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The Secretary
Senate Select Committee on Climate Policy
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Australian Aluminium Council submission to Senate Select Committee on Climate Policy

The Australian Aluminium Council (AAC) welcomes the opportunity to make a submission to the Senate Select Committee on Climate Policy. Climate change, and Government policy in response, is a complex and important area with significant environmental and economic consequences.

The Australian Aluminium Council is not in a position to add to the debate on the extent of climate change and its causes. This is an area where scientific knowledge should be respected and resources allocated to better understand the issue. Government climate policy should be made in response to the available information and in the interests of improving the environmental, social and economic outcomes.

Our submission concentrates on the impact of climate policy on the bauxite mining, alumina refining and aluminium smelting sectors. Bauxite, alumina and aluminium are globally traded commodities with competitive, transparent, international markets and prices, and no ability for producers to pass on cost increases.

Climate change is a long term, global challenge. Australia is an open economy. Our living standards are closely related to the benefits of trade and our competitive advantages. The policy response to climate change will therefore have long term impacts, not just on the environmental outcome, but on Australia's trade, our competitive advantages and our living standards.

The position of the Australian Aluminium Council on climate policy is that it should not create distortions in international trade or competitiveness. Our view on any proposed climate policy, and the changes we are likely to seek, will be almost solely related to a single feature – the extent of costs imposed on Australian producers that will not be imposed on our competitors.

It is virtually incontestable that imposing a cost on Australian producers that is not imposed elsewhere will reduce the competitiveness of existing and potential Australian operations. The relevant questions are: to what extent, with what consequences, and how will it occur?

The potential for carbon leakage has been challenged by various claims including: it only reduces profitability; it would be impractical to shift current operations overseas; other factors influence the location of investments; it is rent-seeking behaviour; and lost investment will be replaced by investment in other sectors. These claims fail to grasp the manner by which carbon leakage will occur.

Energy costs are a significant component of the cost of producing alumina and aluminium. The availability and price of energy in Australia is a significant reason that we are currently a global force in these industries.

A carbon cost in Australia, and not on our competitors, will increase the costs of production for current facilities and the potential costs of production of new facilities. Existing facilities will not literally be “moved” overseas, but the likelihood of any new, or sustaining, investment in Australian facilities will be reduced and the likelihood that that investment will be made overseas increased. This will reduce the cost and improve the quality of overseas production and increase the relative cost of Australian production. . This will then lead to carbon and jobs leakage as Australian facilities are closed or gradually ‘run down’ through lack of sustaining capital investment.

Today, Australia’s alumina refineries and aluminium smelters are amongst the lowest cost producers in the world, largely as a result of regular investment in capital to keep the operations competitive. At some point, the investment foregone as a result of climate-related (CPRS and RET) costs will reach a point where the prudent business decision will be to close the Australian operation and continue operation of, and investment in, the relatively cheaper overseas operations. This is a real transfer of production capacity, investment and jobs overseas and occurs because the imposition of the carbon cost will reduce investment in Australian operations, making them comparatively more expensive.

These are the mechanisms by which carbon leakage would occur in the aluminium industry. The mechanisms are not as simple as an increase in costs leading to “shifting the operation overseas” but the impact is inevitable, predictable and commercially rational over a timeframe much shorter than the environmental objective being addressed or the duration of the policy.

The aluminium industry is by no means the only industry in Australia that relies on our energy supplies as a crucial competitive advantage. Hence this impact is likely to be replicated across a number of other industries. It is not clear what competitive advantage will be the basis of the industries that are assumed to replace them.

The position of the Australian Aluminium Council on the Carbon Pollution Reduction Scheme, for example – where we are requesting a small number of fundamental changes - flows from a simple combination of uncontroversial facts and logical consequences related to the international competitiveness of Australian industry, and a desire to avoid the loss of new and sustaining investment.

The Australian Aluminium Council believes the following adjustments are required to ensure no competitive distortion occurs as a consequence of CPRS implementation

1. 90% permit allocation for all emissions-intensive activities within traded industries.
2. the rate of permit decay to be linked to the extent of action being taken in competing countries. If no action is taken in competing countries then the permit allocation should not decay.
3. a limited extension of the CPRS large electricity user clause to some new electricity contracts for large users.
4. the RET scheme should include elements that prevent extra costs being imposed on the most electricity-intensive activities operating in globally traded markets. In the case of the aluminium industry this would require exemption from the RET obligation for at least aluminium smelting.

Other market-based models of climate policy, such as those that impose a carbon cost on consumption (not production) - the proposed Carmody model or a carbon tax - address the key concern of trade exposed industries by imposing the costs equally on local and overseas suppliers to Australian markets, and by not imposing a carbon cost on exports to overseas markets.

However, it should be noted that every climate policy will have challenges in the detail of implementation. While trade exposure issues may be avoided through the implementation of a carbon tax or a consumption-based emissions trading scheme, this may also be achieved with a small number of fundamental changes to the CPRS.

Non-market-based models of climate policy such as specific Government intervention and prescriptive regulation are unlikely to be effective and/or efficient as such approaches rely on the Government currently being in sole possession of all required information and solutions – a situation that, without being critical of this Government, is clearly not the case.

Attached is a summary of these points on which the Australian Aluminium Council would be pleased to elaborate.

Yours sincerely



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THE ALUMINIUM COUNCIL POSITION:

Even in a carbon-constrained future, increasing quantities of aluminium will be used globally as, for example, living standards improve, transport systems become more efficient and innovative lightweight construction systems are favoured.

Australia is a demonstrated leader in the production of bauxite, alumina and aluminium and would expect to see continued expansion and investment in these sectors based on our competitive advantages of resource availability, abundant energy sources, skilled labour force, available land, and stable investment conditions.

Australia is the key bauxite and alumina producer globally, accounting for some 20% of the global alumina market. Some 80% of the bauxite, alumina and aluminium produced in Australia is exported for further use in global markets and economies. The proposed CPRS imposes costs on Australian producers supplying domestic and export markets but does not increase the costs of other producers supplying those markets from competing countries.

Australian producers - currently amongst the lowest cost producers in the world - will be forced up the global cost curve by a carbon cost – making them less profitable, less productive, and less likely to attract investment - leading to less employment. Sustaining capital needed to maintain international competitiveness of plants will also come under significant pressure with some opportunities for improved efficiencies and retention of competitive advantage lost to low-cost imports.

However, an Australian carbon cost will *not* lead to a change in global or domestic price for aluminium or alumina; no change in global or domestic demand; no change in global or domestic consumption; and no change in global production.

There will, however, be less production from Australia, and therefore less investment and employment in Australia. There will also be fewer emissions from Australia. However the emissions (and the jobs and production) will simply be shifted elsewhere in the world, not 'saved'.

An Australian carbon reduction policy should be designed to prevent international distortions in production, particularly in those industries where Australia has a competitive advantage. Australian producers should not be burdened with significant costs not borne by competing producers.

The key feature of the scheme, from the perspective of Australian industry, is to minimise those costs being borne *solely* by Australian producers – either by:

- imposing the costs in a way that equally impacts all producers supplying the market; or
- offsetting increased costs in Australia if they can't be imposed on other producers (this is a transitional measure and would only need to be in place while similar costs are not imposed elsewhere).

CURRENT ALUMINIUM INDUSTRY CONTEXT

The development of the climate policy (e.g., Carbon Pollution Reduction Scheme and the expanded Renewable Energy Target) is occurring at the same time as global demand and prices are falling for many materials, including aluminium.

Both alumina refining and aluminium smelting are already subject to significant cost pressures – with the price of aluminium at US\$1400/tonne (down from \$3300/tonne less than a year ago), the overwhelming majority of the world's aluminium smelters (and alumina refineries) are operating at a loss. This will bring about significant structural changes in global capacity and employment with high cost operations being closed permanently, many mid-cost operations wound back or temporarily shut and only the most competitive operations and new facilities having a confident future.

Two major global aluminium companies with significant operations in Australia have recently announced extensive job reductions worldwide. This is in response to the recent dramatic fall in aluminium demand and prices and little prospect of an imminent return to viable long term prices for much of the global industry. Australian operations are under considerable pressure although there have been only minor curtailments to this stage, thanks largely to the low cost nature of the Australian alumina and aluminium operations. The imposition of an 'unshielded' carbon cost or renewable energy liability would make it more likely that Australian operations will be fully exposed to production curtailment and job losses.

INCREASED COSTS UNDER CPRS

Despite the proposed treatment of emissions-intensive and trade-exposed industries in the Carbon Pollution Reduction Scheme; bauxite mining, alumina refining and aluminium smelting will suffer significant increases in costs not borne by competing producers in other countries.

Rather than being the result of a single aspect of the CPRS, the increased costs result from a range of features (or lack thereof) in the scheme. These features include:

The need to purchase a minimum of 10% of required permits (industry average) to meet initial obligations in the scheme.

Under the CPRS, even the most emissions-intensive, trade-exposed activity will only receive an initial permit allocation of 90% of the industry average emissions for that activity. For activities that are highly emissions intensive, such as aluminium smelting, the obligation to purchase the remaining 10% of permits is a significant cost relative to the value of production and even more significant in comparison to profitability.

The need to purchase a greater quantity of permits for activities that do not meet the threshold for 90% permit allocation, or receive no allocation of permits at all.

Activities that do not meet the highest threshold of emissions-intensity will require the purchase of further permits, perhaps 40% of the amount required, or 100% if it fails to meet all thresholds. This is a more significant factor than first apparent as there are elements of all industrial processes, such as alumina refining and aluminium smelting, that are not part of the 'defined activity' and therefore require the purchase of permits. This includes transport of raw materials and final product, materials handling prior to and after the activity, treatment of residues and waste and potentially other factors. The industry cannot operate without

these other activities (and the emissions associated with them) yet they are not captured (or offset through permit allocation) under the activity definition that receives an allocation of permits.

Increased costs in future years resulting from decay in permit allocation levels – and rising permit prices.

The CPRS proposes that even where an activity receives a permit allocation under the emissions-intensive, trade-exposed treatment, the allocation of permits will decay by 1.3% per annum. The aluminium industry will therefore have to purchase an ever-increasing quantity of permits as the scheme proceeds. This increasing quantity of permits required will combine with the expected increase in the permit price to lead to significantly escalating costs in the initial years of the scheme. This will have a chilling effect on investment in new facilities, expansion of existing facilities and sustaining investment to maintain the competitiveness of current facilities.

Additional costs that will be borne by companies whose emissions are higher than the industry average as a result of specific circumstances.

Permit allocation under the emissions-intensive, trade-exposed treatment is to be based on industry averages for all activities. Each individual processor may face higher costs if their operation has emissions higher than the average as a result of, for example, fuel source for steam or electricity generation, distance from resource, etc. While this will even out across the industry it will leave some facilities particularly vulnerable to the increased costs through factors that could not have been foreseen at the time of investment.

Greater increase in electricity costs than is reflected in the calculation of permit allocation for indirect emissions.

An electricity allocation factor of one tonne of CO₂ equivalent for each megawatt hour of electricity is proposed in the CPRS to cover the expected increase in electricity costs. While this has been based on market-wide analysis and predictions of investment and generator behaviour, there are a number of reasons why the actual increase in electricity costs experienced may be more than predicted (and for which permits are allocated). These include, obviously, that reality may differ from market models.

A more specific example relates to the treatment of large electricity users. The CPRS proposal acknowledges that a large electricity user has no flexibility to source electricity from other sources, or reduce emissions for that electricity, under existing contracts. However it assumes that any new contract would allow the average factor (one tonne per megawatt hour) to be achieved, or reflected in the contractual arrangements. This is unlikely to be achieved in reality – as manifested in current contractual discussions – and will expose those users to a substantial increase in electricity costs that would not be matched with an ongoing permit allocation.

Costs imposed through the Renewable Energy Target (RET) Scheme.

At the same time as the Government is proposing to implement the Carbon Pollution Reduction Scheme, it is also proposing to implement an expansion of the Renewable Energy Target. Both schemes will lead to a significant increase in electricity costs and, to a large user of electricity, are indistinguishable in terms of their business impact. The salient feature is the total increase in costs imposed by the combined impact of the CPRS and RET. They are addressing similar issues, over similar timeframes and, most importantly, are costs that

will be borne by Australian producers that are not borne by competitors in overseas countries.

The composition of these components of CPRS costs will vary from entity to entity even within the same industry. For example, a smelter based on hydro electricity may have a lower increase in electricity costs but more exposure to emissions from long distance transport of alumina to the smelter (which will not be covered by any permit allocation). However at a whole-of-aluminium-industry scale all these factors are significant and contribute to the overall increase in costs.

A central flaw of the proposed CPRS is that it anticipates global action and pre-determines a reduction in the measures to maintain competitiveness of Australian industry (permit decay) based on the assumption that global action will occur. In forcing Australian industry to accept the risk of that action occurring, the CPRS establishes a perverse incentive for other countries not to take action.

If there was a link in the Australian scheme between the rate of global action and the relaxing of treatment of Australian industry then there would be far less investment risk for Australian industry and a clearer incentive for other countries to join the abatement effort.

The combined impact of CPRS and RET means that Australian producers will face a higher carbon cost than producers anywhere in the world - even those under the European Trading Scheme – and significantly higher than the major competitors in the Middle East and Asia where no carbon costs is currently imposed.

IMPACT OF CPRS AND RET COSTS ON OPERATIONS AND INVESTMENT

The impact of the Carbon Pollution Reduction Scheme and the Expanded Renewable Energy Target on Australia's competitiveness can be understood by considering a global cost curve (see diagram on next page). On this curve, global production capacity is arranged with the lowest production costs on the left and higher cost producers on the right. Producers toward the low (left) end of the cost curve will be more profitable, more viable and more likely to attract investment of sustaining capital in the facilities. New facilities will proceed if they can attain costs at the low end of the cost curve.

Producers on the higher (right) side of the cost curve make lower profits and, more significantly, are unlikely to attract reinvestment in the facilities. As a result they will only continue to operate while profitable but will be the first facilities wound back or shut when the market falls and the most likely facilities to be shut permanently (and replaced by new investment lower on the cost curve).

If the cost curve is considered in four quarters, they can be characterised as follows:

First quartile – lowest cost, most viable, re-investment almost certain, continued operation secure.

Second quartile – viable, re-investment likely, continued operation secure.

Third quartile – must make substantial investment to reach first or second quartile or operate while profitable but eventually curtail and close.

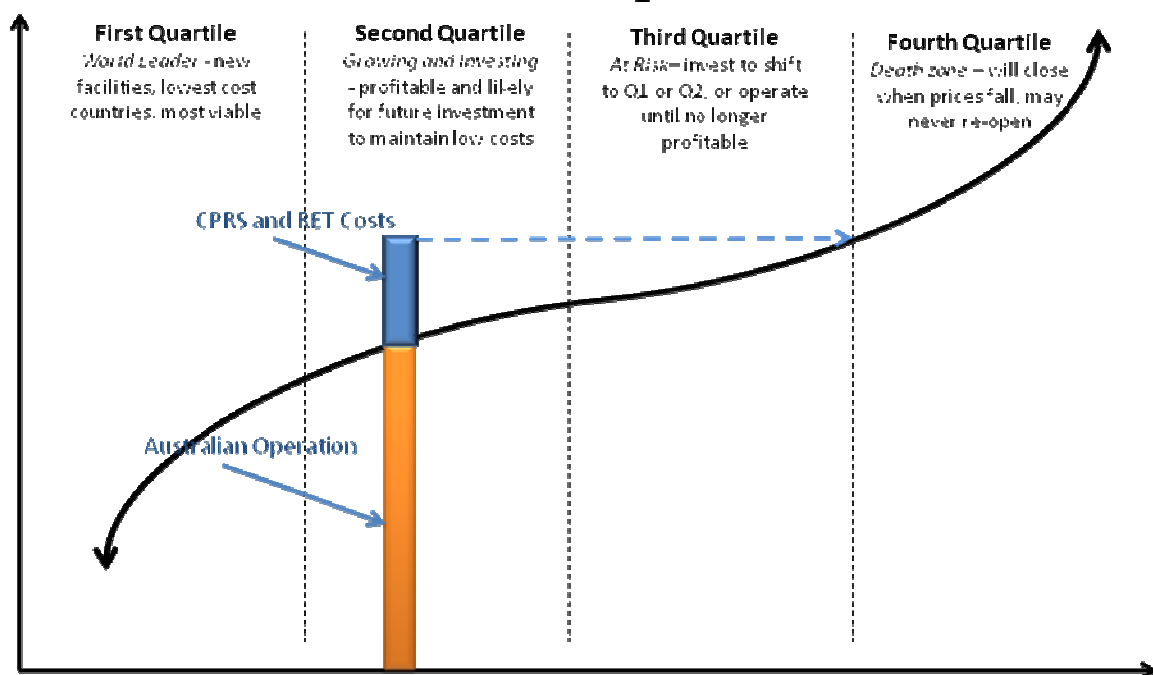
Fourth quartile – short term curtailment certain in response to market, closure virtually inevitable with capacity replaced by new investment in first quartile.

Both CPRS and RET are costs imposed on Australian producers but not on other producers. As a result it increases the costs of Australian producers only, moving them up (right) the cost curve and a resultant loss in profitability, viability and investment. The larger the costs, the larger the shift up the cost curve.

Preliminary analysis of the costs that will be imposed by both the CPRS and RET suggest that they would shift an Australian alumina or aluminium producer from the first or second quartile – where the long term viability of, and investment in, the facility can be confidently expected – to the third and fourth quartiles - where investment is unlikely and short term curtailments and shutdowns are likely in response to market slumps and permanent closure is virtually inevitable at some point.

That is, the CPRS and RET change Australian facilities from operations that would be profitable in the long term, operate at high capacity and attract future investment to operations that have no long term future, where capacity will be curtailed in response to the, market and where investment is unlikely – leading to eventual closure.

Impact of CPRS and RET on Australian Operations



The implication, in the economy and the community, is that imposing these costs solely on Australian producers inevitably makes investment in Australian facilities less attractive (as they shift up the cost curve) and also has an impact on production and employment commensurate with the extent to which costs are increased. The mechanisms are not as simple as an increase in costs leading to immediate closure and job losses but the impact is inevitable, predictable and commercially rational over a timeframe much shorter than the environmental objective being addressed or the duration of the policy.

SOLUTIONS AVAILABLE WITHIN THE CPRS FRAMEWORK

To explore solutions to the problems outlined above, the Council emphasises what we believe should be a key feature of the scheme: to minimise those costs being borne *solely* by Australian producers – either by:

- imposing the costs in a way that equally impacts all producers supplying the market; or
- offsetting increased costs in Australia if they can't be imposed on other producers (this is a transitional measure and would only need to be in place while similar costs are not imposed elsewhere).

The proposed Carbon Pollution Reduction System imposes costs on Australian producers supplying both local and export markets and does not impose costs on other producers supplying those markets. That is, it imposes costs on exports from Australia but not on imports into Australia. The first of the dot point options outlined above – imposing costs on all producers – is not feasible without a major re-design of the CPRS.

The second dot point option – offsetting increased costs in Australia during the transition to a global carbon price – is the only feasible way to minimise disadvantage to Australian industry under the proposed scheme.

The current CPRS proposal is significantly deficient in this area as outlined in the section above. However with a limited number of, albeit fundamental, changes, a satisfactory outcome can be achieved.

90% Permit Allocation to Traded Industries

All industries will face a requirement to buy some permits. The total amount is the sum of individual activities within the industry where 10%, 40% and 100% of permits must be purchased. For most industries, including aluminium, this adds up to a sizable permit exposure. This deficiency can be simply addressed by providing 90% permit allocation for all emissions-intensive activities within traded industries.

No Permit Decay until Global Action

The CPRS proposes that permit allocation will decay at a rate of 1.3% per annum. This occurs irrespective of the rate of action (or inaction) in competing countries. Australia industry is therefore more disadvantaged each year and the intent of the policy (minimise loss of competitiveness) is eroded.

There is greater policy logic if the rate of permit decay is linked to the extent of action being taken in competing countries. If no action is taken in competing countries then the permit allocation should not decay – so that Australian industry is not disadvantaged. Conversely, if international action progresses, the permit allocation could decrease at a rate that matches the action (perhaps faster than the proposed 1.3% per annum). The critical aspect is that the policy intent (maintaining competitiveness of Australian industry) requires an explicit link between the rate of permit allocation and the extent of action globally – this is lacking in the current CPRS.

Full inclusion of Actual Electricity Cost Increases under New Contracts

The proposed CPRS treatment of large electricity users – whereby permits are allocated based on the likely pass through of increased electricity costs – applies only to existing contracts. New contracts are assumed to be negotiated on the basis of the standard factor of one tonne per megawatt hour.

However there may be situations where new contractual arrangements – that provide commercial returns to both suppliers and users of electricity - will be difficult to achieve under those arrangements. This deficiency is specific to very large users of electricity and can be addressed with a limited extension of the CPRS large electricity user clause to new contracts where there is a demonstrated issue.

Exemption from RET Costs

The expanded Renewable Energy Target will impose costs on the aluminium industry in the same manner as much of the CPRS – through increased electricity costs. It addresses similar environmental objectives, operates over similarly long timeframes, and, like the CPRS, is a cost that will only be imposed on Australian producers, not competitors.

It is vital to the Australian aluminium industry, and logical from a Government policy perspective, that the RET scheme include elements that prevent extra costs being imposed on the most electricity-intensive activities operating in globally traded markets. In the case of the aluminium industry this would require exemption from the RET obligation for aluminium smelting (but not necessarily refining) as outlined in the Australian Aluminium Council's submissions to the RET program.

SOLUTIONS OUTSIDE THE CPRS FRAMEWORK

Solutions are also available through carbon reduction policies outside the framework of the CPRS. Models that impose a carbon cost on consumption (not production), such as the proposed Carmody model or a carbon tax, address the key concern by imposing the costs equally on local and overseas suppliers to Australian markets and by imposing no carbon cost on exports to overseas markets.

However, it should be noted that every carbon reduction policy will have challenges in the detail of implementation. It is the view of the Australian Aluminium Council that a domestic carbon reduction policy must maintain environmental effectiveness while minimising the magnitude of costs borne *solely* by Australian producers.

While this can be achieved through policies such as a carbon tax or a consumption-based emissions trading scheme, it can also be achieved with a small number of fundamental changes to the CPRS.