrally linked with a greenhouse gas emissions trading scheme.

A greenhouse gas emissions trading scheme should:

- . encourage greenhouse friendly outcomes eg. reduced greenhouse gas emissions, increased renewable energy, fuel substitution and cogeneration;
- . facilitate trading by ensuring sufficient participants and adequate information on prices and quantities;
- . ensure the integrity of the system through sound monitoring and auditing provisions;
- . encourage innovation and investment into greenhouse friendly technologies;
- . allow for the gradual extension of the market to incorporate a wider range of industry sectors (power generation, manufacturing, mining etc), emissions sources, sinks and greenhouse gases; and,
- . provide a framework which can be integrated with an international trading system.

The issue of allocation of emissions entitlements to existing businesses is a critical issue for the inquiry; it is important that careful consideration be given to this issue since it is likely to become the basis from which further reductions may be required.

Allocation of initial emissions rights should be equitable:

- . on a national basis across States and Territories;
- . between industrial sectors; and,
- . between existing and new participants in the market.

It is proposed that the allocations apply initially to CO₂ from electricity generation and allow for gradual expansion to include other industry sectors, emission sources, sinks and a wider range of greenhouse gases.

The allocation of the right to emit greenhouse gases should be applied to those generating the emissions in the first instance and not to the distributors and retailers. Any scheme applied to resellers would be at odds with the National Electricity Market arrangements.

A key institutional innovation in the US, and one which Australia could consider, is the SO₂ trading scheme which established the legal ability for any person to own or hold rights thereby allowing the development of options, swaps, forward and future contracts.

If, for example, only one sector (eg the energy sector) is targeted, then administration difficulties and costs may be minimised. However the effectiveness of such an approach would only address part of the overall greenhouse gas emissions issue, and may also target a sector which is already making significant commitments to

programs such as the Greenhouse Challenge. Additionally, if only the big players are included, then the market for emissions rights may not be as competitive as desired. On the other hand if as many players are included as possible, then the administrative costs will increase and the costs on smaller players may be prohibitive.

In simple terms the debate on the initial method of allocation of the right to emit greenhouse gases is between grandfathering ie. allocating on the basis of current or historical emissions and allocating on the basis of capacity or volume of the generating plant.

Allocation based on current actual emissions will tend to reward past inefficiencies and penalise the more efficient suppliers (in terms of greenhouse gas emissions). For example, with fluctuations in the market, a greenhouse-efficient plant which has unused capacity at the time of allocation of credits or entitlements could receive fewer credits than a less efficient plant which, because of the prevailing energy market conditions, may have near-maximum output at the time of credit allocation.

Basing initial allocation of tradeable emission rights on current generation rather than volume or capacity would mean that, to pursue greater market share as the energy market changes or fluctuates, the more greenhouse efficient plant would have to purchase additional credits or rights to increase its output to design capacity. Hence allocation of rights on the basis, for example, of previous year's emissions could result in more efficient plant being substantially penalised. At the same time it would be inappropriate to penalise supply options currently in use which were based on the most efficient use of resources prior to consideration of greenhouse gas emissions.

If the allowance for new entrants is done on a capacity basis, then the allowance could be based on the projected end of period demand and the amount of carbon dioxide allowed nationally for that demand. This would give renewable energy systems and other low emission plants substantial credits to trade as an offset to their higher initial capital cost.

However, the impacts of different methods of allocation must be carefully examined. For example, South Australia and Tasmania would be disadvantaged by allocation based on current emissions due to the high proportion of natural gas used in South Australia and of hydro-electricity in Tasmania. These would be more difficult to reduce than emissions from a State such as Victoria which uses brown coal to a marked extent.

Since the Australian commitment under the Kyoto Protocol effectively seeks to reduce per capita emission of greenhouse gases, this needs to be taken into consideration in allocating emissions rights. In a general sense, additional emission rights should be provided each year in line with the Kyoto 'schedule' to meet expected load growth (related to population growth), if not there is a possibility electricity prices would rise dramatically.

The transition from current emissions levels to those required to achieve Kyoto Protocol commitments needs to be effectively managed by government to minimise any sudden cost increases due to premature investment in new technology.

Regulatory mechanisms to support a national market and potentially an international market in emissions trading.

South Australia recognises that establishing a regulatory mechanism is a complex task which will need careful consideration and consultation especially with regard to Commonwealth/State legal and constitutional issues.

The regulatory framework should spell out the basic components of the system to be established, for example:

- . allocation of emissions rights;
- . application to greenhouse gases, sources and sinks;
- . measurement and monitoring of emissions;
- . market information on emissions traded, prices etc;
- . market establishment, regulation and supervision.

The US experience and United Nations Conference on Trade And Development (UNCTAD) work provides guidance in the development of regulatory mechanisms. It is assumed that a national market may precede the development of the international market. Key aspects of the mechanisms are:

- . a cap and trade program is the model - a cap on overall emissions, and a program to allow trading of these emissions;
- . the program must be highly specific to the pollutants being managed and the environmental problem being addressed;
- . market fundamentals apply - an insufficient number of participants doom a market. There must be many buyers and sellers. No one buyer or seller should dominate the market and influence prices. Full information should be available on prices and quantities;
- . transfer costs should be low - the only beneficiary of high costs are brokers;
- . emissions monitoring to prevent cheating is essential to safeguard the market and investments in emissions trading.

To ensure consistency and the establishment of a level playing field across Australia, the regulatory framework could be put into place through a National Environmental Protection Measure (NEPM) under the National Environmental Protection Council (NEPC) which has been established by uniform and complementary Acts in each State. NEPC is a statutory body and comprises Ministers from the Commonwealth, States and Territories. This may provide the necessary statutory mechanism involving all jurisdictions.

However, it is suggested a market developed around clearly defined allocation of credits using measurements based on established mechanisms such as those used in the National Greenhouse Gas Inventory could be essentially self regulating with minimum government oversight and court based appeals systems in place. Apart from the essential regulatory arrangements such as monitoring of emissions, audit of permits against emissions, reporting and recording of trades etc., the scheme has the potential to be a relatively unregulated competitive market.

Possible emission traders, administration and transaction costs

A central market/register should be established to facilitate the trading of emissions rights. This could follow the form of a stock exchange to ensure a competitive market for rights, maintain the price for the rights and allow the registration of rights.

The US experience is that the brokers will emerge with the development of the market.

Low transaction costs are one of the requirements for a successful market. Such costs cover those necessary to identify a trading partner, make proposals, execute negotiations, and ensure the completion of obligations under any resulting contract. Economies of scale apply and reduce costs for frequent exchanges or large numbers of allowances. Costs can be reduced by, for example, the government recording and reporting exchange prices and by not unduly restricting the market from including measures such as leases and bartering, the development of options, and forward and future contracts.

Roles and responsibilities of governments and other stakeholders

Government needs to:

- . determine the required emissions targets;
- . set the available emissions credits on the basis of the greenhouse gas emissions reductions required;
- . establish the approach/method to be adopted for allocation of these emissions credits;
- . establish the market (if this option is considered) and set the rules under which it would operate;
- . monitor actual emissions against emission rights; and,
- . establish and communicate the mechanism for dealing with organisations which emit in excess of their rights/permits. (In the case of electricity generation this could be specified through the generator licence conditions and include reference to target generator efficiency levels according to plant type).

It has been suggested the operation of the market be left to the private sector with supervision through the Australian Stock Exchange and/or the Sydney Futures Market. This is in line with UNCTAD advice that the government establish the emissions limits and rules and the private sector administer the market and conduct trade.

Proposed trading mechanisms would need to be comparable with national energy market operations resulting in the need to deal with some constitutional issues such as the use of common State legislation to achieve national conformity in areas of current State jurisdiction.

The impact of emission trading on the environment and industry and the economic and social welfare of the Australian community.

The US experience over recent years with SO₂ emissions trading appears to demonstrate the effectiveness of the market option. Some estimates put the cost savings achieved through emissions trading at over \$10 billion. This compares with a

total national pollution abatement cost in the US of around \$100 billion. Reductions in emissions were achieved well below allowable limits and the EPA's plan to reduce emissions by 8.5 mt by 2000 was 80% achieved in only 2 years trading. Nevertheless, comparisons with the US experience in trading SO₂ must be treated with caution as the trading system was developed and run in a largely non-competitive energy market.

For industry the trading results in environmental management being integrated into strategic business planning to gain the rewards and market opportunities afforded by emissions trading. As the market treats all compliance options similarly, the key issue is their relative cost and the emissions savings they achieve. This may result in industry utilising a wider range of compliance options and achieving spin offs from the technological development of these options. Overall the US experience has been that trading can produce a 'triple dividend' in economic, environmental and technological benefits.

Emissions trading may have the following impacts:

- market forces will tend to allocate resources to the most economically efficient measures whether these be the upgrade of single cycle power stations to combined cycle, conversion from coal to gas, investment in renewable energy or in carbon sinks (forests etc);
- if the environmental objectives implicit in the Kyoto Protocol are to be achieved it will be necessary to improve those activities which are primary contributors to greenhouse gas emissions; emissions trading offers a market based mechanism to drive this;
- there may be significant potential for Australia to take a lead in sustainable energy technologies and systems that will lead to either exports or emission credits from application in developing countries.

Greenhouse gas emissions trading is supported in principle as it may prove to be a cost effective way of reducing greenhouse gas emissions. However, it is expedient for preliminary investigations to examine the environmental and economic (and administrative) costs and benefits of the emissions trading system, as compared to alternative arrangements such as command and control systems.

Commonwealth / State - legal / constitutional issues

1. Until a comprehensive scheme for Trading in Greenhouse Gas Emissions has been determined, it is only possible to set out some of the broader legal and constitutional law issues that may be relevant. A more detailed legal analysis would be possible when the broad detail of the scheme is known.

Experience in other national market schemes (the Corporations Law, the National Electricity Market and the Gas access arrangements) have shown that the legislative scheme and the concomitant legal issues need to be considered and conclusions reached in parallel with the development of the market and administrative arrangements.

2. The high-level legal principles that need to be observed are:

- 2.1 **Constitutional vires** : that is, ensuring that there is sufficient constitutional power if the Commonwealth is going to legislate, and the negotiating of either a Model Law, or an Application of Laws, scheme if a Commonwealth / State scheme is desired. The Commonwealth may have power under the external affairs power depending upon the terms of the Kyoto or other treaties, and may be able to rely upon a raft of other heads of power. However, apart from making for obscure drafting, Commonwealth constitutional power may be inadequate to cover all aspects of the scheme, and it may be better to rely upon a joint scheme.

If there is to be an auction of permits (emission entitlements) and a State legislative scheme is to be employed, there would need to be a consideration of 'excise' issues. If a State charges for the right to emit gases, where the gas is a necessary by-product of an input into production, that may be seen as an excise which is illegal under section 90 of the Commonwealth Constitution.

If there is a conflict between Commonwealth and State laws, then to the extent of any inconsistency, Commonwealth laws prevail (section 109 of the Constitution). See para 2.5 below.

- 2.2 **The design of the legislative scheme** : One model is the establishing of a **Code** that deals with the day to day elements of the scheme, and the application of the Code to market participants by **legislation**. A decision needs to be made as to what elements are to go in the Code and what elements are to go in the legislation - penalties, enforcement powers, the establishment of a Tribunal for adjudication, applicable administrative law principles, interpretation, the binding of market participants, and the establishment of administrative bodies usually goes in the legislation.

- 2.3 **Legal due process** : This involves the application of the rules of natural justice where a person's rights or obligations are being determined: Thus, the right to an impartial and fair hearing; a person's right to know the allegation against him or her; the right to put a defence; the right for all parties with a legitimate interest to participate; the right to appeal on questions of law to a body with judicial experience (usually a Superior Court); etc.

While there are some decisions that are of a political nature and should not have natural justice applied, there may still be a desirability of a public consultation process in those situations.

- 2.4 **Public Law policy issues** : This includes ensuring that any scheme is accountable, fair and equitable, from a legal policy perspective, and adheres to sound regulatory practice.

Thus: officials should have immunity only for honest acts or omissions and, where immunity applies, liability for negligence should lie against the Crown or the relevant administrative entity; there should be safeguards for confidential information; the powers of investigators should be clearly set out and not exceed what is reasonable to fulfil their function; penalties should be appropriate for the importance of the breach and allow a judicial hearing or a judicial appeal; the times given to market participants to perform certain acts should be reasonable; the regulators should not 'own' the Code; the functions, powers, accountability and reporting requirements of any administrative body should be clearly set out, etc.

Further, the scheme of administration of the Greenhouse Gas Emissions Trading system should be as light-handed (in a regulatory sense) as possible.

- 2.5 **Conflict of laws** : Any scheme for emissions control and emissions trading should be subject to environmental controls, as with the US SO₂ scheme.

In the main environment based controls are the subject of State and Territory legislation and are administered by State Environmental Protection Agencies. While there may not be a significant problem if the scheme is restricted to CO₂ emissions, if other gases are included (CH₄, N₂O, PFCs) there may be a conflict between a scheme that allows emissions up to the level in a permit, and a State legislative requirement that sets a lower cap. Similarly, if State exemptions are in place, they should not be able to override a requirement for market participation and the need to purchase a permit.