



# Submission

Senate Select Committee on Climate Policy

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## 1.0 EXECUTIVE SUMMARY

Chevron Australia Pty Ltd (Chevron) welcomes the opportunity to provide this submission to the Senate Select Committee on Climate Policy.

Chevron supports a climate change policy approach that is transparent, encourages global emissions management, promotes energy security, maximises energy efficiency and conservation, is measured and flexible, has broad equitable treatment, and enables technology.

Both emissions trading and taxes on emissions can result in emissions reduction at lowest cost to the Australian economy in contrast to the current policy approach of prescribing actions aimed at reducing emissions. Emissions trading has the added advantage in that a carefully designed scheme should provide linkages into other similar schemes thereby promoting lowest cost emissions reduction not just within Australia but also across the linked schemes.

Chevron broadly supports the move toward a well designed emissions trading scheme as Australia's primary policy response for regulating greenhouse gas emissions. We see a well designed emissions trading scheme as being more environmentally effective and economically efficient in delivering lowest cost emissions reductions than the current plethora of ad hoc policy responses currently being applied to regulate greenhouse gas emissions.

There are many elements of the Carbon Pollution Reduction Scheme (CPRS) – including banking, acquittal points for domestic gas and greenhouse gas storage, monitoring and assurance provisions and international linkages – which Chevron views as key aspects of a workable emissions management scheme. However, Chevron remains concerned that the proposed CPRS fails to adequately address the negative impacts on the international competitiveness of Australia's liquefied natural gas (LNG) industry during the period leading up to a global emissions reduction framework. This is likely to provide a motivation for existing industry to relocate away from Australia and a disincentive for new investment within Australia. By placing additional economic barriers in front of the further development of Australia's LNG industry, it may also lead to a significant increase in global greenhouse gas emissions than might otherwise have occurred.

Chevron believes that these issues could be addressed by a number of simple but significant changes to the policy dealing with maintaining the international competitiveness of Australia's trade exposed industry during the period leading up to comparable global action on emissions reduction. With these changes Chevron would likely support the timely introduction of the CPRS accompanied by the significant rationalisation of the existing measures used to regulate emissions.

Chevron does not take a position on the targets set by individual jurisdictions, whether those targets are an equitable contribution to a global emissions reduction effort or the adequacy of those targets in avoiding dangerous climate change. We feel that these broad policy decisions are best left to government.

## 2.0 ABOUT CHEVRON

Chevron Corporation, through its subsidiaries and affiliates, operates across the entire energy supply spectrum. Chevron's interests include exploring for, producing and transporting crude oil and natural gas and refining, marketing and distributing petroleum fuel. We also generate electrical power, design and market large-scale energy efficiency solutions and are working toward commercialising the energy resources of the future, including bio-fuels and other renewable energy. Chevron is the world's largest producer of geothermal energy and maintains one of the largest hydrogen transportation fuel infrastructures in the United States of America. Chevron Corporation employs approximately 62,000 people and its subsidiaries conduct business in over 100 countries. Chevron Corporation is based in San Ramon, California.

In Australia, Chevron is the largest holder of Australia's natural gas resources with our primary interests comprising a one sixth interest in the North West Shelf project, the sole proponent of the Wheatstone Project, an interest in the Browse LNG Project and we are a 50 percent equity owner and operator of the Gorgon Project. Both the Gorgon and Wheatstone Projects will supply LNG to international markets and domestic gas to Australian markets.

The Greater Gorgon area gas resource comprises approximately 25 percent of all the natural gas discovered to date within Australia. Chevron and its joint venture partners, ExxonMobil and Shell, are working toward commercialising this gas resource by establishing a major LNG processing centre on Barrow Island, approximately 60 km off the north-west coast of Australia. The Gorgon Project will be the single largest investment ever undertaken in Australia and will create around 6000 construction and more than 3500 direct and indirect permanent jobs in Western Australia. The project will boost Australia's gross domestic product by \$64 billion and add approximately \$40 billion to government revenue through taxes and charges.

Ongoing efforts to reduce greenhouse gas emissions from the Gorgon Project have resulted in a reduction in emissions intensity such that the proposed project will be one of the world's most greenhouse gas efficient sources of LNG. A significant factor contributing to achieving this world class emission intensity reduction is the proposal to geologically store naturally occurring carbon dioxide contained in the reservoir gas which would otherwise be vented to the atmosphere. The Gorgon Joint Venture's voluntary commitment to invest more than \$1 billion to reduce the emissions footprint of the Gorgon Project is a clear demonstration of an overall project commitment to tackling greenhouse gas emissions.

### 2.1 Natural Gas and Global Greenhouse Gas Emissions

The United States Energy Information Administration forecasts global energy demand increase by 50 percent between 2005 and 2030 with the most rapid growth in energy demand projected for nations outside the Organisation for Economic Cooperation and Development (OECD). Non-OECD economies in the Asia region account for much of this increase in demand with primary energy consumption forecast to grow from 115 exajoules in 2005 to 251 exajoules by 2030<sup>1</sup>. Increasing the use of natural gas provides an opportunity to meet this growth in global energy demand while at the same time limiting the growth in global greenhouse gas emissions.

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<sup>1</sup> Energy Information Administration, International Energy Outlook 2008, available from <http://www.eia.doe.gov/oiaf/ieo/emissions.html>

Natural gas is widely recognised as having around half the lifecycle greenhouse gas emissions and reduced emissions of sulphur dioxide and particulates compared to other base load fuels such as coal. Natural gas represents the least greenhouse intensive fuel for base load power generation short of adopting nuclear power. As such, the increased use of natural gas both within Australia and internationally has an important role in satisfying this increasing demand for energy while reducing the growth in global emissions, particularly in the short to intermediate term.

By way of illustration, the Gorgon Project is planned to produce approximately 15 million tonnes of LNG per year for export to Pacific Basin markets which will result in an additional 5.2 million tonnes of greenhouse gas emissions per year in Australia. The lifecycle greenhouse gas emissions associated with the energy produced from the Gorgon Project (that is the emissions within Australia resulting from the production of the LNG and the emissions from the transportation and burning of the natural gas by the end use consumers, for example in Japan and China) will amount to approximately 49 million tonnes per year. This compares to approximately 95 million tonnes of greenhouse gases per year if that energy demand was met from Australian or internationally sourced coal.

The use of LNG from the Gorgon Project to provide energy in Pacific Basin markets will result in approximately 45 million tonnes less global greenhouse gas emissions per year compared to a scenario where coal had been used to meet that energy demand. The emissions benefit from one Australian LNG project, therefore, has the potential impact on global greenhouse gas emissions equivalent to removing two thirds of all the vehicles from Australia's roads. Australia has the potential to support possibly five or six new LNG projects of the scale of Gorgon. If all these projects were delivered this could contribute to a global reduction in greenhouse gas emission in excess of 200 million tonnes per annum.

The use of natural gas also results in significantly reduced emissions of sulphur dioxide and particulates compared to the use of coal. The increased use of natural gas provides a practical opportunity to assist countries like China reduce not only their greenhouse gas emissions, but atmospheric pollutants as well.

These environmental benefits are also available within Australia through the increased penetration of natural gas in the domestic energy market. However much of Australia's gas resources are located in geographic locations that are distant from domestic markets and often in offshore regions with water depths exceeding several hundred meters. In many cases this requires large scale development in order for the unit cost of the produced natural gas to be competitive in the domestic energy market. Often the scale of these developments cannot be supported by the domestic gas market alone. In order to bring down the unit cost of supply many of these developments will require a foundation LNG project. Only with the scale offered by the export of LNG can this gas be economically developed for the domestic market. Further development of Australia's LNG industry will therefore act as a catalyst for the increased diversification of supply of gas into the Australian domestic natural gas market.

Given the environmental benefits of using natural gas compared to other fuels such as coal, support for the further development of Australia's natural gas resources, both for the domestic and international markets, should form part of Australia's policy response to climate change. Chevron is concerned that the CPRS, as currently proposed, imposes additional costs on Australia's LNG industry which do not alter the economic incentive for the LNG industry to reduce its emissions.

## **3.0 THE CHOICE OF EMISSIONS TRADING AS THE CENTRAL POLICY TO REDUCE AUSTRALIA'S CARBON POLLUTION**

### **3.1 Policy Objectives**

Sustainable climate change policy is not only about reducing emissions but also balancing the need for future economic growth and improved living standards. A well designed climate change policy should be framed around transforming the economy to a future that remains prosperous while emitting fewer greenhouse gas emissions. A focus on the energy supply systems in the economy is therefore important, as these make up a large proportion of Australia's emissions.

The prosperity and improved living standards that much of the world has experienced over the last 200 years has been a result of our ability to harness low cost energy provided by fossil fuels but this has not been without a cost to the environment. Most recently this environmental cost has been expressed in relation to the contribution to global climate change from the burning of fossil fuels. This link between economic prosperity and low cost energy highlights the need for improved environmental outcomes to be achieved at the lowest possible cost to the community.

To meet the policy objective of addressing the risks posed by climate change the Australian Government's policy response should be designed to reduce both Australian and global emissions, while maintaining economic growth and improved living standards. Increased exports of Australian LNG have the potential to significantly reduce global greenhouse gas emissions and create jobs and wealth for Australia. The introduction of barriers such as increased cost on future Australian LNG projects would appear to run counter to this objective.

### **3.2 Market Based Mechanisms versus Prescriptive Policy Responses**

Chevron supports the use of market based mechanisms as the principle policy tool by which governments regulate greenhouse gas emissions. Policies framed around market based mechanisms are most likely to deliver lowest cost emissions abatement provided the economic efficiency of the market created is preserved.

The policy approach taken by many governments over the last ten to twenty years has been to prescribe the use of particular technologies or actions with the objective of reducing greenhouse gas emissions. This approach can only deliver the objective of lowest possible cost emissions abatement where government has perfect information about current and future benefits and costs across all competing low emissions technologies. There is a risk therefore, that in the absence of perfect information, the prescriptive use of technology or action could result in higher costs being imposed on the economy than would be otherwise necessary for a given level of emissions reduction.

As an example, the policy of prescribing renewable energy targets has the effect that households and industry, through electricity tariffs, are effectively subsidising the wind power industry. It is questionable whether the uptake of wind power is a low-cost emissions abatement opportunity. It is quite likely that a similar reduction in emissions could be achieved across the Australian economy and at a lower cost to electricity consumers by promoting a larger scale shift from coal-fired generation to electrical generation fuelled by natural gas.

Economic modelling by the Australian Petroleum Production and Exploration Association<sup>2</sup> has shown that an Australian emissions trading scheme with a 20 percent renewable energy target is significantly less efficient than an emissions trading system alone in achieving emissions abatement. In order to reduce Australia's greenhouse emissions by 67 million tonnes by 2020, this modelling shows that a policy combining a trading scheme and a 20 percent renewable energy target:

- costs the Australian economy \$1.8 billion more in 2020 in terms of economic welfare (GNP);
- costs the Australian economy \$1.5 billion more in 2020 in output (GDP);
- results in the loss of an additional 3600 full time equivalent jobs (FTE) in 2020; and
- results in electricity prices rising at least six percent more compared to an emissions trading system alone.

Naturally, the degree to which a particular market-based mechanism can deliver the lowest cost abatement outcome will depend upon the scheme design and on the nature of the complementary climate change policies that are used to support the scheme. Without rationalisation, much of the existing climate change policy framework would function to undermine the economic effectiveness of any future market-based approach.

### **3.3 Market-based Mechanisms and Trade Exposed Industry**

An advantage of government mandated prescriptive action is that it has the potential to be targeted so as not to place restraints on the ability of Australian industry to compete in international markets. In practice however, the international competitiveness of Australia's trade exposed industry appears to be rarely considered in setting such prescriptive requirements.

The move to market-based mechanisms (either emissions trading or emissions taxes) should be carefully designed so as not to create distortions in the Australian economy during the period where many of Australia's international trade competitors have yet to embrace a comparable price on emissions. In the case of Australia's LNG industry, this competition comes not just from LNG produced in the Middle East and Southeast Asia, but also from coal, sourced either domestically, for example in China, or traded internationally.

Both emissions trading and taxes provide an economic incentive to reduce emissions where the emissions reduction is at a cost that is less than the market (tax) price. Policies that require a firm to pay for all of its emissions, either by buying emissions units or paying an emissions tax, affect the functioning of an economy where the cost of purchasing those units can be passed on to a firm's customers. Where these costs can not be passed on, such as where a firm is trade exposed, requiring it to pay for all or a large proportion of its emissions provides no additional incentive for the firm to reduce its emissions beyond what would be provided by the market price. Requiring trade exposed industries, such as LNG, to purchase emissions units creates additional costs to those industries without increasing the economic motivation for that industry to reduce its emissions.

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<sup>2</sup> *Implications of a 20 per cent renewable energy target for electricity generation*, Prepared for APPEA by CRA International, November 2007

Where an industry operates under an emissions trading scheme, preservation of its ability to compete on international markets can be accommodated through the administrative allocation of emissions units. If an emissions tax is to be preferred, trade exposed industries could have their international competitiveness maintained by either some form of tax exemption or a tax rebate on volume of goods exported. Importantly, it is possible to design both an emissions trading scheme or an emissions tax that will create an economic incentive for an Australian industry to reduce its emissions while at the same time preserving that industry's ability to compete in international markets. For example, the current proposal in the CPRS to allocate emissions units to trade exposed industry based on each industry's emissions intensity per unit of product provides a consistent economic incentive for that industry to reduce its emissions irrespective of the administrative allocation or requirement to purchase emissions units.

### **3.4 Emissions Trading and Emissions Taxes**

On the grounds of economic efficiency, there is little to differentiate between emissions trading and emissions taxes provided both schemes are well designed and preserve the international competitiveness of Australia's trade exposed industry.

Economic efficiency in delivering lowest cost abatement at an international scale could be achieved through either an emissions trading scheme (by allowing unrestricted international trade in emissions units) or an emissions tax (by coordinating the setting of emissions taxes across multiple jurisdictions). Either option has the potential to deliver lowest cost emissions abatement across international jurisdictions.

Naturally the ultimate effectiveness of either approach will be highly dependant upon the detailed design of the particular policy and the degree to which it promotes global emissions reduction either through the trade in emissions units or the coordinated setting of emissions taxes.

With growing international support for the adoption of emissions trading, there is potentially a better chance of delivering lowest cost emissions reduction at an international level by Australia also adopting this approach as its preferred policy.

This preference for emissions trading over other market-based approaches or prescriptive policy responses is a conclusion shared by the National Emissions Trading Task Force, the Prime Minister's Task Group on Emissions Trading and the Garnaut Climate Change Review.<sup>3</sup>

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<sup>3</sup> *"Possible design for a national greenhouse gas emissions trading scheme: Final framework report on scheme design."* National Emissions Trading Taskforce, December 2007

*"Report of the Task Group on Emissions Trading,"* Prime Minister's Task Group on Emissions Trading, December 2006

*"Final Report of the Garnaut Climate Change Review,"* Professor Ross Garnaut, September 2008



## **4.0 THE RELATIVE CONTRIBUTION FROM COMPLEMENTARY MEASURES**

The following discussion presumes emissions trading remains the preferred principal response to reducing greenhouse gas emissions.

Greenhouse gas emissions represent a market failure in that the full societal cost of these emissions is not currently reflected in the prices individuals pay, primarily for energy but also for products requiring energy intensive manufacture, agricultural production, waste disposal etc. The proposal to implement an emissions trading scheme is designed to address this market failure by restricting emissions to a level acceptable to the community, with the result that the market will place a value on the restricted emissions which reflects the true value of those emissions to the community.

Climate change policy responses, in addition to the proposed emissions trading scheme, should only be considered to address areas of clearly defined, ongoing market failure and which do not undermine the effectiveness of the market in driving lowest cost emissions abatement. For example, additional policies should be implemented that apply to sectors not covered by the emissions trading scheme. This is consistent with the 'Principles for Jurisdictions to Review and Streamline their Existing Climate Change Mitigation Measures' as published by the Council of Australian Governments in December 2008.

Additional climate change policies applied where a continuing market failure is not clearly demonstrated will result in distortion of the emissions market, potentially leading to emissions reductions across the Australian economy that are more costly than would otherwise have been the case. The implementation of any such policies would need to be transparently justified on the grounds of some pressing community benefit that would warrant this market distortion.

The introduction of climate change policies in addition to emission trading needs to be transparently justified on the grounds of a continuing and clearly defined market failure or some pressing community benefit that justifies the resulting distortion of the emissions market. It is difficult to see programs such as renewable energy feed-in laws and energy efficiency programs addressing continuing market failures in the context of a broad based emission trading scheme. Policies aimed at the development of terrestrial carbon stores and native forests and soils should only be considered where they apply to sectors of the economy not included in the emissions trading scheme. As such there is probably a limited role in defining the contribution to overall emissions reduction target from these sorts of measures.

## 5.0 AUSTRALIA'S TARGETS AND GLOBAL CONTRIBUTION

Chevron does not take a position on the targets set by individual jurisdictions, whether those targets are an equitable contribution to a global emissions reduction effort or the adequacy of those targets in avoiding dangerous climate change. We feel that these broad policy decisions are best left to government.

Chevron believes the proposed CPRS has the potential to be environmentally effective in delivering on Australia's emissions reduction targets. However, the degree to which this is ultimately delivered will depend upon:

- the nature of the policy framework used to support the CPRS and whether these policies are truly complementary or whether they act to distort the emissions market; and
- the degree to which investments in Australia's trade exposed industry are distorted by the CPRS.

Many of the existing policies used to regulate emissions are not compatible with the CPRS and if not removed will lead to overall emissions reduction at a cost that is higher than would have been the case if the CPRS had been left to operate without the introduction of complementary measures.

Presently the CPRS imposes additional costs on Australia's trade exposed industries which cannot be passed onto the customers of those industries, and which do not alter the economic incentive for those industries to reduce emissions. This may result in investment being driven offshore or existing industry relocating to countries that have not imposed similar costs. While Australia may still meet its emissions reduction targets such an outcome would be inconsistent with the objective of environmental efficiency and continued economic growth.

## **6.0 DELIVERING JOBS AND INVESTMENT**

A well designed emissions trading scheme should ensure that, over time, the Australian economy is transitioned to a lower emissions future in a manner that maximises economic efficiency. It stands to reason therefore that a well designed trading scheme will also result in the required shifts in employment and investment to enable that transition.

### **6.1 Research and Development of Low Emissions Technologies**

It is possible that the forward emissions price established by an emissions trading scheme may not result in efficient investment decisions as a result of non-financial barriers to entry for new technology development such as a firm's willingness to invest in research or a reluctance to take technical and operational risks associated with deploying new technologies. These non-financial barriers may represent a continuing market failure and could be addressed by a range of complementary policies such as targeted support for research, demonstration and early deployment of low emissions technologies in order to provide the widest possible range of abatement options for the market to implement.

Importantly, once technologies have been developed to the point of commercial scale deployment, targeted support for that technology should be wound back with future deployment dictated by the market in response to the anticipated price on greenhouse gas emissions.

### **6.2 Labour Market Distortions and Trade Exposed Industry**

The currently proposed CPRS imposes additional costs on trade exposed industry that does not alter a particular firm's ability to reduce its emissions. This may result in investment in new industries being driven offshore or existing industry relocation to countries that have not imposed similar costs. This will result in a loss of economic activity and jobs for Australians without impacting upon global greenhouse gas emissions.

While the Senate Select Committee's Terms of Reference is focused on green collar jobs, it is suggested that consideration also be given to the impact on jobs in Australia's trade exposed industry.

## **7.0 RECOMMENDED CHANGES TO THE CARBON POLLUTION REDUCTION SCHEME**

There are many elements of the CPRS – including banking, acquittal points for domestic gas and greenhouse gas storage, monitoring and assurance provisions and international linkages – which Chevron views as key aspects of a workable emissions management scheme. However, Chevron remains concerned that the proposed CPRS fails to adequately address the negative impacts on the international competitiveness of Australia's trade exposed industry, such as LNG, during the period leading up to a global emissions reduction framework. This is likely to provide a motivation for existing industry to relocate away from Australia and a disincentive for new investment within Australia. By placing additional economic barriers in front of the further development of Australia's LNG industry, it may also lead to a significant increase in global greenhouse gas emissions than might otherwise have occurred.

The requirement for trade exposed industry to purchase emissions units is justified as providing those industries with an economic incentive to reduce their emissions. This justification confuses the process of creating a market by either the auctioning or allocation of emissions permits, with a firm's economic motivation to reduce its emissions which is provided by the prevailing price of an emissions unit in the market. Auctioning or allocating emissions units is a choice about how to establish the market, and only affects the functioning of that market where the cost of purchasing those units can be passed onto a firm's customers. Where these costs can not be passed on the choice between auctioning and allocation does not effect the functioning of the market or the ability of a particular firm to reduce its emissions. Requiring trade exposed industries, such as LNG, to purchase emissions units creates additional costs to those industries without increasing the economic motivation for that industry to reduce its emissions.

Part 8 of the draft Carbon Pollution Reduction Scheme Bill 2009 states that one of its objectives is to "reduce the incentives for such an [emission-intensive trade-exposed] activity to be located in, or relocated to, foreign countries". Chevron submits that this objective should be to 'remove' rather than 'reduce' the incentive for firms to relocate from Australia. The acknowledgement in the draft Bill that under the CPRS there should remain some incentive for firms to relocate from Australia is a concern to Chevron.

### **7.1 Allocation of Emissions Units and Trade Exposed Industry**

The Government has proposed that a large proportion of Australian emissions units be auctioned in order to promote allocative efficiency and price discovery.

The auctioning of emissions units will expose domestic consumers to the price of the embedded emissions in domestically sourced products and services they purchase. This is achieved by allowing firms trading in the domestic market to pass on the costs of purchasing emissions units to the degree their products are competitive with respect to embedded greenhouse gas emissions. This ensures that emissions abatement opportunities such as switching to alternative products or improved energy efficiency are embraced by sectors in the economy such as households that do not have a direct acquittal liability.

The ability to pass on these costs ensures that Australian industry supplying the domestic market is exposed to the full economic incentive to reduce emissions but

without incurring a net overall increase in costs (provided the firm is selling a product that is competitive in light of its embedded greenhouse gas emission).

This is in contrast to the situation faced by many trade exposed industries who supply products where prices are set on international markets. These industries are unable to pass on the additional cost of having to purchase emissions permits. The design of the CPRS partially addresses the imposition of additional costs on these industries through the limited administrative allocation of emissions permits to some industries. However it remains the case that many industries competing in international markets will be forced to absorb the cost of purchasing a significant volume of emissions permits, undermining the ability of these industries to compete in international markets.

In effect, the Government has designed a scheme where all industries included in the coverage of the scheme, are exposed to the same economic incentive to reduce emissions. However trade exposed industries are being required to absorb an additional cost associated with purchasing emissions units, while industries supplying domestic goods are able to pass this cost onto their customers. The requirement for trade exposed industry to absorb the cost of purchasing emissions units has the same economic impact as an additional tax on production without changing the economic incentive for that industry to reduce its emissions.

Chevron proposes that this could be addressed by:

- Increasing the notional volume of emissions units for the administrative allocation of permits to trade exposed industry in the early years of the scheme - from the current 25 percent (excluding agriculture) to as much as 40 percent.
- Removing the emissions intensity test and basing the eligibility for an allocation of permits solely on the level of competition each industry faces from nations yet to embrace comparable emissions constraints and the ability of the Australian firms in that industry to set international commodity prices. In order to maintain the competitiveness of Australia's export and import competing industries, the emissions unit allocation should be set at a level in excess of 95 percent of the industry's historical emissions intensity per unit of production.
- If emissions unit allocation is to remain subject to an emissions intensity test, the metric used to determine intensity should be changed to a metric which considers the impact on an industry's cost structure. Chevron has consistently argued that a more equitable test by which to determine permit allocation should be the impact of the CPRS on an industry's 'Intermediate Business Inputs' (operating and labour costs) or the 'Net Value at Risk' (the ratio of intermediate business inputs relative to value added).
- Regardless of the methodology adopted, emissions units should be allocated to those industries such as LNG that could potentially facilitate a net global reduction in greenhouse gas emissions. Chevron recognises that the allocation of emissions permits would be a transitional arrangement until a global emissions reduction framework is in place.
- Alternatively, if a 'revenue' based test is to remain, then the loss of international competitiveness faced by Australian industry could be limited by reducing the current 2000 tonnes per million dollars of revenue threshold to some level below 1000 tonnes per million dollars of revenue. That is, all firms with an emissions intensity of greater than 1000 tonnes per million dollars of revenue would receive a 95 percent or higher emissions unit allocation based on historical levels of emissions intensity.
- The 'value add' eligibility test, as currently proposed, disadvantages those industries that employ capital (or labour) to create value. This is of particular concern for capital intensive industries such as LNG. It also fails to consider the impact of resource rents, such as the Petroleum Resources Rent Tax (PRRT) on

a firm's operating cost structure. If the 'value add' eligibility test is to remain then it should be redefined as revenue, less intermediate business inputs, less labour costs, less resource rents, less depreciation, less amortisation.

- The proposed 1.3 percent annual reduction in emissions unit allocation simply imposes an increasing cost on large facilities. It provides no further economic motivation for firms to reduce their emissions. Annual efficiency improvements are extremely difficult and prohibitively expensive to achieve in the LNG industry where plants have an effective lifespan of 30 – 40 years. This is further compounded by the natural production decline from the natural gas reservoirs which require an increase in the energy and emissions to produce a given volume of product. The arbitrary reduction in annual permit allocation should be removed.

Importantly these changes would not impact upon the economic incentive of industries receiving an allocation of emissions units to reduce their emissions. As discussed above this economic incentive is provided by the industry's marginal cost of abatement and the prevailing emissions price. Consequently these changes would not impact upon the overall level of emissions reduction achieved across the economy.

## **8.0 CONCLUSION**

Both emissions trading and taxes on emissions can result in emissions reduction at lowest cost to the Australian economy in contrast to the current policy approach of prescribing actions aimed at reducing emissions. Emissions trading has the added advantage in that a carefully designed scheme should enable linkages to other similar schemes, thereby promoting lowest cost emissions reduction not just within Australia but across the linked schemes.

Chevron broadly supports the move toward a well designed emissions trading scheme as Australia's primary policy response for regulating greenhouse gas emissions. We see a well designed emissions trading scheme as being more environmentally effective and economically efficient in delivering lowest cost emissions reductions than the current plethora of ad hoc policy responses currently being applied to regulate greenhouse gas emissions.

Chevron generally supports the move towards emissions trading, but remains concerned that the CPRS as currently proposed will significantly impact the international competitiveness of Australia's trade exposed LNG industry – one which has the potential to facilitate a significant reduction in global greenhouse gas emissions.