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Garnaut Climate Change Review
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Dear Sir / Madam

Boral's submission to Professor Garnaut's Emissions Trading Scheme Discussion Paper

Boral Limited is Australia's largest building and construction materials supplier, employing over 10,000 Australians across more than 500 operating sites. In 2006/07 Boral reported \$4.9 billion of sales revenue and a profit after tax of \$298 million. Being a major manufacturer of emissions intensive products such as cement, lime and fired clay products, Boral generates over three million tonnes of greenhouse gas emissions each year in Australia.

Boral is a signatory to the Greenhouse Challenge Plus program and is registered under the Energy Efficiencies Opportunities program. Boral is also a participant in the NSW Greenhouse Gas Abatement Scheme, generates efficiency plans in compliance with the NSW Department of Environment & Climate Change and Victorian EPA schemes, and is considered an Australian industry leader under the international Carbon Disclosure Project.

Boral's Annual Sustainability Report discloses total and divisional levels of energy consumption and greenhouse gas emissions. Approximately two-thirds of Boral's three million tonnes of greenhouse emissions generated in Australia come from our cement operations which have reduced CO_{2-e} emissions per tonne of cementitious material sold by around 15% since 1990.

The issue of emissions trading as well as broader policies and strategies to reduce greenhouse gases are therefore of direct relevance to Boral.

Boral supports the move towards a lower CO_{2-e} emission global economy to address the climate change challenge, with a significant and cost effective reduction in greenhouse gas emissions requiring a global response. As such, Australia should adopt relevant policies and strategies that contribute to a global solution and, more specifically, contribute to the development of a global market response.

Approaches within Australia should recognise the importance of technology and innovation, the need to achieve greater energy efficiency in industry and domestically and the role of market mechanisms. An Australian Emissions Trading Scheme (“ETS”) would deliver a carbon price signal which is a desirable component of a comprehensive Australian policy response, if it reduces Australian emissions and does not lead to relocation of Australian industry and emissions to neighbouring countries with lower carbon cost impacts. In designing and introducing an Australian ETS, unintended economic impacts and market distortions must be addressed.

1. Coverage

Initiation of an ETS will have an insignificant impact on greenhouse gas reduction unless it is part of a more integrated global response. Thus, it is essential that any Australian ETS be capable of alignment with emerging or existing international emission trading schemes. It is also essential that:

- there be only one Australian ETS which is part of a comprehensive Australian response to the greenhouse issue and therefore absorbs any current state-based schemes;
- the number of sectors included in the scheme is maximised with inclusion of forestry and agriculture as soon as practicable;
- an ETS is long term initiative (at least 30 years) to increase emission reduction certainty and investment certainty;
- long term emission reduction targets and pathways be established in combination with annual reduction targets to provide incentive for emissions reduction;
- an ETS includes as many greenhouse gases as possible;
- an ETS leads to reduced emissions whilst maintaining Australia’s competitiveness and demonstrating leadership on this issue; and
- an ETS is part of a comprehensive suite of policy instruments driving emissions reduction.

Whilst maximising coverage is important to spread the burden of emissions abatement and to help minimise the costs, considerable care needs to be taken around the phasing of the inclusion of some sectors that have specific measurement and accounting issues. Including these sectors prior to the resolution of these issues could result in market distortions. Two such sectors directly impacting Boral are the forestry/timber products sector and the waste/landfill sector.

1.1 Forestry and Timber Products

In the case of forestry and timber products, it is not immediately transparent how long carbon is sequestered in timber products, which has led to two differing accounting approaches. The Kyoto standard assumes that 100% of the carbon is released at the point of harvest. The UNFCCC standard takes an alternative approach and assumes that a proportion of the carbon is sequestered in timber products. Currently there is an international groundswell of opinion backed by scientific research in favour of the UNFCCC accounting convention rather than the Kyoto convention. Of the currently available accounting standards, Boral supports the UNFCCC.

Carbon accounting should seek as far as possible to reflect environmental reality and to minimise market distortions resulting from an Australian ETS. In the specific cases of forestry/timber products, this sector should only become liable under the ETS once a consensus around a fair and workable measurement methodology has been achieved. It is sensible for this to occur quickly because of the sequestration opportunities that forestry presents.

1.2 Waste

In the waste industry, there is also a vigorous debate continuing regarding how the emissions from landfill should be determined. Obtaining industry consensus on a common and workable standard would appear to be a prerequisite to a fair and workable inclusion of this sector in a national ETS.

Boral operates a small but growing business in the waste sector. Boral Waste Solutions owns and operates one of the largest landfills in Australia (Boral Western Landfill at Deer Park in Victoria) which currently accepts around 400-500k tonnes of waste per annum. Boral has installed two biogas driven electricity generation units at the site which have significantly reduced emissions and which generate NSW Greenhouse Abatement Certificates (NGACs) under the NSW Greenhouse Gas Abatement Scheme (GGAS).

The waste sector is a significant emitter, largely because landfill waste emits methane which has a substantially higher greenhouse impact than CO₂. As Boral and others have demonstrated, there are opportunities to abate these emissions, in particular by using landfill gas for electricity generation or by using technological solutions to divert waste away from landfill. As a result, there are potential environmental benefits that could result from including the waste sector in the ETS.

Placing a price on carbon seems likely to transform the waste industry and significantly reduce the level of waste going to landfill. This is in part because the carbon price signal can be expected to be large compared to the gate fees currently charged by landfill operators. Whilst it is important to expedite the inclusion of all sectors into an ETS, the waste industry will need lead time and certainty to make this step-change transition in a way that will not disrupt the public service that it provides. A reasonable timeframe is needed to make the investment in required infrastructure.

The landfill business is different from all other sectors in that the business transacted today will generate emissions for decades to come. It will be essential for landfill operators to fix their future carbon liabilities at the date of receiving waste in order to pass carbon costs through. The Garnaut discussion paper proposes unlimited banking of permits which would address this need. Alternatively, if permits are to be date stamped the Government should allow for the auction or issuance of some long dated permits.

If waste is to be included as a liable party in an Australian ETS there are two key issues that must be addressed.

The first issue is the lack of consensus regarding how emissions from landfill should be estimated. Whilst the National Greenhouse Energy Reporting System (NGERS) Discussion Paper¹ proposes to adopt the Intergovernmental Panel on Climate Change (IPCC) methodology, it is by no means clear that this standard is appropriate, accurate or fair in an Australian context. The disparity between models such as LandGEM, GasSim and the IPCC models is significant and can vary by a factor of up to 20 times calculated emissions.

Until there is at least some alignment amongst industry participants and regulators around how emissions from waste landfill operations should be calculated, it would seem impractical to include the waste sector in the emissions trading scheme.

¹ National Greenhouse and Energy Reporting System (NGERS) Regulations Policy Paper, February 2008, Australian Government Department of Climate Change, <http://www.greenhouse.gov.au/reporting/regulations/pubs/ngerregs-policypaper.pdf>

The second issue is that at the start of the scheme existing landfill operators will already have waste in the ground and therefore will be faced with a new liability for future emissions from decomposition of that waste. It will be difficult, if not impossible, to recoup the cost of this liability from new customers who have no relationship to the waste previously received by the landfill operator. For many operators it can be estimated that such liabilities could easily run to tens of millions of dollars.

The Federal Government should consider ways to ensure that the waste / landfill sector is not forced to bear new liabilities for historic actions which were influenced by a different regulatory environment. A once-off issue of permits without date stamps would appear to be a solution in this regard.

1.3 Liable parties

One further issue which impacts both the waste and forestry sectors is ensuring that all enterprises within a sector should be liable for their emissions and contribute to emissions reductions irrespective of their ownership. In the waste sector, local council landfills compete with private sector firms such as Boral. In the forestry sector, state owned forests compete with privately owned plantations. So far the public debate appears to have been silent on whether public sector enterprises such as landfill should be included in an Australian ETS. If public sector enterprises were not included it would introduce a major competitive distortion in these sectors.

2. Trade Exposed Emissions Intensive Industries (“TEEIs”)

An important principle underlying any transition to an ETS ahead of Australia’s key trading partners is to maintain Australia’s international competitiveness and prevent carbon leakage abroad. This necessitates some interim arrangements for TEEIs. There must be suitable mechanisms in place to ensure imported materials bear the same ‘cost of carbon’ as locally manufactured materials, so that Australia’s industry is not forced offshore together with its emissions. Similarly, Australian exporting industries should not be placed at a disadvantage. Arrangements for TEEIs must continue until Australia’s trading partners have adopted policy measures which ensure that firms competing with Australian industry bear similar costs of carbon. Transitional arrangements must be structured in a way that does not discourage growth investments and hence precipitate a gradual shift in Australian industries offshore.

The Task Group on Emissions Trading (previously the PMTG) took the view that the cement industry should be classified as a TEEI. Boral’s subsidiary, Blue Circle Southern Cement, manufactures cement in NSW, Victoria and Queensland and competes with other domestic producers and with cement imports from Asia. Blue Circle Southern Cement currently generates around two million tonnes of CO_{2-e} per annum.

The cement industry in Australia is a clearly defined case of a TEEI. Australia produces about nine million tonnes of cement which compares to around 1.6 billion tonnes of cement capacity in Asia, including China and India. The Australian cement industry has been pursuing emissions abatement for some time and is relatively greenhouse gas efficient compared to its overseas competitors.

The National Emissions Trading Taskforce (NETT) initiated by the state governments proposed four eligibility criteria for TEEIs: emissions intensity greater than 1,200 tonne CO_{2-e} per million dollars of revenue; exposure to costs increases; trade exposure; and competition from countries with no emissions constraints. In Boral's view the cement industry meets all four criteria. In particular, cement would generate in excess of 4,500 tonne CO_{2-e} per million dollars of revenue. Imports of cement and cement clinker into Australia have together represented around 15% of total demand, meaning that the domestic industry is competing directly with imports. It can be shown that domestic cement pricing has had a clear relationship with import parity pricing over time.

2.1 The mechanism for TEEI protection

There are various methods which could be employed to give TEEIs the required transitional arrangements. As well as the method being practicable, a key objective should be that the method does not unfairly distort the market place.

Garnaut supports the idea of compensating TEEIs for increased costs that cannot be passed through to customers over and above a prescribed rate of efficiency improvement.

If the Government chooses to follow the Garnaut recommendations a number of points are worthy of discussion. The Garnaut paper suggests that the initial cap should be set at a level of emissions that equates to the difference between the actual product selling price and the theoretical price that should be achieved if all countries operated a similar scheme. This level of compensation would reduce over time by an annual increment reflecting improving efficiency.

Such a mechanism would require the regulator to make an assumption around the operation of the industry's price setting mechanism. It is not clear how Garnaut envisages this would be approached. In the simplest analysis the price increment might be calculated as the global emissions intensity multiplied by the average price of carbon in the relevant period. A more accurate but more complex method would require the estimate of emissions efficiency of importing firms that by definition must be the marginal price setters. Greater clarity around this mechanism would obviously be required. More transparent methodologies should be considered, such as issuing permits equivalent to some level related to best practice or best available technology.

Whilst the mechanism of reducing compensation payments annually by an efficiency factor is fair in principle, it must be noted that overseas firms are likely to improve efficiency at different rates. For Australia this is particularly relevant as some key trading partners in Asia are unlikely to bear a cost of carbon for many years, whilst firms in Europe are likely to drive up their efficiencies. As a result, it will be important that the AETS regulator takes account of the improvements in efficiency amongst Australia's trading partners rather than global averages so that Australian firms do not become disadvantaged over time.

One further observation is that some emissions intensive sectors may not be trade exposed at the outset of the scheme but may become so over time as conditions change, for instance, as the price of carbon rises and forces domestic prices up towards parity with imports. It would seem reasonable for the ETS to allow such sectors to apply for TEEI status as and when this exposure becomes apparent.

The mechanism for compensating TEEIs needs to be administratively simple and minimise the scope for subjectivity, gaming and negotiation. The ETS should make provision for firms which become TEEIs due to changing circumstances over time. Whilst the Garnaut concept of increasing efficiency over time for TEEIs is fair, the key to whether this is workable will lie in the rate of change it drives and the impact on Australia's international competitiveness.

The Garnaut paper suggests that compensation for TEEIs should be given as close as possible to contemporaneously with the loss of revenue which was the basis of assessment and suggests that it is largely immaterial whether the compensation is given as cash or free permits. It would appear that once a firm has passed the qualification criteria to be classed as TEEI every effort should be made to ensure that the firm is not negatively impacted by the scheme. It would seem logical therefore that whatever the detailed arrangements for compensating TEEIs, it is done in a way that avoids TEEIs taking on additional financial indebtedness or financial risk, even if only temporarily.

3. Incentivising early action

It is important that Australia encourages firms to abate emissions as soon as practically possible. If, as seems likely, obligations under the ETS do not commence until July 2010, this means that there is a period of more than two years during which progress with abatement is at risk.

For firms which are not in TEEI sectors, the lack of a 'credit for early action' scheme reduces but does not eliminate or reverse the incentive to act early. These firms will still benefit if they have lowered their emissions by the time a national ETS commences.

For firms which are in TEEI sectors the issue is more complex. If these firms are compensated for the costs of the ETS by reference to their historic emissions (i.e. "grandfathering"), this could give them a perverse incentive not to abate until they had entered the scheme. The National Emissions Trading Scheme ("NETS") suggested that grandfathering would be used to set the cap for an initial period of five years. Garnaut's proposal is that these firms will receive compensation for scheme costs in the first year calculated by reference to a theoretical price with or without a global ETS. In this way the compensation or cap for TEEIs is linked to a notion of efficiency measured against international benchmarks and, as such, Australian TEEI firms are incentivised to abate ahead of the scheme start. **Boral's view is that there should not be a penalty for early action and the scheme design should motivate early abatement initiatives.**

In addition the Australian ETS should allow firms that have generated unused credits under other schemes, such as the NSW Greenhouse Gas Abatement Scheme (GGAS), to use these credits in the ETS so that their value is not lost.

4. Compliance costs and point of obligation

Boral is already very concerned with the costs associated with the numerous state-based compliance programs around Australia. Careful consideration must be given to ensuring low scheme overheads and a consistent, streamlined national approach to measurement and verification of data collected.

Boral supports Garnaut's view that emissions should be measured at the source unless transaction costs are significantly lower by choosing another point. Boral also supports the view that for direct emitting sites below a *deminimis* threshold, the point of obligation should move upstream. Whilst the Garnaut Discussion Paper has not referred to a *deminimis* limit of direct emissions from a site before the site is considered to be the point of obligation, previous discussion papers² have set such a limit at 25,000 tonnes of direct CO_{2-e} emissions.

Of course, any *deminimis* limit needs to work in such a way that firms above and below the limit face largely the same economic impact from the scheme. Placing obligations on upstream fuel suppliers for the imputed downstream emissions will create such a condition, as long as facilities above the *deminimis* limit do not suffer such costs in addition to their direct liability to acquit permits which would clearly be double counting.

At 2006/07 levels, direct emissions from seven Boral sites would exceed 25,000 tonnes of CO_{2-e} per annum (that is, excluding emissions attributed to supplied electricity) with another three likely to exceed that criteria in the next few years given expected market growth. Across all of its Australian sites, Boral directly purchases electricity resulting in around 680,000 tonnes of CO_{2-e} emission per annum. For large emitters like Boral it is possible that compliance costs could be minimised if they could opt to acquit liability for all of their scope one and two emissions directly via the purchase of permits, rather than facing charges from upstream suppliers of power and fuel for imputed emissions.

Boral supports the concept of “simplicity” for an Australian ETS to minimise costs and the concept of a *deminimis* limit for point of obligation. It is important, however, for large emitters to be able to minimise their own compliance costs and manage their own risk profile and consequently Boral supports the concept of giving large emitters the flexibility to opt in some or all of their facilities that may fall below the *deminimis* limit.

5. Permit issuance, forward price signals and transition to a low emissions economy

Boral supports full auctioning of permits rather than a proportion of permits being allocated for free, other than as part of transitional arrangements for TEEIs or other specific exceptions. Full auctioning avoids the potential for windfall gains in some sectors which resulted from the introduction of the European ETS. It also minimises the administrative burden and incentives for gaming that could result from the need to allocate free permits between sectors and firms.

However, auctioning all permits from the start of the scheme raises the potential for large step increases in costs in some sectors which cannot be passed through to customers immediately. A nationwide emissions target that is not overly aggressive at the start of the scheme, together with clearly defined trajectories known well in advance, will help smooth volatility and ensure orderly transition to a low emissions economy. Inter-temporal mechanisms (i.e. banking and borrowing) and international linking should help avoid volatility and provide a ‘safety valve’ to avoid excessive prices. The Garnaut framework appears to embrace many of these concepts. Proving a price cap for an interim period until the ETS is well bedded down might also be considered.

² The National Emission Trading Taskforce (NETT) Discussion Paper August 2006 and the Task Group on Emissions Trading Discussion Paper, March 2007

The introduction of the Australian ETS, if effective, seems likely to cause significant shifts in the way Australia consumes fuel and generates power. These shifts may require a significant investment and re-configuration of the associated infrastructure, in particular the power distribution and gas pipeline network. It is important that this process does not result in market disruptions. Government policy should be such so as to minimise any disruptions and facilitate a smooth transformation to a low emissions economy. The gateways concept and the multiple emissions trajectories outlined by Garnaut are useful in this respect as they give the economy forward visibility of the changes required. There may, however, be other policies which are required to account for market failures in this regard.

6. Industry submissions

A number of the above issues will be expanded upon, on an industry specific basis, in submissions from various associations such as the *Cement Industry Federation*. Submissions made by our industry associations will also raise more product specific issues and point to the fact that an emissions trading scheme is only one component of an effective climate change strategy. That is, there is a need for complementary policy measures to support an ETS to effectively transition to a low emissions economy. Boral supports this view.

For example, through the *Think Brick Australia* submission, Boral supports the view that a fair and scientifically sound system of life-cycle emissions footprint measurement must be developed and adopted for all building materials. This will assist consumers in selecting products to construct buildings with higher energy efficiency. This point is detailed further in the *Think Brick Australia* submission.

Boral executives are available for direct discussions with members of the Garnaut Climate Change Review team on any of the matters raised in this paper. Please contact Dr Richard Strauch, General Manager Environmental Services (03 9508 7303), to co-ordinate such discussions.

Yours sincerely



Rod Pearse
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Boral Limited