Chapter 5

Impact of the Carbon Pollution Reduction Scheme on trade exposed industries

Introduction

5.1 Chapter 5 explores the evidence provided to the committee regarding the impact of the proposed Carbon Pollution Reduction Scheme (CPRS) on trade exposed industries. Trade exposed is defined as 'Industries that are constrained in their ability to pass through carbon costs due to actual or potential international competition.'[1] This usually means that the industries are exporters or they compete with imports.

5.2 As discussed in chapter 2, the Australian economy is heavily reliant on exports. In evidence received, the committee heard an overwhelming number of concerns about the likelihood of the CPRS as proposed by the government, leading to a reduction in the competitiveness of Australian industries, resulting in closure of, and reduced future investment in, Australian businesses. The committee was informed that this reduced investment will ultimately lead to reduced economic activity and loss of employment in Australia. The majority of the evidence received by the committee, while acknowledging that the government has made provision for some assistance to industry, argued that the proposed assistance is insufficient to stop carbon leakage in an environment where Australia's main competitors are not subject to an equivalent price on carbon.

The carbon leakage risk

What is carbon leakage?

5.3 The government has defined carbon leakage as:

> The effect when a firm facing increased costs in one country due to an emissions price chooses to reduce, close or relocate production or to close or relocate production to a country with less stringent climate change policies.[2]

5.4 The *Garnaut Climate Change Review: Final Report* defined carbon leakage as:

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1 Australian Government, *Carbon Pollution Reduction Scheme: Australia's Low Pollution Future – White Paper (White Paper)*, December 2008, p. F.16.

2 Australian Government, *White Paper*, December 2008, p. F.4.

> 'carbon leakage'—a loss of competitiveness and relocation of trade-exposed, emissions-intensive industries as a result of carbon penalties applying in some countries but not others.[3]
>
> Trade-exposed, emissions-intensive industries represent a special case. All other factors being equal, if such enterprises were subject to a higher emissions price in Australia than in competitor countries, there could be sufficient reason for relocation of emissions-intensive activity to other countries. The relocation may not reduce, and in the worst case may increase, global emissions. This is known as the problem of carbon leakage.[4]

5.5 The Australian Farm Institute argued:

> …the term has been interpreted quite narrowly…The reality of leakage is that in markets like agriculture we will see the cost disadvantage reducing Australia's share in global markets and increasing the volume of imports into our domestic market, which we are already seeing for example in horticulture products from China.[5]

5.6 The committee, following consideration of the evidence, viewed carbon leakage in a broader context than as defined in the *Carbon Pollution Reduction Scheme: Australia's Low Pollution Future - White Paper* (the White Paper). That is, in the committee's view, carbon leakage includes potential increases in global emissions due to import substitution and lost future investment in existing or new businesses in Australia.

5.7 Importantly, the committee also considered carbon leakage to include a net increase in global emissions due to a reduction in local emission intensive industry, when the product of such industries, if exported, would substitute more emissions intensive products, and therefore reduce global emissions. A good example of this is the emissions benefit of using liquid natural gas (LNG) as a fuel source. While the process of liquefying gas is emissions intensive, LNG when used as a substitute for coal-fired electricity, results in a net reduction in emissions. The environmental benefits of natural gas will be further explored later in this chapter.

5.8 Mr David Pearce of the Centre for International Economics explained the carbon leakage described above as a paradox:

> The clearest case is LNG, I guess, where you have a paradox: something that is less emissions intensive in its final use but it does actually generate emissions as it is produced…you have the paradox that you do make it more costly to achieve the global reductions in emissions that may otherwise result from substituting other fuels for LNG. I agree that it is a

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3 Professor Ross Garnaut, *Garnaut Climate Change Review: Final Report*, October 2008, p. 230.

4 Professor Garnaut, *Garnaut Climate Change Review: Final Report*, October 2008, p. 316.

5 Mr Michael Keogh, Executive Director, Australian Farm Institute, *Committee Hansard*, 19 February 2009, p. 37.

> general problem that imposing costs on our export industries significantly reduces the cost effectiveness of the policy in terms of reducing emissions.[6]

5.9 The committee noted with great concern that carbon leakage caused by the proposed CPRS would be damaging to the global environment while also damaging the Australian economy and reducing Australian employment levels.

What is the extent of the carbon leakage risk?

5.10 Professor Ross Garnaut noted that 'The fear of 'carbon leakage' has been a powerful obstacle to domestic mitigation policies in many countries.'[7]

5.11 Professor Garnaut also commented that:

> Policy makers are therefore faced with a truly dreadful problem. Shielding these industries from the effects of a carbon price either undermines attempts to limit national greenhouse gas emissions or increases the adjustment burden elsewhere in the economy. Moreover, it results in the paradoxical outcome of shielding our most emissions-intensive industries (with the exception of stationary energy) from the effects of the scheme; that is, low emitters feel the effects of the scheme, but high emitters do not.[8]

5.12 As discussed in chapter 2, the committee heard evidence about the importance of global action to address climate change.

5.13 A large number of submitters and witnesses expressed concerns about the likelihood of carbon leakage if Australia proceeds without similar carbon imposts on competitors, while a limited number indicated that fears of carbon leakage are overstated.

5.14 The Minerals Council of Australia argued:

> If we move too fast without a global protocol, energy intensive businesses will adjust by either shutting down or moving offshore.
>
> …
>
> [The Australian resource industry] cannot compete with the rest of the world in a carbon constrained Australia that is out of touch with the rest of the world. That is the issue…the Australian resource industry can compete in a carbon constrained world; it cannot compete in a carbon constrained Australia which is out of touch with the rest of the world.[9]

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6 Mr David Pearce, Executive Director, Centre for International Economics (CIE), *Committee Hansard*, 2 April 2009, p. 27.

7 Professor Garnaut, *Garnaut Climate Change Review: Final Report*, October 2008, p. 230.

8 Professor Garnaut, *Garnaut Climate Change Review: Final Report*, October 2008, p. 316.

9 Mr Peter Coates, Chairman, Minerals Council of Australia (MCA), *Committee Hansard*, 8 December 2008, pp 3 and 9.

> You will encourage a migration…there is unprecedented mobility in global capital and resources, and that goes for our industry right upfront, and so our companies will move. They will shift. They will just go to where they can employ their capital and their technology and their people far more effectively than they can when carrying the legacy of a burden that they cannot adjust to.[10]

5.15 Similarly, the Queensland Resources Council stated:

> Industry's immediate concern is ensuring the ongoing viability of current operations whilst encouraging behavioural changes en route to the new carbon economy. As stated, some operations will experience significant decreases in earnings as a result of the CPRS that will compromise cash flow. In the absence of readily accessible and implemented abatement technologies, short to medium commercial viability will be challenged. Job losses and carbon leakage are therefore demonstrable risks.
>
> The stronger finding of our analysis, and of potentially greater significance in terms of economic consequences, is the impact that the CPRS may have on future brown and Greenfield expansions. Again the analysis demonstrates that, whilst earnings may be such that the operation remains viable, earnings will be too low for a number of operations to consider expansions of an operation of comparable size, type and location. Against the background of strong long-term demand for most mineral and energy commodities, competing intracompany interests and growing global resource sector investment options, lost opportunities in Australia in the longer term appear inevitable.[11]

5.16 Mr Daniel Price, from Frontier Economics, argued that Australia has very energy intensive industries which will suffer under a carbon price:

> I know that people say that the spectre of carbon leakage is trumped up. It certainly is not. The industry has a legitimate claim. The reason that Australia is one of the highest per capita emissions countries in the world is that we have very energy intensive industries here because we have traditionally had very cheap energy. You will push those companies which are making investment decisions offshore to many countries that can supply these services and will not put a scheme in place. There is no doubt about that.[12]

5.17 The following statement from Caltex Australia reflects the fears of carbon leakage expressed by a number of witnesses:

> …international competitiveness should be maintained…If international competitors won't face a carbon price, why should we have to? Failure to

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10 Mr Mitchell Hooke, Chief Executive, MCA, *Committee Hansard,* 8 December 2008, p. 14.

11 Mr Michael Roche, Chief Executive, Queensland Resources Council, *Committee Hansard,* 20 February 2009, p. 26.

12 Mr Daniel Price, Managing Director, Frontier Economics, *Committee Hansard,* 2 April 2009, p. 12.

> implement such a policy threatens to destroy Australian investment and jobs without reducing global emissions.[13]

5.18 Alternately, the Australian Conservation Foundation argued:

> …in terms of the idea of carbon leakage, I think there is a lot more talk about it than there is evidence of it. The evidence I have seen out of the EU, where carbon leakage was raised as a significant issue in their emissions trading debate, is that, after the fact, there has not been any strong evidence of carbon leakage…Basically, the local factors of production, the need to transport and all the other decisions that go into siting a plant far outweigh whether a company is going to up and move because of the introduction of a carbon policy in a country.
>
> …
>
> We are not saying that there is absolutely no chance that it would ever be anything like carbon leakage, but, again, there is more talk about it then there is evidence—[14]

5.19 The committee considers that carbon leakage as a result of the CPRS is a serious and credible risk. Given the significant differences between the existing European Union (EU) scheme and the much more complex and aggressive CPRS proposed by the Australian government, no conclusions on carbon leakage can be drawn from the EU experience. The over allocation of permits in the EU scheme, 95 per cent free permits issued across the board, as well as the granting of free permits for all trade exposed, export competing industries until other countries implement their own emissions trading schemes, means that if there was any cost imposed on European businesses at all as a result of the EU scheme, then it was absolutely minimal and inconsequential. In the committee's view the same cannot be said in relation to the proposed Australian scheme.

Assistance to industry

Industry assistance as set out in the White Paper

5.20 The government has recognised the need to provide assistance to industry in the White Paper. The White Paper stated:

> Australia's adoption of a carbon constraint before other countries may have a significant impact on its emissions-intensive trade-exposed industries. The Government is committed to providing assistance to these industries to reduce the risk of carbon leakage and provide them with some transitional assistance.[15]

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13 Caltex Australia, *Committee Hansard*, 20 February 2009, p. 49.

14 Mr Owen Pascoe, Climate Change Campaigner, Australian Conservation Foundation (ACF), *Committee Hansard*, 2 February 2009, pp 90-91.

15 Australian Government, *White Paper*, December 2008, p. 12.1.

5.21 The reason for providing assistance to emissions intensive trade exposed (EITE) industries was articulated as:

> The key rationale for providing assistance which addresses some of the competitiveness impacts of the Scheme on emissions-intensive trade-exposed (EITE) industries is to:
>
> - reduce the likelihood of carbon leakage in the period before broadly comparable carbon constraints are applying internationally
> - provide transitional support to these industries.
>
> The provision of assistance to EITE industries will support production and investment decisions that would be consistent with a global carbon constraint.[16]

5.22 The principles which guided the development of the EITE assistance were:

> - Assistance should be targeted to reduce the likelihood of carbon leakage and to provide transitional assistance…
> - Assistance should not reduce carbon price signals…
> - Assistance to EITE industries should be balanced against the need to assist other businesses and households…
> - Assistance should not breach Australia's international trade obligations…[17]

5.23 The government acknowledged the difficulty of providing appropriate assistance to EITE industries:

> This is a very difficult area of policy for a number of reasons and the proposal to assist EITE industries was closely scrutinised and debated by many stakeholders. EITE industries have legitimate concerns about taking on a carbon cost before some of their competitors…
>
> The Government also recognises that providing more assistance than necessary to industries at risk of carbon leakage reduces national income, reduces the amount of Government revenue available for other purposes and redistributes resources (capital and labour) within the economy to assisted industries.[18]

16 Australian Government, *White Paper*, December 2008, p. 12.7.

17 Australian Government, *White Paper*, December 2008, p. xxxiv.

18 Australian Government, *White Paper*, December 2008, p. 12.1.

5.24 The White Paper provides the following summary of the key features of the EITE assistance program:

Table 5.1 Summary of EITE assistance program

Feature	Policy
Form of assistance	Allocation of permits at the start of each compliance period Based on individual entity's previous year's level of production Upon closure, must relinquish permits for production that did not occur in that year
Basis of assistance	Provided to new and existing entities undertaking an eligible EITE activity prescribed in regulations
Scope of assistance	Direct emissions covered by the Scheme Scheme related cost increase for electricity and steam use Scheme related cost increase for upstream emissions from natural gas and its components (e.g. methane and ethane) used as feedstock
Eligibility for assistance	Eligibility of activity based on an assessment of all entities conducting an activity Trade exposure assessed through quantitative and qualitative tests Emissions intensity assessment based on average emissions per million dollars of revenue or emissions per million dollars of valued added Time period for assessment: • emissions data: 2006-07 to 2007-08 • revenue/value added data: 2004-05 to the first half of 2008-09
Initial rates of assistance	90% for activities with emissions intensity of at least 2000t CO2-e/$m revenue or 6000t CO2-e/$m value-added 60% for activities with emissions intensity between 1000t CO2-e/$m and 1999t CO2-e/$m revenue or between 3000t and 5999t CO2-e/$m value-added
Carbon productivity contribution	Initial rates of assistance will be reduced by a carbon productivity contribution of 1.3% per annum
Allocative baselines	Allocative baseline for activity based on historic industry average level of emissions per unit of production for all entities conducting activity Electricity allocation factor set at 1t CO2-e per MWh nationwide, may be adjusted in respect of existing large electricity supply contracts Natural gas feedstock allocation factor set state by state
New entrants	New entities conducting an existing EITE activity will receive the same assistance as existing entities conducting the activity Activities new to Australia will be able to apply for EITE eligibility -- assessment and baselines made on the basis of international best practice Allocations to existing entities conducting EITE activities will not be adjusted for allocations to new entrants
Quantum of assistance	Government expects allocations to EITE sector to be around 25% initially (35% including agriculture), increasing to around 45% by 2020
Review of assistance	EITE assistance program to be reviewed by independent body at each five year review point, or at request of Minister Review would consider: • inclusion of additional activities in light of commodity price changes and expansions in Scheme coverage • consistency of EITE program with overall rationale and principles • existence of broadly comparable carbon constraints applying internationally Five years' notice of any changes to EITE program to be provided, unless required for compliance with Australia's international trade obligations

Australian Government, *Carbon Pollution Reduction Scheme: Australia's Low Pollution Future – White Paper*, December 2008, p. 12.2.

5.25 Coal mining is excluded from EITE assistance. The White Paper provided the following explanation:

> Since the majority of coal mines are not emissions-intensive, the Government will not provide EITE assistance to the activity of coal mining. (An allocation based on the industry average would lead to the majority of coal mines receiving significant windfall gains.) However, a small number of coal mines are very emissions-intensive and will face a significant cost impact from the Scheme. The Government will allocate up to $750 million from the Climate Change Action Fund to facilitate abatement and assist with the transition of these coal mines…[19]

5.26 As discussed in paragraphs 5.67 and 5.68, the coal mining industry is of the view that they should not be excluded from EITE assistance.

5.27 The government acknowledged that there may be non trade exposed industries that could be particularly strongly affected by the CPRS. The White Paper stated that 'Coal-fired electricity generation has the characteristics of a strongly affected industry,'[20] and 'Industries other than coal-fired electricity generation do not have the characteristics of strongly affected industries.'[21] Assistance for coal-fired electricity generation will be provided through the Electricity Sector Adjustment Scheme (ESAS). The White Paper stated the ESAS:

> …will provide a once-and-for-all allocation of permits to the most emissions-intensive electricity generators…[through] a fixed administrative allocation of permits, delivering assistance of around $3.9 billion to the most emissions-intensive coal-fired generators…[22]

5.28 As discussed in chapter 7, both Queensland and Western Australian witnesses raised the issue of the majority of the financial assistance provided through ESAS going to brown coal fired generators in Victoria.

Evidence concerning assistance to industry

5.29 Prior to the release of the White Paper the committee received a lot of evidence regarding the inadequacy of the revenue metric as proposed in the *Carbon Pollution Reduction Scheme: Green Paper* (Green Paper). This view was expressed particularly strongly by the gas and petroleum industries. Following the release of the White Paper, BP Australia stated:

> …the addition of an emissions intensity metric based on "value added" for assessing EITE activities is a good outcome since we believe it better reflects the economic contribution of industrial activities near the end of the

19 Australian Government, *White Paper,* December 2008, p. 12.46.

20 Australian Government, *White Paper*, December 2008, p. 13.6.

21 Australian Government, *White Paper,* December 2008, p. 13.7.

22 Australian Government, *White Paper*, December 2008, pp xxxviii-xxxix.

> value chain. These and other EITE changes increase the likelihood that our key energy and export infrastructure such as refining and LNG businesses will qualify for EITE treatment, and thus limit the additional costs that will not be faced by our international competitors.[23]

5.30 Following the release of the White Paper and therefore the inclusion of the 'value added' metric, Mr Michael Hitchens from the Australian Industry Greenhouse Network argued that 'the treatment of trade exposed industries does not deliver the commitments that were made that trade exposed industries would not be disadvantaged under an emissions trading scheme.'[24]

5.31 The majority of the evidence received by the committee concerned the need for greater assistance for industry, while some indicated that the industry assistance as proposed by the government is too generous.

5.32 Those that advocated greater assistance for industry in the main, either argued that their industry should be recognised as requiring assistance, such as aviation, or that the provision of EITE assistance on an activity[25] basis was inadequate. In addition, some argued that assistance to industry should not be reduced over time until overseas competitors are subject to comparable carbon costs.

5.33 The committee heard evidence from both Qantas and Virgin Blue Airlines in regards to the aviation industry. Qantas appeared before the committee prior to the release of the White Paper and therefore provided evidence on the assistance as proposed in the Green Paper. Mr Peter Broschofsky, Group General Manager, Environment and Fuel Conservation from Qantas Airways, argued that 'The emissions-intensive metric is not really an emissions-intensive metric at all; it is about capacity to pay. It is a financial metric.'[26]

5.34 Virgin Blue Airlines provided its evidence following the release of the White Paper. Mr Simon Thorpe, the General Manager, Safety Systems at Virgin Blue Airlines argued that:

> …while they [aviation] are large emitters, they already use their fuel very efficiently and are faced with major obstacles in implementing initiatives that will produce stepped reductions. Airlines are not considered to be significantly affected and are not deemed eligible for assistance.
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> …

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23 BP Australia, *Committee Hansard,* 17 February 2009, p. 42.

24 Mr Michael Hitchens, Chief Executive Officer, Australian Industry Greenhouse Network (AIGN), *Committee Hansard,* 2 February 2009, p. 34.

25 The White Paper defines activity as the 'chemical or physical transformation of inputs to a given set of outputs'. See p. F.1.

26 Mr Peter Broschofsky, Group General Manager, Environment and Fuel Conservation, Qantas Airways, *Committee Hansard,* 19 November 2009, p. 42.

> In a business in which fuel can be up to 40 per cent of your cost base, to say you are not strongly affected based on cost just does not make sense. You have to look at the profitability of the business as opposed to the cost to actually run it.[27]

5.35 The provision of assistance to EITE industries on an activity basis was of concern to a number of witnesses. Cement Australia summed up the argument:

> The first is the proposal to assess emissions-intensive trade-exposed, or EITE, status on an activity basis only. We believe that this defeats the effectiveness of the EITE assistance program. Given that EITE assistance is provided to maintain the competitiveness of EITE industries—in our case, against imports—this proposal simply renders the EITE assistance program ineffective, potentially doubling the effective cost of the scheme. Cement Australia fundamentally believes that it is the cement product that is trade exposed, as opposed to the specific cement manufacturing activities.[28]

5.36 BlueScope Steel stated:

> …the 90 per cent headline number does not apply to the whole iron and steel industry…it actually only applies to the really intensive steelmaking operation, where you are dealing with red-hot liquids and red-hot materials. All of the downstream processes, which is a very substantial operation—where steel is rolled and shaped and galvanised and painted and formed and turned into marketable products—will receive no assistance. So when you take into account those emissions, plus the emissions from the really intensive part, that dilutes the amount of compensation.[29]

5.37 Similarly, Alcoa stated 'We also believe that each aspect of the alumina and aluminium business—alumina refining, the mining, the smelting and the rolling—should all commence at 90 per cent allocation.'[30]

5.38 Alcoa summed up the sentiment expressed by a number of witnesses relating to the proposed reduction of assistance to EITE industries over time stating 'there should be no erosion of the EITE allocations until our key competitors move'.[31]

5.39 Similarly, the Cement Industry Federation argued 'we must keep it [the assistance] at 90 per cent sustained until there is a global agreement.'[32] The Australian

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27 Mr Simon Thorpe, General Manager, Safety Systems, Virgin Blue Airlines, *Committee Hansard,* 20 February 2009, pp 13 and 19.

28 Mr Stuart Ritchie, National Sustainability Manager, Cement Australia, *Committee Hansard,* 7 April 2009, p. 3.

29 Mr Alan Thomas, General Manager Engineering, Technology and Environment, BlueScope Steel, *Committee Hansard,* 1 April 2009, p. 36.

30 Mr Tim McAuliffe, Manager, Environment and Sustainable Development, Alcoa of Australia, *Committee Hansard,* 17 February 2009, p. 31.

31 Mr McAuliffe, Alcoa of Australia, *Committee Hansard,* 17 February 2009, p. 31.

Aluminium Council also supported this view stating 'we argue that the decay factor should hold steady until our global competitors face similar imposts.'[33]

5.40 The committee again notes that trade exposed industries in the European Union will continue to be issued free permits until other countries have implemented their own emissions trading schemes (ETS).[34]

5.41 As stated above, some witnesses argued that the government policy provides too much assistance to industry. For example the Australian Conservation Foundation argued that the proposal provides 'excessive compensation to large polluting industries.'[35]

5.42 Mr Tony Westmore, representing the Australian Council of Social Service, expressed a similar view when he stated that the scheme 'promised very significant amounts of money to polluters who are not going to change their behaviour.'[36]

5.43 These views are not shared by the committee.

5.44 Alternately, the Australian Workers Union argued that the 'Measures contained in the package balance the demands of addressing the climate change threat through emissions targets with appropriate support for consumers, industry and the community.'[37]

Specific industries

5.45 The committee received evidence from specific industries addressing the impact of the CPRS on those industries. Following is a summary of the evidence relating to the natural gas and coal mining industries which are major sources of energy, as well as the cement, aluminium and agriculture sectors which are significantly impacted by the price of energy or fuel.

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32 Mrs Robyn Bain, Chief Executive Officer, Cement Industry Federation, *Committee Hansard,* 19 November 2008, p. 100.

33 Mr Michael Ison, Acting Executive Director, Australian Aluminium Council (AAC), *Committee Hansard,* 8 December 2008, p. 34.

34 Leslie Nielson, *The European Emissions Trading System – lessons for Australia*, Parliamentary Library Research Paper, no. 3, 2007-08, 20 August 2008, p. 16.

35 Mr Pascoe, ACF, *Committee Hansard,* 2 February 2009, p. 78.

36 Mr Tony Westmore, Senior Policy Officer (Electricity), Australian Council of Social Service, *Committee Hansard,* 19 February 2009, p. 13.

37 Mr Bradley Crofts, Economist, Australian Workers' Union, *Committee Hansard,* 19 February 2009, pp 44-45.

Natural gas

5.46 Australia has significant gas reserves, 'with 110 years of proven and probable reserves of gas, or probably more likely 200 to 300 years of proven, probable and possible reserves of gas.'[38]

5.47 The committee received a substantial amount of evidence about the environmental importance of the natural gas industry. For example, the Australian Petroleum Production and Exploration Association (APPEA) stated:

> There is a global environmental benefit in encouraging the expansion of the natural gas industry…Natural gas produces between 30 and 70 per cent fewer greenhouse gas emissions compared to coal when used in electricity generation, and, under an efficient carbon pricing regime, could be expected to increase its importance in Australia's domestic energy mix and play a key role in Australia's future export growth.[39]

5.48 Ms Belinda Robinson provided a more detailed explanation of the environmental benefits of Australian LNG exports:

> …for every tonne of carbon dioxide or equivalent that is produced in the production of LNG for export, we save in Japan four tonnes when they use it to generate electricity, and we save in China somewhere between 5.5 and 9.5 tonnes of greenhouse gas emissions when they use it to substitute for coal in electricity generation.[40]

5.49 Ms Nicola Cusworth, Director of Macro-Economic Policy from the Western Australia Department of Treasury and Finance, expressed the view that 'Western Australian gas exports, certainly in the medium term, have the capacity to contribute to lessening global emissions.'[41]

5.50 The Commonwealth Scientific and Industrial Research Organisation (CSIRO) also pointed out the importance of gas as the world moves to a lower carbon economy:

> Natural gas is recognised by many countries as the bridging fuel for the next decade, as there will be a delay before several less technically developed low emission electricity generation plants can be progressively commercialised.[42]

5.51 The CSIRO also provided evidence to the committee that:

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38 Ms Belinda Robinson, Chief Executive, Australian Petroleum Production and Exploration Association (APPEA), *Committee Hansard*, 19 November 2008, p. 24.

39 Ms Robinson, APPEA, *Committee Hansard*, 19 November 2008, p. 24.

40 Ms Robinson, APPEA, *Committee Hansard*, 19 November 2008, p. 26.

41 Ms Nicola Cusworth, Director, Macro-Economic Policy, Department of Treasury and Finance, Western Australia, *Committee Hansard*, 18 February 2009, p. 17.

42 Commonwealth Scientific and Industrial Research Organisation (CSIRO), *Submission 25*, p. 15.

> …the two most mature low-emission technologies are switching to high-efficiency natural gas power stations, because natural gas has a lower carbon content than has coal, and combined cycle gas plants can achieve a higher efficiency.[43]

5.52 Chevron Australia acknowledged that the compensation arrangements in the White Paper are an improvement on those in the Green Paper:

> Certainly the white paper improves the position of the LNG industry significantly from where we have would been under the green paper model, but the white paper would still impose significant additional costs on our LNG projects.[44]

5.53 Ms Robinson from APPEA explained that:

> …if we did have a global price of carbon, which is what everyone is aspiring to…the Australian natural gas industry would do very well, and the gas industry would do very well as, I guess, our key competitor vis-à-vis fuel-coal, with a price associated with it.[45]

5.54 Ms Robinson continued by arguing:

> If that is what we are (1) seeking to achieve as a country, a global approach to carbon pricing, and (2) we want to kick the ball off with having a scheme of our own, it therefore becomes incumbent on that scheme to try to ensure that the sort of outcomes that we could reasonably expect of a global scheme are delivered through the domestic scheme as well.[46]

5.55 A number of witnesses expressed the view that the CPRS will have a significant negative impact on the production of LNG in Australia even though the industry could contribute to the economic prosperity of Australia as well as provide global environmental benefits. For example, Ms Robinson from APPEA explained that the CPRS will reduce future growth of the industry:

> There is no doubt that, unamended, it will impact on future expansion. We know this for a number of reasons. One is because project economics of LNG projects are very marginal and very difficult. As many of you will probably be aware, we still have only two LNG projects in this country, despite having this massive amount of gas—well over 100 years worth of natural gas. We still have only two LNG projects and one being built. That in itself is testament to just how difficult it is to make the economics of these projects stack up.[47]

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43 Mr Paul Graham, Theme Leader, Energy Futures, CSIRO, *Committee Hansard*, 19 November 2008, p. 22.

44 Mr John Torkington, Senior Adviser on Climate Change Policy, Chevron Australia, *Committee Hansard*, 18 February 2009, p. 23.

45 Ms Robinson, APPEA, *Committee Hansard*, 19 November 2008, p. 26.

46 Ms Robinson, APPEA, *Committee Hansard*, 19 November 2008, p. 26.

47 Ms Robinson, APPEA, *Committee Hansard*, 19 November 2008, p. 28.

5.56 Ms Robinson further explained:

> The imposition of costs on Australian production that is not faced by our customers or our competitors ultimately will lead to higher global emissions as energy customers substitute away from Australian gas to coal in the short term and to alternative sources of LNG in the longer term.[48]

5.57 Ms Robinson also told the committee that the proposed CPRS:

> By impacting quite significantly on the expansion prospects of Australia's LNG industry it is denying the world a cleaner source of energy, which would be substituted in the main by coal-fired power generation…any reduction of LNG production in Australia leads to a net increase in global emissions.[49]

5.58 Chevron Australia argued that gas, like other industries, needs a positive investment environment to attract future investment:

> During this period where we are not working in a global framework, Australia is getting ahead of much of the rest of the world. The issue is not just about carbon leakage but maintaining a positive investment climate in Australia for these sorts of projects. Now, if industries do not want to invest in LNG, oil and gas exploration or even car manufacturing and they would prefer to go and invest those funds elsewhere, we do not get a benefit in terms of global greenhouse emissions and Australia loses a lot of economic activity as a consequence. It is broader than just avoiding carbon leakage. There has to be balance: it has to be avoiding carbon leakage, but also maintaining a positive investment climate for Australian industry across the board.[50]

5.59 Chevron Australia continued by explaining that the CPRS:

> …imposes a substantial additional cost on those projects that needs to be borne. It just makes it more difficult to get those projects over the line…It is an additional cost that makes us less competitive with our international competitors and it is also an additional cost that raises the hurdle to actually making an investment decision.[51]

5.60 ExxonMobil Australia also argued that increased costs due to an ETS have the potential to negatively impact on the Australian LNG industry:

> …if the Australian LNG industry bears any cost associated with an ETS above those borne by its competitors, then this has the potential to effectively price Australian LNG out of the growing markets of the Asia-

48 Ms Robinson, APPEA, *Committee Hansard,* 19 November 2008, p. 25.

49 Ms Robinson, APPEA, *Committee Hansard,* 19 November 2008, p. 26.

50 Mr Torkington, Chevron Australia, *Committee Hansard,* 18 February 2009, p. 23.

51 Mr Peter Eggleston, External Affairs Manager, Chevron Australia, *Committee Hansard,* 18 February 2009, p. 24.

> Pacific, which are particularly sensitive to price movements, given the intense level of international competition.[52]

5.61 The analysis undertaken by Dr Brian Fisher also indicated a significant impact on the LNG industry:

> The impact of an ETS on the LNG industry is likely to be significant for two reasons. First, both the production of gas and the processes required to transport LNG are emissions-intensive. In addition, LNG projects are highly capital intensive and changes in costs, such as those imposed by an ETS, are enough to make many projects unviable.
>
> Modelling work by Concept Economics suggests that under plausible ETS scenarios LNG output is likely to be between a third and a half less than it otherwise would be by 2030. This is the case regardless of whether or not the government offers to shield the industry with assistance for a period of time. This is based on a study of trajectories which span the two CPRS scenarios (0, 10 and 20 per cent reductions by 2020), but with more realistic international action and permit trading assumptions.
>
> While 60 per cent permit allocation lessens the competitive impact on the industry, output would still be between 16 and 37 per cent below the reference case level in 2020, and between 39 and 54 per cent down on what it otherwise would be by 2030. Broadly similar results are reported for natural gas.[53]

5.62 When questioned about the impact of the CPRS on the LNG sector, Dr Fisher further explained:

> …if you think about the capital cost associated with building an LNG plant, we are talking about perhaps $10 and often $20 billion. These are not small amounts of money. You need to be able to see a reasonable rate of return before you are going to commit yourself to that sort of investment. The margins on these projects are reasonably fine. So, if you have a situation where there is another cost imposed on you in a particular country that is not imposed elsewhere, then the profitability of that project has to be able to stand that cost. The LNG industry has argued quite accurately that the cost potentially here are quite large and, at the margin, would cause some of these projects to either not be done or to move elsewhere. If they move elsewhere, you still might have reductions in emissions associated with burning LNG rather than coal. But it means that we as Australians lose that industry, lose that employment, lose those construction jobs and so on.[54]

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52 Mr Gordon Keen, ANZ GHG Issue Manager, ExxonMobil Australia, *Committee Hansard,* 8 December 2008, p. 43.

53 Dr Brian Fisher, Concept Economics, *A Peer Review Of The Treasury Modelling Of The Economic Impacts Of Reducing Emissions*, 30 January 2009, pp 29-30.

54 Dr Brian Fisher, *Committee Hansard,* 2 April 2009, p. 60.

5.63 The committee considers that any Australian ETS should be designed in a way that encourages, rather than disadvantages, the expansion of the Australian LNG industry, given its potential to help reduce overall global greenhouse gas emissions while contributing to Australia's economic growth and prosperity.

Coal mining

5.64 As set out in paragraph 5.25 coal mining is excluded from EITE assistance.

> Coal is Australia's largest commodity export, earning over $40 billion in 2008. Australia is also the world's largest exporter of coal, exporting over 250 million tonnes in 2008. The black coal industry employs over 30,000 Australians directly and a further 100,000 indirectly. It provides 57 per cent of our electricity generation. When we add in brown coal, that figure rises to over 80 per cent. Coal therefore underpins the security, reliability and comparatively low cost of Australia's electricity supply. In turn, this supports the competitiveness of Australian industry and provides affordable power for Australian households.
>
> Coal is a large regional employer, contributing to the social fabric of the nation, including through the underwriting of significant rail and port infrastructure as well as social infrastructure in regional and more remote communities. The industry will provide over $4 billion in royalties to state governments in 2008-09 and contribute over $2.5 billion in direct and indirect taxes.[55]

5.65 The committee heard evidence regarding the importance of either reducing emissions from coal or finding alternatives to coal in addressing climate change. For example, the Clean Energy Council argued:

> …if you accept that the risk of dangerous climate change is a serious threat, then you either have to move away from coal-fired power or find a way of reducing its emissions substantially.[56]

5.66 A similar view was expressed by Mr Peter Colley from the Construction, Forestry, Mining and Energy Union (CFMEU) who argued 'There is no long-term future for the coal industry if you cannot transform the industry, both coalmining and coal use, into low emission industries.'[57]

5.67 The Queensland Resources Council argued that the coal industry is not being treated equitably in terms of the assistance to be provided under the CPRS:

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55 Mr Burt Beasley, Acting Executive Director, Australian Coal Association, *Committee Hansard,* 2 February 2009, p. 58.

56 Mr Matthew Warren, Chief Executive Officer, Clean Energy Council, *Committee Hansard,* 17 February 2009, p. 8.

57 Mr Peter Colley, National Research Director, Mining and Energy Division, Construction, Forestry, Mining and Energy Union (CFMEU), *Committee Hansard,* 19 November 2008, p. 116.

> Despite qualifying for the emissions intensive, trade exposed 60 per cent assistance category, coalmining will be unilaterally excluded from receiving such assistance. Such assistance, if it had been available, was conservatively estimated at $2.4 billion over five years. That compares with the $750 million over five years under the two fund arrangements set out for coal in the white paper. These funds are conditional upon abatement activity being undertaken—a unique request compared to the treatment of other sectors—and will provide a much lower effective level of assistance than if 60 per cent free permits were granted. In short, we believe the same rules that apply to the rest of industry should apply to coal.[58]

5.68 A similar argument was put forward by the Australian Coal Association:

> Our fundamental proposition is that coal should be treated fairly in the CPRS. Coal is above the 1,000 tonnes of CO2 per million dollars of revenue threshold, and we therefore qualified. There was a political decision taken to exclude coal from the arrangements for the EITE.
>
> …
>
> Let us look at what we did get under the CPRS. The government did not ignore the coal industry entirely. They allocated, from the revenues that they would obtain from the sale of permits under the CPRS, $500 million over five years to directly assist the 20 or so gaseous mines to meet their permit bill, so to speak, and another $250 million over five years to assist with the implementation of abatement technology at mines on a matching basis by companies. This is a five-year package and EITE is a 10 year package. This was done at an assumed price of $20 a tonne. Of course EITE assistance is actual permits, which fully reflect of course the price of the permit. In addition, the quantum is substantially less than what we would have received under EITE.
>
> …So, out of the $5 billion that the coal industry will pay to the government in permits under the current proposals in the white paper and the legislation, we will receive back just $750 million. That is a very meagre level of assistance compared with that for other emissions intensive, trade exposed industries. You can see in table 10 that LNG is getting 60 per cent; we are getting less than 10 per cent. Cement is getting 83 per cent, with aluminium getting 90 per cent.[59]

5.69 Mr Ralph Hillman, the Executive Director of the Australian Coal Association, refuted the government's argument for the coal industry not receiving EITE assistance as put forward in the White Paper. He acknowledged that 'If you allocated the permits according to the white paper methodology, you would get windfall gains.'[60] However, he further argued:

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58 Mr Roche, Queensland Resources Council, *Committee Hansard*, 20 February 2009, p. 27.

59 Mr Ralph Hillman, Executive Director, Australian Coal Association (ACA), *Committee Hansard,* 2 April 2009, pp 2 and 5.

60 Mr Hillman, ACA, *Committee Hansard,* 2 April 2009, p. 6.

> There is a very straightforward solution to this. It involves tweaking the EITE allocation policy for the coal industry so that instead of allocating the permits on the basis of mine production, you allocate them on the basis of mine emissions…It completely eliminates the windfall gain issue.[61]

5.70 The Queensland Resources Council argued that an additional problem for the coal industry concerning the design of the CPRS is:

> The CPRS proposes to include methane, the gas generated by the fugitive emissions from coalmining, despite strong reservations from countries within the EU scheme and now New Zealand. Further, methane is extremely difficult to measure, with some companies indicating that current measurement methodologies may overstate emissions by 30 times.[62]

5.71 A further issue for the coal mining industry in a carbon constrained economy was explained by the Queensland Resources Council who argued that:

> …abating greenhouse gases within the sector remains costly and difficult. For example, and specifically in relation to coal, it should be noted that, while some abatement options are available at reasonable cost, for methane-rich coal seam gas emissions from underground mines—typically much more gassy than open-cut mines—around half of the methane emissions are contained in mine ventilation air, for which economic abatement options are currently not available.[63]

5.72 The Australian Coal Association argued that 'there will be job losses as a result of the CPRS', 'Mines will be closed', and 'new projects are at risk'.[64]

Cement

5.73 The cement industry employs approximately 1870 people in Australia, the majority of which are engineers with an average salary of approximately $82 000.[65]

5.74 The committee received evidence about the cement industry from Cement Australia which supplies 47 per cent of the Australian market.[66] Cement Australia, like the Cement Industry Federation, highlighted the strategic importance of cement stating 'Cement is a strategically important commodity. The security of supply of cement is critical for social and economic infrastructure'.[67]

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61 Mr Hillman, ACA, *Committee Hansard*, 2 April 2009, p. 6.

62 Mr Roche, Queensland Resources Council, *Committee Hansard*, 20 February 2009, p. 27.

63 Mr Roche, Queensland Resources Council, *Committee Hansard*, 20 February 2009, p. 27.

64 Mr Hillman, ACA, *Committee Hansard*, 2 April 2009, p. 8.

65 Mrs Bain, Cement Industry Federation, *Committee Hansard*, 19 November 2008, p. 107.

66 Mr Ritchie, Cement Australia, *Committee Hansard*, 7 April 2009, p. 2.

67 Mr Ritchie, Cement Australia, *Committee Hansard*, 7 April 2009, p. 2.

5.75 The Cement Industry Federation explained that the cement production process uses a lot of energy, however 'Over the past two decades industry has improved its CO2 output by 20 per cent per tonne of product.'[68] Mrs Robyn Bain of the Cement Industry Federation, explained that cement imported to Australia is more emissions intensive than cement produced and used in Australia:

> …the cement industry is an economically competitive industry in Australia but it is also very efficient in CO2 terms compared to our competitors. The only country that is more efficient in CO2 than Australia is Japan, and they have nuclear. They also have much more biomass than Australia. If you imported cement from Japan via ship and you included the CO2 for the transport of cement into Australia you would find that it is higher than the CO2 emitted by Australia.[69]

5.76 Mrs Bain expressed her fears with respect to carbon leakage and the industry's experience of the European Union ETS:

> …I received a report from the Boston Consulting Group which our counterparts the Cembureau, that is, the Cement Industry Federation for Europe, commissioned to have a look at what happened to cement and carbon leakage. It is quite clear that when you distort your market—when you have a cost on one country that you do not have on another—cement manufacturers will build their plants where they have least cost.
>
> Egypt is doing very nicely in a considerable number of brand new best state-of-the-art plants. Egypt is exporting its clinker to countries based around the coast. Spain is the best example of that. Spain is building grinding plants, it is grinding clinker, and it is sending it into the market. That is carbon leakage. Australia is in exactly the same situation as the countries on the border of Europe, in that it is not landlocked. We have good port facilities, we have silos sitting at those ports and we ship a lot of cement around this nation fairly frequently.
>
> When the assets of those companies have a major disturbance and they need a significant input they close down those assets, they will not invest in that new kiln, and they will simply import the clinker, put it through the grinder here and send it out to the market. If that is what we as a country choose to do that is fine, but it will not assist in climate change.[70]

5.77 Mr Stuart Ritchie of Cement Australia, stated that he believes carbon leakage is a 'real threat',[71] and that one of Australia's major competitors in the cement industry is Indonesia, which is more emissions intensive than Australia.[72]

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68 Mrs Bain, Cement Industry Federation, *Committee Hansard*, 19 November 2008, p. 97.

69 Mrs Bain, Cement Industry Federation, *Committee Hansard*, 19 November 2008, p. 101.

70 Mrs Bain, Cement Industry Federation, *Committee Hansard*, 19 November 2008, pp 103-104.

71 Mr Ritchie, Cement Australia, *Committee Hansard*, 7 April 2009, p. 13.

72 Mr Ritchie, Cement Australia, *Committee Hansard*, 7 April 2009, pp 12-13.

5.78 Cement Australia anticipates that, at a cost of $23 a tonne 'the net cost [of the CPRS] ranges from a $6 million cost per annum at start of the scheme to about $13 million…depending upon which activities are included in that [eligibility for Emissions Intensive Trade Exposed assistance] definition.[73]

5.79 Mr Ritchie stated that Cement Australia had been:

> …working on a feasibility assessment for a new kiln in Gladstone. That is currently on hold, pending the outcome of the CPRS, because that really is a critical cost element for that project.[74]

5.80 This project, if it goes ahead, will involve investment of approximately $750 million, employ about 50 people in an ongoing capacity and hundreds during the construction phase.[75]

5.81 As stated above, Cement Australia does not agree with EITE assistance being assessed on an activity basis. Specifically, Mr Ritchie explained:

> The government proposes to assess cement according to individual activities, such as limestone extraction, clinker manufacture and cement milling. The current draft 'activity' definition proposes that limestone extraction for cement manufacture and the milling of clinker to cement should not be considered as EITE activities. In relation to limestone extraction, owing to the significant mass reduction that occurs during calcination, it is critical for both energy and cost efficiency purposes that limestone extraction operations exist in proximity to the rest of the manufacturing process. There is no integrated clinker manufacturing operation that exists without a nearby limestone extraction operation and, globally, there is no existing trade in the limestone clay blend used as a raw material by our industry. But, more importantly, should clinker manufacturing become uncompetitive under the scheme, Australia will also lose these associated limestone extraction operations and the jobs that go with them. In relation to cement milling operations, the exclusion of this activity will simply result in an increasing trend towards cement imports over clinker imports—again, with a commensurate loss in the abatement opportunities afforded by supplementary cementitious-material substitution, such as by fly ash and slag, and a resultant worsening of global greenhouse gas emissions.
>
> …
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> The government has said that cement would receive a 90 per cent allocation but, with the way they assess that, that 90 per cent is, in fact, a nominal 90 per cent. The principal concern that we have is that that assessment is based on breaking your manufacturing operation up into specific activities and

73 Mr Ritchie, Cement Australia, *Committee Hansard,* 7 April 2009, p. 5.

74 Mr Ritchie, Cement Australia, *Committee Hansard,* 7 April 2009, p. 9.

75 Mr Ritchie, and Mr Matthew Lawson, Commercial Manager, Gladstone Plant, Cement Australia, *Committee Hansard,* 7 April 2009, p. 10.

> then assessing each of those in terms of their trade exposure. We think that has some quite perverse incentives. But, in terms of answering your question, from a real allocation perspective, that means that 90 per cent drops to somewhere about 83 per cent to 84 per cent.[76]

5.82 Dr Fisher argued that the impact of the CPRS on the cement industry is likely to be more severe than indicated by the Treasury modelling:

> The cement industry is highly emissions-intensive (based on both direct and indirect emissions) and increasingly trade-exposed with Australia importing around 18 per cent of domestic consumption. There are few barriers to imports of cement in Australia and well-developed infrastructure exists for the import of cement and clinker. Domestic prices tend to reflect import parity prices.
>
> Major sources of imports include Japan, Indonesia and Taiwan, while developing countries in the Asia-Pacific region that are unlikely to impose a carbon constraint in the medium term have accounted for most of the growth in global capacity in recent years. China is the world's largest exporter approaching 40 per cent of global exports of cement. Industry estimates put excess capacity in the Asia-Pacific at more than 200 Mt (equivalent to more than 20 times Australian consumption). This indicates a serious risk to jobs and investment under an ETS, especially given countries such as China, Indonesia, Thailand, Malaysia and Vietnam are unlikely to embrace emission pricing in the foreseeable future.
>
> In this context, the reported results for cement in the Treasury modelling appear highly implausible. Under the CPRS-5 scenario, cement output is only 6 per cent below the reference scenario at 2050 and more than double 2008 output levels.[77]

Aluminium

5.83 The committee received the majority of evidence regarding the aluminium industry from the peak industry body, the Australian Aluminium Council, Alcoa and from Hydro Aluminium Kurri Kurri. Alumina and aluminium production are energy intensive and therefore sensitive to any increase in the cost of energy. Aluminium is subject to an international price as set by the London Metal Exchange.[78]

5.84 Hydro Aluminium Kurri Kurri argued that 'as a lightweight material, over its lifecycle aluminium yields significant emissions reduction benefits through its application in downstream products.'[79]

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76 Mr Ritchie, Cement Australia, *Committee Hansard,* 7 April 2009, pp 3 and 5.

77 Dr Brian Fisher, Concept Economics, *A Peer Review Of The Treasury Modelling Of The Economic Impacts Of Reducing Emissions*, 30 January 2009, p. 30.

78 Mr Ison, AAC, *Committee Hansard,* 8 December 2008, p. 36.

79 Hydro Aluminium Kurri Kurri, *Submission 78*, [p. 1].

5.85 Mr Michael Ison, from the Australian Aluminium Council, outlined:

> In 2007 the Australian alumina and aluminium industries generated $11.2 billion worth of exports, employed 13,800 direct employees and 3,500 contractors, and stimulated regional economies and communities across Australia. In 2007 Australia's seven alumina refineries produced 19 million tonnes of alumina, of which 80 per cent was exported. Greenhouse emissions associated with alumina production totalled 14.3 million tonnes in carbon dioxide equivalent.[80]

5.86 Mr Ison argued:

> Australia's alumina refineries are amongst the most energy efficient in the world. Since 1990 alumina production has increased 70 per cent, whilst total emissions have only increased by 34 per cent. Emission intensity—that is, tonnes of CO2 per tonne of alumina—has decreased by 21 per cent over this period.
>
> …
>
> We have made significant advances in reducing things like perfluorocarbon emissions since 1995, and that has been done for efficiency reasons—it is better for the plants; they make more money—and also for reducing our carbon footprint. How is that reflected in the CPRS? It might make our job a little bit harder in terms of reducing emissions, because we are already at world's best practice in most cases. [81]

5.87 Hydro Aluminium Kurri Kurri, and the Australian Aluminium Council argued that there are very few commercially viable options to reduce emissions further from Australian aluminium and alumina production.[82]

5.88 The Australian Aluminium Council argued that the Australian aluminium and alumina industries 'will, under global carbon conditions, continue to be competitive growth-oriented industries' however:

> Changing the nature of our inputs in terms of a tax impost is what this represents. The CPRS is nothing more than an introduction of another tax. However you want to describe it, it is an additional cost tax, so it becomes another impost that we have to bear when our competitors do not.[83]

5.89 Mr John Hannagan, the Chairman of RUSAL Australia, argued the importance of maintaining the competitiveness of the industry, particularly given the need for long-term investment:

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80 Mr Ison, AAC, *Committee Hansard,* 8 December 2008, p. 29.

81 Mr Ison, AAC, *Committee Hansard,* 8 December 2008, pp 29 and 37.

82 Hydro Aluminium Kurri Kurri, *Submission 78*, [p. 3]; Mr John Hannagan, Chairman, Rusal Australia, *Committee Hansard,* 8 December 2008, p. 37.

83 Mr Ison, AAC and Mr Hannagan, Rusal Australia, *Committee Hansard,* 8 December 2008, pp 29 and 31.

> I think that it should be designed to maintain competitiveness no matter what the circumstances are. You either have a competitive structure or you do not. You cannot tailor systems to suit one particular set of circumstances…The long-term investment in this industry is what is central to the companies. We are looking at 30-year horizons for investment. We do not look at five, 10, 20 years. We look at 30-year horizons.[84]

5.90 Mr Tim McAuliffe, the Manager, Environment and Sustainable Development at Alcoa outlined the cost impost on the industry as a result of the CPRS:

> …even after the emissions-intensive trade-exposed provisions in the CPRS have been applied, the additional cost imposed on the Australian alumina and aluminium industry would be in excess of $150 million in year 1. The additional cost of production will then grow significantly each year in response to permit erosion and the increase in carbon price. That is why this is such a significant issue to the sustainability of our industry in Australia.[85]

5.91 In response to a question on notice, the Australian Aluminium Council outlined its view of the impact of the CPRS on the aluminium and alumina industries:

> The CPRS will impose an extra cost on alumina refining and aluminium smelting industries – thus helping to move our very competitive operations up the cost curve, whilst competitors in non carbon constrained economies remain unaffected. Given that all of the players in the industry are global companies operating in both carbon constrained and non-carbon constrained economies – it is almost certain that we will see the investment required to sustain existing capital here in Australia gradually diverted away (note that new investment will be out of the question until such action is taken globally).
>
> Capital will instead be most likely directed to operations in countries such as China, Middle East, South Africa and South America – and therefore the overall impact on global emissions is likely to be zero. The number of coal-fired power plants is increasing around the world; China, for example, accounted for two-thirds of the more than 560 coal-fired power units built in 26 nations between 2002 and 2006.
>
> The danger is that the CPRS, implemented outside of any robust global action, will most likely deter companies from investing in sustaining capital, and this investment will be diverted to operations in non carbon constrained countries with zero impact on global greenhouse gas emissions.
>
> Why should Australia give up economic security when there is little likelihood that global emissions will be reduced?[86]

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84 Mr Hannagan, Rusal Australia, *Committee Hansard*, 8 December 2008, p. 34.

85 Mr McAuliffe, Alcoa of Australia, *Committee Hansard*, 17 February 2009, p. 31.

86 Australian Aluminium Council, answer to question on notice, 8 December 2008.

5.92 Both the Australian Aluminium Council and Alcoa argued that there should be no erosion of the EITE allocation until their key competitors were subject to a comparable carbon cost.[87]

5.93 Dr Fisher also argued that the CPRS would have a significant impact of the aluminium industry:

> The risk of carbon leakage and of perverse economic outcomes in the sector can be illustrated most clearly by the Bell Bay smelter in Tasmania, Australia's only predominantly hydro-based facility. Tasmania's electricity price will be linked via Basslink to electricity prices affected by Victoria's marginal brown-coal generators. If (as the Treasury/MMA modelling predicts) these generators are able to pass-through permit prices at more than 100 per cent, there is a real possibility of significant value loss at a 'clean green' facility like Bell Bay. This would be perverse in the extreme given most of China's aluminium production is supplied by coal-fired electricity.
>
> Even with 90 per cent allocation of permits for aluminium and 60 per cent allocation of permits for alumina, it is highly unlikely that the sort of output growth estimated by the Treasury modelling will eventuate.[88]

Agriculture

5.94 There are a number of issues that have led the government to decide to not directly include the agricultural industry in the CPRS at commencement. These include complexity in estimating emissions and the fact that over 100 000 entities exist, many of which produce small amounts of emissions.[89]

5.95 The committee received evidence of the impact of the CPRS on the agricultural industry, both from the introduction of the scheme when agriculture will not be directly included, and if it is covered from 2015.

5.96 The agricultural industry will be affected from the commencement of the scheme, even though it will not be directly covered, as a result of increased costs in fuel and energy. Cropping is particularly exposed due to high fuel use, and dairy has a high exposure to electricity costs.[90]

5.97 The National Farmers' Federation explained:

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87 Mr Ison, AAC, *Committee Hansard,* 8 December 2008, p. 34; Mr McAuliffe, Alcoa of Australia; *Committee Hansard,* 17 February 2009, p. 31.

88 Dr Brian Fisher, Concept Economics, *A Peer Review Of The Treasury Modelling Of The Economic Impacts Of Reducing Emissions*, 30 January 2009, p. 29.

89 Australian Government, *White Paper*, December 2008, p. 6.44.

90 Mr Charles McElhone, Economics Manager, National Farmers Federation (NFF), *Committee Hansard,* 19 November 2008, p. 5.

> Fuel and energy represent about 10 per cent of the direct cost base of the farmers or farm sector, but that escalates to up to 45 per cent of the cost base when you take into account both the direct and indirect costs, such as contracting, fertilisers and freight. It is a significant cost for our sector and a key issue for us right now.
>
> …the Carbon Pollution Reduction Scheme and the impact that that will have on fuel and energy costs, particularly for the farm sector. This is a key issue for us, especially how it will impact on our international competitiveness moving forward. We export 70 per cent of what we produce and we are not proud of the fact that we have a notorious incapacity to pass on additional costs that we see through our supply chain. Additional costs of fuel and energy will be a significant burden on our sector.[91]

5.98 The National Farmers' Federation noted that prior to the inclusion of agriculture in the scheme:

> Even though our cost base will increase and our international competitiveness may be exposed, there is no plan within that EITE framework to provide any assistance along those lines.[92]

5.99 It has been estimated that the impact of the CPRS on the agricultural industry could be significant 'even as an uncovered sector, profit margins could decrease by up to 10 per cent in some sectors.'[93]

5.100 Mr Leon Bradley Chairman of the Western Graingrowers Committee and Climate Change Spokesman for the Pastoralists and Graziers Association of Western Australia, pointed out that 'Farming is a game of fine margins and any increase of costs is going to disadvantage farming and agriculture.'[94]

5.101 Dr Fisher was also of the view that increased fuel and energy prices following the introduction of the CPRS will impact the agricultural sector:

> Just because agriculture is excluded from the scheme in the first five years does not mean that farm costs will not rise. Suppliers of inputs such as electricity and diesel will have to purchase permits and a large share of those costs will be passed on. In the cropping sector, almost 40 per cent of input costs come from emission-intensive inputs, while in livestock the

91 Mr McElhone, NFF, *Committee Hansard*, 19 November 2008, p. 2.

92 Mr McElhone, NFF, *Committee Hansard*, 19 November 2008, p. 3.

93 Mr McElhone, NFF, *Committee Hansard*, 19 November 2008, p. 4.

94 Mr Leon Bradley, Chairman, Western Graingrowers Committee and Climate Change Spokesman, Pastoralists and Graziers Association of Western Australia, *Committee Hansard*, 18 February 2009, p. 40.

> share is about 17 per cent. Competitors in key developing countries will not be subject to such cost increases.[95]

5.102 It is anticipated that there would be a significant impact on the agricultural sector if it is included in the CPRS in the future. The 'agricultural sector is very emissions intensive. In particular livestock-based industries…are very emissions intensive…in the short term facing a carbon price for agricultural producers will be very expensive.'[96]

5.103 The Australian Farm Institute argued that the livestock industry would be particularly hard hit if included in the CPRS:

> If grazing enterprises had to pay for their estimated emissions on the basis of how they are accounted now, I find it very hard to see how grazing could be viable.[97]

5.104 Mr David Pearce from the Centre for International Economics argued that there is a significant risk of carbon leakage if Australia is the only country to impose a carbon cost on agriculture:

> In the circumstance where only Australia imposes, for example, a carbon price on agricultural emissions, and nobody else does, there is a big loss of competitiveness for our domestic industry and a big impetus to reduce exports and increase imports.[98]

5.105 The coverage of agriculture is a particular issue because:

> …in terms of the emissions profile of Australian agriculture and Australian livestock production that, as per unit of production, we are a lower-intensity emitter than are the majority of our OECD competitors. There is the real risk that if we shut down or limit our opportunities here with our domestic industry, then the global consumer will purchase their livestock needs from elsewhere.[99]

The need for a level playing field – a global agreement

5.106 The committee heard evidence from a number of witnesses stating that without a global agreement on reducing greenhouse gas emissions, the competitiveness of Australian industry will be significantly compromised, and carbon leakage will be a very real threat.

5.107 The Minerals Council of Australia articulated the argument succinctly:

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95 Dr Brian Fisher, Concept Economics, *A Peer Review Of The Treasury Modelling Of The Economic Impacts Of Reducing Emissions*, 30 January 2009, p. 30.

96 Mr Pearce, CIE, *Committee Hansard,* 2 April 2009, p. 30.

97 Mr Keogh, Australian Farm Institute, *Committee Hansard,* 19 February 2009, p. 38.

98 Mr Pearce, CIE, *Committee Hansard,* 2 April 2009, p. 31.

99 Mr McElhone, NFF, *Committee Hansard*, 19 November 2008, p. 7

> The Australian resource industry can compete very well in a carbon constrained world. It cannot compete with the rest of the world in a carbon constrained Australia that is out of touch with the rest of the world. That is the issue.[100]

5.108 A number of industries noted that if a global agreement on emissions reduction was put in place, with a global carbon price, all issues regarding carbon leakage and assistance to industry would be resolved. As Ms Robinson of APPEA stated:

> If the world agrees to a carbon price, there is no issue. The issues for us, and probably most industry, dissolve because there will become that level playing field…[101]

5.109 Caltex Australia echoed this argument, stating:

> We are not asking for special treatment against imports, just a level playing field. Once competitors have the same carbon costs, we are willing to bear the same costs and emission trading should work as intended to help reduce emissions.[102]

5.110 The CFMEU suggested that to address issues surrounding carbon leakage, global sectoral agreements could be put in place, noting that they would be easier to achieve than multilateral agreements.[103]

Conclusion

5.111 In conclusion, the majority of evidence received by the committee on the issue of the international competitiveness of Australian industry and carbon leakage can be summed up with the following quote: 'it would be a perverse outcome if the implementation of the CPRS in Australia led to a result which added to global emissions.'[104]

Committee comment

5.112 The committee considers that in the absence of an appropriate global framework the CPRS as currently designed will not sufficiently mitigate the risk of carbon leakage.

5.113 The committee is of the view that:

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100 Mr Coates, MCA, *Committee Hansard*, 8 December 2008, p. 9.

101 Ms Robinson, APPEA, *Committee Hansard*, 19 November 2008, p. 29.

102 Mr Frank Topham, Manager, Government Affairs and Media, Caltex Australia, *Committee Hansard*, 20 February 2009, p. 50.

103 Mr Colley, CFMEU, *Committee Hansard*, 19 November 2008, p. 121.

104 Ms Cusworth, Department of Treasury and Finance, Western Australia, *Committee Hansard*, 18 February 2009, p. 17.

- EITE assistance should be expanded so that it is based on production rather than on an activity basis;
- EITE assistance should be maintained at commencement levels until major competitors face comparable carbon costs;
- The coal mining industry should not be excluded from EITE assistance;
- Appropriate recognition should be given to those industries that contribute to a global reduction in emissions, such as LNG.

Recommendation 9

5.114 The committee recommends that the CPRS EITE assistance measures:

(a) be reviewed to consider providing assistance on a production basis;

(b) be maintained at commencement levels until Australia's major competitors face comparable carbon costs; and

(c) not exclude the coal mining industry.

Recommendation 10

5.115 The committee recommends that recognition should be given to those industries that contribute to a global reduction in emissions, such as LNG.