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Climate Action Newcastle response to the emission trading discussion paper.
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Background basics on emissions trading for CAN members:

An emissions trading scheme is based on the principle of setting a cap on the national total of greenhouse gasses that can be emitted for any one year, and issuing permits for each ton of CO₂ that makes up the cap amount. Industries are required to hold one of these permits to cover each ton of CO₂ they release. Permits would have to be bought, and this puts a price on CO₂ emissions. The requirement to buy a permit to release CO₂ to the atmosphere is analogous to the mining royalties that must be paid to dig each ton of coal out of the ground. The total cap on emissions will be adjusted each year to reach the target output, which is not yet determined but has been modelled as 60% reduction by 2050. Setting too generous a cap will not achieve the desired environmental outcomes, and too small a cap will cause excessive economic disruption or an unworkable scheme. The trading aspect of the scheme is that the permits can be bought and sold, so a company that can make efficiency gains and release less CO₂ will be able to sell any excess permits for a profit, likewise a company releasing increased CO₂ will need to buy extra permits. This has the effect of favouring the most efficient producers who can make their product with the least CO₂ emissions. The price of any product, such as electricity, will increase in proportion to the amount of CO₂ released in making it. This will favour electricity generators who produce no CO₂ such as from wind farms, as they will receive a higher price for the electricity but not have to buy permits.

There has been a lot of discussion of planting forests as offsets, but this is only a minor part of an emissions trading scheme. The main element is requiring polluters to buy a permit to cover every ton of CO₂ released.

Terms used:

Offsets are activities that capture and store carbon, such as forests, or geosequestration in which CO₂ is pumped underground. Offsets can also be generated by destroying the more potent greenhouse gasses such as methane.

Greenhouse gasses: Six gasses are recognised under the Kyoto convention as causing a greenhouse effect. Carbon dioxide (CO₂), methane, nitrous oxide, sulphur hexafluoride, perfluorocarbons, and hydrofluorocarbons. Other than CO₂ they are released only in small quantities, but some have a much more potent warming effect than CO₂.

Discounting: Adjusting the value of something either because it is risky, or because it occurs in the future.

Introduction

Climate Action Newcastle strongly endorses any scheme that places a significant cost on carbon emissions, and the current proposal by the state governments achieves this end. The proposal to rapidly develop a scheme covering only electricity generation by 2010 will allow a phased start, with extension to other greenhouse gas sources over time. Our position is slightly different to the scheme proponents in the areas of the creation of offsets, the initial allocation of permits and the level of the cap. In principle the proposal is excellent and if the key parameters are set properly it could help Australia do its share to avert dangerous levels of climate impact. The state governments are to be commended on taking the initiative in this area that should rightly be tackled by the Commonwealth. Climate Action Newcastle will endeavour to promote the emissions trading proposal to our membership and the community.

Members of Climate Action Newcastle are willing to pay more for electricity, and recognise this as an inevitable effect of internalising the cost of discharge of waste gasses into the atmosphere. Higher electricity prices make non-carbon electricity generation more economically feasible. Even the Commonwealth's preferred option of carbon capture and geo-sequestration from coal fired power plants would substantially increase the cost of electricity, and a cost levied on emissions is the most equitable and efficient way to let the electricity industry evolve to a carbon constrained future.

Offsets

Offsets such as carbon sinks are a risky part of a trading scheme, as they are difficult to measure to ensure integrity of the scheme. Carbon sinks would have to be able to ensure that the carbon stays out of the atmosphere in the long term, and although keeping a ton of carbon in a forest for 100 years is helpful it is not equal to leaving a ton of carbon in a coal seam. The global problem of excess atmospheric CO₂ is likely to still be with us in 100 years. Carbon captured in trees can be released by a bushfire, or after harvesting of the trees for commercial uses such as woodchips. Forestry offsets are liable to bushfires, despite the best risk reduction plans. It is hard to imagine a greenhouse gas 'make good provision' being enforced after 80 years when catastrophic bush fires have destroyed forests. After such a disaster the political mood will be for rescue packages rather than enforcing old contracts.

The idea of insuring these risks would transfer the risk elsewhere. The premium may well make forestry offsets uneconomic. Has an opinion been sought from the insurance industry on this?

There is widespread expectation in the forestry industry that existing forestry operations will generate carbon credits. This extends from the public to the private sectors. The contracts of managed investments schemes in plantation forestry already have a clause specifying that the project manager owns the rights to any carbon credits rather than the investor. In a letter to a CAN member, written 13 October 2006 the natural resources minister Ian Macdonald stated 'Forests NSW is now in a position to allow electricity and other companies to purchase carbon credit certificates. These certificates will help companies offset their carbon release'.

Neither the private managed investment scheme nor the existing public state forests meet the 'additionality' test, so should not be counted as generating offsets. The

forestry investment schemes in particular grow the trees for a decade using specially bred rapid growth varieties suitable only for wood chips. Forestry for sawn timber products has a growing time of 30 to 50 years, so it is not possible to add carbon sequestration to the role of forests grown for timber products. If the growth cycle were extended to 100 years to fit ETS rules and the forest clear felled at the end of this time for the valuable timber, much of the carbon would rapidly be back in the atmosphere. "Carbon forests" under the ETS offset rules are incompatible with production of timber products but could have biodiversity value.

Climate Action Newcastle believes forestry offsets should have the 'additionality' test rigidly enforced, and should be allowed for only a maximum 10% of total emissions due to the risks involved.

It is a positive feature of the ETS design that fossil fuel generators with carbon capture and geosequestration capabilities are regarded as two processes, ie a generator that needs an emission permit, and a sequestration operation that creates offsets. Such offsets must meet the requirements of additionality and permanence established for any other offset activity. Offsets through geological carbon sequestration should be included in the ETS with a provider liability design. Geo-sequestration technology is unproven and should be accredited as carbon offsets only after several demonstration pilot projects have been shown to contain the CO₂ without leakage for 20 years.

Destruction of methane, with 16 times the greenhouse potency of CO₂, seems a worthy and relatively robust measure so should generate recognised offsets until the fugitive methane emissions are included in the cap.

Climate Action Newcastle does not support the international trading of emissions offsets in the initial stages due to verification problems, although in future phases of the scheme the verification regimen may be well established.

Commencement

The scheme should begin as soon as compliance measurement systems can be put in place. Investment certainty is a valuable attribute of an early scheme. Climate Action Newcastle agrees that the cap on permit prices that results from the non compliance charge should be set at a point higher than permits are expected to trade, and fixed for long (10 year) periods so as to give certainty to investors. Establishing a functional and verifiable scheme with modest initial targets seems better than waiting and having to set tougher targets. The sooner we start the less risk of shocks to the system.

The size of the cap

Climate Action Newcastle believes that Australia should aim to be emitting 40% of 1990 carbon dioxide by 2050, that is, a 60% reduction. Australia should keep pace with the upper quartile of emission % reductions offered by similar countries so as to be leading rather than dragging the chain. We also call for an interim target of no more than the year 2000 emissions in 2020. As the country with highest or second highest annual CO₂ emission per person Australians have a duty to make deep cuts. Even if we were to reduce our 2004 emissions of 19.39 tons per person by 60% to 7.75 tons per person it would only move us to 50th position out of 210 countries current consumption, equal to the 2004 average emissions per person for Europe. (Figures from International Energy Annual 2004)

The mechanism for setting the cap 10 years at a time, with a specified range for the next ten years seems a good compromise between certainty and flexibility.

Coverage

Emissions from industrial processes such as steel and cement making, and fugitive methane emissions from industrial processes should be brought under the scheme in the second phase. Although there are some technical challenges in measuring fugitive emissions it would be no more difficult than verifying carbon sinks.

Penalty

The level of the penalty for failing to hold permits should be set at a level to be a significant disincentive. Climate Action Newcastle suggests double the auction price.

Allocation of permits

A system that allocates permits to existing generators based on current emissions rewards the worst polluters, and penalises early adopters who make changes before emissions trading begins. Such grandfathering is not in the interests of the objective to lower CO₂ output. It is true that some existing generators will be disadvantaged more than others by an emissions trading scheme. That is what it is supposed to do, and it is inappropriate to consider the profitability of individual companies in designing an emission trading scheme. Employees of plants that become uneconomic will need help from structural adjustment funds, shareholders of companies that become uneconomic should have invested in more forward looking technologies. There is a symmetry between profits from new technologies, which investors are happy to accept, and losses from outdated technologies (that were already labelled as unsustainable in 1980) which should not be compensated from the public purse.

The free allocation of emissions permits to an inefficient generator at the end of its working life would be a bonanza to its owners and should be avoided.

If grandfathering is necessary for pragmatic reasons, it must be limited to 20% of the cap, and last only until 2020.

Energy intensive industries

Exports of energy intensive export exposed products (aluminium) from Australia will be more expensive, however the same will be true for producers from other countries with emissions trading schemes.

Subsidies for the aluminium industry should only cover the export component of existing producers, should not be for new entrants, and should extend only until 2020. Subsidising new entrants removes any advantage of non carbon aluminium producers, such as countries with abundant hydro power.

Ideally if the commonwealth were running the scheme, an import duty could be imposed on the carbon content of imported metals, to neutralise the advantage of non carbon constrained economies.

Use of funds from auctioning of permits

The argument that permit revenue be administered by the states is sound, as there is no need for national uniformity.

Energy efficiency measures that could be supported through auction funds include:

- Retrofitting houses with shade structures and insulation. This could generate a significant number of jobs, and could be supported by low interest loans repaid through savings on energy bills. Such schemes could be preferentially deployed in regions that have suffered job losses if they occur as a result of increased energy prices.
- Continuing support for solar hot water installations.
- Supported availability of high quality teleconference technology to reduce the need for air travel for business, educational, political and health related trips.
- Infrastructure projects to increase efficiency in the national electricity and gas grids.
- Increased support for fundamental renewable energy research, and demonstration plants. Each time a new scaleable renewable energy technology is proven the price of future permits will drop.
- Funding of cycleways to provide realistic off road or traffic separated transport networks by 2015.

An alternate argument is to make the emissions permit system revenue neutral by reducing income tax by an equivalent amount. Tax cuts that cover the increase in electricity bills would ensure equity.

Scheme administration

It is imperative that there be ongoing stakeholder input from peak environmental NGOs in the management of the ETS, including setting caps and reviews of the functioning of the scheme.

Local effects on Newcastle

Newcastle and the Hunter region must be the greenhouse gas capital of Australia as we have huge coal fired power stations, and two aluminium smelters, not to mention the climate chaos we export to the rest of the world. This means that Newcastle will be one of the regions harder hit by the adjustment to a carbon constrained economy. The smelters employ 2003 people and 1345 work at a power station either near Lake Macquarie or Muswellbrook, out of a total Hunter employed workforce of 220,642 (HVRF 2001 figures for smelters, 2003 figures for generators). While the economic modelling presented predicts no impact on aluminium production as it is proposed to be propped up by a subsidy of emissions permits, Climate Action Newcastle does not believe this meets the environmental goals of the emissions trading scheme, and we expect aluminium smelting to be adversely affected. The timing of adverse impacts on coal fired electricity and aluminium may be manipulated through the ETS so as to not occur at the same time.

Existing strengths of Newcastle and the Hunter are:

- A strong industrial base that could create jobs manufacturing equipment for renewable energy generation, public transport, and for demand reduction.
- The Hunter Valley includes geological structures suitable for hot rock geothermal energy if the technology proves effective.

Summary

An emissions trading scheme should not be seen as an easy way out of the greenhouse gas problem. Difficult adjustments to fundamental aspects of our economy will be necessary, however an emissions trading scheme is the most efficient and equitable way to govern those adjustments. There must be ongoing input into the governance of the scheme by peak environmental groups, as there are dangers that an ETS could be subverted by setting the cap at too high a level, or by accepting invalid offset schemes.

Climate Action Newcastle submits that:

- Carbon offsets from forestry carry risks of verification and permanence so should be limited to 10% of the cap.
- The cap should be set at 40% of 1990 emission levels (60% reduction) by 2050, with an interim cap level of no more than 2000 levels in 2020.
- Subsidies for the aluminium industry should only cover the export component of existing producers, should not be for new entrants, and should extend only until 2020.
- Granting free permits to existing generators is contrary to the objectives of the scheme, however if it is necessary for pragmatic reasons, it must be limited to 20% of the cap, and last only until 2020.

The state governments are to be commended on the current proposal which embodies visionary planning to tackle the coming difficulties. Australia with our high standard of living, educated population and rich natural resources should be a country in the forefront of tackling climate change head on rather than taking the easy route by ignoring the problem and pretending it does not exist. The carbon emissions problem will eventually be solved by technical developments of one kind or another, but it is not possible in 2006 to predict which technology or mix of technologies will solve the problem. The beauty of putting a price on CO₂ emission is that it is technology neutral. It favours any technology that reduces emissions, from insulating houses to building wind farms or tweaking efficiency gains from aluminium pot lines. All these are currently more expensive than business as usual, but will become the economically preferred options once carbon emissions have an adequate price attached.