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Senate Select Committee on Energy and Fuels
Parliament House
CANBERRA ACT 2600

Dear Senators

As you may be aware the petroleum refining sector, and specifically ExxonMobil's Altona Refinery, will potentially face significant cost impacts as a result of the introduction of an Emissions Trading Scheme (ETS). As a severely trade exposed industry we have little ability to recover any new carbon costs in the domestic market against international competition. To protect the long term viability of the Altona Refinery (and the industry) it is important that a level playing field is maintained with our international competitors who do not face any carbon price burden. This is why we have argued strongly that refining must receive a 100% free allocation of permits until such time as a global ETS or equivalent is in place.

The severity of the financial impact on the Altona Refinery of not being allocated free permits is illustrated even under a modest carbon price scenario. For example, a carbon price starting at US$20 and rising to $50/tonne would see almost 100% of historic average earnings for Altona Refinery eliminated. Such a situation raises the potential to drive industries such as refining offshore without realizing any reduction in global emissions.

As you deliberate on ETS policy and its impact on the fuels and energy sector, we urge you to take into account both the viability of Australian refining under an ETS and the subsequent impact any decision around the choice of EITE metric will have on the viability of our industry. We would of course welcome the opportunity to meet with you to discuss this issue in further detail.

Yours faithfully

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Australian Government Green Paper
Carbon Pollution Reduction Scheme

Submission by ExxonMobil Australia Pty Ltd

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ExxonMobil Australia Pty Ltd is a subsidiary of Exxon Mobil Corporation. ExxonMobil Australia Pty Ltd has a number of subsidiaries with assets and operations in Australia many with names that include ExxonMobil, Exxon, Esso and Mobil. For convenience and simplicity in this submission those terms and the terms corporation, company, our, we and its are sometimes used as abbreviated references to a specific subsidiary or groups of subsidiaries in the ExxonMobil Australia Group of companies.

Executive Summary

- ExxonMobil recognises that the risks of global climate change to society and ecosystems may prove to be significant. Our approach is to take sensible economic actions now to improve efficiency and reduce emissions while pursuing research designed to better understand scientific issues and to achieve technology breakthroughs that could dramatically reduce future emissions. ExxonMobil is also committed to working with policy makers as they develop responses to the risks posed.

- It is important to understand that mitigating global carbon dioxide (CO_2)emissions growth requires participation of the major developing economies in any policy response. The scope and scale of the emissions challenge can not be met by Australia acting alone given our small contribution to global emissions (i.e. Australia's CO_2 emissions from fossil fuel combustion were ~1.4% of the world's total in 2005 and this share is forecast to decline.)

- The Emissions Trading Scheme (ETS) framework outlined in the Australian Government's Green Paper is the most complex and broadest regulatory regime of its kind to be put forward by government anywhere in the world. The Australian ETS would be the first scheme to cover all greenhouse gases, include transport fuels, natural gas and fugitive emissions, and to move to a 'hard start up' with significant auctioning of permits in 2010. Moreover the schedule for implementation of an Australian ETS represents one of the most aggressive timetables ever contemplated.

- ExxonMobil notes that the current scheme proposal is also more aggressive in seeking emissions reductions (than previously proposed Australian schemes) by requiring that any new emissions resulting from economic growth be placed within a fixed national emissions cap. In seeking more aggressive emissions reductions, ExxonMobil notes that this will potentially limit growth within the Australian economy and may discourage attempts to expand emission intensive industries, such as liquefied natural gas (LNG) and refining, regardless of their energy efficiency.

- While many economists would argue that there are more efficient mechanisms for reducing Greenhouse Gas (GHG) than implementing an ETS, the Green Paper sets out a number of key design elements which should improve the efficiency of the proposed scheme. These include:
  - broad industry coverage (including transport fuels):
  - use of the National Greenhouse & Energy Reporting System (NGER) as the method for monitoring and reporting:
  - a cost containment mechanism:
  - inclusion of banking;
  - full auctioning but with transitional mechanisms for permit allocation to energy intensive trade exposed (EITE) industries;
  - in principle recognition of some EITE industries; and
  - appropriate liability points for the acquittal of gas and transport fuels.

- It is widely recognised that trade exposed Australian industries will be placed at significant competitive disadvantage if they bear the cost of an ETS, while competing industries within the international market are left unconstrained to emit greenhouse gases. ExxonMobil's view is that the regulatory scheme must treat trade exposed industries in a manner that recognizes this fact and maintains competitiveness of Australian industry until our international competitors face similar carbon costs.

- ExxonMobil's view is that if adopted the EITE criteria will effectively exclude emissions intensive and trade exposed industries such as petroleum refining and LNG from any transitional measures, and ensure that both industries face significant disadvantage against international competition. The proposed EITE criteria perversely discriminate against businesses whose competitive situation has driven margins down to low levels compared to revenue. While there are a range of alternative measures, it seems likely that there is no single metric (one-size fits all approach) which is adequate to assess EITE, thus making it important to lessen reliance on a single indicator for all industries.

- To ensure the highest levels of transparency, maintain market stability and to reduce price volatility for consumers ExxonMobil proposes the government examine the concept of a 'linked fee' for bringing liquid transport fuels within the scope of an emissions trading framework. The establishment of a linked fee would require government to determine a fee on liquid transport fuels for all consumers but one which is explicitly linked to the price of carbon within an ETS (for example via a rolling average of the price of carbon — potentially quarterly). This proposal would also have the benefit of simplifying the administrative arrangements that would need to be put in place to give effect to the government's commitment to offset price impacts on transport fuels for consumers.

- An ETS should not be a goal in itself, but one of several alternative options for consideration to facilitate the achievement of a reduction in the global growth of greenhouse emissions. It is important to recognise that many companies in Australia advocating the adoption of an ETS are intending to pursue it as an active business in and of itself or have other significant commercial interests they wish to pursue in the development of such schemes. In contrast ExxonMobil uses emissions trading as a means to achieve its GHG obligations in an economically efficient fashion.

About ExxonMobil

ExxonMobil Australia and its subsidiaries (ExxonMobil) have had a significant role in the development of Australia's oil and gas resources and have a business history in this country stretching back over 110 years.

ExxonMobil is Australia's largest integrated petroleum company. Our activities cover exploration and production of oil and gas, petroleum refining and marketing of fuels (including natural gas), lubricants, bitumen and chemical products.

ExxonMobil is a substantial investor in the Australian economy and a major contributor to the wealth of the nation. Annually ExxonMobil pays around A$800 million in taxes to local, State and Federal Governments. Our cumulative investment in Australia exceeds A$13 billion and we provide direct employment for around 1700 people and indirect employment for many thousands more.

Exxon Mobil Corporation

Globally, Exxon Mobil Corporation — the parent company of ExxonMobil Australia — is the world's largest publicly quoted oil and gas company and the world's largest corporation in terms of market capitalisation. Worldwide the company and its subsidiaries produce more than 4.5 million oil-equivalent barrels of energy resources every day from some 1600 fields and operate in over 200 countries. Exxon Mobil Corporation is also the world's largest non-government marketer of natural gas and, in our global downstream business, the company has interests in 38 refineries in 21 countries and over 32,000 service stations world-wide.

ExxonMobil's approach to climate change

There is increasing evidence that the earth's climate has warmed on average about 0.7 degrees C in the last century. CO_2 emissions have increased during this same time period — and emissions from fossil fuels are one source of these emissions.

Climate remains today an extraordinarily complex area of scientific study. Nonetheless the risks to society and ecosystems from increases in CO_2 emissions could be significant, so it is prudent to develop and implement strategies that address the risks, keeping in mind the central importance of energy to the economies of the world. This includes putting policies in place that start us on a path to reduce emissions, while understanding the context of managing carbon emissions among other important world priorities, such as economic development, poverty eradication and public health.

While this long-term objective is pursued, near-term objectives should include pacing policy responses such as promoting energy efficiency, deploying existing technologies that reduce greenhouse gas emissions, supporting research and development of new, low-GHG technologies, and supporting climate research.

Policymakers in Australia and globally are currently considering a variety of proposed regulatory options to mitigate Greenhouse Gas (GHG) emissions. In our view, assessing these options requires an understanding of their likely effectiveness, scale and cost, as well as their implications for economic growth and quality of life. Within ExxonMobil, we analyse and compare the various policy options by evaluating the degree to which they:

- ensure a uniform and predictable cost of GHG emissions across the economy;
- consider the priorities of developing world ;
- maximize the use of market forces;
- promote global participation;
- minimize complexity and administrative costs;
- maximize transparency to companies and consumers;
- adjust in the future to new developments in climate science and the economic impacts of policies;

ExxonMobil scientists have undertaken climate change research and related policy analysis for 25 years and, through their work, have produced more than 40 papers in peer-reviewed literature. In addition, our scientists participate in the United Nations Intergovernmental Panel on Climate Change (IPCC) and numerous related scientific bodies.

Over the years the company has supported major climate research projects at such institutions as the Massachusetts Institute of Technology, Stanford University, the Australian Bureau of Agricultural and Resource Economics, the University of NSW through the Global Climate and Energy Program (GCEP), Princeton University, the Hadley Centre for Climate Prediction, the International Energy Agency Greenhouse Gas Research & Development Program, Yale University, and the Lamont Doherty Earth Observatory at Columbia University.

The Australian Green Paper on Emissions Trading (ETS) – ExxonMobil Response

Introduction
The Green Paper outlines the Australian Government's approach to the design of a national emissions trading scheme. The paper identifies the key design decisions that are required, discusses alternative approaches to dealing with the key questions to be resolved, and indicates preferences among options. ExxonMobil understands stakeholder feedback is now sought on all elements of the Green Paper and this feedback will inform the Government's decisions on final scheme design.

ExxonMobil through its global affiliations has significant experience in climate change policy and is one of the few firms in Australia that have direct experience in the design, development and operation of a wide scale Emissions Trading System, namely the European ETS. ExxonMobil is therefore well positioned to draw on this experience, as well as its local professional expertise and experience, in making comments on the Green Paper.

Emissions Targets & Scheme Caps
Given that the Government has indicated a preference for a regulatory scheme that sets an emissions trajectory or a cap on total national GHG emissions, it is important that such trajectories and caps be premised on Australia's contributions to global emissions. Credible and achievable emissions reduction trajectories and caps should be set through a rigorous and transparent process underpinned by modeling and research which assesses the economic, social and environmental impacts. Trajectories and caps should be technically and environmentally feasible and provide the basis for a smooth, long-term transition to a low-emissions economy recognising the unique features of the Australian economy, international progress in emissions reduction and our contribution to global emissions.

ExxonMobil notes that the Government has indicated that the announcement of a medium-term national target range for 2020 will be delayed until the end of 2008. To properly understand the full cost impacts of the scheme, it is essential that the modelling (and assumptions used) is open to public review and that the emissions trajectory and near term targets are known well before the design of the final scheme detail.

This will be particularly important given that the proposed ETS allocates new emissions resulting from economic growth within a fixed national emissions cap. This is a departure from the scheme design outlined by the Task Group on Emissions Trading in 2007 which recommended that the emissions cap under the scheme could be adjusted upwards (within the gateway framework) to account for emissions as a result of new investments in the trade-exposed, emissions-intensive sector. Given the time lags involved between decisions to invest and initial production the Taskforce considered it likely that there would be sufficient room to accommodate these upward adjustments within the gateways or emission bands.The Green Paper position therefore has potentially significant ramifications for the state of the economy and industry expansion. In essence the current scheme proposal is far more aggressive in seeking emissions reductions as it caps the ability of the Australian economy to grow and will discourage attempts to expand emission intensive industries, such as LNG, regardless of the energy efficiency of the industry and regardless of the benefits that the industry can play in reducing global green house gasses.

ExxonMobil Position
ExxonMobil notes that the proposed ETS allocates new emissions resulting from economic growth within a fixed national emissions cap.

Given that the Government has indicated a preference for a regulatory scheme that sets a GHG emissions trajectory or a cap on total national emissions, it is important that such trajectories and caps be premised on Australia's contributions to global GHG emissions. Credible and achievable emissions reduction trajectories and caps should be set through a rigorous and transparent process underpinned by modeling and research which assesses the economic, social and environmental impacts.

ExxonMobil notes that the current scheme proposal is far more aggressive in seeking emissions reductions (than previous proposed schemes) as it caps the ability of the Australian economy to grow and will place significant penalties on attempts to expand emission intensive industries regardless of the energy efficiency of the industry.

Market Efficiency
The most commonly canvassed 'market mechanisms' to address rising emissions fall into two broad areas – carbon trading (ETS) or a carbon tax. Such market mechanisms have been implemented in Europe in the case of an ETS and in British Columbia (Canada) in the case of a carbon tax. Similarly the US is considering a range of different legislative proposals that encompass these categories. Each offers distinct advantages and difficulties depending on the design features incorporated.

In its simplest definition, an ETS involves rationing the economy's ability to emit carbon dioxide (and other greenhouse gases, calculated in tonnes of carbon dioxide equivalent, tCO2e) usually under a targeted cap on overall emissions. However, an ETS can come in a variety of types, like those that apply at the point of actual emissions (i.e. downstream, such as the European Union's Emission Trading Scheme (EU-ETS)) and those that apply to fuels that will ultimately be

combusted (upstream, such as several under consideration in the United States). In comparison a carbon tax seeks to place a levy on GHG emitters to pay a specific price on each tonne of emissions released and is usually designed to be applied to the fuels that eventually will be combusted. The carbon tax seeks to set the price of the environmental externality but does not guarantee the quantitative impact on emissions. The main benefit of a tax is that it offers certainty, stability and transparency about the price of an activity, and therefore provides clear and reliable signals for current and future behavioural and investment decisions that affect GHG emissions over time.

A Carbon Tax versus an ETS – Efficiency Implications

A 2008 research publication produced by the United States Congressional Budget Office (CBO) has examined the efficiency implications of a carbon tax versus an ETS. In short the CBO concludes any long-term emission-reduction target could be met by a tax at a fraction of the cost of a cap-and-trade program. A tax would provide firms with an incentive to undertake more emission reductions when the cost of doing so was relatively low and allow them to reduce emissions less when the cost of doing so was particularly high.

In fact significantly reducing GHG emissions requires large investment in long-lived capital stock. The more predictable the long-term cost of GHG emissions, the lower the risk of making these long term investments. A carbon tax provides a more predictable and thus lower risk investment climate than a cap-and-trade system. The "environmental certainty" of a cap and trade system may be illusory. If a carbon tax at an acceptable level will not generate the desired emissions reduction, then a cap-and-trade system set to produce the desired reduction could generate a much higher allowance price, ultimately resulting in the likelihood of political intervention.

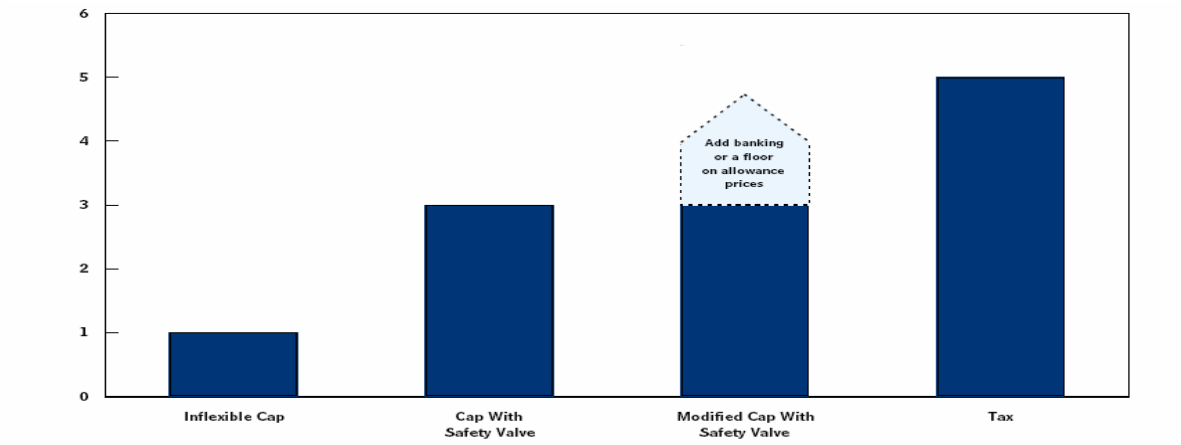
The CBO study also explores ways in which policymakers could preserve the structure of an ETS but capture the efficiency advantages of a tax. Specifically it concludes that policymakers could take one or more of the following steps to improve the efficiency of an ETS program:

- Establish a cost containment mechanism — by setting a ceiling and a floor on the price of emission allowances. The government could maintain a ceiling by selling companies as many allowances as they would like to buy at the containment price which might be say twice the high end of the price the government has predicted for the program. The government could maintain a price floor by selling allowances in an auction and specifying a reserve price.

- Permit firms to transfer emission-reduction requirements across time—by "banking" allowances in one year for use in future years or by "borrowing" future allowances for use in an earlier year. Firms would have an incentive to bank allowances when the cost of cutting emissions was low (relative to anticipated future costs) and to borrow allowances when costs were high.

Chart 1

Economic Efficiency of Various Policies to Reduce CO_2 Emissions



Source: Congressional Budget Office based on estimates of the relative magnitude of the net benefits of various policies found in William A. Pizer, "Combining Price and Quantity Controls to Mitigate Global Climate Change," *Journal of Public Economics,* vol. 85 (2002), pp. 409–434, and in Richard G. Newell and William A. Pizer, "Regulating Stock Externalities Under Uncertainty," *Journal of Environmental Economics and Management,* vol. 45 (2002), pp. 416–432.

Notes: The net benefits of each policy are shown in relationship to each other with the net benefits of an inflexible cap set equal to one. The inflexible cap and the tax are assumed to be set at the most efficient level—that is, at the point at which the expected marginal cost of complying with the policy would be equal to the anticipated marginal benefit of reducing emissions.

The net benefits of a cap with a safety valve (a ceiling on the price of emission allowances) are based on the assumption that the cap would be set at the level of the most efficient inflexible cap and the safety-valve price would be set at the level of the most efficient tax. Banking would enable firms to save unused allowances from one period to use in a future period.

The net benefits of a cap-and-trade program with a circuit breaker (not shown in the figure) would be greater than those of an inflexible cap and less than those of a cap with a safety valve; however, CBO lacked sufficient information to determine how much greater or less they would be.

A cap-and-trade program that included a safety valve and either a price floor or banking provisions could be significantly more efficient than an inflexible cap, although somewhat less efficient than a tax.

CO_2 = carbon dioxide.

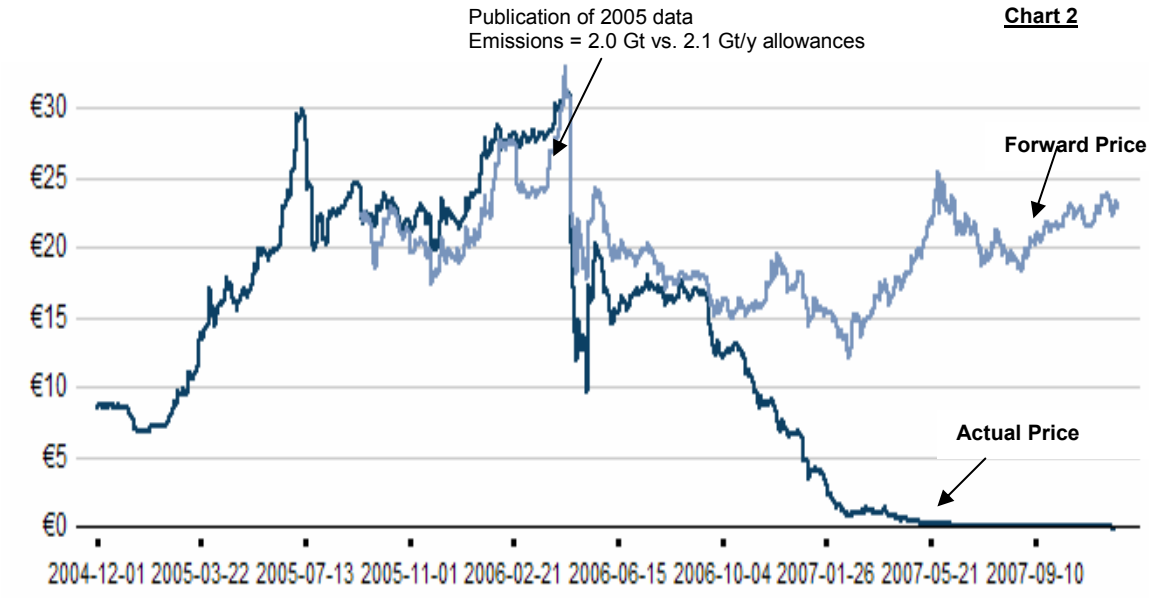
(Source: CBO February 2008)

ETS Price Volatility

Experience with ETS programs has also shown that price volatility can be a major concern when a program's design does not include provisions to adjust for unexpectedly high costs and to prevent price spikes. Experience with allowance prices in the European Union's Emission Trading Scheme (EU-ETS) — a trading program that covers CO_2 emissions from roughly 12,000 sources across 27 countries — seem to reinforce the inherent volatility in carbon trading programs. In fact allowance prices fell drastically when it became evident that policymakers had over allocated emission allowances (as illustrated in Chart 2 below) and there was no effective mechanism to bank permits.

The initial European experience is instructive in assessing a limited, downstream carbon trading system. It is noteworthy that even in its first years of operation the EU-ETS can be characterised as being administratively complex, subject to carbon price volatility, with little observable impact on Europe's overall emissions profile, and with some indication that energy intense industries are cautious about expanding capacity through investment in Europe.

EU CO2 market price



(Source: PointCarbon)

Price volatility could be problematic with CO_2 allowances in economies like Australia's that are highly reliant on fossil fuels both domestically and as a major generator of export income. Given this exposure policy makers need to be aware that volatility in CO_2 allowance prices will impact energy prices, inflation rates, and the value of imports and exports.

However, an ETS that included the key design features of a cost containment mechanism and banking, may mitigate price volatility issues and related investment planning concerns and protect the Australian economy from unintended consequences.

ExxonMobil Position

ExxonMobil notes that while the Green Paper has preferred an ETS over a carbon tax on the basis of a defined environmental outcome, it has proposed that the scheme include:

- a cost containment mechanism for at least the period 2010–11 to 2014–15;
- unlimited banking of permits.
- limited amount of short-term borrowing.

ExxonMobil supports the inclusion of a cost containment mechanism and banking provisions outlined in the Green Paper as it will promote scheme efficiency and may assist in limiting price volatility. ExxonMobil prefers that a set fee be established as the instrument for implementing the cost containment mechanism.

Coverage and Timing

The Australian ETS framework, as outlined in the Australian Government's Green Paper, is the most complex and broad based GHG regulatory regime of its kind to be put forward by government anywhere in the world. ExxonMobil notes that the proposed Australian ETS will be the first scheme to cover all greenhouse gases; include transport fuels, natural gas, waste and fugitive emissions; and to move to auctioning of permits at scheme start up.

Moreover, the schedule for implementation of an Australian ETS represents one of the most aggressive timetables ever contemplated - with all legislative and regulatory instruments to give effect to the scheme and its new regulators, as well as the required business upgrades in hardware and processes, to be achieved within a 2 year timeframe. It should be noted that the EU commenced planning for an ETS in 2000 and continued planning for five years before then implementing a "trial" system that went for a further three years. Even with the lesser scope (CO2 emissions from large stationary sources only) compared to the Green Paper and the level of planning, the EU experienced significant difficulties in implementation.

Given the scope and scale of the challenge in implementing such a scheme, ExxonMobil notes and supports the Governments stated goal in the Green Paper that "*the short-term priority must be to minimise implementation risk while the scheme is being established."* ExxonMobil strongly recommends phasing in the implementation of the ETS as was done in Europe. A paced approach to ETS implementation is also essential for the oil and gas industry. Implementation of an ETS will likely require significant changes to important hardware and systems (such as metering), some of which may require plant to be shutdown.

ExxonMobil Position

ExxonMobil notes that the Green Paper proposes:

- coverage of all GHG emissions under the Kyoto Protocol
- an emissions threshold of 25,000 tonnes of CO_2-e for direct obligations
- inclusion of stationary energy, transport fuels, natural gas, industrial processes, waste, and fugitive emissions.
- Scheme start up in 2010

ExxonMobil supports the broad coverage of the scheme as it will assist in ensuring a uniform and predictable cost of GHG emissions across the economy. ExxonMobil supports inclusion of all GHG emission sources over the entire economy, subject however to practical limitations on cost and measurement accuracy. ExxonMobil does retain concerns about the pace of scheme start up and strongly recommends the implementation of a phased approach as was done for the EU-ETS.

Liability Point – Capturing Emissions from Natural Gas and Liquid Transport Fuels

In the following paragraphs we have set out the proposed point of liability for each sector with a view to finding the acquittal point that has the widest coverage and least complexity while trying to gain leverage of existing systems.

Natural Gas

The recommended liability point should rest with the party who sells to the end consumer i.e. the retailer or the producer, in the case where producers sell direct to end consumers. In the case of producers, the customers are likely to be classified as large users. Since the natural gas industry does not involve the sale of gas from one wholesaler to another, it is relatively straight forward for large users to be allowed to be responsible for the liability and acquittal of permits associated with emissions from their end use of natural gas. Essentially, the natural gas retailers are combined wholesalers, distributors and retailers.

Liquid Transport Fuels

For the inclusion of transport emissions within the Australian ETS, we recommend that the point of liability and acquittal point for the "end use" of inland liquid fuels should be the point where the fuel "enters home consumption" or "enters domestic market" which, for liquid fuels, is also the point at which excise is paid. Products which should not be liable for acquitting carbon permits would include: exports, products not used as fuel, international bunkers (aviation and marine). These product categories are not subject to excise and this makes the excise point a logical liability point. In addition, there are existing robust government and company systems in place which enable the systems to be audited to ensure uniform compliance.

ExxonMobil Position

ExxonMobil notes that the Green Paper outlines scheme obligations as follows:

- fuel combustion would be applied at the terminal gate to fuel excise and customs duty remitters for all liquid fuels
- synthetic liquid fuels would be applied to fuel excise and customs duty remitters
- liquefied petroleum gas (LPG) would be applied to producers, marketers, distributors and importers of LPG
- domestic combustion of LNG and compressed natural gas (CNG) would be applied to producers
- natural gas combustion would be applied to natural gas retailers

ExxonMobil supports the proposed liability points as the most efficient, transparent and administratively simple set of arrangements. However, we note that there is a need to ensure all fuels are captured and that exclusions are avoided.

Inclusion of Liquid Fuels in an ETS — a "Linked Fee" Concept

To ensure the highest levels of transparency, improve market stability and to reduce price volatility for consumers ExxonMobil proposes the government examine the concept of a 'linked fee' for bringing liquid transport fuels within the scope of an emissions trading framework. The establishment of a linked fee would require government to determine a fee

on liquid transport fuels for all consumers but one which is explicitly linked to the price of carbon within an ETS (for example via an average of the price of carbon — potentially quarterly). The linked fee concept would provide a transparent mechanism for applying the cost signal of an ETS across the transportation fuel sector while at the same time smoothing price fluctuations experienced by fuel consumers.

This proposal would not only help build the administrative framework of a broad based emissions trading scheme but have the associated benefit of simplifying the arrangements that would need to put in place to give effect to the government's commitment to offset price impacts on petrol and diesel for consumers on a cent for cent basis. In short government could utilise the pre-existing and robust collection mechanism within the excise system to vary the amount of excise collected according to the price of the linked fee. Consistent with the Government's desired intent, this approach would also allow large users to be responsible for their emissions. Such arrangements will significantly increase the cost transparency of an ETS to consumers and businesses.

ExxonMobil Position

ExxonMobil notes that, as a result of the decision to include liquid transport fuels in the Australian ETS, the government has committed to offset any price impacts on petrol and diesel for consumers.

ExxonMobil proposes that the government examine the concept of a 'linked fee' for bringing liquid transport fuels within the scope of an emissions trading framework. The establishment of a linked fee would require government to determine a fee on liquid transport fuels for all consumers, but one which is explicitly linked to the price of carbon within an ETS (for example via a rolling average of the price of carbon – potentially quarterly). The linked fee concept would provide a transparent mechanism for transmitting the emissions cost determined by an ETS to the end user of fuels, while at the same time smoothing price fluctuations experienced by fuel consumers.

Monitoring, Reporting and Compliance

It is widely accepted that credible and reliable GHG emissions inventories are fundamental to the effective operation of an emissions trading system, yet, it is also apparent that such systems are complex and, as experienced in Europe, have been difficult to develop. Likewise, it is fundamental to the successful functioning of the petroleum industry that credible and reliable measurements are made of the materials that are handled by the industry (i.e. hydrocarbon fuels and associated products). Sophisticated systems in combination with complex measurement facilities have been implemented in the petroleum industry over many years to achieve the required measurement standards in the industry.

Significant work has been done to standardise greenhouse emissions estimation and reporting through the development of the National Greenhouse and Energy Reporting System (NGER). ExxonMobil supports the use of NGER as the starting framework for emissions monitoring and assurance under the emissions trading scheme, as its goal is to streamline reporting into a consistent framework and therefore overcome duplication between the state and federal levels. ExxonMobil is also broadly supportive of the use of the emissions estimating methodologies available under NGER and acknowledges the need for staged increases in accuracy and minimum standards for specific emissions sources. However, NGER requires substantial detailed development and some modification to be used effectively. NGER currently contains requirements and processes that are impractical to implement and yet, in other areas is not sufficiently defined to ensure a level playing field amongst companies with permit liability. NGER will also require modification to allow for the differentiation of direct emissions from combustion of fuels purchased with or without a permit.

Assurance measures, as outlined in the Green Paper, are also required to ensure a fair system. Assurance should be undertaken only by qualified people and organisations, as such ExxonMobil suggests that the technical aspects of measurement and reporting (metering and calculations) should be undertaken by organisations with National Association of Testing Authorities (NATA) accreditation. NGER is not suitable for the collection of data relating to upstream acquittal of permits for the sale of fuels. Data collection of this nature should align with reporting under current excise and customs duty arrangements to ensure efficiency and consistency. It should be noted that with the inclusion of transport fuels in an ETS, it is important that sufficient lead time is allowed to implement changes to volumetric and financial accounting systems (e.g. ERP/SAP). Legislation and regulations should be in place at least 12 months ahead of the implementation to allow sufficient time for system changes.

ExxonMobil Position

ExxonMobil notes that the Green Paper proposes that NGER would be the starting framework for monitoring, reporting and assurance but with staged increases in accuracy of emissions estimates being pursued with some emissions sources subject to minimum standards

ExxonMobil supports the use of NGER under the ETS, but notes that NGER requires substantial modification to be effective and fair for determining carbon permit liability. NGER is not suitable for determining liability for upstream (sale of fuels) permits. Instead, existing excise and customs duty mechanisms should be used. Assurance should only be undertaken by organisations with specific expertise in measurement and calculations. (i.e. accredited by NATA).

Permit Allocation
There are various possibilities for allocating emission permits among participants, i.e., grandfathering, benchmarking, auctioning, or hybrids. It is from the careful consideration of the advantages and disadvantages of each of these measures that one can make a properly informed decision concerning which method is best suited for an ETS in Australia. Grandfathering or benchmarking implies the free distribution of permits to participants with the inherent effect of minimising the immediate cost to entities with compliance obligations. Such allocation mechanisms have also proven to be complex and difficult to implement.

Of these two allocation methodologies grandfathering presents the least difficulty, given that it can be based on recent historical emissions for which there is available data. Benchmarking is more difficult to implement. This complexity arises because processing plants generally are an amalgamation of numerous technologies implemented over many years, often decades, which must be characterised in a manner that reflects current and potential emissions performance. Benchmarking therefore is a very complex and imprecise exercise having to evaluate not only what is installed but also what can economically be upgraded. In Australia this exercise will be further complicated by the scale of our industry and the potential lack of many suitable analogues.

Auctioning will impose an immediate cost signal and price impact on firms. The most significant advantage offered by auctioning is that it is simpler to implement than the other options mentioned above and provides the most efficient mechanism to distribute permits. Consequently, ExxonMobil would prefer a system of auctioning of all permits except those for EITE industries, which would be allocated 100% free permits. Clear rules for the auction must be carefully established to ensure that appropriate governance requirements are met.

There are two broad categories of auctions for the simultaneous sale of identical items: single-round and multiple-round, each with subcategories concerning single-price (a.k.a. uniform price) and multiple-price (a.k.a. pay-as-bid). It is generally accepted that all such auctions are conducted via sealed bids. The auction system design for GHG emissions permits must be carefully considered to ensure economic efficiency and administrative simplicity.

Economists generally support single-pricing as more efficient than multiple-pricing, where efficiency is defined as getting the price closest to the bidders' internal value. Simplistically, bidders tend to be more cautious in a multiple-price auction for fear of paying too much for the initial increments of their bid. Single-round auctions are more easily administered than multiple-round auctions. For these reasons, U.S. Treasury bills are auctioned in a single-price, single-round auction with sealed bids. US SO_2 allowances are auctioned in a multiple-price single-round auction.

There is some support in the economics literature to suggest that ascending-clock multiple-round auctions may be more "efficient" than the single-price single-round auction. While such positions are acknowledged it is unclear that the possibly improved "efficiency" of this multi-round arrangement is sufficient to compensate for the certain additional complexity. If an ETS is to be implemented, ExxonMobil favours a single-price, sealed-bid, single-round auction based on its administrative simplicity. An ascending-clock multiple-round auction would be second choice. Multiple-price auctions should be avoided since they are believed to be less efficient and can expose companies to competitive disadvantage based on bidding. For auctioning systems covering carbon permits, ExxonMobil supports auctions being held as frequently as practicable (at a minimum monthly).

If auctioning were to commence ahead of the formal commencement of the Australian ETS, it should be acknowledged that such a measure may improve the adoption of the ETS.,However, suitable arrangements would need to be established in respect of tax laws and other market regulations to ensure there are no unintended impediments to the market and related business activities such as product pricing and cost sharing arrangements. Failure to have these arrangements in place has the potential to create significant cash flow and tax liability concerns.

ExxonMobil Position
ExxonMobil notes that the Green Paper supports:
- progressively moving towards 100 per cent auctioning, subject to the provision of transitional assistance for emissions intensive trade-exposed industries and strongly affected industries.
- Auctions being held each financial year with one in each quarter.

ExxonMobil supports full auctioning subject to transitional measures for EITE industries. ExxonMobil supports frequent (at least monthly), single-price, single-round auctions with sealed bids because of the administrative simplicity and efficiency of such arrangements.

Assistance to Emissions Intensive Trade Exposed (EITE) Industries ('Free' Permit Allocation)
Another consideration associated with the allocation of emission permits relates to the treatment of trade exposed emission intense industries (EITE's). Such industries have little if any opportunity to recover additional costs imposed by the ETS. It is widely recognised that the competitive disadvantage associated with the unilateral (non-global) implementation of an ETS should not be borne by these industries. ExxonMobil supports this view and the position of the Government that "EITE firms are not disadvantaged by emissions trading."

The LNG sector is a strong example of how an emissions intensive trade exposed industry could be disadvantaged by the costs associated within an ETS. In brief, if the Australian LNG industry bears any cost associated with an ETS above those borne by its competitors, then this has the potential to effectively price Australian LNG out of the growing markets of the Asia Pacific, which are particularly sensitive to price movements given the intense level of international competition. Due to the long term nature of LNG supply contracts this could potentially mean that Australian LNG could be effectively excluded from certain markets for the next few decades, thus stalling the industry in this country. Recognising that the competitor fuel in many of these Asia-Pacific economies is coal, such an outcome could have the perverse impact of increasing global GHG emissions (so called carbon leakage).

Detrimental trade exposure is not limited to ventures that supply international markets such as LNG projects. Some facilities, such as oil refineries, are emissions intensive and face competition with imports to Australia from countries that do not have an ETS. In the specific case of an oil refinery, the imposition of additional emissions costs arising from direct and indirect emissions from the refining facilities, creates a competitive disadvantage when compared to imports of refined product from countries with emissions burden. Left unadjusted this reduces the long term viability of refining in Australia, which will be compounded by increasing capacity/competition from Asia-Pacific Refineries, with attendant energy supply implications. To expose these industries to this disadvantage would not only harm the economic prospects of Australia but could also undermine the very objective of the ETS which is to reduce emissions rather than shifting them offshore.

The Government's preferred position is that all industries, other than those for which there exists a physical barrier to trade, be considered for EITE assistance. The proposed process for determining eligible EITE activities involves the Government assessing industries against the following criteria:

- the threshold level of emissions per unit of revenue that activities would need to exceed to receive EITE assistance;
- the period over which the emissions intensity of activities would be calculated; and
- trade characteristics of eligible activities.

While the Green Paper recognises the concept of EITE industries, the mechanism preferred by government is arbitrary and fails to recognise the financial and competitive impacts imposed by the scheme on industries such as LNG and petroleum refining, despite indicating that this was the goal of the scheme. In particular we would note that the decisions to cover only 20% of total emissions with free permits and the preference to only partially compensate such industries (i.e. between 60% or 90% of the liability) are not explained on any rigorous policy basis. Similarly, the concept of selecting high emissions activities within a business process for the purpose of calculating the revenue threshold seems ill-suited to processes undertaken in either the upstream or downstream oil and gas sector.

In fact, the Government's preferred positions on the EITE assistance mechanism and definition are seemingly based on the availability of data and ease of calculation rather than any intrinsic economic merit. This is particularly relevant to the measure of emissions per unit of revenue as the comparable indicator of the 'materiality' of the carbon cost impact across different industries. While revenue is described in the Green Paper (p. 27) as 'an easily observed and well understood measure', it remains an inadequate basis on which to assess the competitiveness impact of the scheme on different sectors. In stark contrast the 'special compensation' provided to electricity generators has been justified on the basis of the impact on margin as set out extensively in chapter 10.

The Government's preferred approach to EITE (unlike electricity assistance) therefore appears to disadvantage activities where revenues may be relatively high based on significant input costs, even though profitability may be relatively small. A high-revenue, low margin activity such as oil refining is a case in point where measured emissions intensities would be deemed relatively low. The Green Paper itself notes that: 'The main disadvantage of the use of revenue as the common measure is that this would result in lower measured emissions intensities for activities that have more significant input costs (such as those further down the supply chain) and for industries that require a higher return on their capital' (p. 309).

Alternatively, a case can be made for a comparative measure based on cost exposure of a given sectoral activity compared to its potential 'value at stake' — defined as the potential impact of an ETS on input costs relative to the sector's value added, before any mitigation or pass-through of costs onto product prices. This indicator (often defined as a range from minimum to maximum value at stake) has received considerable attention in studies examining long-term competitiveness issues associated with the European Union ETS. It is also the concept on which the governments of France and Germany appear to be relying in internal EU deliberations on future mechanisms to address carbon leakage.

In putting this metric forward, ExxonMobil is not promoting this specific approach but rather attempting to demonstrate that there is no single metric (one-size fits all approach) to effectively assess EITE. In our view, the government should lessen the reliance on a single indicator. The eligibility formulae may also have the perverse effect of penalising energy efficiency improvements and discouraging efficiency gains. An example can be demonstrated by examining the emissions of the LNG industry. Given the efficiency improvements made in the industry in recent years and the resultant reduction in emissions, LNG has effectively priced itself out of the assistance market. In short if the LNG industry had not achieved such improvements, it is likely that the industry would meet the threshold for some transitional assistance.

ExxonMobil notes that the Green Paper also recognises another area for compensation to ETS impacted firms referred to as strongly affected industries. Under the criteria outlined (i.e. inability to pass on cost, large sunk capital costs, not trade exposed) LNG and refining would meet most of the criteria for compensation but, as they are trade exposed, they would be excluded. To assist business more generally, ExxonMobil also notes that the Government proposes to establish the Climate Change Action Fund — which will focus predominantly on those industries not receiving free permit allocation, but which nevertheless need assistance to adjust to the carbon price.

ExxonMobil Position

ExxonMobil notes that the Green Paper proposes an eligibility threshold for EITE industries on the basis of activities that have an emissions intensity per million dollars of revenue.

ExxonMobil's view is that the Government's preferred position on EITE assistance is based on availability of data and ease of calculation rather than any intrinsic economic merit. Revenue remains an inadequate basis on which to assess the competitiveness impact of the scheme on different sectors such as refining and LNG.

ExxonMobil believes consideration should be given to other comparative measures and that no single indicator is likely to be adequate.

Revenue recycling

Under an ETS with auctioning, the government will raise substantial revenue. Funds received should be returned to the economy preferably through a broad-based reduction of a current tax on labor or capital. This will be a critical aspect given the size of the potential economic distortion — probably more than A$5 billion in the first year. Additionally, disbursement of funds should not be tied to energy use because this would defeat the desired effect of encouraging efficiency through higher energy cost. A portion of revenue could also be allocated for research and development of low emissions technology. If a portion of revenue is allocated to support technology deployment, such support should be limited in scope and phased out over a defined time period.

ExxonMobil Position

ExxonMobil notes that the Green Paper proposes that all revenues raised would be returned to the economy via households, businesses or through the promotion of low emissions technology

ExxonMobil supports any funds received through an ETS being returned to the economy preferably through a broad-based reduction of a current tax on labor or capital with consideration that a portion of revenue be allocated for research and development of low emissions technology.

Linking to international markets

ExxonMobil supports the government's stated priority that the short-term priority must be promoting price stability and predictability in the early years and that international linkages should be pursued in the medium to longer term. As we have noted already there are significant integrity risks to the scheme design from Australia pursuing unilateral implementation of an ETS in the expectation that such a scheme will ultimately merge into a well constructed and agreed global trading regime.

ExxonMobil Position

ExxonMobil notes that the Green paper states that a short-term priority includes promoting price stability and predictability in the early years of the scheme and by implication that international linkages will be pursued in the medium to longer term.

ExxonMobil supports the government's priority as there are significant risks for Australia to unilaterally implement an ETS in the expectation that such a scheme will ultimately merge into a well constructed and agreed global trading regime.

Tax Issues

ExxonMobil is broadly supportive of the recommendations in the Green Paper relating to the income tax treatment of the ETS. In particular, ExxonMobil supports the need for the introduction of a discrete legislative regime and supports the rolling balance method as the preferred method of dealing with the tax timing issues raised by the ETS. ExxonMobil also believes that taxpayers should have the ability to elect whether to use historical cost or market value in determining the value of permits for tax purposes. This is consistent with the current position regarding trading stock.

The preferred position in the Green Paper is that free permits and cash grants be treated as assessable income at the time of receipt. ExxonMobil notes that in the case of the upstream petroleum industry, which is subject to Petroleum Resource Rent Tax (PRRT), the effective tax rate is 58%. This should be taken into account when considering the size of any grants or the amount of free permits that could be allocated to projects subject to PRRT. The Green Paper does not discuss

potential PRRT issues that arise from ETS. These issues will largely relate to the ring-fenced nature of PRRT as a project specific tax and will, to a large extent, depend on the final design of the ETS. ExxonMobil recommends that a working group be established between industry (through the Australian Petroleum Production and Exploration Association) and Treasury to examine the impact of ETS on PRRT.

The Green Paper deals briefly with goods and services taxes (GST), without raising some of the more difficult issues that are likely to arise. These relate to international dealings, the potential for some supplies of permits to be financial supplies and issues around "free" permits if there is some form of consideration for GST purposes. Ongoing discussion between industry and government is needed to determine whether, as with income tax, specific GST rules dealing with ETS should be introduced to ensure that there is certainty and simplicity.

ExxonMobil Position

ExxonMobil notes that the discussion of tax issues within the Green Paper is at a high level and provides little detailed discussion.

ExxonMobil recommends that a working group be established between industry (through the Australian Petroleum Production and Exploration Association) and Treasury to examine the impact of ETS on PRRT. ExxonMobil also seeks greater clarification on a range of tax issues and their interaction with a system of tradeable rights.

Governance and implementation

ExxonMobil notes that the Green Paper sets out a high level governance framework where the Parliament and the Executive Government will have responsibility for policy decisions and an independent regulator would be responsible for decisions that are essentially administrative in nature or that involve individual cases.

The framework for assigning key roles in the Green Paper is broadly acceptable, however there is a need to provide more detail around the role and responsibilities of each of these institutions and this should be done where practicable prior to the release of legislation. As a guiding approach ExxonMobil supports governance arrangements which provide transparency, certainty and predictability for regulated entities and the market. Where practicable the governance arrangements and the scheme in general must retain a degree of flexibility which would allow policy makers to adjust in response to changed circumstances.

If enforcement of compliance is required, it is contemplated that a range of penalties escalating to criminal sanctions could be imposed. The penalties for non-compliance with the scheme should remain proportional to the non-compliance. In particular, criminal penalties should only be used in extreme circumstances such as fraudulent activities. In addition it is also important that the scheme fit within existing competition laws and corporations laws amended if necessary.

ExxonMobil Position

ExxonMobil notes that the Green Paper sets out a high level governance framework where the Parliament and the Executive Government will have responsibility for policy decisions and an independent regulator would be responsible for decisions that are essentially administrative in nature or that involve individual cases.

ExxonMobil seeks greater clarification around the role and responsibilities of each of these institutions prior to the release of legislation. As a guiding approach ExxonMobil supports governance arrangements which provide transparency, certainty and predictability for regulated entities and the market as a whole.

Non-complementary policy settings

ExxonMobil urges policy makers to review existing policy settings when considering the development of a comprehensive climate change policy. Currently there is an array of energy and fiscal policies at the state and federal level. These policies would undermine the efficacy of any carbon price signal and are a ‘dead-weight loss’ on the Australian economy. In particular we would identify several areas that require specific review / rationalisation. These include mandated energy efficiency programs, mandated technological requirements to mitigate emissions, mandated quotas for different energy sources that compete in the energy supply market and fiscal disparities (taxes and/or subsidies) which create distortions between competing energy sources. This section discusses an example of each of these policy positions although it is by no means an exhaustive list.

Mandated Energy Efficiency Programs

While recent legislative initiatives from Federal and State Governments (i.e. EEO and Victoria's EREP) have sought to help industry identify energy efficiency opportunities, or in Victoria's case actually mandate energy efficiency investments, for the most part such initiatives only attempt to duplicate or crudely intervene in business processes that ExxonMobil (and many other companies) already undertake on a global basis. It is therefore critically important that governments recognize that producers, refiners, distributors, and end users in the chain are best placed to take responsibility for managing and accounting for the emissions they generate. With the onset of an Australian ETS such mandated energy efficiency programs will not be necessary to provide an incentive for business to undertake cost savings measures through abatement activities. As a result we recommend their review and phasing out post ETS start up for all sectors included within the ETS.

Mandated Technology 'Solutions'

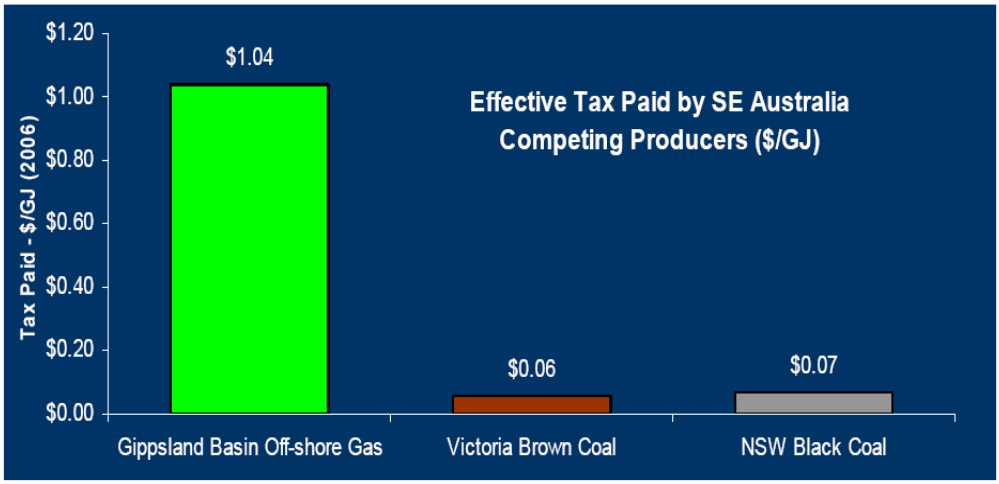
The practice of governments mandating specific technological solutions to achieve emissions abatement is antithetical to the goals of an ETS — which is premised on allowing firms to achieve the least cost outcome within a market framework. If governments choose to intervene within the emissions market by establishing and mandating specific technologies (such as carbon capture and storage (CCS) they run the risk of undermining the scheme and producing sub-optimal outcomes. We note that while the Federal Government does not have in place any technology mandates, some state governments have exercised this practice. For example, the Western Australian Government has mandated the proponents of the Gorgon LNG Project to undertake CCS before the project can proceed.

Tax distortions between competing fuel sources

One major example of a fiscal distortion that is impeding emissions mitigation is the relative cost of the tax burden that applies to gas compared to coal. More specifically the interaction of state and federal taxation and royalty regimes introduces a distortion in the electricity sector on the east coast of Australia that prevents the operation of market forces and the greater penetration of cleaner burning natural gas into power generation. The following chart shows the relative disparity of the tax burden as applied to Gippsland gas.

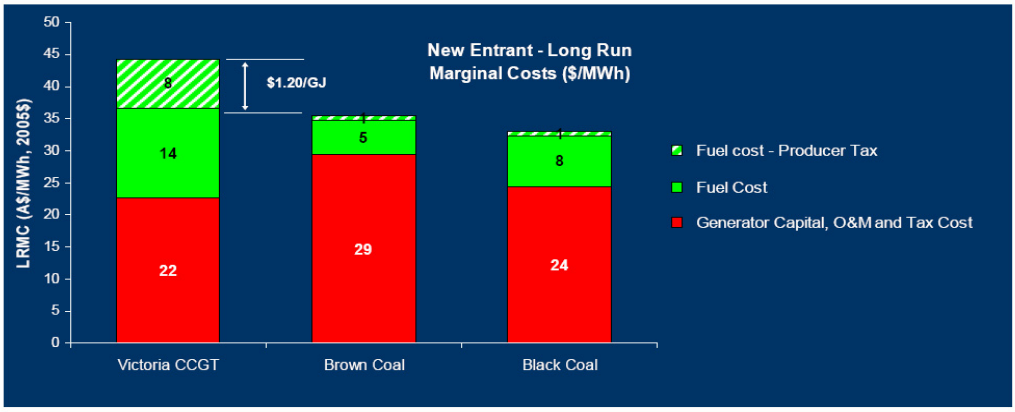
Chart 3

Gippsland gas taxed nearly more than 20 times coal



The next chart illustrates the explicit economic disincentive facing potential new entrants into the market wishing to build base load gas fired generation as opposed to coal. The chart shows the long-run marginal cost distortion is about equivalent to the tax differential applied to offshore gas versus coal. Such distortions have the potential to undermine the efficacy of a carbon price signal and lead to unintended and sub-optimal outcomes. We therefore recommend the urgent review of such secondary taxation distortions.

New entrant LRMC – gas v coal **Chart 4**



Mandatory Renewable Energy Target

Intuitively the notion of government setting a mandated target for any particular source of energy is inconsistent with the underlying principle of an ETS — which is to allow the market to determine the appropriate energy mix under a carbon constraint. By extension of this point, a mandated renewable energy target is also counterproductive to the efficacy of an ETS.

In this context the Australian Petroleum Production and Exploration Association (APPEA) engaged Access Economics and Charles River Associates (CRA) to model and report on the efficiency implications of establishing a 20 per cent mandatory renewable energy target (MRET) in conjunction with an ETS as proposed by the current government. The analysis showed that the combination of both policy instruments results in less efficient outcomes than just the implementation of an ETS.

In summary to reach a nominal emissions abatement target of 67 Mt CO_2e in 2020, the modelling shows that a 20% MRET on top of an ETS:

- costs Australia $1.8 billion more in 2020 than a pure ETS policy in terms of economic welfare (GNP) losses;
- costs Australia $1.5 billion more in 2020 than the ETS output (GDP) losses;
- results in the loss of 3 600 full time equivalent jobs (FTE) in 2020;
- causes substantial switching away from gas fired generation compared with an ETS in the order of 12.6 TWh per year by 2020;
- results in electricity prices rising by 6 per cent more than would be the case than under an ETS alone — the price rises 24 per cent under the combined policy approach, and by 18 per cent under an ETS that delivers equivalent emissions abatement.

A mandated renewable energy target is less efficient at achieving a given environmental outcome because it forces higher cost renewable energy into the electricity generation mix at the expense of exploiting lower cost emissions abatement opportunities elsewhere in the economy. Contrary to the popularly held belief that such mandated targets generate jobs, the overall effect on the economy may be less jobs than otherwise would have occurred and a loss of output in the economy as a whole as compared to the outcome with a well designed emissions trading scheme. The Productivity Commission has reached a similar finding, stating that an MRET operating in conjunction with emissions trading "would be unlikely to achieve extra abatement, it would constrain the choice of abatement options (which could potentially cost billions of dollars) and reduce the incentive to use other new low-emission technologies".

ExxonMobil Position

ExxonMobil notes the view put forward in the Green Paper that alternative approaches to reducing emissions will impose higher costs on the community as they will not use the incentives within a market mechanism to draw out low cost opportunities to reduce emissions.

ExxonMobil believes there is an array of energy and fiscal policies at the state and federal level that would undermine the efficacy of any carbon price signal. In particular we would identify several areas that require specific review – mandated energy efficiency programs, mandated technological requirements to mitigate emissions, mandated quotas for different energy sources that compete in the energy supply market and fiscal disparities (taxes and/or subsidies) which create distortions between competing energy sources.