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Emissions Reduction Fund Submissions  
Safeguard Mechanism Branch  
Department of the Environment  
GPO Box 787  
CANBERRA ACT 2601



AUSTRALIAN  
ALUMINIUM  
COUNCIL LTD

PO Box 63, Dickson

ACT 2602

Ph: 6267 1800

[info@aluminium.org.au](mailto:info@aluminium.org.au)

By email: [emissions-reduction-submissions@environment.gov.au](mailto:emissions-reduction-submissions@environment.gov.au)

### EMISSIONS REDUCTION FUND: SAFEGUARD MECHANISM

Thank you for the opportunity to make a submission on the *Emissions Reduction Fund: Safeguard Mechanism Consultation Paper*. This submission is made on behalf of the bauxite mining, alumina refining, and aluminium smelting sectors, which directly employ more than 14,000 people and sustain the livelihoods of more than 50,000 households, most in regional Australia. We are responsible for more than \$9 billion of export earnings for the Australian economy and make up a substantial part of the economic activity in regions where we operate including Arnhem Land, Gladstone, south-west Western Australia, Hunter Valley, Cape York, Portland and Tasmania.

With direct emissions of 3.5 million tonnes CO<sub>2</sub>-e per year and indirect emissions of more than 25 million tonnes CO<sub>2</sub>-e per year, the safeguard mechanism will have a significant impact on our sector - hence our interest in the design of this policy.

The Australian Aluminium Council (AAC) agrees with the Government that it is vital that any policy approach to climate change does not harm the competitiveness of Australian businesses and industry.

The AAC submission highlights key issues and concerns with the options proposed in the discussion paper that need to be addressed for the Government to achieve its stated aims, including.

- The inadequacy of an absolute emissions test for aluminium smelters and alumina refineries, both of which undergo incremental increases in production.
- The exception rules for significant expansions, multi-year averaging, natural resource variability and exceptional circumstances scenarios do not work in mitigating the exceeding of baselines for the aluminium industry
- The absence of an emissions intensity test (a test which would allow business as usual growth to avoid penalty).

The AAC strongly urges the inclusion of an emissions intensity test as part of the safeguard mechanism design, to ensure some of the world's most efficient facilities are not penalised for "business as usual" incremental production growth.

Further details on these issues are included in the Appendix.

The Council understands that draft legislative rules will be released for comment before finalising the rules in late 2015. However, we expect the consultation process will result in significant amendments to the rules proposed in the Consultation Paper.

It will be important for the details of these changes to be tested against real-world operations to gain early feedback, rather than waiting until rules have been drafted and released, when changes may be more difficult to syndicate. The AAC is willing to provide feedback in a timely manner via workshops, meetings and confidential briefings from facilities in order to outline their commercial situation including the implications of the arrangements for the electricity sector for these facilities.

Thank you for the opportunity to comment on the *Emissions Reduction Fund: Safeguard Mechanism Consultation Paper*. We look forward to engaging further on this topic. If there are any questions please contact me on 0429 923 605 or at [miles.prosser@aluminium.org.au](mailto:miles.prosser@aluminium.org.au).

Yours sincerely

A handwritten signature in black ink, appearing to read 'Miles Prosser', written in a cursive style.

**MILES PROSSER**

EXECUTIVE DIRECTOR

AUSTRALIAN ALUMINIUM COUNCIL

T 02 6267 1800

M 0429 923 605

[miles.prosser@aluminium.org.au](mailto:miles.prosser@aluminium.org.au)

**Impact on Business as Usual**

Australia's aluminium smelters and alumina refineries operate in highly competitive and openly traded global markets, with expected demand growth of up to 7% per annum. In this context all facilities, particularly the best quality assets, continually seek to increase production by at least 1-2% per annum. This is likely to also incrementally increase absolute emissions. These are rational business decisions that maintain the viability of facilities and benefit the Australian economy in numerous ways.

The production increases can be from a range of sources, including emissions intensity efficiency improvement, improved work practices, debottlenecking, utilising spare capacity, and process improvements. Often, increases in production do not require significant capital investment.

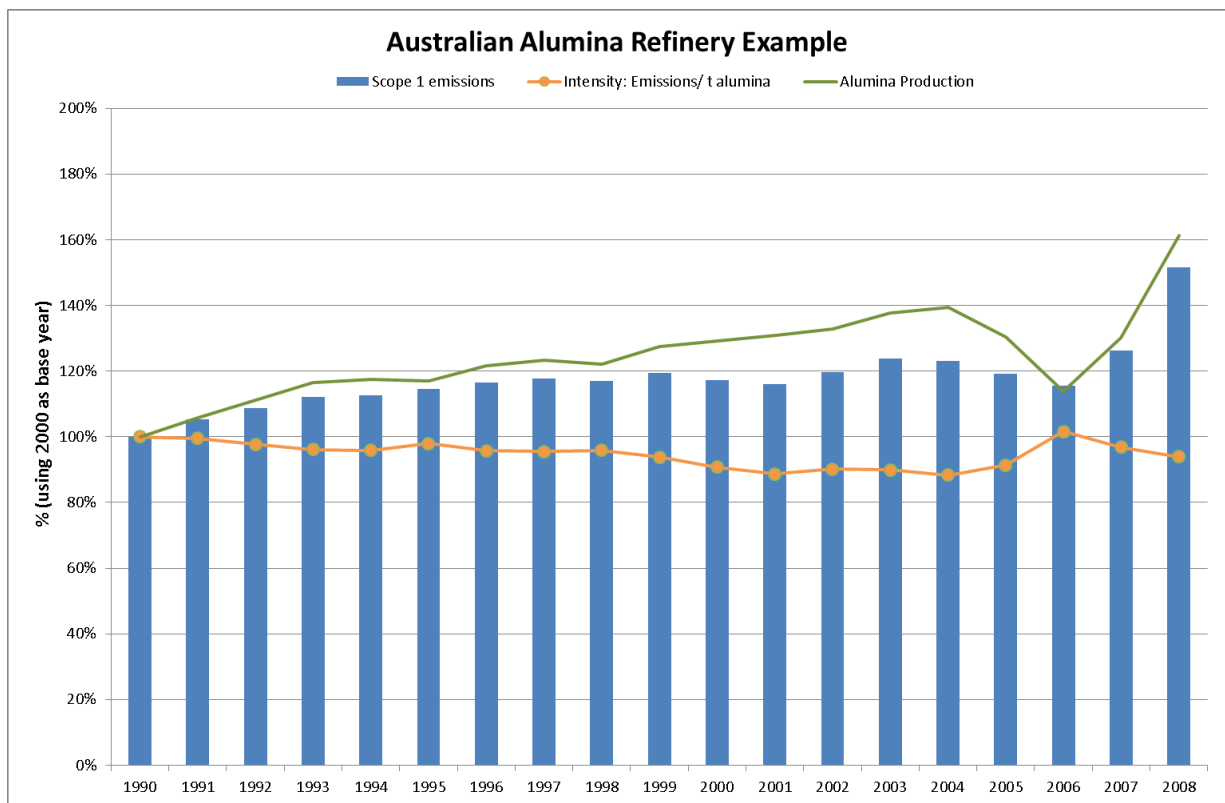
However, incremental expansion in production will breach the absolute emissions baselines proposed in the consultation paper. Production is likely to be higher than the previous five-year high point, and would be expected to continue to grow. As a result, absolute emissions will also be expected to be higher than an historical five-year high point.

None of the flexibility options outlined in the paper will provide any relief in these circumstances. The production and emissions increases will not qualify as a significant expansion (as production as opposed to capacity is increased); the increase is not the result of variability in natural resources; it is not an 'exceptional' circumstance; and multi-year averaging will not help, as production and emissions are at or above the historic baseline and unlikely to fall back to a previous level without a curtailment in production or significant capital investment.

***Emission and Production Trends in the Aluminium Industry***

The graph below shows the emissions and production profile of an Australian alumina refinery for the period from 1990 through to the onset of the GFC in 2008. The GFC triggered atypical reductions in annual production at some facilities, although most facilities are now producing around the level of historic highs and expecting to return to normal trends.

For the example facility shown in the graph, this period included a significant capacity increase in 2008, and also shows an underlying trend of smaller production increases through improvements in plant efficiency and minor debottlenecking projects in most other years. (The scale and name of the facility have been removed for confidentiality reasons.)



It can be seen that there is a strong underlying trend of year-on-year incremental increases in production, as the facility seeks continued improvement to maintain competitiveness. These annual increases in production drive similar increases in absolute emissions (that are likely to trigger absolute emission baselines). However, there is also a clear and consistent trend for reductions in emissions intensity as the increases in production bring improvements in plant productivity.

‘Normal’ operations are typified by reductions in emissions intensity but slight increases in absolute emissions driven by increased levels of production

To assess the likelihood of normal business operations conflicting with the safeguard mechanism baselines as currently proposed, the AAC has analysed historical emissions and production data for all Australian alumina refineries and aluminium smelters from 1990 onwards.

The proposed safeguard rules were modelled on the principles proposed in the discussion paper (a baseline of the highest absolute emissions in a five-year period, rules for significant expansions, option of three-year compliance) with all possible five-year periods considered as the baseline period.

For all alumina refineries in all possible years, it was found that the absolute emissions baselines would conflict with normal business practice on 64% of occasions. That is, a typical alumina refinery would face a financial disincentive to operate in the interests of its long-term viability in two of every three years. As a result, the refinery will either incur an increased cost, or will reduce or minimise the liability by limiting production.

This estimate based on historical data is likely to be less than the actual rate of conflict in the future, given the historical period includes the impact of the GFC which led to reduced production and emissions in some years for some facilities. Most Australian refineries will be looking to consistently increase production above historical baselines in the next few years.

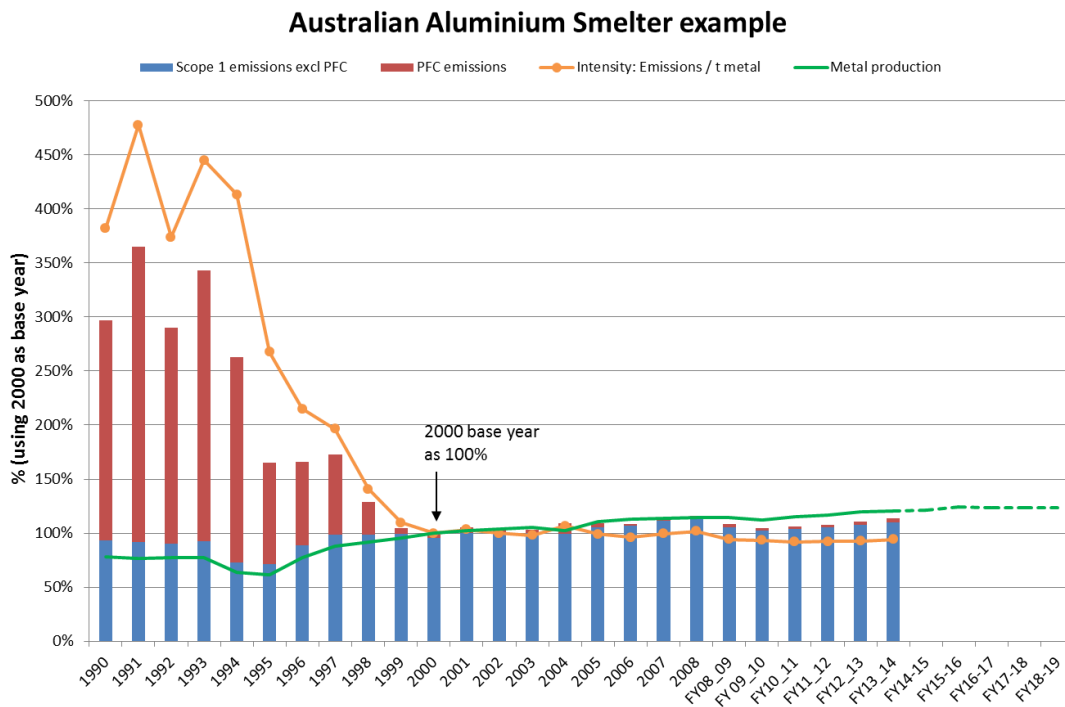
On only 10% of the occasions when the absolute emissions baseline was breached would the initial breach be recoverable through three-year averaging.

In the vast majority of cases, the baseline was exceeded simply as the result of increased production, while emissions intensity of production was actually reduced. A financial penalty was faced solely as a result of increasing production.

The likelihood of exceeding historical baselines in the first year of the scheme will be high given that facilities are always seeking to grow production. However, the chance of exceeding the baseline gets progressively higher (and the extent of exceedance is greater) in subsequent years as the facility seeks to continue to grow production year-on-year.

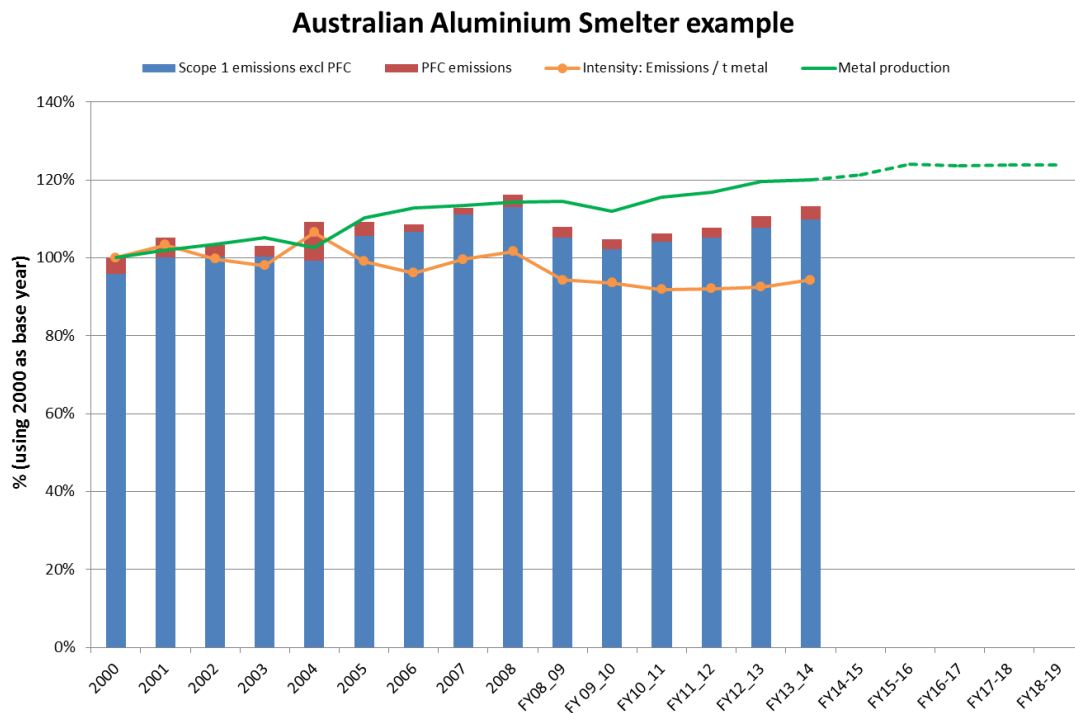
For aluminium smelters there are similar business drivers and trends in output and emissions. These are somewhat masked in the historical data by the significant reductions in emissions of perfluorocarbons (PFCs) - a potent greenhouse gas - since 1990.

The graph below shows the emissions and production profile for an actual smelter. A number of similar trends are evident. There has been a consistent incremental increase in production on a year-on-year basis. There has been a similar level of increase in Scope 1 emissions excluding PFCs, as a result of the increased production.



However, the increase in non-PFC emissions is outweighed by the significant reductions in the emission of PFCs, particularly during the period 1990-2000. Overall, PFCs have been

reduced in Australian smelters by 95% since 1990. PFC levels are now so low that there is limited potential for further reductions. Direct emissions for aluminium smelters are 80% due to the consumption of carbon anodes in the production process, which also has limited potential for reduction in magnitude. The graph below shows the same aluminium smelter, but focuses on the period from 2000. This shows a trend common to Australian smelters of gradual reductions in emissions intensity with incremental increases in absolute emissions driven by increases in production. It also shows production projections for the next five years and it is expected that the creep in absolute emissions trend will continue with this production increase.



### Impacts of Safeguard Mechanism

A number of aspects of the proposed safeguard mechanism rules are apparent from this data.

1. The rules will impose costs - or act as a disincentive - for incremental increases in production, which are an essential part of a large, capital intensive processing facility maintaining competitiveness.
2. At the margin, an increase in production at a facility will face the full 'carbon cost'. That is, the emissions associated with an increased level of production are likely to all be above the historical baseline and will be fully exposed to the cost of the policy (expected to be the cost of purchasing offsets, as a minimum).
3. Because baselines are determined on historical emissions at a facility level, the cost of incremental growth will be faced by all facilities regardless of their comparative greenhouse performance. That is, even the most greenhouse efficient facilities - and Australia has some of the most greenhouse efficient alumina refineries in the world - will face the full cost of the policy.

Similar trends can be expected in other processing and manufacturing industries. The proposed safeguard mechanism rules will inevitably impose costs on Australian refineries and smelters that are higher than the carbon costs being imposed on facilities they compete against in global markets. Australia's main aluminium competitors are located in countries such as China, the Middle East and Brazil. While some of these countries have emissions reduction policies, they do not impose comparable carbon costs on their alumina refineries and aluminium smelters to those that will be imposed by the safeguard mechanism in Australia.

### ***Inconsistencies - Intent of Direct Action***

The impact described above highlights that the proposed safeguard mechanism rules are inconsistent: with previous policy statements; internally within the policy; with rational business decisions; and with the natural intent of the policy.

The imposition of costs on rational business decisions by the safeguard mechanism is at odds with initial statements of the policy – not to punish 'business as usual' levels of production. These statements have been reiterated at all stages of development until now.

The Coalition's Direct Action policy statement prior to the election stated clearly: "this will be achieved without new or increased taxes on Australian industries or increased costs to Australian households and families. We are committed to incentives rather than penalties; to rewarding positive action rather than punishing Australian families, households and businesses," and: "rather than punishing industry for production and employment, Australia needs a scheme that will provide the incentive for firms to reduce their carbon emissions and, at the same time, minimise the costs to industry and the Australian economy. It is vital that any approach to climate change does not hurt the competitiveness of Australian businesses and industry."

This was reiterated with the release of the Green Paper, which claimed the policy would "allow businesses to continue ordinary operations without penalty".

The subsequent White Paper then provided further detail by suggesting that "flexibility could be provided where a business' emissions rise above absolute baselines, but that business can demonstrate that its emissions intensity of production is not rising".

The AAC believes the issues outlined in this submission must be addressed in order for the safeguard mechanism to contribute to these objectives.

### ***Inconsistencies - Intent of Safeguard***

Even within the proposed safeguard mechanism, there are clear inconsistencies in the treatment of industry growth between a site undergoing a significant expansion versus one making incremental improvements and creeping production, for example:

- A 20% increase in production as a result of constructing a new facility – the company could apply for a best-practice emissions intensity baseline and therefore face minimal or no cost from the policy;

- A 20% increase in production from a significant expansion in production capacity - the company could apply for an emissions intensity baseline and therefore also face no carbon cost; and
- A 20% increase in production (over a number of years) as a result of continual improvements in plant operation – the company, in contrast to the other examples, will face the full carbon cost for the associated increase in emissions.

### ***Inconsistencies - Safeguard Application***

The inconsistencies in the proposed penalisation of incremental expansions in production are also evident when considered against measures in the proposed rules to avoid penalising other ‘realities’, or business-as-usual situations, such as:

- *The ability to apply for a revised baseline where variations in the grade or depth of a natural resource will lead to an increase in emissions.* The Consultation Paper notes that there are “certain operations” where the default baseline “does not fully reflect business-as-usual emissions” and the possible impact on these operations justifies the ability to apply for a revised baseline. In contrast, the suggested emissions intensity test is dismissed, at least partly because, although “it could be effective in some sectors”, it was not effective for others.
- *Rules that will allow increases in emissions from significant expansions.* These exceptions are deemed consistent with the overall intent, as long as “there is a deliberate and sustained increase in business activity”. However, incremental expansions in production are also “deliberate and sustained increases” and should therefore warrant similar treatment.

Perhaps the most glaring inconsistency in the penalising of incremental expansions in production is apparent against the twin objectives of the Government’s policy to reduce greenhouse gas emissions while sustaining economic growth. Sustained incremental increases in production, particularly in the most productive and efficient facilities, are the principal means by which the processing and manufacturing sectors of the Australian economy can deliver on these twin objectives – growing production in efficient Australian facilities and out-competing facilities with higher emissions in other countries. Yet the rules for the safeguard mechanism propose to impose a cost on those incremental expansions.

### **Emissions Intensity**

The difficulty of having absolute emissions as the single basis for the scheme in discussions with Government has been emphasised. However, there is a strong argument for a more coherent and consistent treatment of incremental increases in production or situations where historic emissions no longer represent current operations.

The solution is simple - *a secondary application of an emissions intensity test if the absolute emissions baseline of a facility is exceeded.* In previous consultation, the Government had proposed such a model with the emissions intensity baseline tied to the intensity in the year of highest production from the baseline period. This is a minor addition to the proposed policy and the methodology is consistent with other measures already included in the proposal. The option of an emissions intensity test would enable Australia’s manufacturing



sector to deliver on the twin objectives of the policy – reducing emissions and providing economic growth. It would be consistent with this Government’s previous statements on policy intent and even the previously proposed policy detail. It would be consistent with the treatment of rational business decisions in other parts of the economy. Most importantly, it would remove a potential cost burden on facilities that are economically and environmentally efficient and enable their continued growth and operation.

The Consultation Paper suggests that while an emissions intensity test *“could be effective for some sectors, many sectors highlighted that rising absolute emissions are often not linked to falling emissions intensity”*. While this may occur, it is not a reason for excluding an emissions intensity test for those sectors where it could be effective.

Measures have been proposed to address natural variation that occurs in natural resource industry sectors. While an emissions intensity test where natural variation in natural resource operations is present is not appropriate, there may be situations where rising emissions are not linked to natural variation and an intensity test is applicable.

The Consultation Paper also notes that an emissions intensity test can be *“administratively intense”* for *“some sectors”*. However, this does not seem sufficient reason to discount the option, given the proposal is for this to be a voluntary option. That is, any increased administrative burden would only fall on those facilities wishing to use the test.

The AAC also notes that the emissions intensity approach is considered suitable as the basis for defining best practice for new facilities and significant expansions.

The use of an emissions intensity approach for new facilities and significant expansions indicates that it would be an appropriate measure of the performance of a facility and would further demonstrate best practice operations. It is a contradiction that the facilities that are likely to be used in defining best practice through emissions intensity will incur financial liability for exceeding an absolute baseline.

### **Significant Expansion Commenced Before 2016**

A significant expansion in the capacity of a facility after the mechanism commences will enable the operator to apply for an adjusted baseline to reflect new production levels and emissions intensity. New facilities where an investment decision has already been made but have not yet reached full production are also able to apply for a baseline that reflects inherent emissions performance.

However, there does not appear to be an equivalent measure for a significant expansion in capacity that has occurred just prior to the mechanism commencing but that has not yet reached full production - and where historic emission levels that will define the baseline do not fairly reflect future emission levels.

There are proposed mechanisms to adjust the absolute baseline for expansions that will breach absolute baseline before 2020. However, there are situations where the conditions of five years of NGER data above 100,000tCO<sub>2</sub>-e and three years of NGER data above 100,000tCO<sub>2</sub>-e are both met. The baseline is set on highest emissions between 2009/2010 and 2013/2014, with no opportunity to adjust the baseline. This gap can be remedied with modification to the proposed significant expansion criteria.

*The proposed treatment of significant expansions should be extended to significant expansions that occurred just prior to scheme commencement, where historical production and emissions do not fairly reflect future production and emissions. This treatment would allow baselines to be adjusted based on the emissions intensity and production of the expanded facility.*

It should be noted that an emissions intensity option as described earlier in this submission would be a more streamlined way to address the issue of recent significant expansions as well as a number of other normal business decisions which should not be penalised or discouraged by policy.

### **Electricity sector**

The Consultation Paper proposes a sectoral approach for the electricity sector, using a baseline derived from the average emissions over a historical period. If the sector baseline is exceeded, individual baselines will apply from the following year.

Electricity is not traded beyond Australia's national boundary. It has been accepted previously that electricity generators will be able to pass through at least some of the cost of greenhouse gas emissions reduction policy, to the extent allowable by competition within the domestic market.

The aluminium industry consumes more than 12% of the electricity produced in Australia and may therefore bear a similar proportion of climate policy costs on the electricity sector.

The extent to which costs are passed through will depend on: whether the sectoral baseline is exceeded; whether and the extent to which individual baselines are exceeded; and the extent to which those costs are passed through to consumers (linked to whether the costs are imposed on a 'price-setting' generator).

It should also be noted that if costs are incurred in the electricity sector and electricity generators are able to pass them through to consumers, this will impact on all electricity consumption – including all the electricity consumed by entities covered by the safeguard mechanism (not just the electricity above a historical baseline) and all electricity consumed by other businesses and households.

For this reason, it is critical that electricity users be closely consulted in the development of arrangements for the electricity sector – users may have a much higher commercial exposure to the policy impacts than the generators themselves.

The Government should also be concerned about the potential impact on electricity prices, given they will be passed through to households and small to medium-sized businesses. The AAC has not sighted any modelling on the likely impact on electricity costs of the proposed safeguard mechanism rules, and believes this would be an important exercise.

If the safeguard mechanism is to meet its aim of protecting the value of ERF budget and avoid penalising normal business practices, then a measure will be needed to offset any higher electricity costs to customers that could result from application of the safeguard mechanism to the electricity sector.

*The application of the safeguard mechanism to the electricity sector requires further detail, particularly further clarification of its likely impact on electricity prices and how these will be offset. Consultation should closely involve electricity users, as the likely bearers of such costs.*

### **Changes in Emissions of Inputs**

The Consultation Paper proposes an option to apply to the regulator for an adjustment to the baseline to address variations in emissions that may result from variation in the grade or depth of the natural resource associated with the facility.

The proposed criteria for mining must be extended to include haul distance for those facilities where changes in grade or reserve result in increased haul truck emissions.

The Paper notes that this would apply “to a subset of facilities in the mining, oil and gas sectors”. However, a similar (or the same) situation applies to manufacturing operations that purchase an input from a supplier of a natural resource (such as coal, or gas).

*Any option to adjust baselines to reflect natural variation in a resource should also be available to purchasers of that resource who will be nominally responsible for the emissions from its combustion or any increased process energy required.*

### **Rationalisation of multiple facilities**

There has been significant rationalisation of manufacturing and processing facilities in Australia as a result of normal commercial pressures, compounded by the global financial crisis and fluctuations in the exchange rate. This process is likely to continue, though perhaps at a slower rate.

These pressures sharpen or hasten rational decisions to close or reduce output at some facilities and increase output at other facilities, where production can be more competitive.

From a greenhouse gas perspective, this will almost inevitably lead to an increase in emissions from the expanded facility, but may involve a reduction in absolute emissions and/or emissions intensity of production when considered across the two facilities.

Under the proposed safeguard mechanism, the increase in emissions from the expanded facility would be considered on its own and would breach baselines and incur a cost. It does not appear that the proposals around “changes to facility boundaries” would provide a logical consideration of the emissions profile changes across the two facilities, which are ‘grouped’ from a business perspective and should also be grouped from an emissions reduction policy perspective.

This proposed treatment is illogical. From a greenhouse and a business perspective the decision to rationalise production by expanding one facility and reducing another is sensible and beneficial for minimisation of emissions and maintenance of competitiveness.

*The safeguard mechanism should include a measure to allow grouping of facilities to enable the comparison of their aggregated future emissions to their aggregated historical emissions to better reflect how the facilities are managed and how they impact the environment. This*

*may include the ability to combine the baselines of individual facilities for future comparison, perhaps with some constraints on the level of common ownership and products.*

### **International permits**

The ability to offset emissions by voluntarily surrendering eligible carbon units is included in the proposed safeguard mechanism. The available options are currently limited to Australian Carbon Credit Units (ACCUs).

The global nature of climate change and international exposure of virtually all Australian businesses emphasises the need to find lowest cost solutions and minimise the costs imposed on Australian operations. This can only be delivered if the safeguard mechanism allows the surrender of credible international units to offset emissions.

It may be appropriate to control the types of units to ensure the reliability of claimed reductions, but the options should include Clean Development Mechanism (CDM) units, given the rules and framework under which these units are generated.

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