



**Submission to the**

**GARNAUT CLIMATE CHANGE  
REVIEW**

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**EMISSIONS TRADING SCHEME  
DISCUSSION PAPER**

**24 April 2008**

## **INTRODUCTION**

### **About AIP**

The Australian Institute of Petroleum (AIP) was established in 1976 as a non-profit making industry association. AIP's mission is to promote and assist in the development of a sustainable, internationally competitive petroleum products industry, operating efficiently, economically and safely, and in harmony with the environment and community standards.

AIP member companies play various roles in each segment of the fuel supply chain. They operate all of the petroleum refineries in Australia and handle a large proportion of the wholesale fuel market. However, AIP member companies directly operate and control only a relatively limited part of the retail market.

AIP is pleased to present this submission on behalf of the AIP's four core member companies:

BP Australia Pty Ltd  
Caltex Australia Ltd  
Mobil Oil Australia Pty Ltd  
The Shell Company of Australia Ltd.

AIP and its member companies have actively participated in the process of public consultation on national climate change policy development. As members of the Australian Industry Greenhouse Network, AIP and its member companies have also participated in discussions with Federal and State governments about the range of issues associated with the design and development of an Australian Emissions Trading Scheme (AETS).

### **Contact Details**

Should you have any questions in relation to this submission, or require additional information from AIP, the relevant contact details are outlined below.

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The downstream petroleum sector welcomes the opportunity to comment on the Emissions Trading Scheme Discussion Paper.

### **Setting Emissions Trajectories**

The discussion paper puts forward a proposal for a series of emissions trajectories that are conditional on developments in international negotiations. The paper indicates that these conditions are tied to agreements of other developed countries and commitments entered into by developing nations.

AIP has a number of concerns about this general approach to defining emissions targets and abatement timeframes. While a detailed, year by year emissions trajectory (eg Trajectories B, C and D) over the period to 2050 may provide considerable business certainty about the expected emissions trajectory, we believe there is very considerable uncertainty associated with the projections (and the underpinning assessments of economic, business and technology developments) beyond the next few years, and even more so in the period beyond 2025. We also believe that such a trajectory provides an illusion of certainty because successive governments will not wish to be bound by decisions of previous governments.

Given the number of international processes (such as UNFCCC, Kyoto and other potential Protocols, IPCC, as well as other international fora that are pursuing climate change related agendas), AIP is also concerned that reports and negotiations in these fora will become significant drivers for future Federal governments, and potentially some State governments, to revisit the underpinning bases for any emissions trajectories established in 2010. Rather than leave the timing of these inevitable reviews uncertain, AIP believes it would be far preferable to lock in clearly designated times when the emissions trajectory would be reviewed, and the basis on which that review would be conducted.

We are also concerned about the absence of detailed pre-conditions for Australian government consideration of a movement to a more onerous emissions trajectory, such as from trajectory B to Trajectory C. The suggestion that Australia should set the Trajectory C to a "broadly similar effort to the average of other developed countries" ignores the fundamental structural difference between the Australian economy and other developed nations. An ongoing concern also centres on how the pre-conditions might be designed to smooth the transition to any new Trajectory in a way that avoids creating stranded capital. These pre-conditions should also be firmly based on actual emissions abatement delivery by other countries, and not on general treaty commitments, which experience to date has shown are not being met by many countries. Significant overachievement by Australia relative to other Annex 1 countries, and more significantly relative to our major trading partners, will result in greater potential for carbon leakage and for relatively lower economic performance in Australia.

AIP believes there is considerable benefit in a more detailed consideration of the proposals in the Discussion Paper, along with the ideas that emerged from the NETS and TGET considerations, with a view to integrating the best features of both approaches into an approach which balances theory with pragmatic business and political processes.

AIP also believes that consideration needs to be given to the strategic implications of the emissions trajectory approach in the context of Australian involvement in international climate change negotiations. While we appreciate the Government's desire to lead climate change negotiations and the trajectories as enunciated provide a show of good faith, we consider that international negotiations will not be conducted in the spirit of fraternalism. Australia must be prepared to conduct negotiations in a serious and hard-headed fashion if the national interest is to be served in the overall outcome.

## **AETS Design Principles**

The key principles enunciated for the design of the AETS framework are generally supported as a theoretical starting point. However, AIP is concerned about how these will work in practice. In many instances the Discussion Paper appears to have an underlying assumption that the ETS will be a perfectly competitive market. While we note that the paper relies heavily on the Coase theorem and perfect market assumptions, we strongly believe that due regard should be given to industry economics and political economy concepts such as transitional costs and demonstrated market failure

Our various concerns are highlighted in the following sections of the submission dealing with specific AETS design aspects.

### **Environmental Effectiveness of AETS**

The Discussion Paper does not include any significant evaluation of the environmental effectiveness of the proposed AETS, either from the viewpoint of providing justification for the inclusion/exclusion of particular sectors in the AETS, or in providing a framework within which to consider the case for adoption of other, 'complementary', measures which might be needed to address market and policy failures not adequately addressed within an AETS.

From the perspective of transport sector emissions, and drawing on extensive industry experience of the relationships between transport fuel prices and consumer demand, AIP makes the following observations:

- carbon permit pricing is likely to have a minimal environmental impact on transport emissions in the medium term given that
  - the short run (retail) price elasticity could be as low as 0.1 and the long run (retail) price elasticity could be as low as 0.2
  - fuel consumption is a superior good with an income elasticity above 1.
- with incomes rising relatively swiftly, there is a good probability that the effect of income elasticity will continue to outweigh the effect of price elasticity meaning increased consumption of fuels and no net environmental benefit.
- Since these elasticities are likely to change over time, it is important that the Review undertake a thorough analysis of elasticities in recent years as well as the likely impacts on liquid fuel consumption of the introduction of a carbon price

The downstream petroleum sector has seen this situation demonstrated over the last five years where emissions per kilometre have dropped only slightly and vehicle kilometres travelled (VKTs) have continued to increase even in the face of high fuel prices. We have also seen a limited move by consumers to smaller significantly more efficient motor vehicles however our perception is that most motor vehicle changes have been associated with a shift from larger passenger vehicles to SUVs.

It would also be desirable for the final Review report to include a discussion of transitional costs/pathways, particularly the challenges such as

- the generally slower uptake of technology than is usually anticipated, despite customers being provided with significant financial incentives
- the reluctance of business and private individuals to make existing infrastructure redundant
- the economic and business implications of stranded infrastructure
- how to encourage climate friendly technology uptake in various sectors and applications.

## Coverage and Point of Acquittal

AIP believes it is important for all sectors of the economy to contribute equitably to national goals to reduce greenhouse gas emissions.

While the Discussion Paper proposes that exclusion from ETS should be judged on whether the costs of inclusion exceed the costs of measurement and verification, there is no discussion of the methodology to underpin this judgement. A more robust assessment should include an assessment of the environmental effectiveness of inclusion of a sector within the AETS, particularly whether market failures in the sector mute the full impact of AETS carbon prices on the decisions and behaviour of greenhouse gas emitters and energy users. A more rigorous benchmark (including specific methodology) should be developed in the final report of the Garnaut review to guide consideration of any claims for exclusion from the AETS.

AIP supports the principle that the point of acquittal (obligation) should generally be the point of emission. However, we agree that other points of acquittal should be considered if

- Total transaction costs (ie for both business and government) can be demonstrated to be lower
- Administrative simplicity can be achieved, potentially using an existing administrative or legislated arrangement with no or minimal change
- Business does not bear an inequitable cost from having to acquit the emissions of downstream parties
- The administrative arrangements would ensure that all emitters pay the same relative carbon price (ie all fuels and energy sources entering the Australian are subject to the same relative carbon prices, and there is no leakage of fuel/energy into the market without a carbon price).

Where an upstream point of acquittal is adopted, the associated carbon price in the product should be clearly discernible to consumers.

AIP notes that there will be various uses of liquid fuels that will not be subject to an emissions liability in the AETS (eg exports, fuel used for international travel, non-fuel use of combustible products), but urges that careful consideration be given to the mechanisms for such 'exclusions'. It is essential that such fuel and non-fuel use is captured by the AETS mechanism, even if 'zero rated'; key concerns with the sale of carbon-price free energy commodities into the Australian market are the extent to which regulatory roles might be transferred to business at the point of acquittal, and the potential for leakage back into the fuel system through inappropriate or fraudulent practices.

### **Point of Acquittal for Liquid Fuels**

While the most environmentally effective point of acquittal for liquid fuels is expected to be at the point of use of the fuels, this is likely to be the most administratively complex and costly point of acquittal.

AIP member companies advocate the use of an upstream point of acquittal for liquid fuels based on the point of liability for fuel excise, together with an appropriate mechanism to enable administratively feasible self acquittal by large users. This would involve the use of the well developed mechanisms embodied in the fuel excise scheme legislation for liquid fuel product definitions, volume calculations and reporting boundaries/liabilities. This approach would also enable the use of fuel excise monitoring, reporting and auditing mechanisms, as well as a very rigorous set of compliance arrangements. The excise scheme also clearly defines various categories of fuel use which are exempt for excise purposes, such as fuel exports, fuel used for international air/sea travel, certain defence purposes and diplomatic uses. These same categories are expected to be exempt from the AETS for the foreseeable future.

Since the fuel excise scheme applies to all fuels, and potential fuels, entering the Australian market, its application within the AETS would help ensure that all fuels entering the Australian market were subject to a well defined carbon price, and that there was no 'carbon leakage' within the Australian fuels market.

Other points of acquittal may be proposed for use in an AETS which involve a smaller number of acquitters, but in each case these are likely to involve significantly higher business administrative costs to re-aggregate data further upstream, and/or are likely to introduce significant gaps in coverage which are likely to lead to increasing amounts of liquid fuels entering the Australian fuels market without an embedded carbon price.

### **Permit Auctioning**

AIP notes that the Discussion Paper proposes the majority of emissions permits will be auctioned by the government and that a secondary permit market (and other hedge instruments) is expected to be developed by the private sector. While the design of the auction system will clearly need to take account of a number of government objectives related to timing of government auction revenue, development of a robust long-run carbon price curve, and creation of liquid primary and secondary emissions permit markets, AIP also encourages the Review to give careful consideration to how the auction rules might be designed to minimise impact on business cash-flows and on corporate balance sheets.

Clarification of the taxation treatment of emissions permits will also be an important factor in understanding the impacts of the design of the permit auction system. Detailed proposals have been developed by institute of Chartered Accountants in Australia, working in consultation with Ernst and Young. These proposals appear worthy of further consideration in the final Review Report.

AIP further notes that there is no analysis on the relative merits of auctioning versus administrative methods of permit allocation. As part of this analysis, administrative allocation could be assessed as a possible transitional mechanism to avoid excessive price volatility in the initial stages of the scheme.

### **Emissions Permit Price Ceilings and Floors**

AIP is concerned that the Discussion Paper rejects the need for permit price ceilings and floors. Given international experience of dramatic failures in the initial stages of emissions permit markets, it is worrying that the Review places complete faith in the Australia's ability to create a perfect emissions permit market from the very start in 2010. The assertion that costs of price controls outweigh the benefits has not been demonstrated, particularly in the early years of operation of the Australian scheme.

The 'coercive powers' of government to ensure a perfectly competitive emissions permit market also appear to have been over-estimated. In the early years of the AETS operations, AIP believes it will be impossible to guarantee that there will not be

- a degree of market failure in the AETS driven by information asymmetries which may be exploited by financial intermediation and practice
- significant pressures for governments to adjust the emissions reduction pathways, including in response to legitimate international developments
- significant pressures on current or future governments to adjust specific AETS design features.

In view of the expanded coverage of the Australian ETS, compared to schemes in other countries, and the almost 'full' auctioning of emissions permits, AIP strongly advocates the inclusion of a transitional safety-net to ensure the Australian market, and Australian energy suppliers, are not exposed to extreme volatility in permit prices in the initial few years of operation of the AETS. While it is recognised that this may delay some arrangements for linking the Australian scheme to other international schemes, the costs of such short term price controls would not necessarily outweigh the benefits of initial price stability in the AETS. Even if a failure in the early years of the AETS can be quickly corrected, it will impose very significant transition costs on the Australian economy and on significant parts of Australian business.

### **Role and Responsibilities of the Independent Carbon Bank (ICB)**

AIP encourages the Review to give further consideration in the final report to the details of the role and responsibilities of the proposed ICB. For example, there needs to be a very clear understanding as to the respective regulatory roles of the ICB and the government of the day, so that informed judgements can be made about the levels of risk and uncertainty associated with all key elements of the AETS design.

AIP is also concerned about an apparent role for the ICB as a (significant) market participant undertaking transactions in the market for stabilisation purposes. This appears to be an acknowledgement that the proposed AETS will not be operating in a perfect market, despite all of the features of the AETS being designed on that basis, and that the ICB would need to play a market 'muting' role. These market interventions are most likely to be during the initial stages of the introduction of the AETS, and at times when there are transitions around key design features of the AETS. It is unclear why the ICB would have the expertise, insights or experience to manage these circumstances as a market player given the novelty of the ETS markets around the world. Greater certainty could be created by incorporating design features into the AETS to address these situations, rather than leaving the whole solution to ICB intervention in the market.

### **Energy Intensive Trade Exposed Industries (EITE)**

AIP is pleased to see that the Review has recognised that there will be a misallocation of resources around trade exposed industries (import and export exposed industries) while ever Australia has trading partners that have not adopted equivalent greenhouse gas emission abatement policies. AIP is strongly of the view that Australian refineries are trade exposed, energy intensive businesses.

The simple approach outlined in the Discussion Paper to addressing this market failure raises a number of significant issues which should be explored and clarified in the final report.

AIP believes it will be important for the Review to gain a detailed understanding of the way that each of the main trade exposed industries are exposed to current and potential price and volume impacts. AIP member companies would welcome more extensive consultation between businesses and the Review on EITE related matters. Business

impacts will be different for import and export competing industries, and for different sectors. Static consideration of access to markets, business closure and new business expansion in other countries provides some insights into EITE concerns. Other factors such as AETS impacts on day-to-day and month-to-month purchasing decisions are dynamic and are likely to have a much more insidious impact on business viability over time (in addition to normal business pressures arising from ongoing changes to business competitiveness). A more comprehensive analysis of the full range of potential business impacts in a range of sectors will also help clarify the objectives of the EITE mechanism, particularly to ensure that it is not solely directed at preventing explicit instances of 'carbon leakage' and business closure/transfer overseas.

In terms of the mechanism outlined in the Discussion Paper:

- Further guidance is required on what methodology should be adopted to assess what constitutes a 'material' misallocation of resources within a sector. Given the potential for ideas and concepts to carry across into AETS design decisions from the work of the Emissions Trading Task Group, more detailed thoughts and insights from the Review will be essential.
- Further guidance is required on calculation of trade exposed sales to ensure that artificial business constructs do not become embedded in the design features as a way of limiting eligibility through this part of the mechanism.
- AIP doubts the need for the regulatory overlay of an emissions factor feature in the EITE mechanism, given the already strong market signals for greater energy efficiency (which indirectly results in greater carbon efficiency) within energy intensive industries such as the refining industry. Australian energy intensive industries will be aware that when Asian industries eventually have carbon prices imposed, their product prices will reflect the carbon efficiency of the marginal facility.
- Any proposal to include an emissions factor feature in the EITE mechanism to encourage EITE industries to adopt climate friendly technologies should be left to a subsequent phase as it requires considerable more analysis of how the mechanism might work in practice. It will not be a simple matter of adopting the emissions profile of international best practice technology in particular sectors. Experience in many sectors has already shown that international business benchmarking of environmental performance is extremely complex, with many factors impacting on technology choice, such as age of associated plant, energy costs, availability of investment funds, access to particular raw materials and energy forms and their performance in process facilities, required product specifications, and relative incentives for technology choices. Industry in Europe has made very limited progress on resolving this issue to date, and AIP doubts that rapid resolution would be possible in the Australian context where many of our trade competitors are in the broader Asian region with plants having a very wide-ranging level of relative greenhouse gas emissions efficiency. This is a particular area where more extensive discussions between business and the Review team would be desirable and fruitful.
  - These considerations should also include the case for a transition period before any emissions factor mechanism becomes operative. This would recognise the considerable time required for the development, approval and implementation of what are likely to be very significant investment decisions for energy intensive and cost conscious businesses.

AIP supports the notion in the Discussion Paper that EITE payments should occur as close to the loss of revenue as possible. However, this principle appears to be contradicted in other places in the Discussion Paper. AIP also supports the notion that EITE payments could be in cash or in the form of emissions permits of similar value.

### **Refining Industry Experience with International Comparative Benchmarks**

The global refining sector is benchmarked through the Solomon's survey which is a comprehensive confidential survey of a range of key refinery performance measures, including energy efficiency, emissions intensity, capacity, utilisation rates, and financial performance.

Average refinery performance comparisons are generally made by country, region and type of refinery across each of the factors. However, no assessment is made of the potential for improvement across refineries on any of these factors.

The EU Emission Trading System utilises a form of refinery energy efficiency benchmarks for the purpose of allocating emission permits to the refining sector in Europe. However, the EU ETS scheme is not designed to force refineries to achieve international best practice benchmarks. Nevertheless, the EU benchmarking mechanism includes an incentive for refineries with low energy efficiency to progressively improve the efficiency of their energy usage. The EU mechanism takes account of the installed capital equipment and the inherent limitations on improvements on energy efficiency and emissions intensity. For example, benchmarks are based on refineries having generally similar operations units, refining intensity of crude oil, energy prices, and product slates.

Any mechanism, for benchmarking of Australian refineries would need to consider a similar range of factors, particularly the low energy prices which have influenced the design of Australian refineries, as well as the refining intensity, raw materials choice, and product slates (including fuel qualities).