



MINERALS COUNCIL OF AUSTRALIA

SUBMISSION TO THE GARNAUT REVIEW

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EXECUTIVE SUMMARY

The Minerals Council of Australia (MCA) welcomes the opportunity to present this submission to the Garnaut Review. The MCA represents Australia's exploration, mining and minerals processing industry, nationally and internationally, in its contribution to sustainable development and society. MCA member companies produce more than 85 per cent of Australia's annual mineral output. The MCA's strategic objective is to advocate public policy and operational practice for a world-class industry that is safe, profitable, innovative, environmentally responsible and attuned to community needs and expectations. This submission provides the minerals sector's perspectives on the issues raised by the Review to date.

A compelling challenge...

Climate change is one of the most compelling challenges confronting the global community. An effective response must not only be genuinely global in scale, but also sustainable over the long term. Australia must be an integral part of that effort. The Australian minerals industry also must be part of the global solution given that fossil fuels will continue to be the world's primary energy source.

A careful transition is essential...

The scale of the challenge for Australia should not be underestimated. Substantial reductions in emissions will be difficult, particularly until low emissions technologies are developed to commercial reality. Our geography, resource endowment and robust economic and population growth outlook will mean that the abatement of greenhouse gas emissions will be more expensive for Australia than for most other developed nations. That is not an argument for inaction, but an acknowledgment of the importance of a measured transition to a low emissions economy.

A high quality emissions trading scheme...

The minerals sector strongly supports the introduction of a high quality emissions trading scheme covering all greenhouse gases and a broad range of sectors. It will represent the most substantial economic reform of the Australian economy for a generation. Such a reform cannot be digested overnight. Furthermore, Australia is acting in advance of many of its international competitors, including developing nations who are unlikely to be constrained by binding emissions constraints in the near term.

Accordingly, the scheme's design must also include transition arrangements that will contain the impact on the Australian economy and community living standards, and not compromise the competitiveness of Australian industry. In practical terms, this means a realistic approach to interim targets, a cautious and gradual ramp in the carbon price signal, the use of a price cap in the initial stages of the scheme, and a transition to the introduction of full auctioning of permits. The scheme's design features must ensure that it does not damage trade exposed emissions intensive industries with perverse economic and environmental consequences.

A global blueprint should recognise diversity not impose uniformity...

The MCA supports the Review's embrace of the principle that Australia's efforts should be conditioned on efforts by other major emitting nations. The minerals sector is puzzled, however, by the Review's backing for the so-called 'Contraction and Convergence' model as basis for a global solution. That model – based on the convergence towards uniform per capita emissions - assumes that the world's population is divided into roughly 200 units of identical geography, resource endowment, stage of development, economic history, growth rates and prospects, access to technology, political preference, and environmental amenity.

A global blueprint based on this model has no prospect of garnering support as the basis for a post 2012 global framework. The Review's reliance on such a concept has led it to propose emissions reductions of up 90 per cent by 2050, implying that cuts of at least 20 to 30 per cent (or more) by 2020 will be necessary. The Review has not yet however undertaken a detailed assessment of the practicality or plausibility of such targets. A 30 per cent reduction off 1990 levels would mean a reduction of 291 million tonnes (or 44 per cent reduction) off current projections. To put into context, that is more than all the emissions of Australia's stationary energy sector (279 million tonnes) in 2005.¹ If adopted as an interim target for the emissions trading scheme, the opening carbon price would be high, rise quickly and represent a sharp and adverse impact on the broader Australian economy.

The Review refers to, but does not elaborate, the notion of 'similar adjustment cost' as a basis for the sharing of global effort.² The Review should further develop this concept – it is certainly a more realistic basis for negotiations than uniformity of per capita emissions. Such an approach would better reflect the diversity of nations, both developed and developing. This diversity is highlighted by the stark contrast in adjustment cost for Australia and European Union to achieve a 20 per cent reductions in emissions by 2020. To reach this target, the EU-27 will need to reduce emissions by 14 per cent off current projections; Australia will need to cut its emissions by between 33 per cent to reach a 20 per cent reduction. In other words, the Australian effort required to reach the same target will be nearly 2 and a half times that of the EU. Identical targets do not mean comparable sacrifice.

These differences are explained by a range of factors. While Australia shares the same population as the Netherlands and Denmark combined, that population is spread across a land mass 99.8 times larger.³ Moreover, consider the differences in the principal contributors to greenhouse gas emissions – GDP and population growth – between Australia and the EU over the last 15 years. Between 1990 and 2005 for example, the population of European Union-27 grew by 4 per cent. Over the same period Australia's population grew by 19.2 per cent.⁴ The GDP growth picture, while not as stark, is also instructive. In the 15 years to 2005, the EU-27 GDP grew by

¹ Australian Greenhouse Office, *National Greenhouse Gas Inventory 2005*, March 2007

² Garnaut Review, *Interim Report*, p.4.

³ Australia's land area is 7,617,930 sq km. The Netherlands land area is 33,883 sq km and Denmark's is 42,394 sq km. For details, see country pages at *CIA Factbook* at www.cia.gov.

⁴ International Energy Agency, *CO₂ Emissions from Fuel Combustion 1971-2005*, 2007 edition, p.II 37

35.4 per cent. The Australian economy grew nearly twice as fast – by 67.2 per cent.⁵ These differentials in GDP and population growth are expected to widen in the period to 2020.

Partnership on pre-competitive research and development...

The minerals sector endorses the Review's support for a stronger partnership between government, industry and researchers to develop low emissions technologies, including renewable energy sources and the capture and storage of CO₂ emissions generated by fossil fuels. Such a task is beyond the resources of individual companies, so a joint effort is needed to undertake the pre-competitive research, development and demonstration to bring these technologies to commercial reality. A central principle of such support should be neutrality of treatment between low emissions energy sources.

Given Australia's commitment to, and expertise in, the development of clean coal technologies, the Government should support efforts by other nations to have carbon capture and storage projects considered eligible for the Clean Development Mechanism under the Kyoto Protocol.

Clean energy is the key...

The MCA shares the Review's concern that the mandatory 20 per cent Renewable Energy Target (RET) by 2020 could contradict the purpose of emissions trading, namely to direct investment towards least cost abatement options. If the RET is to be retained, it should be considered a transitional measure only, and phased out after 2020. To minimise such distortions, it should be expanded to a Clean Energy Target and include all low emissions technologies, including carbon capture and storage.

Streamlining of Federal and State schemes necessary...

The MCA urges the Review to closely examine the impact of a plethora of Federal and State Government climate change related policies which duplicate, contradict or distort the stated purpose of the emissions trading scheme – to achieve least cost abatement of GHG emissions. There is a strong case for rationalisation of many of these programs and regulations.

Other issues...

Given that Australia's uranium exports currently displace at least 395 million tonnes of CO₂ per year (equivalent to two-thirds of Australia's total annual emissions), the Review should also urge the Rudd government to move quickly to remove remaining restrictions to the mining and export of uranium.

⁵ Ibid.

1. AUSTRALIA'S ROLE IN THE RESPONSE TO CLIMATE CHANGE

A serious global challenge...

Climate change represents a serious global challenge. Dealing with climate change, by substantially reducing its scale and adapting to its impact will be a major focus of nations for decades to come. Substantial and concerted action – on the part of governments, business and consumers – will be necessary in all major emitting nations if growth in greenhouse gas emissions is to be slowed, and emissions steadily reduced over coming decades.

Three key elements to the minerals sector's approach...

The minerals sector's approach to response to climate change is founded in three key propositions. First, the minerals sector accepts that the precautionary principle underpins the need for action now to seek to prevent dangerous climate change.

Second, managing climate change will require a global solution that is environmentally effective, economically efficient and socially acceptable, and will comprise a suite of complementary measures capable of being sustained over the long-term.

Third, the Australian minerals industry is, and must be, part of the global solution given that fossil fuels will continue to be the world's primary energy source. In particular, a response to climate change without a global coal strategy is not a climate change solution.

Australia must play its part...

As a significant developed country, Australia must play its part in developing and sustaining a comprehensive global response to climate change. We agree with the Garnaut Review (hereafter the Review) that Australia should take a leading role in the development of a common and concerted effort to address climate change. Consistent with the platform outlined above, this strategy should have three elements.

First, Australia should take a leading role in building support for a genuinely comprehensive global response to emissions reductions. That means a global framework that includes not only developed countries, but also rapidly industrialising nations, like China, India and Brazil. After all, these nations will contribute 75 per cent of the growth in greenhouse gas emissions between now and 2030.⁶

Second, Australia should adopt a simple and equitable emissions trading system, and policies to promote rapid uptake of low emission technologies that will lead to the abatement of emissions at least cost to producers and consumers. Once this system

⁶ International Energy Agency, *World Energy Outlook*, November 2007.

is bedded down, Australia should look to link its scheme with other like-minded nations.

The third critical element will be to strengthen the partnership between government industry and researchers to develop low emissions technologies, including clean coal technologies. Such a task is beyond the resources of a individual companies, so a joint effort is needed to undertake the pre-competitive research, development and demonstration to bring these technologies to commercial reality.

As the Review acknowledges however, action by Australia alone will not solve the problem – Australia’s emissions currently account for just 1.5 per cent of global emissions. On current projections, by 2050 Australia’s emissions will have shrunk to just 1 per cent of global emissions.

Calibrating Australia’s response with international partners...

This reality underlines the need for Australia’s response to the climate change challenge to be closely calibrated with that of other significant nations. The MCA welcomes the acknowledgement by the Review that Australia’s efforts should be conditioned on efforts by other major emitting nations, both developed and developing.

Australia’s response should also take account of the fact that Australia is different from many other developed countries. As Productivity Commission Chairman Gary Banks cautioned recently:

The facts are that any abatement action by Australia (beyond ‘no regrets’ measures) will be more costly than that by most other developed economies. That simply reflects the reality that the structure of our economy has been shaped by the abundant availability of low cost fossil fuels.⁷

This is not an argument for inaction. It is an argument for a rational and measured response to climate change that takes account of Australia’s individual circumstances.

A mistaken route to a global solution...

The Review suggests, mistakenly in our view, that an approach based on uniformity in per capita CO₂ emissions should form the basis for a global response to emissions reductions. In particular, the Review suggests that the so-called Contraction and Convergence model could form the basis for a global solution to emissions reductions. This model, developed by the Global Commons Institute in the early 1990s is predicated on ‘contraction’ of emissions (especially by developed nations) and ‘convergence’ toward uniform per capita emissions levels by as early as 2050. The Review argues that ‘a focus on per capita emissions is essential for equitable treatment across developed countries...’

This model does not represent a viable basis for a global solution to emissions reductions. It is based on a series of false premises. It assumes that the world’s population is divided into roughly 200 units of identical geography and topography,

⁷ Gary Banks, Chairman Productivity Commission, ‘Riding the Third Wave: some challenges in national reform,’ *Paper presented to the Economic and Social Outlook Conference*, Melbourne, 27 March 2008.

resource endowment, stage of development, age composition, fertility rates, life expectancy, economic growth levels and prospects, access to technology, political preference, and environmental amenity.

The model ignores the complementarity that underpins global commerce. It fails to take account of the fact that nations generate emissions in the production of goods and services consumed by others. It ignores that fact that if nations decide to end the production and export of certain products (in order to reduce emissions), then the consequences could be dire. For example, 22 per cent of Australia's CO₂ emissions⁸ are generated in agricultural production (16 per cent) and the extraction of minerals products (6 per cent), the majority of which is exported. Australia could reduce its per capita emissions substantially by ceasing this production. Leaving aside the economic impact of such a decision on the Australian economy, it is clear that this would cause alarm amongst net food and energy importing nations. (Japan would suddenly need to find a new energy source for 15 per cent of its electricity generation.⁹) The adverse strategic and political consequences of a resulting contest for such resources are not difficult to contemplate.

A 450ppm goal and a per capita emission target: Implications for Australia...

In addition to its support for the Contraction and Convergence model, the Review supports a global target for emissions aimed at stabilising atmospheric concentrations of CO₂ at 450ppm CO₂ equivalent by 2050. We assess below the impact on Australia of the pursuit of the 450 ppm goal using the Contraction and Convergence model.

A range of studies have estimated that to achieve the 450ppm goal mean keeping the global carbon 'budget' for the period 2000-2050 to 1700Gt CO₂ eq.¹⁰ This 'budget' would be divided up between developing nations (1000 Gt CO₂eq) and developed nations – 700 Gt CO₂ eq.

Further analysis has suggested that that using a per capita emissions model (aka Contraction and Convergence), the United States' share of this carbon budget could be estimated at 160Gt CO₂ eq over the period 2000 to 2050.¹¹

Applying the same model to Australia - and assuming roughly similar population growth over this period - Australia's carbon budget would be 10.6 Gt CO₂ eq.

According to official data, Australian emissions over the period 2000 to 2010 will be approximately 5.8Gt CO₂ eq (e.g. approximately 550-590 million tonnes CO₂ eq per year). On that basis, Australia will need to restrain its *total* cumulative emissions to around 5Gt CO₂ eq over the next 40 years - i.e. less than the CO₂ emitted in the period between 2000 and 2010.

On a straight-line reduction, that would mean average Australian emissions of 127.5 million tonnes CO₂ eq per annum from 2010 to 2050. (This compares with annual emissions of 580 million tonnes CO₂ eq at present).

⁸ Australian Greenhouse Office, National Greenhouse Gas Inventory 2005, March 2007.

⁹ This is the estimate for coal contribution. If natural gas is included the figure would be even higher see ABARE, *Japan's Energy Future: Economic imperatives and environmental challenges*, July 2004.

¹⁰ See Amy L Luers, Michael D Mastandrea, Katherine Hayhoe, Peter C Frumhoff, *How to Avoid Dangerous Climate Change*, Union of Concerned Scientists. September 2007.

¹¹ Ibid.

Alternatively, it would mean Australia more than halving its emissions to 250 million tonnes p.a. from 2010 to 2020, then an average of 85 million tonnes per annum thereafter. (To put the latter figure into context, Australia's emissions from enteric fermentation in its livestock herd in 1999 were 62.5 million tonnes).¹²

Moreover, even if Australia reduced its emissions by 5 per cent every year over the next decade, it would have virtually exhausted its carbon budget (to 2050) by 2021. The Review notes that nations that emit above their emissions budget could buy surplus credits from other nations – that would be a very expensive option for Australia.

No two countries are the same...

The shortcomings of the Contraction and Convergence model underline the fact that when responding to climate change, no two countries are the same. That means that the challenges that they have faced, and will face, in reducing emissions will be very different. As noted above, even developed nations will confront contrasting paths and challenges to emissions reductions. The model is contrary to the notion of comparative advantage, where various nations specialise in the production of some (possibly more emissions intensive) products while other specialise in say, trade in services.

In important respects, Australia's economic base is different to most other developed nations. In the average OECD nation, resources exports account for 6 per cent of total exports. In Australia, by contrast, resources exports account for 49 per cent of total Australian exports of goods and services. That proportion is growing, not falling. Such a contrast in economic structure has an inevitable impact on the respective emissions intensity of an economy.

This means that simple comparisons across developed nations can be misleading. For example, while Australia shares the same population as the Netherlands and Denmark combined, that population is spread across a land mass 99.8 times larger.¹³ Moreover, consider the differences in the principal contributors to greenhouse gas emissions – GDP and population growth – between Australia and the EU over the last 15 years. Between 1990 and 2005 for example, the population of European Union-27 grew by 4 per cent. Over the same period Australia's population grew by 19.2 per cent.¹⁴ The GDP growth picture, while not as stark, is also instructive. In the 15 years to 2005, the EU-27 GDP grew by 35.4 per cent. The Australian economy grew nearly twice as fast – by 67.2 per cent.¹⁵

The minerals sector is not arguing that Australia should seek, or receive, an easy ride in international negotiations. Rather a blueprint for a genuinely comprehensive global response will need to accommodate variable geometry. An approach that is configured on uniformity will mean that the sacrifice will fall disproportionately on certain nations, including Australia. Such an approach is not sustainable.

¹² Australian Greenhouse Office, Greenhouse Gas Emissions from Australia's Livestock Sector, October 2001.

¹³ Australia's land area is 7,617,930 sq km. The Netherlands land area is 33,883 sq km and Denmark's is 42,394 sq km. For details, see country pages at *CIA Factbook* at www.cia.gov.

¹⁴ International Energy Agency, *CO₂ Emissions from Fuel Combustion 1971-2005*, 2007 edition, p. II 37

¹⁵ *Ibid.*

2. AUSTRALIA'S EMISSIONS TRADING SCHEME

The Australian minerals sector supports the development of a national emissions trading scheme as an important part of a phased, mutually reinforcing and comprehensive suite of policies to tackle greenhouse gas emissions across the entire Australian economy. Ideally, this national system will eventually form part of a global emissions trading system that is environmentally effective, and economically efficient and equitable.

The minerals sector agrees with the Review that Australia should not wait until such a global regime develops before initiating its own scheme. The design of the emissions trading scheme should however, ensure that Australia's decision to proceed ahead of a global scheme does not compromise the international competitiveness of the Australian economy and industry, with perverse economic and environmental consequences.

2.1 COVERAGE OF GREENHOUSE GASES AND SECTORS

The minerals sector agrees with the Review that an Australian emissions trading scheme should cover all greenhouse gases covered by the Kyoto Protocol including carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), sulphur hexafluoride (SF₆), per fluorocarbons (PFCs) and hydro fluorocarbons (HFCs).

The MCA has also long supported the widest coverage of emissions sources in the coverage of an emissions trading scheme. At present there is broad consensus that the measurement of fugitive emissions from open cut coal mines is unsuitable for the emissions trading scheme. There is a need for the development and widespread application of an alternative estimation methodology capable of providing more reliable estimates of the open cut fugitive emissions of individual mines and from the Australian open cut sector generally.

Considerable work is under way to develop a methodology that will deliver more accurate emissions estimation. Until that work is complete, and reliable estimation methods developed, careful consideration should be given to the treatment of fugitive emissions and whether they should be excluded from the initial coverage of the emissions trading scheme. The MCA emphasises however, that fugitive emissions should be included in the emissions trading scheme as soon as an appropriate methodology is agreed between the coal industry and officials that is both technically feasible and based on sound science.

2.2 LONG-TERM EMISSIONS REDUCTION TARGET

The minerals sector supports the setting of a long-range emissions reduction target as well as nearer term pathways to that goal. As noted in Chapter 1, the Review's embrace of a contraction and convergence model has inevitably led it to 'upgrade' the Australian long-term target from the Rudd Government's 60 per cent reduction to one of up to 90 per cent.

Modeling work should be transparent and subject to peer review...

Both the Review and the Rudd Government are undertaking economic modeling work to assess the economic impact of various scenarios for the mitigation of greenhouse gas emissions. As noted elsewhere, the development of an Australian

emissions trading scheme is the most substantial economic reform in a generation. It is critical therefore that the key assumptions, data sources and scenarios that shape the economic analysis that will inform the scheme's development and design enjoy the confidence and support of key industry and community stakeholders.

It is essential therefore that information on the data sources, technology assumptions and competing scenarios be transparent and available for peer review and public comment.

2.3 INTERIM TARGETS

One of the critical decisions for 2008 affecting the emissions trading scheme will be the setting of the interim target (i.e. 2020) for the reduction of greenhouse gas emissions. The Review has not yet explicitly identified a specific recommendation on an interim target, although the *Interim Report* suggested that Australia's interim target should be comparable with that of the European Union, namely a 20 to 30 per cent reduction on 1990 levels. Moreover, the Review's support for a long-term emissions reduction target reduction of up 90 per cent implies an interim target of a reduction in emissions of *at least* 20 to 30 per cent by 2020.

Current projections suggest Australia's emissions will expand by 20 per cent (to 660 million tonnes) by 2020...

Official data and forecast emissions¹⁶ suggest that even with the Renewable Energy Target in place, Australia's emissions will increase by 20 per cent by 2020 over 1990 levels. According to these projections, the Renewable Energy Target will trim emissions from a potential 27 per cent increase to a 20 per cent increase. This projection also takes into account ambitious energy efficiency gains. In this context, it is critical to reiterate that these projections are *not* business-as-usual projections, but rather forecasts that take account of policy measures including the Renewable Energy target and anticipated energy efficiency gains.

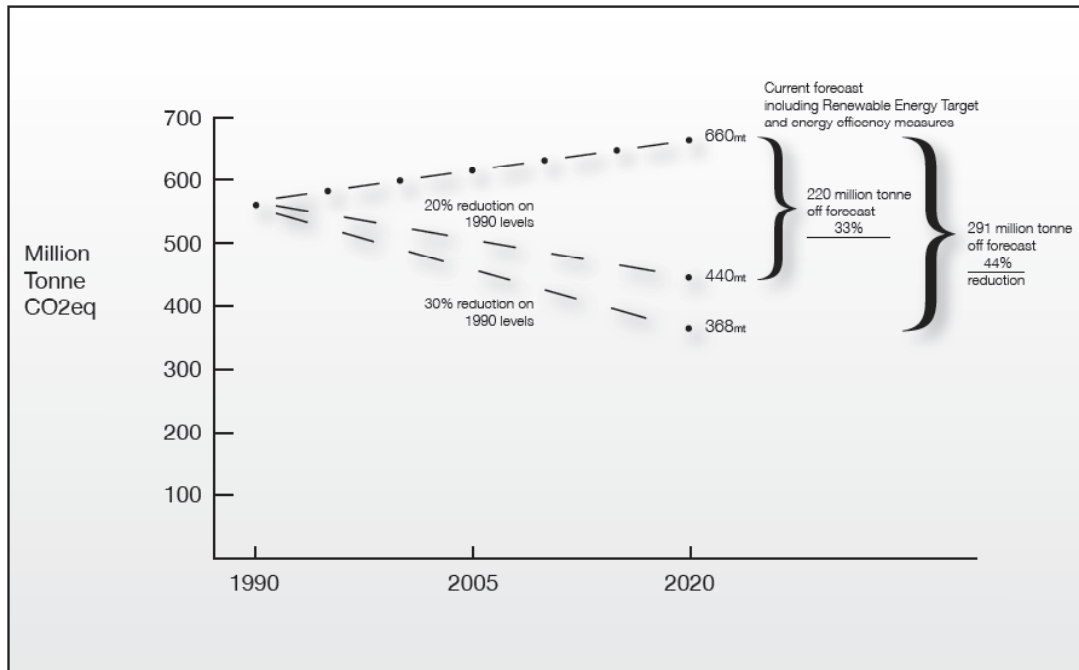
Interim targets must be realistic...

These projections suggest that sharp reductions on 1990 levels will be difficult. A 30 per cent reduction off 1990 levels would mean a reduction of 291 million tonnes (or 44 per cent reduction) off current projections. To put into context, that is more than all the emissions of Australia's stationary energy sector (279 million tonnes) in 2005.¹⁷ If adopted as an interim target for the emissions trading scheme, the opening carbon price would be high and rise quickly and may even be counter-productive. (Australia may fail to meet the target, and the credibility of the AETS could be severely damaged).

To achieve a 20 per cent reduction on 1990 levels would require a reduction on current projections (for 2020) of 220 million tonnes. That would be equivalent to a 33 per cent reduction off current projections.

¹⁶ Department of Climate Change, *Tracking to Kyoto 2007*, February 2008.

¹⁷ Australian Greenhouse Office, *National Greenhouse Gas Inventory 2005*, March 2007

CHART 1: INTERIM TARGETS BY 2020: VARIOUS SCENARIOS

Expectations need to be realistic...

Such sharp reductions in emissions will be extremely difficult to achieve given that Australia's economic and population growth is expected to grow at healthy levels – and well above most other developed nations – over the period to 2020. Not surprisingly, given this projected economic and population growth, Australia's projected final energy consumption is forecast to grow significantly by 19 per cent between 2009-10 and 2019-20.¹⁸ The scope for a major re-engineering of Australia's power generation stock (without costly early retirement of facilities) will be difficult – if not practically impossible - given that the existing electricity generation stock will largely be in place until 2030.

Bearing a similar adjustment cost...

Australia must be cautious of simply adopting interim targets adopted by other nations (or regions). Identical targets do not mean comparable sacrifice. For example, some have suggested that the EU target of a 20 per cent reduction by 2020 should provide the guide for an Australian target. It is important to point out that that such an objective would involve a great deal more effort (and economic pain) for Australia than that target will mean for the European Union.

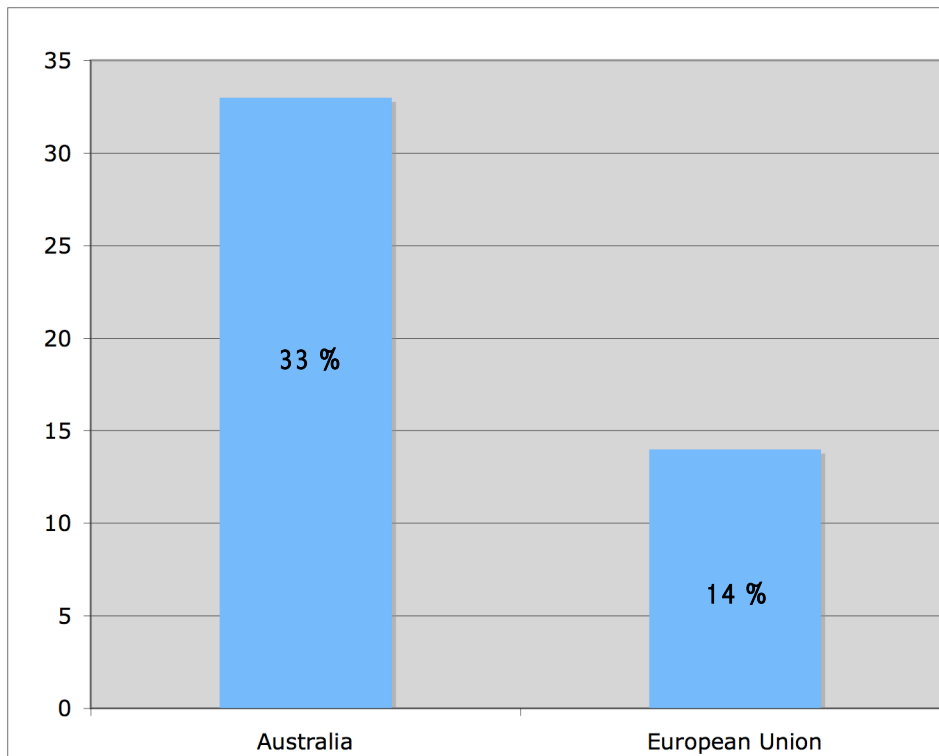
The best way to measure this is to examine the reductions that will need to be made off current projections in order to achieve a 20 per cent reduction off 1990 levels by 2020. Current projections of EU-27 emissions by 2020 are 6 per cent below 1990 levels¹⁹ (and these do not include the effect of 'additional' policies). This means a 20 per cent target will require a further reduction of 14 per cent in order to meet its 2020 target. By comparison, based on current projections, Australia will need to cut its

¹⁸ ABARE, Energy in Australia 2008, March 2008, p.66.

¹⁹ European Environmental Agency, Greenhouse Gas Emission Trends and Projections in Europe 2007: Tracking progress towards Kyoto targets, EEA report No.5/2007.

emissions by between 33 per cent to reach a 20 per cent reduction. In other words, the Australian effort required to reach the same target will be nearly 2 and a half times that of the EU.

CHART 2: COMPARABLE ADJUSTMENT COST?
Effort required off current projections to achieve a 20 per cent reduction off 1990 emissions by 2020



Source: Department of Climate Change. European Environmental Agency.

In its Interim Report, the Review suggested that targets should embody a 'similar adjustment cost' to that accepted by other developed nations. An illustration of such an option may be instructive. If Australia matches the EU's 'adjustment cost' - i.e. 14 per cent off current *projections* for 2020 – Australia would aim for emissions of around 570 million tonnes by 2020 (roughly parity with 1990 emissions of 550 million tonnes). Interestingly, parity with 1990 emissions is the target that US legislators have set as an interim 2020 target in various proposals for a cap and trade system in that country.

THE AUSTRALIAN AND THE EUROPEAN EMISSIONS TRADING SCHEMES

A COMPARISON OF KEY FEATURES:

Australia's scheme is expected to cover all 6 Kyoto Protocol greenhouse gases from commencement of the scheme in 2010. In Phases 1 and 2 (2005-2012) the EU's scheme only includes CO₂. Under Phase 3 of the scheme, the EU scheme will not cover methane. The IPCC notes that methane CH₄ has global warming potential of 21 times that of CO₂.

Australia's scheme is expected to cover about 70 per cent of all greenhouse gas emission sources. The EU scheme will cover around 40 per cent of emissions.

The Review argues that Australia's proposed scheme should include near full auctioning of permits from mid 2010. The EU's scheme will not introduce auctioned permits until 2013. Even then, under the EU's scheme, all industry sectors outside the power sectors will receive 80 per cent of their permits free on commencement of Phase 3 of the scheme in 2013.

2.4 INITIAL CARBON PRICE

The Review has expressed support for a firm initial carbon price, with Professor Ross Garnaut stating that:

“It [the carbon price] won't be low to start with and it will rise over time.”²⁰

The case for a modest initial carbon price ...

The Minister for Climate Change, Senator Penny Wong has described the introduction of a national emissions trading scheme as “the most significant economic and structural reform undertaken in Australia since the trade liberalisation of the 1980s”.²¹ In similar vein, the chairman of the Productivity Commission Gary Banks has described Australia's response to climate change as the ‘biggest regulatory challenge Australia has ever faced’.²² It is sensible therefore, that such a reform be introduced in a measured transition to reduce adjustment costs.

Accordingly, the minerals sector favours a cautious and gradual approach to the introduction of a carbon price signal. A high *initial* carbon price will be ineffective in the absence of adequate alternate technologies, is not necessary to spur investment in low emissions technologies, and could even be counter-productive.

Other reasons which suggest caution in the scale of the initial price include the lack of significant climate benefits from independent action, and to allow learning to occur before the stakes become very high, so as to limit the cost of policy and other

²⁰ Professor Ross Garnaut, quoted in John Breusch, ‘No light touch for heavy industry: Garnaut’, *Australian Financial Review*, 21 February 2008, p.9.

²¹ Senator Penny Wong, ‘Climate Change: A Responsibility Agenda, *Speech to AIG Luncheon*, Melbourne, 6 February, 2008.

²² Gary Banks, Chairman Productivity Commission, ‘Riding the Third Wave: some challenges in national reform,’ *Paper presented to the Economic and Social Outlook Conference*, Melbourne, 27 March 2008.

mistakes.²³

A high opening carbon price could be counter-productive...

There are three additional reasons to avoid a high carbon price at the outset.

The first is the lack of effectiveness and negative economic impact of a high carbon price at the outset, where there are no adequate available low emission alternative technologies and fixed capital stock. (e.g. in terms of power generation). In these circumstances, a high carbon price will represent a simple dead weight loss on the economy with no commensurate environmental gains.

Second, a high carbon price at the outset is not necessary to spur investment in new technologies. The *expectation* of a rising carbon price is more important than a high price in the absence of technologies sufficient to effect change in 'industrial behaviour', particularly in relation to new low emissions technologies expected to mature in the medium term. As the 2007 Task Group stated, it is the 'market expectation of higher prices, reflected in the rising forward price curve, [that] is the key lever by which to pull forward new technology.'²⁴

Third, a high carbon price at the outset could be counter-productive (especially in the absence of comparable action by our competitors). If the price delivered too powerful a shock to the economy, it could stimulate inflation and prompt a revision of targets by a future Government. This would create considerable uncertainty about the price trajectory, and undermine the credibility of the AETS.

2.5 CALIBRATING AUSTRALIA'S EFFORTS WITH INTERNATIONAL DEVELOPMENTS

The Review proposes the adoption of 4 emissions trajectories ranging from Trajectory A (based on Australia's Kyoto commitments) to Trajectory D (based on Australia's share of a global agreement based on its share of either a global target aimed at stabilising global emissions at either 450 ppm or 550ppm).

The MCA does not endorse any of the above trajectories, and has serious reservations about the implication that Trajectory D seems based on the contraction and convergence model that has attracted support from the Review (see Chapter 1). Nevertheless the minerals sector welcomes the principle of 'conditional leadership' that underpins the variable trajectory approach. Such an approach will provide Australian negotiators with a stronger hand in international negotiations over the next few years than if Australia simply adopts a single unilateral target.

2.6 A PRICE CAP OR EMISSIONS FEE

The Review opposes the use of either price ceilings or floors in the emissions trading scheme. The Review argues that ceilings would be inherently arbitrary, dampen the incentive for the development of secondary markets, present a barrier to international linking, and 'create a problem for Australia's role and credibility in international

²³ Productivity Commission, Submission to the Prime Ministerial Task Group on Emissions Trading, March 2007.

²⁴ Report of the Prime Ministerial Task Group on Emissions Trading, May 2007, p.105.

mitigation negotiations since it would not allow firm commitments on levels of emissions'.²⁵

The case for a price cap or emissions fee ...

The minerals sector considers that the advantages of a price cap significantly outweigh the claimed shortcomings. Under such an arrangement, emitters could pay a pre-set emissions fee for every tonne by which their emissions exceed their permits. Set initially at a low level, the gap between expected permit prices and the emissions fee could rise steadily, so as to reinforce the abatement incentive. The primary purpose of a price cap or emissions fee is to limit excessive price volatility caused by a lack of liquidity or unforeseen developments.²⁶ It could also ensure that the aggregate or macroeconomic cost of the scheme do not become excessive.²⁷

We seriously doubt that the inclusion of an emissions fee would undermine Australia's credibility in international negotiations. While emissions trading will be an important part of Australia's emissions reduction effort, it will not be the only policy instrument. We doubt, for example, that the EU's exclusion of transport from coverage of the EU ETS, (or methane from the greenhouse gases covered) will 'create a problem for the EU's credibility in the negotiations. Moreover, we suspect that many nations will be making binding commitments to post 2012 emissions reductions without even adopting an emissions trading scheme in their home jurisdiction.

2.7 TREATMENT OF TRADE EXPOSED, EMISSIONS INTENSIVE INDUSTRIES

The Review acknowledges that in the absence of an international agreement on a carbon price, 'the international price of traded goods will not be a true reflection of comparative advantage...and may cause firms to reduce their production and investment in Australia'. More specifically, the Review argues that its concern is not that Australian firms will reduce their level of production, but rather that they will reduce their production 'too far'. The Review argues that any measures to compensate TEEI industries should be transitional and designed to address the problem of 'overshooting'.

It is clear, though not explicitly stated, that compensation should be limited to a very small fraction of industry sectors, and that assistance should be 'transitional'. The Review does not propose detailed rules or criteria for the classification of industries as trade exposed, emissions intensive. Nor does it address the issue of whether the transitional assistance should be extended if key trading partners do not take matching action over the medium term.

²⁵ Garnaut Review, *Emissions Trading Discussion Paper*, March 2008. p.36

²⁶ One example of how excessive volatility in a trading scheme can lead to adverse consequences is the California power crisis in 2000. A contributing factor to the crisis was the Regional Clean Air Incentives Market (RECLAIM) – a credit trading system for reducing nitrogen oxide (NOx emissions). RECLAIM was established in 1994 to provide flexibility for companies in the LA region as controls on NOx were tightened. Because of record electricity demand in 2000, electric generators generated more power than they did in the base period, resulting in utilities buying RECLAIM credits in record numbers. As a result, the price of credits rose from less than \$1 per pound of NOx in January 2000 to more than \$60 by March 2001. To solve the problem, regulators were forced to remove large power plants from the trading scheme. See Larry Parker, 'Climate Change; Design Approaches for Greenhouse Gas Reduction Program', *CRS report for Congress*, January 16, 2007.

²⁷ Prime Ministerial Task Group, p.110

Provision for TEEI is an essential element of a domestic emissions trading scheme...

Under a global emissions trading scheme, consideration of TEEI status would not be necessary. When developing a domestic emissions trading scheme *ahead* of global action, TEEI status is an indispensable element of such a scheme. It is not a special favour. It is an essential component in ensuring the key objectives of such a scheme – environmental effectiveness and economic efficiency - are met. A scheme that reduces the competitiveness of Australian firms, leads to their closure or relocation abroad and/or the expansion of production in other locations, or renders Australia uncompetitive to new investment in particular sectors is neither economically efficient nor environmentally effective.

The minerals sector looks forward to an early elaboration of the criteria for qualification of TEEI status. It is also important that TEEI permit allocations cover both indirect and direct emissions for existing and new investments.

Administrative allocation of permits to TEEI will not remove their incentive to abate...

Some of the public commentary over the TEEI issue has implied that administrative allocation of permits to TEEI will have an adverse impact on abatement of greenhouse gas emissions.

Administrative allocation to TEEI firms will not dull the incentive to reduce their emissions. As a staff paper from the [US] National Commission on Energy Policy correctly stated:

A firm that receives free allowances has exactly the same incentive to reduce emissions as a firm that receives no free allowances. Using an allowance, regardless how it was acquired, means giving up something of value (since the firm could otherwise sell the unused allowance in the market place).²⁸

The ability to pass through costs a key test...

The key test of a firm's TEEI status is not a simple function of their emissions or fossil fuel throughput. Rather it is a function of the ability to pass through costs and other factors.

The ability to pass through costs is determined in large part by whether (or not) the firm or sector is a price taker on international markets. As noted above, the other key factor is whether major competitors in key sectors are also subject to a comparable carbon price signal.

The mineral sector has a strong case for TEEI treatment...

The minerals sector is a price taker and competes mainly with developing nations in global markets. While Australia's terms of trade are at near record levels, Australian commodity exporters remain price-takers in global markets. Even in a buoyant

²⁸ National Commission on Energy Policy, 'Allocating Allowances in a Greenhouse Gas Trading System', *NCEP Staff Paper*, 2006

commodity market, the competitiveness of Australia's minerals export sector will continue to be heavily influenced by its ability to contain costs.

This is particularly critical as the key competitors for Australia's minerals producers are developing nations who are unlikely to commit to, or be subject to emissions reductions. In the thermal coal export sector, for example, key competitors include Indonesia, Colombia, Russia, China and South Africa. In the global iron ore trade, other major players include Brazil and India. Other major alumina and aluminium producers include China, Argentina, Russia and the United Arab Emirates, and significant copper producers include Chile, the USA, Canada, Russia and Peru.

Proposed treatment of TEEI should take account of other approaches...

The Review's approach appears more restrictive than the approach to be adopted in the European Union when it commences phase 3 of its ETS in 2013. At that stage, **all** sectors outside the power generation sector will receive 80 per cent of permits allocated administratively, phasing down each year to full auctioning in 2020.

The European Union will also provide 100 per cent administrative allocation to firms classified as TEEI, and is also considering a carbon equalisation scheme (aka border measures). The EU has also left open the continued issue of free permits to TEEI beyond 2020 if other trading nations have not embraced binding emissions reduction targets.

Key legislative proposals for the introduction of emissions trading schemes tabled in the United States Congress also propose a delay in full auctioning of permits until 2036 at the earliest, implying a keen recognition of the impact of cap and trade proposals on trade exposed emissions intensive sectors.

2.8 BANKING AND BORROWING

The Review supports 'hoarding' and 'borrowing' of permits as an alternative solution to a price cap in introducing flexibility in the face of fluctuations in demand for permits.

In theoretical terms, banking and borrowing can add flexibility to an emissions trading scheme. The ability to shift the reduction requirement across time allows affected entities to better accommodate corporate planning for capital turnover and technological progress, to control equipment construction schedules, and to respond to transient events such as weather and economic shocks.²⁹

If there were a transitional price cap *and* banking, appropriate protections would need to be developed and implemented in the scheme's design. Without such protections, there may, for example, be an incentive to bank permits to take advantage of a future price and buy permits from the government at the capped price.

2.9 DOMESTIC AND INTERNATIONAL OFFSETS

The Review argues that the offsets be limited to sectors not covered by the scheme, namely agriculture and forestry, and that there be no limits on the use of such offsets.

²⁹ Larry Parker, Congressional Research Service, 'Climate Change: Design Approaches for a Greenhouse Gas Reduction Program', *CRS Report for Congress*, January 16, 2007.

The Review notes however, that these offsets would likely have a small role given the limited sectoral coverage available.

The Review proposes limits on the purchase of international permits and offsets in order to 'ensure credible domestic action and to contain the risks associated with linking to international markets'.

The minerals sector considers that when developing any such limits, the Government should take account of the approach taken in other emissions trading schemes. In this respect it is worth noting that the European ETS will allow up to 30 per cent of 2020 target can be achieved by international offsets. Given that the EU scheme is not as broad ranging as the proposed Australian version, EU emitters will also have access to a broader range of domestic offsets (e.g. transport, agriculture, and waste).³⁰

Australia should support efforts to add carbon capture and storage projects under the Clean Development Mechanism...

Given Australia's commitment to, and expertise in, the development of clean coal technologies, the Government should support efforts by other nations including Saudi Arabia and Norway, to have carbon capture and storage projects considered eligible for the Clean Development Mechanism under the Kyoto Protocol. There is no plausible rationale for its current exclusion from project coverage under the CDM.

2.10 ADMINISTRATIVE ALLOCATION OR AUCTIONING

The Review argues that all permits should be auctioned, except for a small proportion that would be provided, as an administrative allocation, to Trade Exposed Emissions Intensive (TEEI) industries.

Consistent with its view that there should be a measured transition to full operation of the scheme, the MCA supports a phasing-in of full auctioning. In so doing, Australia's approach should take account of the being undertaken in other jurisdictions, including the EU and the United States. In the EU scheme, *all* sectors outside the power generation sector will receive 80 per cent of permits allocated administratively, phasing down each year to full auctioning in 2020. Moreover, key legislative proposals for the introduction of emissions trading schemes tabled in the United States Congress also propose a gradual adoption of full auctioning of permits.

In particular, these legislative proposals include:

- Under S.317 (sponsored by Senator Dianne Feinstein) 100 per cent auctioning of permits will not take pace until **2036**;
- Under S.1766 (sponsored by Senator Jeff Bingaman) there will be 66 per cent auctioning of permits by **2043**; while
- Under S.2191 (sponsored by Senator Joe Lieberman) there will be 73 per cent auctioning of permits by **2036**.

³⁰ European Commission, 'Questions and Answers on the Commission's Proposal to revise the EU Emissions Trading Scheme, *Memo/08/35*, p.6.

2.11 LINKING WITH OTHER SCHEMES

The Review suggests that opportunities for international linkage with other schemes should be pursued in a ‘judicious and calibrated’ manner.

The minerals sector agrees that linking should be approached cautiously, and considers that there are considerable potential dangers that early linking could lead to the import of a carbon price, including an uncomfortably high one.

2.12 COMPENSATION FOR STRONGLY AFFECTED INDUSTRIES

The Review argues that there is no economic or environmental reason to provide compensation to existing emitters adversely affected by the introduction of emissions trading. The Review claims that because there is no direct contractual obligation between the Government and the affected industry/ies, then no compensation should apply, even if the government decision leads to a substantial write-down or even the closure of the business.

The MCA has a number of concerns with this approach. The decision to introduce emissions trading is being taken in the national (and global) interest. The burden of that decision should not be borne solely or disproportionately by a small number of firms. For example, there are a number of Australian coal producers whose production is devoted to the domestic electricity generation sector.

The introduction of an emissions trading scheme will have an immediate and substantial adverse impact on these businesses and the communities in which they operate. There is a strong case, not least one based on equity considerations, to support the administrative allocation of permits to compensate strongly affected existing assets for the disproportionate loss in values that these firms’ shareholders will suffer from the introduction of the ETS.

3. A CLEAN ENERGY TARGET

The proposed emissions trading scheme will seek to provide a price signal that will direct investment towards abatement measures at least economic cost. The introduction of a mandatory Renewable Energy Target (RET), which dictates the use of a preferred abatement source (renewable energy), directly contradicts this objective.

The Review has not yet directly addressed the competing impulses of these two policy choices. The Review has rightly suggested however that the result of a mandatory RET 'is likely to be a higher cost to achieve the same level of overall carbon constraint than would have been achieved in the absence of the MRET'.

The interaction between the Renewable Energy Target and the ETS...

The Review's assessment, however cautiously put, has significant support. The Productivity Commission Chairman, Gary Banks has argued that it is 'doubtful' that the RET is complementary to the proposed emissions trading scheme:

In fact, as the Garnaut interim report points out, it would effectively cut across an ETS and impede its ability to deliver least cost abatement through carbon pricing. While it 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 emissions technologies. The apparent special status needs to be rethought.³¹

The minerals sector agrees that the RET should be reconsidered. It certainly should be considered a transitional measure only, with a clear signal that it will be phased out after 2020. This signal will ensure that its provisions do not interfere with the emissions trading scheme's carbon price signal beyond 2020.

The Case for a Clean Energy Target...

As noted above, a major shortcoming of the RET is that it favours one group of low emissions energy technologies (renewables) over all others. If there is to be a mandatory low emissions target, it should not distinguish - or grant preferment - between technologies with the same or similar environmental impact.

To avoid the introduction of such distortions or 'rent-seeking', any such target should be 'technology-neutral'. In a recent study³², the respected Cambridge Energy Research Associates headed by Daniel Yergin, defines clean energy as 'a set of new and conventional energy technologies that, alone or in combination, can (1) provide energy with a minimal carbon footprint to help address climate change, and (2) facilitate greater energy security through broader diversity of fuels and technologies—all at prices that are politically acceptable and conducive to economic growth and development.'

It is clear that a more broad-ranging definition of clean energy should form the basis for any mandatory energy targets by 2020. It makes no sense to exclude the development of carbon capture and storage of CO₂ emissions – a technology in

³¹ Gary Banks, Chairman Productivity Commission, 'Riding the Third Wave: some challenges in national reform,' *Paper presented to the Economic and Social Outlook Conference*, Melbourne, 27 March 2008.

³² Cambridge Energy Research Associates, *Crossing the Divide*, February 2008.

which Australia has both a demonstrated expertise and a comparative advantage – from such a target.

4. THE DEVELOPMENT OF LOW EMISSIONS TECHNOLOGIES

The minerals sector endorses the Review's backing for public investment in the development and deployment of low emissions technologies. The MCA agrees that that a share of the revenues from the emissions trading scheme should be invested in technology, development, demonstration and deployment, including a nationally co-ordinated low emissions technology strategy. In addition to new programs, the this support should also extend to the strengthening of existing research and development incentive schemes, including the possible raising of the current 125 per cent rebate. Such a strategy must seek to develop these technologies from a wide range of energy sources.

Critical role of clean coal technologies...

As part of this effort, the Review correctly identifies need for public investment in clean coal technologies:

It would be consistent with Australian policy traditions, and with sound principle, to make substantial commitments to support private research, development and commercialisation activities related to carbon, capture and storage by established coal based electricity producers".³³

It is a simple fact of economics and energy security that there will be no global solution to climate change without the development of low emissions clean coal technologies. This is underlined by the fact that the economies that will dominate the global economic scene in the period to 2050 – China, the United States and India – all have substantial reserves of coal.³⁴

Coal will continue to be a mainstay of global power generation...

Coal use will increase under any foreseeable energy forecast scenario because it is highly cost competitive. Coal can provide usable energy at a cost of between \$1 and \$2 per MMBtu compared with \$6 to \$12 per MMBtu for oil and natural gas.³⁵ Moreover, unlike oil and gas, supply of coal is not concentrated in the Middle East. Forty-one per cent of the global proved reserves of coal (909 billion tonnes) are located in OECD countries. In contrast OECD countries have 6.6 per cent of oil reserves and 8.8 per cent of natural gas reserves.

The imperative of reducing the emissions from coal-fired power generation...

Global emissions from coal currently amount to 2.5 gigatonnes of Carbon (9 Gt CO₂ equivalent). On reference case scenarios, these emissions will reach 9 Gt C (32.5 Gt

³³ Garnaut Review, *Interim Report*, February 2008, p51.

³⁴ At current consumption rates, and with current technology and land use restrictions, United States coal reserves would last over 250 years. See Pew Center Factsheet, Coal and Climate Change Facts, www.pewclimate.org, accessed 28/03/2008. China's coal resources are the second largest in the world (behind Russia) and are estimated at 1003 billion tonnes. See International Energy Agency, *World Energy Outlook: China's Energy Prospects*, November 2007. p.334. India has the fourth largest reserves of coal, and at current rates of production has enough coal for the next 217 years. See www.worldcoal.org.

³⁵ Massachusetts Institute of Technology, *The Future of Coal; Options for a Carbon-constrained World*, March 2007.

CO₂ eq) by 2050. Given that coal is the largest contributor to global CO₂ emissions from energy use (41 per cent), the minerals sector considers that it is imperative that we explore, develop and adopt ways to reduce its emissions.³⁶

Considerable potential for emissions reductions...

New low emissions power plants with CCS have the potential to reduce greenhouse gas emissions from coal-fired power plants by approximately 80 to 90 per cent, including taking into account the energy requirements for capture.³⁷ ABARE has projected that, with CCS, Australia could reduce emissions against business as usual by 31 per cent by 2050.³⁸ The European Union has estimated that carbon capture and storage (CCS) can contribute 14 per cent of the global emissions reductions needed by 2030 to prevent dangerous climate change.³⁹

Even more intensive efforts are required...

This submission does not address the detailed policy framework necessary to promote the early adoption of carbon capture and storage of CO₂ emissions from fossil fuels. In this respect, the MCA supports the submission to the Review on Low Emissions Energy Technologies developed by the Australian Coal Association.

The MCA also endorses the proposal for a new taskforce, proposed by the Australian Coal Association (ACA), the CFMEU, The Climate Institute and WWF, would be charged with developing and implementing a nationally coordinated plan to oversee rapid demonstration and commercialisation of 10,000 GWh of carbon capture and storage (CCS) electricity per year by 2020.

Australia should not retreat from international collaborative partnerships...

Given the global nature of the climate change challenge, regional and global partnerships will be essential element in any sustainable solution. While initial progress has been uneven, the Asia Pacific Partnership on Clean Development and Climate (APP) remains one of the most promising vehicles for the co-operation that will be necessary to achieve a multiplier' effect in the development and implementation of low emissions technologies.

In this context, the Review should urge the Rudd government to reconsider its decision not to proceed with the previous commitment to increase Australia's contribution to the Asia Pacific Partnership on Clean Development and Climate by up to \$50 million.

Resources sector crowding out investment in low emissions technologies?

The Review suggests that the successful introduction of the ETS would 'see high incentives to invest in low emissions goods and services, first of all in electricity-related activities. The Review continues that "this will call on many of the skills and

³⁶ MIT, The Future of Coal, p.1 .

³⁷ Intergovernmental Panel on Climate Change, *Carbon Dioxide Capture and Storage*, December 2005, pp22-27.

³⁸ ABARE, *Technology: Its Role in Economic Development and Climate Change*, July 2006, p.100-1.

³⁹ European Commission, *Limiting Global Climate Change to 2 degrees Celsius: the way ahead for 2020 and beyond*, SEC(2007)8, 10.1.2007.

resources that have been rendered scarce and increasingly expensive by the current resources boom”.

The Review suggests that the continued expansion of Australia resources sector could crowd out investment in the low emissions technologies, arguing that the “path of adjustment would be easier if, by the time of introduction of the scheme, investment in the conventional resources sector had receded to more normal levels.”⁴⁰

The Review risks confusing symptoms and causes. Skills and resources are ‘scarce and expensive’ in Australia because of an imbalance between supply and demand. More specifically, the key cause is the lack of supply capacity is due to chronic under-investment in social and physical infrastructure by successive Australian governments.

The solution is not to wish for a slackening of investment in the resources sector, but rather to progressively rebuild Australia’s social and physical infrastructure, including schools, vocational and higher education. After all, there is no sign of any slackening of demand for Australian commodities, with the industry is gearing up with actual or proposed capital expenditure of up to \$110 billion.⁴¹ Moreover, if investment in the conventional resources sector ‘recedes to more normal levels’, the Australian economy will also grow more slowly, offer fewer employment opportunities, and have a significant impact on fiscal policy. After all, Access Economics estimates the current impact of the resources boom on the budget at \$15 billion – the expected budget surplus in the forthcoming budget is \$18 billion.

The Minerals Sector and government support...

The Garnaut’s Review’s Issues paper on Low Emissions Energy Technologies uncritically cited research claiming that the mining sector receives billions of dollars in special subsidies. In preparing its draft and final reports, the Review is urged to consult the most independent and objective analysis of Federal Government assistance to Australian industry, namely the annual *Trade and Assistance Review* compiled by the Productivity Commission.

In its most recent *Review*, released in late March 2008 (www.pc.gov.au), the Productivity Commission found the following:

At the sectoral level, the estimates indicate that in 2006-7...mining received virtually no net measured assistance.⁴²

The Commission estimates that the total estimated budgetary assistance received by the mining sector in 2006-7 was \$270.7 million, comprising \$139.6 million in budgetary outlays and \$131.1 million in tax concessions. This assistance includes expenditure on the CSIRO, the Co-operative Research Centres, and rebates claimed by the minerals sector under the Research and Development tax concession.⁴³

⁴⁰ Garnaut Review, Emissions Trading Scheme Discussion Paper, March 2008, p.56.

⁴¹ ABARE, *Australian Commodities*, Volume 14. Number 4. December 2007

⁴² Productivity Commission, *Trade and Assistance Review 2006-7*, March 2008, p.2.13

⁴³ *Ibid*, p.A12.

The Commission notes, however, that the '**combined assistance**' – which measures the **net** impact of budget, tariff and regulatory and pricing assistance - to the mining sector in 2006-7 was just \$17.5 million. In other words, the cost ('negative assistance') to the mining sector of the tariff support provided to other industry sectors (and which raises the cost of inputs used by the mining sector) was *minus* \$253 million. This means that the **effective rate of combined assistance** to the mining sector in 2006-7 was 0.0 per cent, down from 0.1 per cent in 2004-5.

5. STREAMLINING FEDERAL AND STATE POLICIES

Over recent years both Federal, State and Territory Governments have developed a bewildering range of climate change related policies and strategies. The cumulative result is scores of disparate programs, policies and regulatory measures. For example, the *Weathering the Change* strategy developed by the ACT Government alone has 43 separate action items. The MCA urges the Review to include an examination of the inter-relationship of many of these schemes and programs in its draft and final reports.

The MCA is concerned that many of these programs, however well intentioned, contradict or distort the stated purpose of the AETS – to achieve least cost abatement of GHG emissions. For example, the Queensland Government has committed to two separate mandated schemes, which risk distorting the least-cost functionality of a national emissions trading scheme. These include the expansion of the Queensland Gas Scheme (from 13 per cent to 18 per cent) and a renewable and low-emission energy target of 10 per cent by 2020. These targets replicate the potential market distorting impacts of the Commonwealth's MRET policy, in light of the implementation of an ETS. Given the Commonwealth commitment to increasing this target to 20 per cent by 2020, it is very unclear how the two programs can sensibly co-exist.

Other Federal and State programs represent an unnecessary reporting and compliance burden on business. In still other cases, greenhouse triggers have been introduced (or are contemplated) in approvals processes. There is a strong case for a rationalisation of many of these programs and regulations.

The MCA welcomes the decision by the Rudd Government to commission a *Strategic Review of Climate Change Policies* that will 'develop a set of principles to assist its assessment of whether existing programs are complementary to an emissions trading scheme'. The review is due to report in July.

6. OTHER ISSUES

Removal of restrictions on uranium exports

Uranium is an increasingly important energy source providing net near zero emissions. With 38 per cent of the world's Economic Demonstrated Resources (EDR) and over 60 companies currently exploring for uranium, Australia is well positioned to meet expanding demand from both the developed and developing world.

Nuclear Power and CO₂ Emissions

Over the whole fuel cycle, nuclear power emits only 2–6 grams of carbon (or up to 20 grams of CO₂) per kilowatt-hour of electricity produced. This is two orders of magnitude less than coal, oil and natural gas, and is comparable to emissions from wind and solar power.

A single nuclear power plant of one gigawatt capacity offsets the emission of some 7–8 million tonnes of CO₂ each year if it displaces coal. A nuclear plant will also offset the emission of sulphur dioxide, nitrous oxide and particulates, thereby contributing significantly to air quality.

Nuclear power currently avoids the emission of 600 million tonnes of carbon per year. If the world were not using nuclear power, CO₂ emissions from electricity generation would be at least 17 per cent higher and 8 per cent higher for the energy sector overall. By 2030, the cumulative carbon emissions saved due to the use of nuclear power could exceed 25 billion tonnes.

Australia's uranium exports currently displace at least 395 million tonnes of CO₂ per year, relative to use of black coal. This is equivalent to 70 per cent of Australia's total greenhouse gas emissions for 2003. Australia's total low cost uranium reserves could displace nearly 40 000 million tonnes of CO₂ if it replaced black coal electricity generation.

Source: The House of Representatives Standing Committee on Industry and Resources, *Inquiry into developing the Australia's non-fossil fuel energy industry*, December 2006.

But artificial restrictions are limiting the export of Australia's uranium. Even though Australia currently has the largest and lowest-cost recoverable resources, it accounts for only 23 percent of global uranium production and trails Canada, which produces around 30 percent.

The MCA has welcomes the Rudd Government's support for the expansion of Australia's uranium export industry. This is an important and welcome step forward that will offer significant new economic and employment opportunities.

Opposition to uranium mining by some State governments represents a significant impediment to the efficient development, regulation and expansion of the uranium industry. The prospects for improved certainty for investment and expansion of the uranium industry to the benefit of all Australians - especially those in remote and regional areas – will be undermined in the absence of further reforms by State

governments.

The MCA supports the bipartisan recommendation in the Report of the House of Representatives Standing Committee on Industry and Resources' inquiry into the Australian mining industry, in November 2006, that the State governments be encouraged "to reconsider their opposition to uranium mining and abolish legislative restrictions on uranium (and thorium) mining and exploration, where these exist."⁴⁴

⁴⁴ House of Representatives Standing Committee on Industry and Resources, Inquiry into the Australian mining industry, in November 2006