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CUAC Response to the Discussion Paper on a Possible Design for a National Greenhouse Gas Emissions Trading Scheme

CUAC welcomes the opportunity to comment on the Discussion Paper on a Possible Design for a National Greenhouse Gas Emissions Trading Scheme (the paper).

CUAC is an independent consumer advocacy organisation, established to ensure the interests of Victorian consumers, especially low-income, disadvantaged, rural and regional and Indigenous consumers are effectively represented in the policy and regulatory debate on electricity, gas and water.

CUAC advocates on behalf of long term consumer interests which we believe incorporates social, environmental and economic outcomes. For the remainder of this submission, economic, social and environmental interests will be referred to as the triple bottom line.

CUAC supports the intent of the scheme as a mechanism for reducing Australia's contribution to global emissions. We believe emission trading is part of a suite of necessary measures in order to efficiently reduce Australia's emissions.

A price signal which effectively encourages the allocation of investment that will bring about an efficient reduction in Greenhouse Gas emissions is in the interest of all consumers. We support establishing an emission trading scheme promptly, to allow local organizations and consumers to adapt to a 'carbon constrained' future. We believe prompt action combined with appropriate long term investments will help overcome risk from potential shifts in regulatory environments and climate science most efficiently.

We believe any emissions trading scheme established should be structured with the following principles in mind:

- The considerations of the triple bottom line must be balanced equitably.
- Any 'cap and trade' system adopted must set limitations on emissions that do not risk the future viability of any one element of the triple bottom line.
- That costs incurred and benefits gained due to any 'cap and trade' system must be shared equitably and in a way which maximises abatement efficiency.
- That the rules governing allowable emission abatement do not distort the true worth of one form of emission reduction over another.

With these principles in mind, our concerns with the proposed scheme can be summarized into the following key issues:

- 1. Unless properly set, the cap and trade limits will not produce the outcomes sought in establishing the emissions trading scheme**
- 2. There appears to be an inequitable distribution of costs incurred due to rules governing the allocation of permits. This may also result in an inefficient allocation of abatement investment.**
- 3. The rules governing emission abatement may distort the true worth of one form of emission reduction over others.**
- 4. That the preliminary modeling assumptions do not allow the true cost of abatement options to be adequately measured, thereby distorting the most efficient and optimal paths to abatement.**

What follows is a further outline of our concerns.

1. Unless properly set, the cap and trade limits and subsequent emission reductions can risk the outcomes sought in establishing the emissions trading scheme

The following statement, taken from the NETS proposal outlines the position on cap setting:

“Second, in determining the trajectory of emission reductions, the cap should allow for the Australian economy to transition as smoothly as possible to a carbon-constrained future.”

Outcomes predicted by the proposed emissions trading scheme suggest that economy wide, there will not be a net reduction in greenhouse gas emissions in the period 2010 – 2030, only a relative reduction from a business as usual assumption. Under all scenarios, emissions increase by at least 25% and all scenarios continue to show an upward trend parallel with business as usual.

Figure 6-14: National emissions

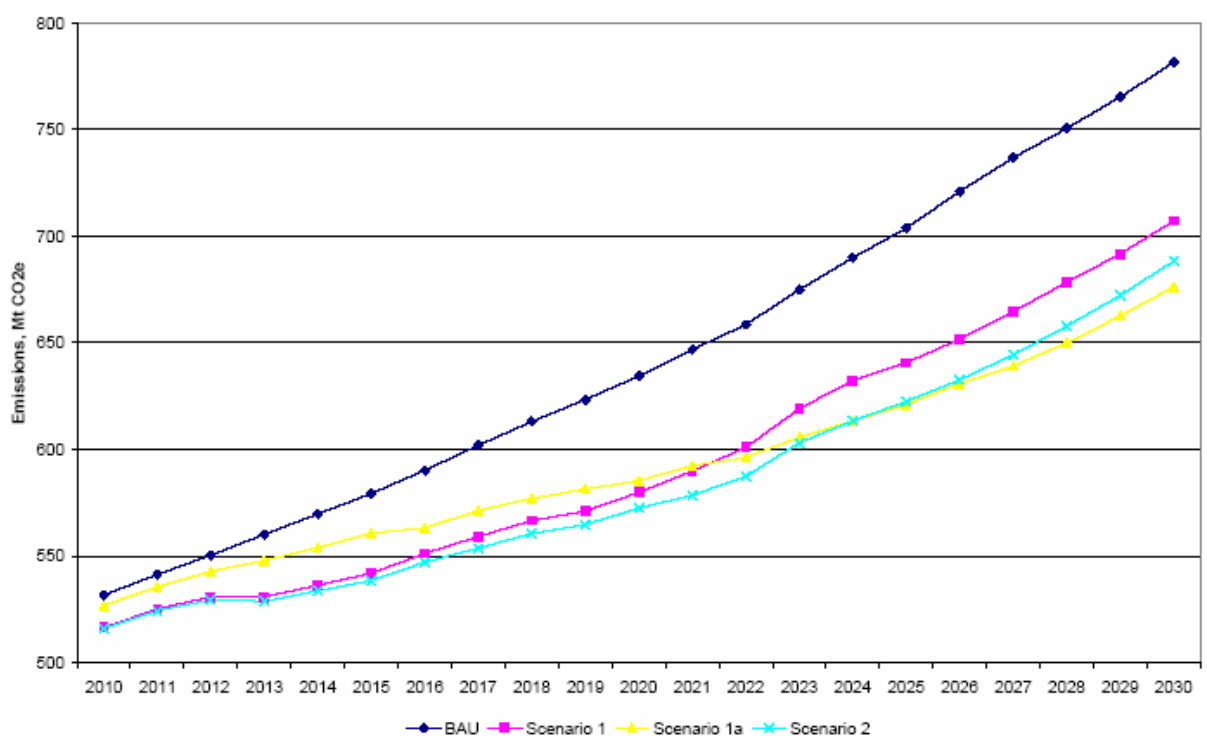


Image 1: national emissions taken from section 6, pg 109. Source: The Allen Consulting Group (2006), *The Economic Impacts of a National Emissions Trading Scheme*.

While CUAC recognizes that the proposed emission trading scheme does not operate in isolation to other initiatives, an emissions trading scheme which predicts a 25% increase in emissions from a 2010 baseline to 2030 with an upward trend, as opposed to a

commonly recommended reduction of 60% from a 1990 baseline to 2050, places undue risk on the viability of the triple bottom line. In particular, the proposal represents investment risk for those companies covered by the scheme making long term capital intensive investment decisions predicting a relatively low carbon price. Subsequently, future paths to emission reductions may be adversely affected by national and international regulatory changes that result in an increased carbon price.

Take home point 1:

That in order to ensure the efficient allocation of capital and hence the long term interest of consumers are adequately considered, CUAC believes the modeling must test the impact of more stringent reduction targets across the economy and hence higher prices for carbon.

Exacerbating the risk of setting abatement targets too low is that carbon prices will not reach sufficient levels to encourage fuel switching and long-term investments, even in conjunction with complementary schemes. For example in pursuit of ‘least cost abatement’ under the EU emissions trading scheme, at times, low cost one off abatement projects have been prioritized over more capital intensive projects that may have more benefits over the long term. Typically these low cost projects, such as forestation, have limited multiplier benefits. While this results in a short-term reduction of emissions it delays the long term investments required to restructure industries which will achieve long term reductions.

Take home point 2:

We understand that the modeling explicitly purports to be an examination of costs arising from the scheme only, not an examination of cost and benefit. We believe that more comprehensive modeling needs to be done which examines the cost and benefit of reducing emissions in line with scientific recommendations

The timeframe of the scheme coverage is also a significant factor in determining the allocation of investments. For this reason we welcome the relatively long term coverage of the scheme proposed over 20 years but reinforce the need to establish carbon prices that reward long term structural investments, not just one off low cost abatement projects.

2. There appears to be an inequitable distribution of costs incurred due to rules governing the allocation of free permits.

The discussion paper acknowledges that:

'Any allocation of permits involves a transfer of wealth. Auctioning permits could be seen as transferring wealth from liable parties and energy users to taxpayers. A free allocation of permits transfers wealth to the recipients—at the expense of taxpayers and/or energy users, if these groups would otherwise have been the recipients. A 'fair' allocation of permits is very much in the eye of the beholder.'

The statement highlights a number of contestable issues. The first is reflected by a statement later in the paper which says

'The free allocation of permits to generators is a wealth transfer issue, rather than an efficiency issue.'

CUAC takes issue with this statement. The transfer of wealth within the trading system is directly related to the efficiency with which emissions are offset. Parties within the trading system have a varying range of knowledge, incentives and values which directly impact their decisions that may or may not result in optimal triple bottom line outcomes. The limitations of markets in allocating investments efficiently have been highlighted numerous times, particularly in relation to sub optimal outcomes created by information asymmetry.

It is suggested that the allocation of free permits does not create an incentive to emit for emission intensive generators because they may decide to shut down plant rather than continue operating. This may well be an outcome, made unlikely by the practical timing constraints in shutting down emission intensive generators and installing clean substitutes. There is no guarantee that the wealth obtained from the free permits and the subsequent allocation of that wealth will be allocated in a way which most efficiently reduces emissions resulting from energy end use. To illustrate the point through a hypothetical scenario, the wealth obtained from the free permits could be injected into emission intensive energy generation in another country where regulations do not cover emission levels. While we do not suggest this will happen, we suggest it indicates the point that the distribution of wealth and the subsequent allocation of that wealth is linked to the efficiency of abatement.

It should also be noted that generators will be able to pass on any additional costs they incur through a carbon price to consumers. This would make the allocation of free permits a virtual windfall. For example the EU experience has seen a free allocation of permits to emission intensive generators representing a windfall financial gain for this very reason.

Take home point 3:

The principle of an emissions trading scheme creating the most efficient emission reduction path through competitive markets is directly undermined by the selective allocation of wealth in the scheme proposed and subsequent potential for sub optimal investment decisions. The allocation of permits is a wealth, efficiency and equity issue and should be considered as such.

The proposal goes on to suggest that

'There are three broad groups that [are] might require help in adjusting to new emissions constraints:

- *some existing electricity generators*
- *trade-exposed, energy-intensive industries*
- *other groups (which might include households, regions and small business).'*

CUAC welcomes the recognition that an increase in energy prices may adversely affect specific consumer groups and that this must be considered when allocating the cost of emission reduction. We would recommend that plans to assist such groups be outlined in more detail.

It is our understanding that the proposal allocated wealth to energy intensive industries and generators because it does not want to retrospectively punish investors for decisions they made while operating under a different regulatory environment. It was also considered that adverse financial outcomes may result from trade exposed industries not being able to compete with low cost competitors overseas.

Take home point 4:

That in considering wealth, efficiency and equity issues in the distribution of permits and hence the allocation of wealth, any emissions trading system be structured in a way which reflects the impact of costs based on the price of carbon and the ability of scheme participants to either absorb or pass on those costs. It should not distribute wealth in a way which rectifies imbalances caused by factors exogenous to the price of carbon.

3. There appears to be rules governing emission abatement that distort the true worth of one form of emission reduction over others.

CUAC believes that in the interests of the triple bottom line, offsets must be priced in a way which reflects their true cost. Offsets which achieve low cost through the advantageous structuring of rules will distort the most efficient path to abatement and hence may delay the long term investments required to restructure industry for a carbon constrained world in the long term.

CUAC's primary concern is with the rules governing forestry project. As climate change occurs, forests are increasingly prone to drought, fire, disease and hence failure as carbon abatement. Young forests, while absorbing carbon more rapidly, also consume greater water resources than established forests and represent further strain on already tight water resources. These points are hitting home as plantations on the Murray River come under scrutiny and nation-wide bushfires escalate.

The above arguments are typically countered by the provision of guarantees by forest project operators, nevertheless we believe the risk and cost of complying with their guarantees is likely to increase over time and hence the sustainability of forest sequestration projects will be increasingly challenged. Furthermore with low technology and little room for developing competitive advantage or a global industry with financial benefits in Australia, forestation projects should be given a low priority in the abatement of emissions relative to energy efficiency – widely regarded as the least cost and most efficient path to abatement - and renewable generation.

CUAC's primary objection to rules governing forest project is that that purchasers of forest credits purchase carbon abatement over a period of 100 years for emissions released in one year. This leaves a 99 year gap where a quantity of emissions from the calculated year will affect climate. For forest projects to offset emissions from the year calculated at a rate which closes the 99 year gap highlighted above, the true cost of forest abatement is as follows:

4.3	Tonne CO2 pa from average car
17	Trees required to offset over 100 years
0.252941	Tonne CO2 per tree over 100 years
= x*0.253	x% of lifetime CO2 absorbed over a tree's life in years 1-3
=4.3/x*0.253	Trees required each year to offset annual emissions within 3 years of emissions being released

Assuming 3% of a trees lifetime CO2 absorption occurs in the first 3 years, the capital cost of forestation increases by 33 times relative to its current cost.

Take home point 5:

If forest sinks are allowable forms of abatement, the rules governing forest abatement sinks should be structured in a way which more accurately reflects the true cost and effectiveness of using trees to offset emissions. This would involve setting a more realistic timeframe for which emissions must be offset (say – within 3-5 years) as opposed to allowing the current 100 year gap. Any additional abatement occurring after the 3-5 years paid for could be sold on to other parties or claimed as offsets against future emissions by those who paid for the original tree planting. Policy makers should determine a more acceptable timeframe for abatement and the level of CO2 abated in that timeframe.

It should be noted that only 9.6 million hectares are actually viable for new forest plantation projects in Australia. If one person has a driving lifetime of 50 years, then each person would require 3 hectares of planted trees over their lifetime in order to offset their emissions using forests. Under this scenario, there would still be 100 year lag between the final emissions and their abatement. This means that in Australia, there is the potential to abate 50 year driving emissions of only 3,200,000 people. Considering transport fuel burning emissions are only 15% of national emissions, and car transport fuel burning emissions are only a smaller percentage of that 15%, the short-sighted nature of prioritising such a scheme cannot be overstated.

4. That the modeling assumptions do not allow the true cost of abatement options to be adequately measured, thereby distorting the most efficient paths to abatement.

The proposal states that:

'No expansions of the capacity of the transmission networks were assumed, besides announced capacity upgrades.'

This assumption may distort the economic efficiency of supply side responses to emissions abatement, rather than demand side responses which can reduce network loads and the need for transmission network upgrades which represent significant costs. Transmission network upgrades are predicted to cost in the order of \$5billion over the coming 5 years.

Specifically, CUAC's concern is that the assumptions that underpin the introduction of 'clean coal' at certain prices of carbon and subsequent prices for electricity may be affected by the need for new transmission network. For instance, if geological formations suitable for sequestration are not available in a given network zone, 'clean coal' electricity may need to be imported from another network zone and hence require transmission network upgrades. This scenario highlights that future electricity prices arising from centralised 'clean coal' generation may have been underestimated in the proposal and that the role of decentralized, renewable energy in meeting reduction targets may have been under valued.

Take home point 6:

The modeling may understate the net economic cost of reducing emissions through a combination of increasing capacity and sequestration as opposed to demand side efficiency strategies. The cost modeling needs to be shown in more detail so that the assumptions behind the cost of 'clean coal', the locations where it will be viable and any subsequent transmission network costs can be adequately reviewed and tested.

The proposal also states that:

'energy efficiency and bio sequestration opportunities are assumed to increase significantly post 2020'

CUAC would like to see the justification for this assumption to be made in the modeling, particularly relating to bio sequestration. Global warming is likely to make the use of natural sinks increasingly difficult as sea temperatures rise and droughts/extreme weather become more frequent.

Coal sequestration can only be done viably where favorable plant conditions exist, most importantly this includes the proximity of natural sinks to plant location. For this reason CO₂ removal/burial is likely to become increasingly difficult as the prime locations are taken up and energy for transporting/pumping CO₂ becomes more expensive. At the same time 'clean coal' will be competing intensely with alternative forms of energy supply and end use switching alternatives. Given technologies such as solar water heating, wind electricity, cogeneration systems, hybrid systems and even solar electricity are already close to competing with and sometimes out competing predictions for the cost of 'clean' fossil fuel technology, it seems likely that sequestration will face significant barriers to becoming a viable long term solution to emission reduction.

Take home point 7:

If the modeling assumes that bio sequestration opportunities will increase significantly post 2020, a detailed rationale for this assumption must be provided including locations where sequestration is likely to be viable, at what cost they are assumed to be viable and the likely effects of an escalation of transport and energy costs on sequestration costs. The potential environmental impacts of predicted emission increases to the period ending 2020 and the likely impact this will have on sequestration opportunities should also be considered.

Please do not hesitate to contact me on 9639 7600 should you have any questions about this submission.

Yours Sincerely

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