



AUSTRALIAN
ALUMINIUM
COUNCIL

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The Secretary
Senate Standing Committee on Economics
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Australian Aluminium Council submission to Senate Standing Committee on Economics'
Inquiry into the Renewable Energy (Electricity) Amendment Bill 2009 and a related bill

The Australian aluminium industry is calling for a true 90% exemption from the Renewable Energy Target for industries that are both electricity- and emissions-intensive.

The Australian Aluminium Council (AAC) welcomes the opportunity to make a submission to the Senate Standing Committee on Economics' *Inquiry into the Renewable Energy (Electricity) Amendment Bill 2009 and a related bill*. If unamended, this Bill will have significant economic consequences for the aluminium industry, its employees and the communities in which they live. These negative consequences can be avoided while still providing the incentives desired for the development of renewable energy.

The Bill in its current form:

- will **cost the Australian aluminium industry an additional \$700 million over the first decade** of the scheme - costs that will not be paid by producers in other countries. This is in the context of a total combined cost of the proposed RET and CPRS of **approximately \$4.0 billion over the first ten years**. This is a cost, per-site, per-year, of tens of millions of dollars – imposed only on Australian producers.
- will force **most smelters to reduce their workforce and wind back capital expenditure**. Each of Australia's aluminium smelters spend in the order of \$50 million annually on sustaining capital. Faced with additional RET costs, much of this local spend on regional employment, equipment and supplies will evaporate.
- does not provide a 90% exemption from RET for any industry due to the extension of original MRET liabilities. The **exemption figure for aluminium smelting is actually 55%**.

The amendments we are proposing allow for a 90% exemption **from the full RET costs** for industries that are both emissions- and electricity- intensive. This will:

- **boost incentives for development of the renewable energy industry** and a transition to lower emissions-intensity forms of energy.

- **increase incentives for large energy users to minimise energy consumption** and shift to low emissions energy sources.
- maintain the viability of Australia's **six aluminium smelters that are located in regional centres** (Portland, Geelong, Hunter Valley, Tamar Valley and Gladstone) and directly employ more than **5,000 people** in highly skilled and well-paid positions. Annually these smelters contribute more than **\$1.2 billion to regional communities**. The aluminium industry contributes more than **\$5 billion to Australia's exports each year**

This submission is structured in four parts:

Part 1 – Draft Amendments – outlines the proposed changes to the draft Bill that will provide incentives for the renewable energy industry while minimising the harm to Australia's aluminium industry.

Part 2 – Carbon Leakage and the Australian Aluminium Industry – describes the processes by which carbon leakage in the aluminium industry will occur if the proposed policy is not amended.

Part 3 – Costs of RET and CPRS to the Aluminium Industry – summarises the combined \$4 billion impact of the proposed CPRS and RET on the Australian industry over the first decade, costs that will not be borne by producers in other countries.

Part 4 – Consistency with Government Policy - describes how the proposed amendments are consistent with previous Government proposals; recent Government decisions; and is justified by Government analysis and statements on the issue.

Thank you for the opportunity to provide a submission on these Bills. We would be pleased to elaborate on the Australian Aluminium Council's position during the Inquiry's hearings. Nothing in this submission is confidential.

Yours sincerely



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PART 1
PROPOSED AMENDMENTS TO THE
RENEWABLE ENERGY (ELECTRICITY) AMENDMENT BILL 2009

These amendments have been designed to achieve three things:

- *A 90% exemption from the full RET for activities that are both highly emissions-intensive and also electricity-intensive. This is probably aluminium smelting and silicon production only.*
- *Reducing the reliance of the RET exemptions on passage of the CPRS legislation. This has meant changing the start date (that was linked to CPRS), changing the definition of EITE (that was also linked to CPRS) and changing references to the "Authority" (established under the CPRS) to the "Regulator" (that already exists for the current RET).*
- *Bringing in some of the detail of the EITE program into the legislation to provide some certainty (without bogging the legislation down with all the detail and all the controversy around activity definitions).*

Renewable Energy (electricity)

Amendment Bill 2009

No. , 2009

(Climate Change and Water)

1) Clause 2, page 2 (table item 3), omit the table item, substitute:

3. Schedule 2 A single day fixed by proclamation.
 However, if the provision(s) do not commence before 1 July 2010, they commence on that day.

2) Schedule 2 , item 2, page 7 (lines 14 to 16), omit the definition of ***emissions-intensive trade-exposed activity***, substitute:

emissions-intensive trade-exposed activity - See section 38D.

3) Schedule 2, item 2, page 7 (lines 17 to 21), **remove item.**

4) Schedule 2, item 8, page 9, after Section 38C, insert:

38D Regulations

- (1) The Governor-General may make regulations for the purposes of:
- (a) identifying emissions-intensive trade-exposed activities; and
- (b) classifying such activities as:
- (1) both highly emissions-intensive (>2000 t CO₂-e / \$million revenue) and electricity intensive (>4000 MWh / \$million revenue); or
- (2) highly emissions-intensive (>2000 t CO₂-e / \$million revenue); or

- (3) moderately emissions-intensive (1000-2000 t CO₂-e / \$million revenue);
and
 - (c) prescribing all matters necessary or convenient to be prescribed for carrying out or giving effect to the matters in paragraphs (a) and (b).
- (2) The regulations are to ensure that the activity consisting of the physical and chemical transformation of alumina (aluminium oxide, Al₂O₃) into saleable aluminium metal (Al) is classified as an activity which is both emissions-intensive and electricity intensive.
 - (3) The regulations are to provide that the amount of the partial exemption stated in a partial exemption certificate is as follows:
 - (a) for an activity which is both highly emissions intensive and electricity intensive—90% of the total liability;
 - (b) for a highly emissions-intensive activity—90% of the expanded liability;
 - (c) for a moderately emissions-intensive activity—60% of the expanded liability.
 - (4) The Minister must take all reasonable steps to ensure that regulations are made for the purposes of subsection (1) before 1 July 2010.
 - (5) In this section:

expanded liability means, in relation to an activity, a liable entity's additional liability for the renewable energy shortfall charge that would be incurred as a result of the enactment of the *Renewable Energy (Electricity) Amendment Act 2009*, including the entity's entire liability for the renewable energy shortfall charge in respect of the period commencing on 1 January 2021, but for the liable entity's partial exemption.

total liability means, in relation to an activity, a liable entity's liability for the renewable energy shortfall charge that would be incurred but for the liable entity's partial exemption.

- 5) Omit references to "**Authority**" (wherever occurring), substitute "**Regulator**".

PART 2

CARBON LEAKAGE AND THE AUSTRALIAN ALUMINIUM INDUSTRY

Even in a carbon-constrained future, increasing quantities of aluminium will be used globally as 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.

The proposed Expanded Renewable Energy Target will impose costs on Australian aluminium producers supplying domestic and export markets but does not increase the costs of other producers supplying those markets from competing countries, undermining the Australian industry's current international competitive position.

Australian producers - currently amongst the lowest cost producers in the world - will be forced up the global cost curve by RET (and the CPRS) – 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 overseas operations with lower carbon cost imposts.

However, RET and the CPRS 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'.

Australian renewable energy and carbon reduction policies 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.

IMPACT OF RET AND CPRS COSTS ON OPERATIONS AND INVESTMENT

The impact of the Expanded Renewable Energy Target and the Carbon Pollution Reduction Scheme on Australia's competitiveness can be understood by considering a global industry 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.

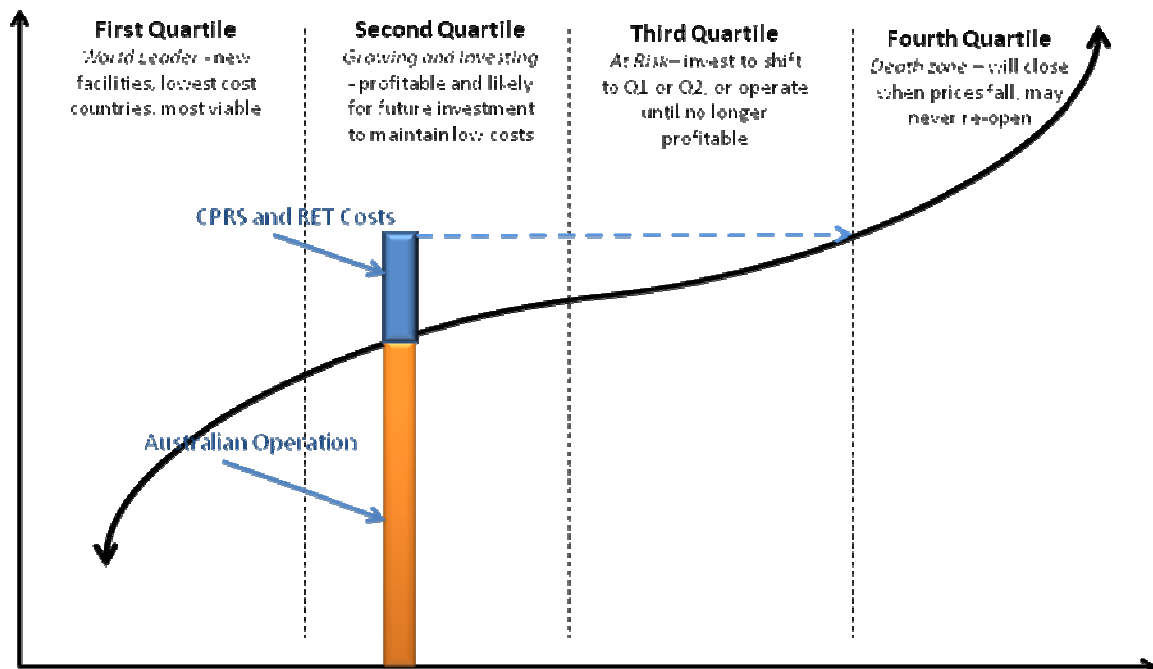
Second quartile – viable, re-investment likely, continued operation secure.

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 RET and CPRS are costs imposed on Australian producers but not on other producers. As a result these policies increase the costs borne by Australian producers only, moving them up (right) the cost curve with a resultant loss in profitability, viability and investment. The larger the costs, the larger the shift up the cost curve.

Impact of CPRS and RET on Australian Operations



Analysis of the costs that will be imposed by both the RET and CPRS 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 RET and CPRS 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.

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.

CURRENT ALUMINIUM INDUSTRY CONTEXT

The development of 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\$1500/tonne (down from \$3300/tonne less than a year ago). Historically high levels of inventory and a strategic stockpile accumulated by China over the last 12 months means the aluminium industry will remain under constant price pressure beyond the present market indicators such as the LME 15 month forward contracts. The overwhelming majority of the world's aluminium smelters (and alumina refineries) are operating at a loss. This is likely to 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.

Global aluminium companies 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. The imposition of an 'unshielded' carbon cost or renewable energy liability will lead to Australian operations being increasingly exposed to production curtailment and job losses.

EXEMPTION FROM RET COSTS

The expanded Renewable Energy Target will impose further additional 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.

In addition to increasing the target for generation of electricity from renewable energy sources, the expanded RET scheme will extend the period of the existing MRET scheme by

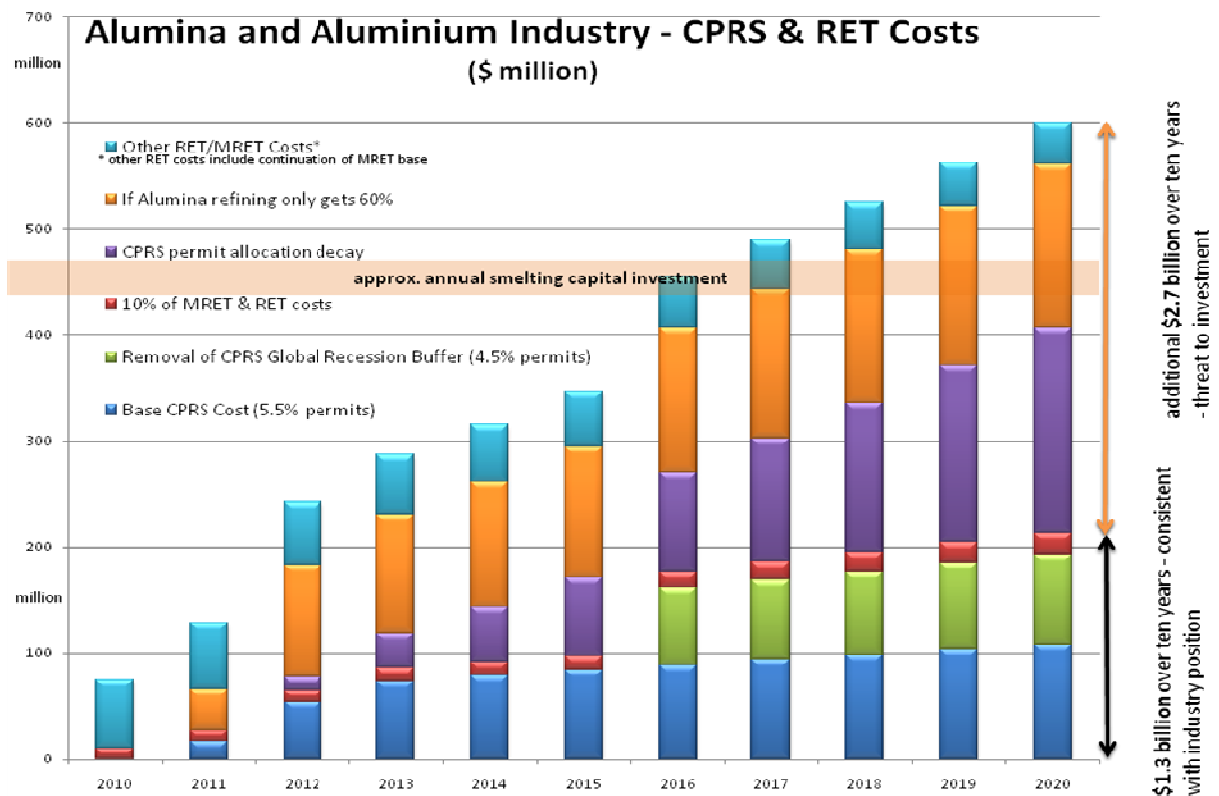
a further 10 years and significantly increase the cost of Renewable Energy Certificates (RECs) by increasing the shortfall charge from \$57 / MWh to \$93 / MWh (tax adjusted), in effect doubling existing costs. The RET Bill in its current form does not provide any exemptions from these additional liabilities linked to the original MRET scheme, meaning the proposed 90% exemption level for EITE industries (applied only to the increased liability above MRET) actually results in a 55% exemption from overall scheme liabilities.

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 90% exemption from both the existing and expanded RET obligation for aluminium smelting.

COSTS OF RET AND CPRS TO THE ALUMINIUM INDUSTRY

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

The graph below shows the estimated cost impact on the Australian alumina and aluminium industry from the proposed Carbon Pollution Reduction Scheme (CPRS) and expanded Renewable Energy Target (RET).



The lower three sections of the columns are the significant costs that are consistent with the position advocated by the Australian Aluminium Council (the aluminium and alumina industries). These accepted costs include:

- 10% of the cost of the Renewable Energy Target
- the requirement to purchase a minimum of 10% (5.5% with the Global Recession Buffer) of the required CPRS permits.

These costs total \$1.3 billion over the first ten years.

The upper three parts of the columns are the further costs under current proposals that would jeopardise investment and employment in the industry, i.e.:

- RET costs in excess of 10% of the total burden, including the continuation of the base MRET burden (not exempt).
- decay in CPRS permit allocation to emissions-intensive trade-exposed industry.
- additional permit purchase if alumina refining only receives 60% permit allocation.

These costs represent an additional \$2.7 billion over the first ten years.

The total cost impact of the current scheme design is approximately \$4.0 billion over the first ten years. This is a cost, per-site, per-year, of tens of millions of dollars – imposed only on Australian producers.

At these additional cost levels, further investment in our industry is unlikely. The capacity for alumina and aluminium production in Australia will not increase and the viability of Australian operations will decline as sustaining capital investment is directed elsewhere. Eventual closure of the facilities will be inevitable under this scenario.

The alumina and aluminium industry accepts that Government intervention is justified in response to climate change and that some cost must be borne by domestic industry. The position we have consistently advocated would see additional costs of \$1.3 billion imposed on the Australian alumina and aluminium industry over the first ten years. Though significant, these costs would still allow continued sustaining investment in the operation of Australia's refineries and smelters and their possible expansion.

PART 4
CONSISTENCY WITH GOVERNMENT POLICY

The proposed amendments are consistent with previous Government proposals; recent Government decisions; and is justified by Government analysis and statements on the issue, as evidenced by the following.

RET will impact on electricity-intensive industries that can't pass on costs

The Government has always acknowledged that some industries cannot pass on increased electricity costs to customers:

“The RET is likely to impact most upon electricity-intensive industries that are unable to pass through the full costs associated with the RET, for example where prices are set in international markets”¹

Exposure to RET is best measured by the cost of electricity as a proportion of revenue

The Government acknowledged that electricity cost as a proportion of a product's revenue was the best indicator of vulnerability to RET costs:

“Assessing materiality for assistance under the RET therefore requires a specific, electricity-related threshold test. Electricity intensity of production, would serve as an appropriate indicator of materiality for comparison across different areas of industry in determining RATE activities.”¹

Aluminium is far more vulnerable than any other activity – it is the only significant activity that is emissions-intensive and electricity-intensive

Aluminium smelting has electricity intensity far higher than any other activity:

“Preliminary analysis of electricity intensities at industry level, expressed per unit revenue indicates that aluminium stands out strongly as the most substantial electricity intensive industry, being an order of magnitude higher than the next rung of industries.”¹

“the RET cost as a proportion of revenue in 2013 would be in the order of 1.5 percent for the aluminium industry, rising to around 4 percent in 2020. This contrasts with the next rung of industries where the RET burden would rise from around 0.2 percent in 2013 to around 0.4 percent in 2020”¹

The costs of RET and the CPRS are cumulative

The Government altered its proposal to take into account the combined impact of RET, CPRS and the global financial crisis:

“COAG also agreed to provide partial exemptions to emissions-intensive, trade-exposed industries. COAG recognised the impact of the RET on trade-exposed industries in the context of the CPRS and the additional pressures these firms are experiencing as a result of the global financial crisis.”²

RET costs of 0.2% to 0.4% of revenue are significant and warrant exemption

By extending the proposed assistance to all emissions-intensive, trade-exposed industries under the CPRS, the Government acknowledged that a RET cost of 0.2% to 0.4% of revenue warranted an exemption:

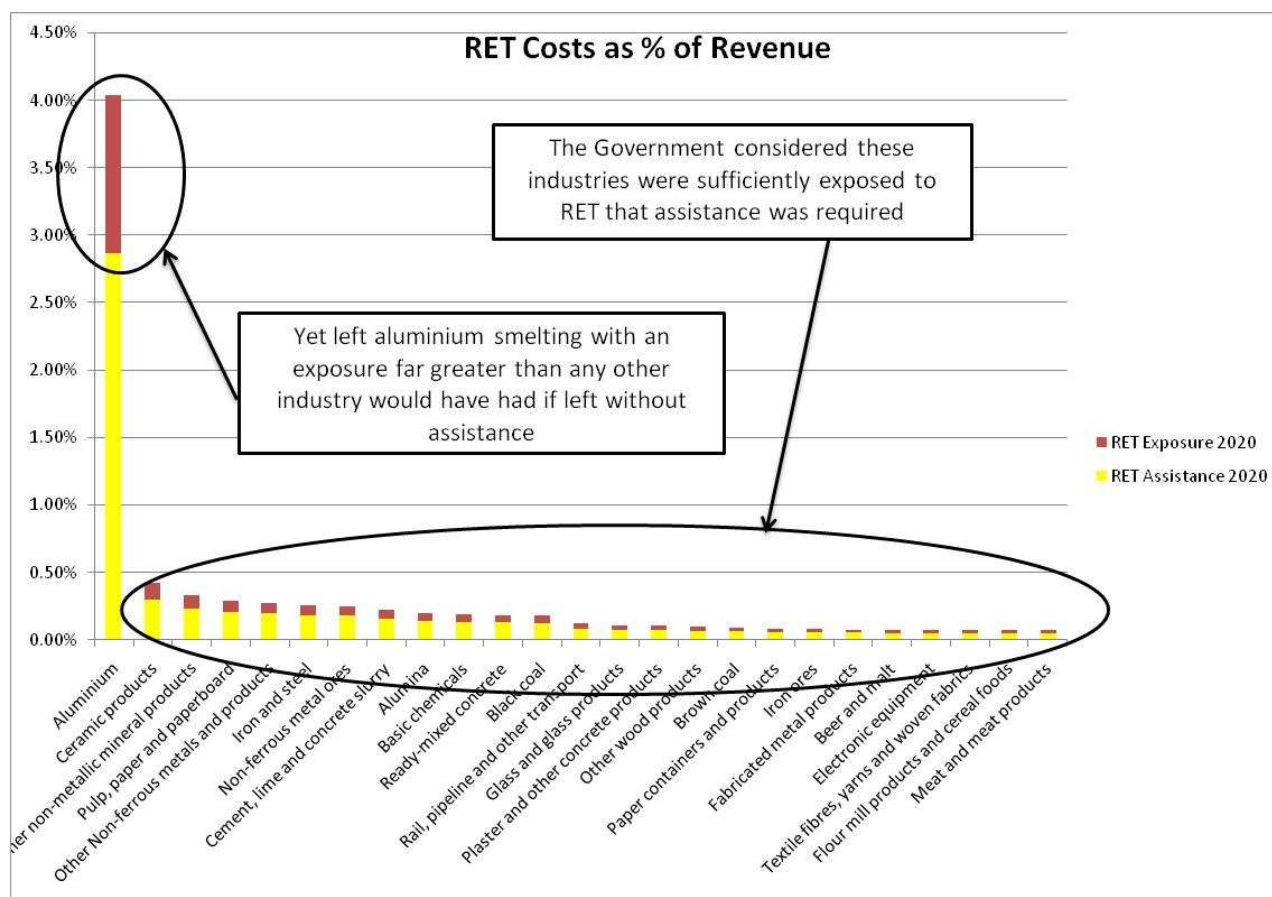
¹ Treatment of electricity-intensive, trade-exposed industries under the expanded national Renewable Energy Target scheme, Discussion Paper, November 2008

² Prime Minister's Press Release - Coordinated National Action to Drive Energy Efficiency and Renewable Energy Uptake -30 April 2009

“Assistance to electricity-intensive, trade-exposed industries (otherwise known as RET-affected, trade-exposed or RATE industries) mirrors the differentiated rates of assistance for all emissions-intensive, trade-exposed (EITE) industries under the Carbon Pollution Reduction Scheme (CPRS).”³

RET costs for these EITE industries (other than aluminium) are no higher than 0.2% to 0.4%:

“... industries where the RET burden would rise from around 0.2 percent in 2013 to around 0.4 percent in 2020”¹



The proposed 90% exemption is only from expansion of the RET target, not the extension of the base

While it is being referred to as a “90% exemption”, it is actually only a 90% exemption from the expansion of the RET target to 45,000 GWh. There is a full exposure to the continuation of the RET base of 9,500 GWh:

“Assistance will only be for the RET liability that relates to the expanded portion of the annual target (that is, the amount of the target above the 9,500 GWh...)”³

Aluminium smelting is a CPRS EITE industry yet is left with a RET cost exposure far greater than 0.4%

The electricity intensity of aluminium smelting, combined with continued exposure to the RET base 9,500 GWh, plus a 10% exposure to the expansion to 45,000 GWh, totals to a cost exposure significantly in excess of 0.4% of revenue (approximately 1%). Yet this

³ Renewable Energy Target Scheme Design – COAG Announcement 30 April 2009

was the level of cost exposure that the Government has already determined is too great to be imposed on other activities.

An exemption that is equivalent to that being provided to other activities can be achieved with 90% exemption from full RET

The RET costs imposed on the aluminium smelting industry can be reduced to the levels deemed appropriate for other activities through **a true 90% exemption from the full RET**. This is a relatively simple change to the proposed legislation; is compatible with providing strong incentives for the development of a renewable energy industry; and would still see the aluminium smelting industry paying \$160 million in RET costs over the next ten years.