



Investor Group on Climate Change
Australia/New Zealand (IGCC)

1 June 2006

Ms Anthea Harris
National Emissions Trading Taskforce Secretariat
The Cabinet Office
GPO Box 5342
SYDNEY NSW 2001

Dear Anthea

The Investor Group on Climate Change (IGCC) (Australia/NZ) is pleased to provide supplementary information and comment on the issues raised by the Working Papers provided as part of the Emissions Trading Industry Roundtable on the 10th April.

Attached is more detailed discussion of the IGCC's views on the specific issues raised in the Stakeholder Consultation paper.

The IGCC would be happy to further discuss the issues raised in this submission. Please do not hesitate to contact Ms Joanne Saleeba, IGCC Secretariat on (03) 9415 7071, 0422 101 715 or by email secretariat@igcc.org.au.

Yours sincerely

Bob Welsh
Chair of the IGCC



Comments on Working Paper 2 – Coverage

1. Industries Covered by Scheme

The IGCC believes, in principal, that it is best that all sectors of the economy are covered by any Emissions Trading Scheme (ETS). However, due to potential administrative costs and emission measurement uncertainty, other policy/regulatory measures are likely to be more appropriate for the agricultural, waste, land use change and forestry sectors. However, where emission reductions can be clearly and quantifiably established, these abatement actions may be incorporated as offsets to the ETS.

The IGCC has concerns over the current proposed exclusion of Industrial Processes. This is primarily as a result of the uneven playing field it creates within the Australian market. In particular the exclusion:

- Disadvantages some steel producers over others;
- Does not send a consistent price signal to the building material sector, due to different ETS coverage and exposure; and
- Excludes some industries where relatively low cost emission abatement possibly exists.

These are only some of the examples of where an uneven playing field may occur.

In further detail, there are three main steel producers in Australia currently, one of which almost entirely utilises blast furnace technology and thus would not be covered by the ETS. A second that produces approximately half its steel utilising blast furnace technology (again not covered by the proposed ETS) and half from electric arc furnace (EAF) technology, which would be indirectly impacted through increased electricity prices. The third player uses entirely EAF technology and thus would be completely exposed indirectly via the impact of the ETS on the electricity price. As potential investors in all three companies, the IGCC believes that the selective exposure to the ETS may significantly impact some steel companies over others and unfairly distort the impacts on company earnings. It is also likely to have perverse environmental impact as it disadvantages the process that relies on scrap metal as a source and, presumably, has generally lowers greenhouse and environmental impacts.

The exclusion of industrial processes sends an inconsistent cost and price signal to others in the building materials sector, with the coverage of the greenhouse gas emissions covered by the ETS varying between materials. For example, it is likely that stationary combustion will cover direct emissions from brick manufacture, fuel combustion in cement kilns, and indirectly, through electricity price, emission for aluminium and steel made by EAF technology. Emissions from calcination of limestone, aluminium smelters and iron and steel, even though not all are as a result of the iron ore reduction chemistry, are not covered.

Finally, there appears to be the potential for some industrial processes to provide relatively low cost abatement opportunities or emission reductions, through product/raw material substitutions that the exclusion of the sector will not allow the market to take advantage of. For example, ammonia production already requires the extraction of a relatively pure carbon dioxide process stream that has the potential for geosequestration, without additional costs of capture. Similarly nitric acid plants also provide some opportunity for reduction of nitrous oxide emissions.

2. Points of Liability and Thresholds

The IGCC concur that a threshold of 30 MWe would be an appropriate threshold for electricity generation.

However, the IGCC believes that consistency with other stationary combustion sources is important. For example, a 25MWe power plant may require greater than 2.5PJ of thermal energy (depending on thermal efficiency and utilisation). Therefore, for power stations less than 30MWe, the plant could be considered the same as other non power generation stationary energy sources. This may make coverage of small cogeneration plants easier to consider as part of the ETS for the purposes of any potential permit allocation.

The IGCC believes that the point of liability and thermal threshold for other stationary combustion should be independent of fuel type, ie it is the same for gas, coal or oil-fired combustion plants, as this does not favour one fuel over another.



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For large combustion plants the liability should be with the emitter, so as to enable the operation to more effectively manage its greenhouse exposure. Due to the relatively high internal company cost of the ETS market exposure managing the liability should be with the fuel supplier for small emitters.

The IGCC notes that the discussion paper did not specifically cover liquid fuels but assumes that liquid fuel combustion will be considered under the ETS. If this is not the case, an unlevel playing field will be established within some industries, notably alumina refining, where one refinery still uses fuel oil for process heat and calcination, while the others use gas. It is noted however, that the alumina refinery currently using fuel oil is planning to move to gas as part of its expansion.

In determining threshold levels, the IGCC generally agrees with the issues raised in the discussion on gas combustion, though does question the logic of assuming higher thresholds should apply to coal combustion. The IGCC suggests that as gas will be the dominant fuel used in this group, levels used for determining large and very large energy users during the introduction of gas contestability could be considered. Based on that between 250 or 500 TJ may be an appropriate threshold, irrespective the fuel used.

The complexity of the examples above, serves to underline the flexibility that will need to be built into the design and applicability of any Australian ETS.

3. Timing

The IGCC believes that it is preferable to start the ETS with all, or most potential, sectors to be covered by the ETS included. Changes to the sectors covered by the ETS may significantly impact the supply/demand dynamic, particularly supply side, within the market and hamper the development of an efficient forward permit market, leading to inefficiencies and almost inevitably higher permit prices than what would otherwise have occurred within a broader market.

The IGCC is specifically concerned about starting the scheme including only the electricity generation sector, especially if the distribution of permits occurs in a way which does not significantly change the order of merit of existing generators, which is likely to be the case if a traditional grandfathering approach is used. In this circumstance, the supply of permits would be extremely constrained and abatement options a relatively high cost that will lead to higher permit and wholesale electricity prices.

Analysis in a previous paper by AMP Capital¹ indicates that a significant supply of low cost permits may be achieved through abatement actions outside the electricity generating sector and/or through changing the order of merit of existing generators in the medium term. To minimise the cost of the scheme the ETS market should be able to access these lower-cost permits by including these sectors.

If sectors are going to be added in stages, a key objective should be to minimise investment uncertainty. Therefore, a specific timetable is recommended.

4. Fugitives

The IGCC believes that all fugitive emissions should be included in the ETS and concur with the point raised in the discussion paper that the prime reason is that it sends an appropriate price signal of the greenhouse gas emitted at each point of the fuel life cycle of different fuels.

As identified in the previously mentioned AMP Capital Investors paper, there is a significant opportunity for relatively low cost emission abatement from these sectors, e.g. capture of underground coal mine methane emissions, and the ETS will provide a financial incentive for the further development of emerging abatement technology such as geosequestration of CO₂ emissions from natural gas production.

The IGCC recognises that there is currently some uncertainty in some fugitive emission estimates, principally open cut mines, however, by taking conservative estimates of emissions, the ETS will provide incentives to improve emission estimation methods.

¹ "Lessons from the EU Emissions Trading Scheme and Emission Intensity Permit Allocation", AMP Capital Investors, March 2006



Comments on Working Paper 3 – Caps, Timeframes and Penalties

1. Caps and Timeframes

The IGCC believe that a long-term emission cap for the ETS is essential for minimising investment uncertainty. The IGCC believe that the cap and gateway approach proposed in the discussion paper provides a reasonable level of investment certainty, though 15 years is considered a minimum timeframe at any one time for cap certainty and that initially the cap should be set for 20 years with gateways for subsequent two 5 year periods. The 20 year forward cap and the second 5 year gateway should be updated every 5 years.

The IGCC recognises that deciding on a cap 20 years out needs to consider a number of issues, such as the rate of development and implementation of new technology and also that an indicative long-term emission reduction target of 50-60% by 2050 is likely to be required.

2. Penalties and Make Good Provisions

The IGCC believe that it would be inappropriate to seriously penalise ETS participants for non-compliance in the first few years of the scheme as all participants and scheme administration will be going through a learning phase, with the ETS market, price discovery, financial intermediaries and financial risk instruments all being developed. During this period the penalty could be set so as to cap compliance costs and would definitely still need to provide the right incentives to ensure that participants are taking appropriate and decisive actions to reduce emissions. With time, say after 3 years, the penalty could move more towards an incentive for inducing compliance which could be further enhanced with a make good provision introduced after, say, 6 years.

Comments on Working Paper 4 – Including Offsets in the Scheme

1. Offsets

The IGCC believe that consistency with international frameworks is an important guiding tool for offset projects in Australia.

The IGCC believes the best way to incorporate potential abatement opportunities within the ETS is to ensure that the ETS market is comprehensive. This alleviates the problems associated with demonstrating additionality.

The main offsets to be considered should be forestry projects, waste methane destruction and carbon capture and storage.

Comments on Working Paper 5 – Objectives of Permit Allocation

1. Economic Efficiency

The IGCC agrees that promoting economic efficiency is the key objective of the permit allocation. There are a number of aspects to economic efficiency.

The first is ensuring an efficient permit market and the IGCC concur that auctioning a percentage of permits is likely to be required to help establish price and provide a level of volume of selling to provide the required liquidity to achieve an efficient permit market. Another aspect of market efficiency is the administrative/transaction cost of permit allocation, though this cost needs to be put into context of overall ETS costs and the implications of ineffective/inefficient permit allocation as a result of focusing on minimising administration costs.

The second aspect is economic efficiency at a microeconomic level and that the allocation scheme establishes the lowest permit cost and facilitates a price signal to be included in operating, pricing and investment decisions by companies directly impacted by the ETS. While from a simplistic pure microeconomic level this may imply auctioning permits, the same outcome can be achieved by other permit allocation approaches.

To facilitate efficient investment decisions, a long-term approach to distributing permits needs to be established. The IGCC believe that while a high level of certainty is required on the likely future allocation of permits, this does not necessarily require or imply ownership of permits in the future. To facilitate efficient investment and operating decisions, the necessary condition is that the means by which future permits will be allocated is transparent and that generators (and others involved in the scheme) have a good estimate of how permits will be allocated if they choose to produce electricity (or continue to operate).



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The third aspect is economic efficiency at a macroeconomic level and that the costs to the economy reflect **primarily** the cost of abatement required to meet the emissions cap and minimise the long-term risk/cost of emissions abatement to the economy. A cost to the economy greater than the total cost of the abatement implies that some party covered by the ETS is making a windfall profit (or government raises revenue from auctioning), which by necessity means some other party either directly or indirectly incurs an additional cost.

The IGCC also have particular concerns with the impact on macroeconomic efficiency of the proposed approach to the trade exposed energy intensive industry.

As noted below, this is also an equity issue.

2. Equity

The IGCC agree that the equity issue is primarily a question of public policy, however the scope of the equity issue is not divorced from the above consideration of economic efficiency. By achieving microeconomic and macroeconomic efficiency the scope and in fact the need for significant compensation of costs can be potentially minimised.

Therefore, the “free” allocation of permits in a manner which facilitates the various aspects of economic efficiency discussed above should be the first step in addressing equity issues. Permit allocations should not be used to specifically offset impacts of the ETS. Economic efficiency is what the market does best.

As noted above, if the cost to the economy is above that required to achieve the abatement of the emissions to meet the emissions cap, an additional equity issue is the equity of the windfall revenue (economic rent) to some participants of the ETS. If permits are auctioned the revenue windfall is to the government(s) and the equity issue is the redistribution of the revenue obtained from the permit auctioning. Other participants may receive windfall profits if permits are grandfathered and are not linked to production, e.g. as illustrated by windfall profits obtained by EU electricity generators.

Recognising that the IGCC members invest across all sectors of the economy, the IGCC have significant concerns about the equity of the currently proposed permit allocation approach to generators and trade exposed energy intensive industry as outlined in the NETT workshop.

Comments on Working Paper 6 – Allocation of Permits to Generators

1. Permits to existing Generators

As discussed in a previous AMP Capital research report, the lump sum allocation of permits to generators within the EU ETS scheme has led to evidence of opportunity cost pricing of wholesale electricity prices. Given the structure of the Australian electricity market, such an outcome would be expected to occur in Australia and submissions to the NETT discussion paper by those involved in electricity generation would appear to reinforce this likely market behaviour in an Australian ETS. The higher wholesale electricity prices that arise from opportunity cost pricing leads to a less than, and potentially significantly less than, an efficient economic outcome at a macroeconomic level.

Opportunity cost pricing in the wholesale electricity market has caused a number of problems within the EU ETS in addition to excessive increases in wholesale electricity costs. The draft National Allocation Plans (NAPs) for both The Netherlands and Germany have changed the basis for allocation of permits as a result of opportunity cost pricing, leading to increased and avoidable uncertainty to investors.

The IGCC would like to stress that opportunity cost pricing arises as a result of lump sum allocation of permits to generators and generators therefore considering allocated permits as assets. **The rationale for lump sum allocation as the appropriate mechanism of allocating permits has not been clearly established and other permit allocation approaches should be considered.**

The IGCC believe that the linking of permit allocation to production is required to overcome the problems of opportunity cost pricing, i.e. permits are only allocated after an individual generator has made production decisions. This changes the allocated permits from being considered an asset to being considered as a variable cost. A relatively simple trading game can illustrate the changes in pricing decisions that this change in permit allocation can bring.



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The IGCC believe that permits should be allocated to the point of liability for the greenhouse gas emissions. Allocating to a portfolio of generators will cause distortions in the permit and electricity market and raises unnecessary issues for investments as there is no guarantee that ownership of the portfolio is uniform either now or in the future and will complicate asset ownership transfer. The IGCC recognise that diversity of asset ownership is a useful risk management mechanism for generators but the responsibility for this risk management should be with the owners of the generation assets and not the government through permit allocation.

2. Permits for new entrants

The IGCC believe that new entrants should be allocated permits on the same basis as incumbents.

There are number of potential outcomes if this is not the case. For the new entrant to be profitable the wholesale electricity price needs to be such that the generator covers the full costs of greenhouse gas emissions costs. For example, a new CCGT plant with emissions of 0.4 Tonnes CO₂-e/MW-hr and long run margin costs of \$40/MW-hr, excluding greenhouse gas liabilities, would require a wholesale electricity price of \$50/Mw-hr, if permit price is \$25/tonne CO₂-e. If it is firstly assumed that incumbents have not engaged in opportunity cost pricing, the wholesale electricity price will need to increase substantially to encourage the new entrant. After the entrance of new generator into the market the incumbents will receive a windfall profit. If, on the other hand, the wholesale electricity price does not need to increase to facilitate the new entrant, it is evidence that incumbents are already engaging to some degree in opportunity cost pricing and obtaining windfall profits. The degree of opportunity cost pricing will depend on how much the allocated permits covers the incumbent's greenhouse gas liability. Either case leads to a less than economic efficient outcome.

3. Maintaining Permits allocated

As noted above, the IGCC believe that allocation of permits should be based on production in a particular year and as a result, generators will not have permits if they choose to close or reduce their operations.

The IGCC believe the decision to, continue, stop operations or invest in new generation should be driven by the current and likely future wholesale electricity price and not the permit allocation method.

Due to generators considering opportunity cost, the generators' decision to close a facility will not be influenced by the ability to hold onto permits or in future investment decisions.

4. Inclusion of Renewable energy generators

As noted previously, the IGCC believe that permit allocation should be based on the production of a megawatt of electricity irrespective of the form of generation used. However, the IGCC does recognise that for existing renewable generators and those covered by the existing MRET scheme this may lead to a windfall profit and set up a perverse incentive for pump storage generators and as such is less than economically efficient.

The decision on whether new renewable generation should be included and given permits depends on whether the MRET scheme is expanded. If it is not expanded, the allocation of permits, based on amount of electricity produced will be necessary if new renewable and other low emission technology is to be encouraged at a reasonable wholesale electricity price.

Comments on Working Paper 7 and 8 – Allocation of Permits to Trade Exposed Energy Intensive Industries and Providing Transitional Assistance to households

The IGCC believe that the focus of permit allocation and the ETS design is to facilitate an efficient market with the lowest permit price and cost to the economy while still meeting the required emission cap.

The potential need for any transitional assistance to any party impacted by ETS, whether they are trade exposed, or households, will be minimised if this objective of an efficient market is obtained.

The IGCC does not believe exemptions or the free allocation of permits is consistent with that objective.

To assist the transitioning of those impacted by the introduction of the ETS, financial assistance by the government may be appropriate, potentially funded by income raised from auctioning of permits.

Due to the likely macroeconomic distortions, the IGCC has significant concerns with the approach, outlined in the NETT workshop, for existing and new trade-exposed energy intensive operations.