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15 November 2005

Emissions Trading Workshop Group Secretariat  
The Cabinet Office  
GPO Box 5341  
SYDNEY NSW 2001

Dear Sir/Madam

I attach comments from the Energy Markets Reform Forum on the National Emissions Trading Scheme Background Paper.

Yours sincerely

A handwritten signature in black ink, which appears to read 'Mark Gell'. The signature is written in a cursive style with a large, sweeping 'M' and 'G'.

**Mark Gell**  
**Chairman**

## **Comments On A National Emission Trading Scheme Background Paper For Stakeholder Consultation**

### **1. Introduction**

The EMRF welcomes the opportunity to provide a response to the National Emissions Trading Scheme Background Paper. The EMRF represents major energy and energy infrastructure users whose members comprise representatives from the following: OneSteel; BHP Billiton; BlueScope Steel; Orica; AMCOR; Tomago Aluminium; and Visy Paper.

EMRF member companies collectively represent some 25% of the New South Wales electricity load. They operate major energy-intensive industrial investments and activities, employ significant numbers of workers, pay substantial amounts of taxes and are significant economic and social leaders in major regional centres, such as in Newcastle and Wollongong.

Cost comparisons of electricity delivered to a typical industrial customer show that New South Wales is the second highest in electricity costs (after South Australia), followed by Queensland and Victoria. This is true in terms of electricity transportation costs, as well as the costs of the commodity itself. New South Wales industries also face major cost disadvantages when electricity costs are compared with major competitors, such as China, which heavily subsidises electricity costs and whose industrial activities are not saddled with greenhouse abatement and demand side levies.

Currently the costs associated with emissions vary from state to state. At a national level the cost to consumers for providing Renewable Energy Certificates (RECs) for any electricity used adds a premium to electricity contract prices by some 2-3%. Additionally each state has some greenhouse gas reduction scheme; eg NSW with its NGA scheme and Demand Management Levy and Victoria with its wind energy support scheme. Further buried in the regulatory decisions there are other schemes which add to the cost of delivered electricity, such as the electricity load management schemes in SA and NSW.

It has been estimated that the cost to consumers of such schemes is continuing to rise and in NSW, for example, the cost of NGACs, RECs and embedded load management schemes now totals over 10% of the contract price to supply electricity. What is of further concern is that the share of greenhouse abatement is continuing to rise. As the costs of electricity rise, unless this trend is internationally universal, it can only lead to a further erosion in Australia's international competitiveness.

The trend to use more “greenhouse friendly” fuels such as natural gas is having the unintended impact of increasing the use of gas as a fuel which is causing a double edged effect of:-

- increased electricity costs due to the relative high cost of gas to generate electricity
- increased gas costs for use by industry and residential purposes due to an increasing gas scarcity factor.

Thus electricity and gas consumers are seeing higher costs for electricity due to higher costs for generation and the addition of premiums to provide funding for greenhouse gas abatement as well as higher costs for natural gas due to the increase demand placed on gas providers for electricity generation.

EMRF members are, therefore, concerned to contain the costs of electricity consumed, as increases in costs cannot be readily passed on to consumers (the companies operate and compete in international and domestic markets) and represent cuts to profit margins and the bottom line.

Against this background, EMRF naturally views with caution any emissions trading scheme that would add substantially to members’ cost base, with the potential for adverse implications for investments and employment opportunities in the State. This concern is especially acute given that the Federal Government is not a participant in the States and Territories investigation, and in fact, has doubts about the efficiency of emissions trading schemes and whether they provide a cost-effective approach to greenhouse gas abatement. Furthermore, with the different approach (the Asia Pacific Partnership Programme) undertaken to greenhouse gas abatement by the Federal Government (and also by the USA and other major economies, such as China, India, Japan, and Canada) there are very significant and substantial uncertainties with the economic viability of a ‘go-alone’ emissions trading scheme adopted by the States and Territories. The potential costs implications for NSW-based industrial investments can be incalculable.

Whilst there are assertions made that the science is right in relation to greenhouse gas emissions, we could equally make the point that throughout human history, scientific and technological advancements have assisted human development and provided solutions to problems faced by the human race.

Switching of policy approaches from one scheme to another – e.g. from the NSW Greenhouse Gas Abatement Scheme (which was only recently introduced) to an emissions trading scheme – is not costless to industry and to society. Pursuit of studies that may turn out to be impractical to implement (against the background and foreground of some of the major factors pointed above) is wasteful of resources and energy. These are not without opportunity costs, and there may well be many other higher priorities relating to State development (and greenhouse gas abatement) that have been unfulfilled through lack of resources and political prioritisation over the past decade.

Against this background of substantial caution and scepticism about the efficiency of the concept of emissions trading scheme, the EMRF's views are presented below on some of the issues contained in the Background Paper.

## **2. Issues for Consideration**

### **2.1 A National Scheme not two or more**

The EMRF considers that any implementation (or investigation) of an emissions trading scheme must include the involvement and participation of the Federal Government. There is no sense in Australia undertaking two or more different 'national' approaches to green house gas abatement. All this does is to impose unnecessary layers of costs to industry, the economy and to society. The States/Territories investigation must not proceed any further without Federal involvement and participation. The existing 2-track approach to greenhouse gas abatement is already creating confusion and uncertainty to potential foreign investors.

### **2.2 Least cost to the Economy**

The Background Paper's listing of 'capacity to encourage abatement at least cost to the economy' as an issue to guide the preferred emissions trading model is a 'no brainer'. This requires complete transparency with regard to all quantification, modelling and cost-benefit analyses undertaken by the working group and its consultants on possible models. Indeed, the absence of any cost benefit analysis in the investigation to date is very noticeable.

It is important that the emissions trading model is not seen as a tax harvesting opportunity to accumulate surplus funds for reallocation. Nor should it provide generous levels of emissions credits for State-owned enterprises (as in the NSW Greenhouse Gas Abatement Scheme). This will not be consistent with the 'least cost to the economy' proposition.

### **2.3 Minimise adverse Sectoral Impacts**

The capacity to minimise adverse sectoral impacts, including those to trade exposed and energy intensive sectors must be a pre-requisite. This will, amongst other things, require that the baseline for emissions must recognise early emissions abatement achievements, provide transitional periods for compliance through staged obligations, and provision of short-term adjustment programmes.

## **2.4 Transaction Costs, Market Power and Volatility**

Transactions costs in administering a scheme must be minimised and all transactions should not be subject to any form of indirect taxes, such as stamp duties. Any tax on a tax is inefficient and distortive and adds to transactions costs.

The scheme must be transparent, and ensure a level playing field between sellers and buyers of emissions credits. Any potential for the exercise of market power (over carbon allowances) must be prevented at the outset. (See later regarding the concerns with this in the EU ETS). A cap on price movements must also be part of the scheme to prevent price spikes and excessive volatility.

## **2.5 Conflicting Criteria**

The EMRF notes that many of the issues for consideration are diametrically opposed to each other. For example, implementing a scheme without Commonwealth Government involvement, is likely to be inconsistent with “a capacity to promote investment certainty” (in Australia) and unlikely therefore to be “of least cost to the economy” etc.

## **3 Additional Criteria that should be considered**

The EMRF considers that all available (scarce) resources should be directed to the Federal Government’s Asia Pacific Partnership Programme. This programme is to be launched early in the New Year following the political meeting, with work programmes established, including for clean fossil fuels, energy efficiency, power generation, and sectoral programmes involving certain energy-intensive industry sectors.

It should be noted that in regard to this Federal initiative Australia’s major trading partners (US and China) do not impose greenhouse gas abatement imposts onto electricity costs. Whilst the generation of greenhouse gases in Australia per head are considered very high, in actual emissions Australia’s impact is miniscule on the world total. Thus we can see that, overall, to continue to add costs onto Australian industry (and reduce its competitiveness) will do little to the total global emissions levels unless the US, China and perhaps India are included in emissions reduction programs, which is the main thrust of the Federal approach.

The net greenhouse emissions of Australia could be perhaps better eliminated by an alternative or from a more creative scheme instead of imposing costs on an efficient industry. One such program could be Australia funding better domestic fuel combustion in third world countries. The costs of such a program would have a double benefit in that it could significantly offset Australia’s greenhouse gas emissions and help reduce poverty in third world countries.

Another criterion that should be considered concerns the need to assess the experience of the European Union Scheme and thereby avoid the costs impacts on industrial users of energy. As policy makers are no doubt aware, the EU ETS excludes the aluminium and chemical sectors. The changing position of the UK on greenhouse abatement is also of importance.

#### 4 **Other Comments**

##### 4.1 **Quantification, Modelling and Cost Benefit Analyses**

There needs to be a fundamental analysis of the demand and supply for carbon for 2008-12 period (and even longer) as a minimum, in order to set the overall cap for Australia. These scenarios must be presented for public scrutiny. There is a plethora of variables, including the likely results from the Asia Pacific Partnership Programmes, the linkages to the EU carbon allowances, and other carbon commodities, the various State-based carbon emissions abatement schemes (e.g. the new Victorian scheme), the availability of other carbon allowances available and implemented under Kyoto. In addition, the extent of 'hot air' available from Russia and Ukraine and the timing of that entering the EU ETS, should be considered.

Other issues to consider are:

- the dynamic responses by energy companies;
- government policies and programmes for reducing emissions within the non-trading sector (e.g. household, commercial, agriculture and transport sectors) and;
- likely fluctuations in demand and supply arising from exogenous variables e.g. weather fluctuations, fuel price increases and, introduction of additional carbon credits.

The EMRF looks forward to some numerical analyses/scenarios at an early stage to assist in further consideration of the inter-jurisdictional proposal. In this regard, we note that some studies of the EU ETS suggest a total unmet demand in the range of 300-800 million tonnes of CO<sub>2</sub>/year during 2008-2012.<sup>1</sup> It is of interest to assess the price effects and the broader implications of this type of scenario for industry sectors and for the economy.

A key insight from such studies on price setting is the fundamental importance of the introduction into the carbon market of 'hot air' allowances from Russia and the Ukraine. A second insight concerns the accelerated load shifting from coal to gas and the coming onstream of

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<sup>1</sup> Clearer signals ahead – A Special Report by Abyd Karmali, Sebastian Foot and Nazim Osmancik, ICF Consulting.

new combined –cycle gas turbine power plants. These have impacts on any scheme that might be considered in Australia, including the impacts on particular States and power plants.

## 4.2 Overseas Experience

It is disappointing that the inter-jurisdictional consultations have not provided any information on overseas experience, particularly on the EU ETS. Major concerns, especially of the EU ETS, included the potential impact of free allocation of emissions allowances on the price of electricity and the resulting implications for power producers, consumers and policymakers.

The EMRF offers the following comments based on literature sighted, for example:

*“Interviews with stakeholders* Overall, ten interviews were held in June-July 2005 with staff members of major power producers and large industrial consumers of electricity in the Netherlands. Some interesting findings of these interviews are: • Power companies try to maximise their profits by optimising their production and trading decisions. In that respect, costs of freely allocated COB2B allowances are regarded as opportunity costs, which are included when power companies make their production and trading decisions. 10 ECN-C--05-081 • Power producers are not able to simply set power prices or simply pass through costs to these prices as they are primarily determined by a complex set of wholesale market forces. In general, it is hard to assess the impact of COB2B allowances costs on power prices as these prices are determined by a large variety of factors, including fuel prices, the Euro/US\$ ex-change rate, available production capacity, investment costs, imports, weather conditions, heat demand ('must runs'), gas contract inflexibilities, expectations and sentiments of market players, etc. Moreover, the extent to which COB2B costs are passed through to power prices varies by market, load factor and country considered. • Major industrial power consumers in the Netherlands estimate that in June 2005 the forward prices of coal-generated electricity during the off-peak/base-load hours have increased by approximately 7-9 €/MWh due to the partly passing through - i.e. about 65 percent - of COB2B allowances costs. • The impact of higher power prices is very significant for power-intensive industries, especially for the aluminium and iron & steel industries. The options to avoid or mitigate the impact of higher power prices for these industries are limited.”

And

*“COMPETES model findings* COMPETES is basically a model to simulate and analyse the impact of strategic behaviour of large producers on the wholesale market under different market structure scenarios (varying from perfect competition to oligopolistic and monopolistic market conditions). As part of the

present study, it has been used to analyse the implications of emissions trading for power prices, firm profits and other issues related to the wholesale power market in four countries of continental North-western Europe (i.e. Belgium, France, Germany and the Netherlands). The major findings of the COMPETES model analyses include: • Power prices increase significantly due to COB2B emissions trading under all scenarios considered. In case of a COB2B price of 20 €/tonne, these increases are generally highest in Germany (13-19 €/MWh) and lowest in France (1-5 €/MWh), with an intermediate position for Belgium (2-14 €/MWh) and the Netherlands (9-11 €/MWh). For these EU4 countries, on average, the increase in power prices is estimated at 6-12 €/MWh, i.e. an increase of about 13- 39 percent compared to the power prices before emissions trading. • Estimates of the pass-through rates are generally high. Most of these rates vary between 60 and 80 percent, depending on the country, market structure, demand elasticity and COB2B price considered. • Emissions trading in general and the free allocation of emission allowances have a major impact on business profits of major power companies. Even if it is assumed that these companies have to buy all their COB2B emission allowances on the market, profits increase significantly under most scenarios (mainly due to the fact that carbon-extensive generators benefit from higher power prices set by carbon-intensive generators). However, power companies receive most of their emission allowances free of charge while part of the opportunity costs of these allowances are passed through into higher power prices, leading to so-called 'windfall profits'. As a result, total business profits increase by some 6-98 percent, depending on the scenario and COB2B price considered. These figures, however, have to be treated with due care as they refer to model scenario analyses rather than facts of life."<sup>2</sup>

Other results from other studies show:-

- Electricity producers have passed on average 40-70 % of the CO<sub>2</sub> price onto electricity prices in the Netherlands, Belgium, Germany and France. Windfall profits have been made by power producers.
- The German industrial power consumers' association (VIK) has submitted that the German electrical power industry makes around 5 billion euros in 'unwarranted profits each year from European emissions trading. Around 93% of CO<sub>2</sub> certificates are issued to power companies free of charge to avoid electricity price increases.

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<sup>2</sup> CO<sub>2</sub> price dynamics: The Implications of EU emissions trading for the price of electricity, J.P.M. Sijm; S.J.A. Bakker; Y. Chen; H.W. Harmsen; and W. Lise. September 2005

- The Finnish Minister of Trade and Industry has recently (22/08/05) commissioned an inquiry into the consequences of higher than estimated CO2 prices. According to the Minister, Finnish consumers and industry might end up paying nearly 1 billion Euros more for their electricity if the average yearly price of CO2 allowance is 20 Euros.
- The German industrial energy users (VIK) have complained that 65 % of carbon allowances are in the hands of 4 major utilities and these have misused their market positions on carbon and power.
- An Oxera study<sup>3</sup> commissioned by The Carbon Trust on the impact of the EU Emissions Trading Scheme on the competitiveness of a sample of UK industry sectors (electricity, cement, newsprint, steel and aluminium) challenged the view that the EU ETS will have a major negative impact on the profits of UK firms. However, it said that:-

“Given this, the model indicates that the market features that are most important in determining the financial impact of the EU ETS are as follows.

- *The degree of non-EU competition faced by participants in the particular market*—the greater the degree of such competition, the more likely it is that firms will suffer as a result of the EU ETS being implemented. This is because firms outside the EU will not face the marginal cost increase associated with the scheme and hence will gain a competitive advantage that results in a relative increase in their market shares, at the expense of those companies that are within the EU. The non-EU competitors will also place a limit on the extent that the cost increases of the EU firms can be passed on to customers in higher prices.
- *The degree of concentration of firms in the market*—the greater the concentration, the more likely it is that each of these firms will suffer as a result of the scheme being implemented. This result, while perhaps counterintuitive, is caused by the fact that the more competitive the market is, the more firms behave like price-takers and thus prices become more cost-reflective.
- *The own-price elasticity of demand for the product in question*—the more elastic the product, the greater the likelihood that firms will suffer. This is because, for any given increase in prices, the greater the own-price elasticity of demand (in absolute terms), the greater the demand response will be. Of these three features, the modelling suggests that the first will be most critical in determining the financial impact of the scheme. The results in Tables 1 to 5 make no allowance for strategic behaviour among

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<sup>3</sup> OXERA: CO2 emissions trading: How will it affect UK industry? Report prepared for: The Carbon Trust – July 2004

firms—in particular, the use of increased profits to pursue aggressive price competition, which could lead to the predicted increases in profits and prices not materialising. This only arises when there are increased profits: where profits are reduced by the EU ETS, firms will not have the same freedom to behave strategically to counter the effects of the scheme. The model also demonstrates some important dynamics. When CO2 prices rise, the marginal cost of production also rises, but so does the value of grandfathered allowances. As a result, the allocation decision becomes potentially even more important. However, although the allowance allocation is a powerful tool, at relatively high CO2 prices, the extent of competition from outside the EU ETS is a more important determinant of financial impact, and allocation becomes a decreasingly effective means of compensating those participants facing extensive non-EU international competition.”

## **5 Concluding Remarks**

The EMRF is concerned with a two-track national approach to greenhouse emissions abatement. Any global greenhouse abatement scheme which excludes commitments from the USA, China and India, will not make significant progress and achieve real outcomes.

Alternative methods are available which could offset Australia's greenhouse gas emissions without adding an impost onto Australia's competitiveness

The inter-jurisdictional investigation must include the involvement and participation of the Federal Government. Australia cannot afford, and must not have, two national approaches to greenhouse gas abatement as it will send confusing and uncertain signals to potential foreign investors.

The adverse impacts on the competitiveness of Australian industrial activities arising from an ETS are of concern. It will discourage investment and employment opportunities especially in regional centres.

It is disappointing that no cost-benefit analyses have been undertaken to date. Nor has there been analyses undertaken of the EU ETS and of the consequences for power prices, industry, consumers, and policy.