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australia's aluminium

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The Secretary  
Senate Standing Committee on Environment, Communications and the Arts  
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**Submission to the Senate Standing Committee on Environment, Communication and the Arts - Inquiry into the Renewable Energy (Electricity) Amendment Bill 2010 [Provisions] and related Bills**

Alcoa welcomes the opportunity to make this submission to the Inquiry. Energy is a critical input to our business and represents up to 30% of the cost structure of activities such as aluminium smelting. Policy initiatives such as the Renewable Energy Target (RET) can significantly increase the cost of operating in Australia and therefore reduce the international competitiveness of our Australian facilities.

Background to Alcoa of Australia

Alcoa undertakes several energy intensive activities in Australia through operation of Australia's largest integrated aluminium business. This network includes:

- two bauxite mines, three alumina refineries and two ship loading facilities in Western Australia;
- two aluminium smelters, a rolling mill, port facilities, power station and mine in Victoria; and
- a rolling mill and Australia's largest aluminium recycling plant in NSW.

Alcoa has been investing in Australia for over 40 years and the replacement value of this capital is in excess of \$20 billion.

Alcoa's Australian operations contribute around \$5 billion in annual exports. Annual production typically includes over 8.5million tonnes of alumina, around 500,000 tonnes of aluminium ingot and around 100,000 tonnes of rolled product. Alcoa of Australia

makes a significant contribution to the Australian economy and around 80cents in every dollar earned by the company stays in Australia.

Alcoa directly employs over 6,000 people in Australia and provides around a further 1,500 jobs via contract – most of these jobs are in regional Australia. Allowing for flow on employment, it is estimated Alcoa's activities in Australia provide employment for over 20,000 people.

#### Energy efficiency improvements & emissions reductions

Alcoa has already made significant improvements in energy efficiency and carbon emission reductions. For example:

- Alcoa set an ambitious target to reduce its global 1990 direct greenhouse gas emissions by 25% by 2010 – this target was reached in 2003 and the company has continued this drive, now operating around 35% below the 1990 benchmark.
- In Australia, Alcoa's aluminium smelters have reduced direct greenhouse gas emissions per tonne of product by 61% since 1990.
- Alcoa's Australian alumina refineries are amongst the most efficient in the world and have still been able to reduce greenhouse gas emissions per tonne of product by 12% from 1990 levels.
- Alcoa's Australian aluminium rolling businesses have reduced direct emissions by 21% from 1990 levels.

Even though much has been achieved since 1990, energy efficiency improvements continue as a priority for Alcoa. For example, since 2000 Alcoa's Australian alumina refineries have achieved more than a 6% improvement in energy efficiency. Similarly the Portland and Point Henry aluminium smelters have achieved a 4.3% and 3.1% reduction respectively in the amount of electricity required to produce one tonne of aluminium since 2000.

#### Concerns with the RET Bill

Alcoa has three main concerns with the Renewable Energy target as proposed in the Renewable Energy (Electricity) Amendment Bill 2010, as follows:

1. The extraordinary electricity intensity of the aluminium smelting process means these facilities will be impacted more than any other activity, consequently they should receive a true 90% exemption from the impacts of the RET;
2. Linkages of RET exemptions to the now delayed Carbon Pollution Reduction Scheme (CPRS) should be removed;
3. The uncapped volume of the Small-scale Renewable Energy Scheme (SRES) poses an unacceptable risk to large electricity users

Each of these concerns are discussed in more detail below

1. A true 90% exemption for aluminium smelting

The extraordinary exposure of the aluminium industry to RET cost impacts was recognised by the Government in the release of the February, 2009 COAG Working Group on Climate Change and Water Discussion Paper: Treatment of electricity – intensive, trade-exposed industries under the expanded Renewable Energy Target scheme, as follows:

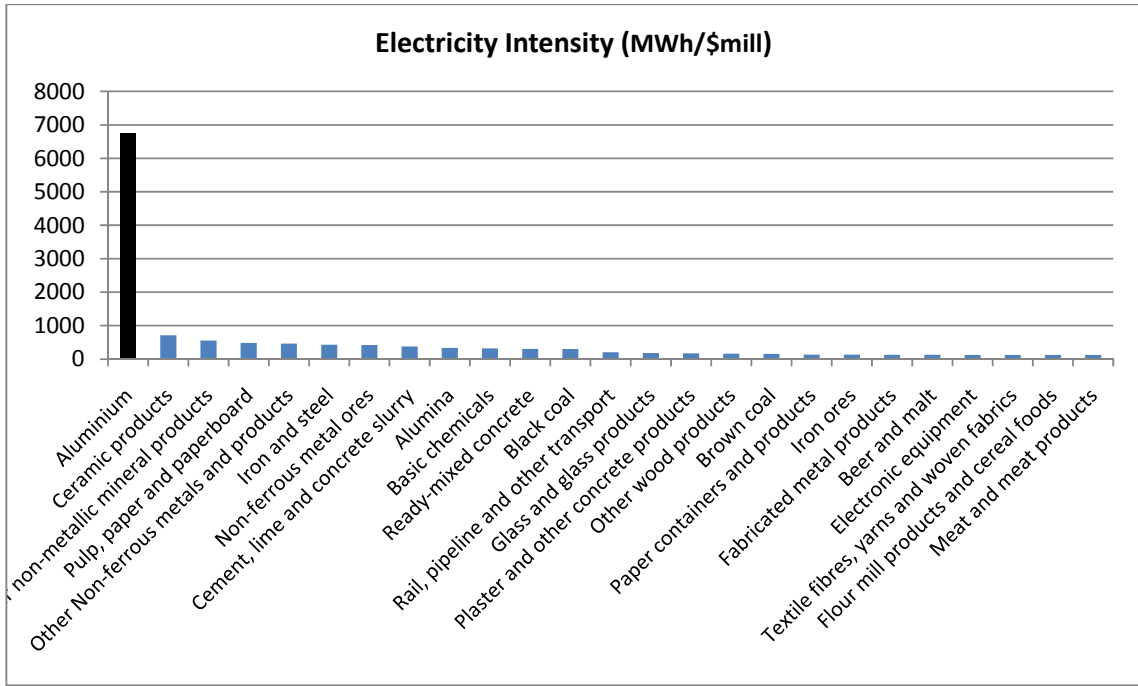
*“Preliminary analysis of electricity intensities at industry level, expressed per unit revenue, indicates that aluminium stands out strongly as the most substantial electricity intensive industry, being an order of magnitude higher than the next rung of industries.”*

*“It (the analysis) indicates that 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.” Australia’s six aluminium smelters consume 10 to 15 percent of Australia’s electricity and would bear a similar proportion of the total RET burden.”*

At that time Government canvassed the idea of providing assistance to the most electricity intensive activities or RET Affected Trade Exposed (RATE) activities. Because of its electricity intensity (Figure 1) aluminium smelting would be exposed to far greater RET cost impacts than any other emissions intensive activity.

Government subsequently decided to provide assistance to all Emission Intensive Trade Exposed activities, presumably for consistency with the proposed CPRS. This meant that aluminium smelting was exposed to RET costs far greater than what other industries would have experienced without any assistance (Figure 2).

Alcoa believes this disproportionate impact of the RET on aluminium smelting should be reduced by providing aluminium smelting with a true 90% exemption from all RET costs. The current RET proposal would provide a 90% exemption for the expanded RET volume, however, a significantly lower exemption is provided for the first 9,500GWh of the RET.



Data source: Department of Climate Change

Figure 1. Electricity intensity of various EITE activities

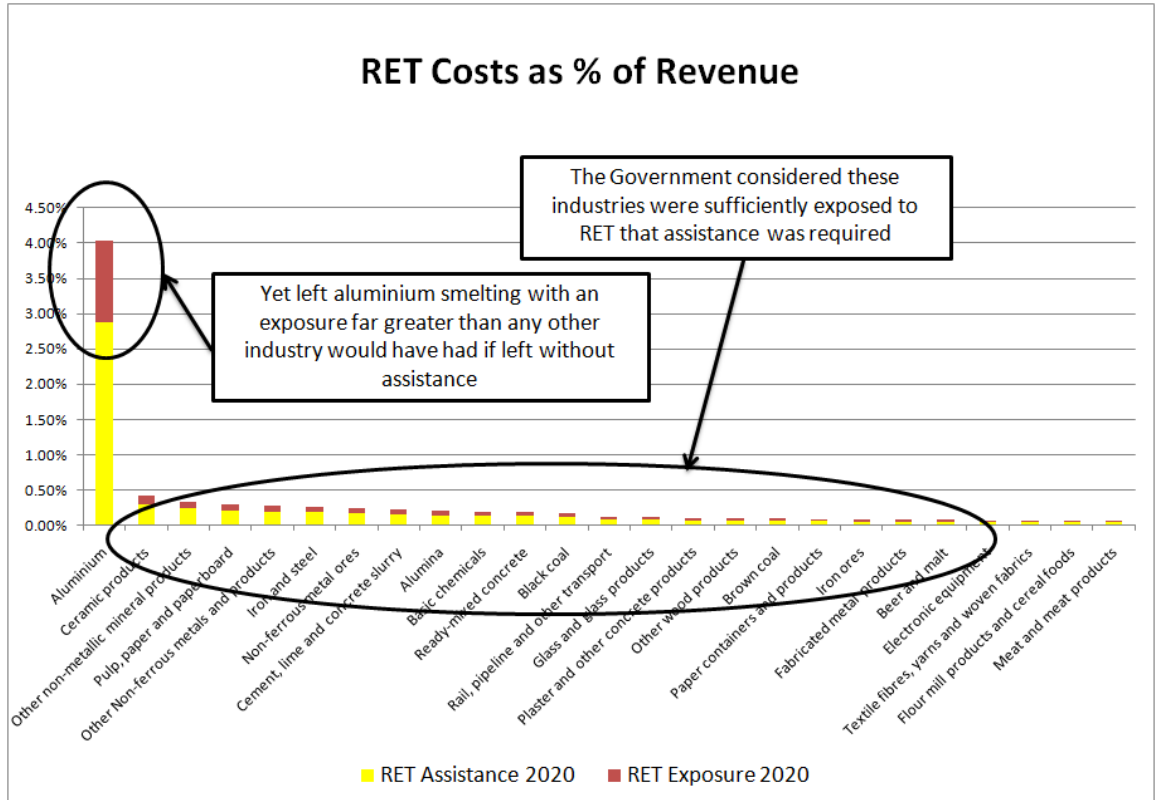


Figure 2. Disproportionate cost impacts of the RET on aluminium smelting

## 2. Linkage of exemptions to the CPRS

Part of the EITE exemption proposed by Government in the RET regulations; in relation to the first 9,500GWh and REC prices above \$40; will only come into effect if the CPRS legislation is passed by both houses of parliament. Given this has not occurred and that it seems unlikely a CPRS will be implemented before 2013, this linkage should now be removed.

The importance of this issue has been increased by the Government's proposed increase of the shortfall charge to \$65, which may see certificates generated from the LRET reach \$92 each. Failure to remove this barrier will only serve to increase the competitiveness impact on trade exposed, electricity intensive Australian facilities.

## 3. An uncapped SRES volume

The Explanatory Memorandum to the Renewable Energy Amendment Bill recognises a significant risk to business in *"...the possibly open-ended commitment to small-scale generation with cost impacts for the liable entities."* Liable entities (and consequently their customers) are required to meet a share of both the LRET and SRES in proportion to their share of the national wholesale electricity market. However, the SRES portion is an uncapped volume which is a risk placed entirely on large energy users in favour of small scale renewable generators.

Transferring this risk to liable entities significantly reduces their ability to predict RET cost impacts over the life of an investment and therefore may dampen investment activity in electricity intensive activities. This uncapped impact can be avoided by capping the SRES pool or limiting the exposure of highly electricity intensive EITE activities to the SRES.

The small scale renewable energy market is growing at a rapid rate, driven by the RET, solar credits scheme and various state incentives such as feed in tariffs. For example, the Office of the Renewable Energy Regulator REC data base<sup>1</sup> shows that "available registered RECs" under the "SGU solar deemed" category grew from approximately 149,000 in 2008 to around 1,500,000 in 2009.

This rapid growth is expected to continue under the SRES as small scale REC prices will be guaranteed at \$40 by the current proposal, state feed in tariffs become established and the capital cost of domestic solar units decreases. As at 20 May more than 2.2.M RECs had been registered under the SGU solar deemed category for 2010. As this growth continues the volume risk and potential RET cost for liable entities created by the current Bill become increasingly significant and concerning.

The more electricity intensive an activity is, the higher the SRES volume risk. Alcoa believes this risk justifies a cap being placed on the SES exposure borne by the most electricity intensive activities, such as aluminium smelting.

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<sup>1</sup> <https://www.rec-registry.gov.au>

### Australian Aluminium Council Submission

Alcoa is a member of the Australian aluminium Council (AAC) and supports the submission to this inquiry made by the AAC, including that:

- aluminium smelting should receive a true 90% exemption from RET cost impacts;
- linkage of RET exemptions to passage of the CPRS legislation should be removed; and
- SRES exposure should be capped for highly electricity intensive activities

The AAC submission also includes recommended amendments to the Bill that would give effect to the above.

Should you require any additional information or clarification from Alcoa of Australia please do not hesitate to contact the undersigned.

Yours sincerely

Tim McAuliffe  
General Manager Climate Strategy  
**Alcoa of Australia**