## Australian Aluminium Council

Submission to the

# Senate Economics Committee - Inquiry into the provisions of the Energy Efficiency Opportunities Bill 2005





Dear Mr Hallahan

The Australian Aluminium Council welcomes the opportunity to make a submission to the Senate Economics Committee's Inquiry into the provisions of the Energy Efficiency Opportunities Bill 2005.

The Australian Aluminium Council and its members have endorsed the Federal Government's Energy White Paper (June 2004) approach in linking energy and greenhouse with the policy focus on competitiveness, investment, economic well-being, technology (as the long term policy direction and promoting fast track implementation of low emission technologies) – and energy efficiency, including the Energy efficiency Opportunity Assessments proposal.

All Australian bauxite alumina and aluminium production facilities will be covered under the Australian energy efficiency opportunity assessments legislation – and the Council and its members support the objectives of the Energy Efficiency Opportunities Bill to improve the identification and encourage the implementation of cost effective energy efficiency opportunities by large energy using businesses.

The Council welcomes the approach adopted by the Federal Government towards energy efficiency within the energy efficiency opportunities assessment in not prescribing the timing or the actions to be taken by the reporting entity under the scheme. Some schemes in this area of public policy fail to recognize the commercial demands of managing and operating a competitive business and place energy efficiency investments at a priority above other objectives that must considered by management.

The Council also welcomes the approach undertaken by the Federal Government and departmental officials in consulting with industry in the development of the Energy efficiency Opportunity Assessments program. We anticipate this positive, co-operate approach will continue during the further development of the program, particularly in the preparation and introduction of the regulations to give effect to the legislation.

### Australian aluminium – the industry

The aluminium industry has been a major investor in Australia for 50 years – and is an important part of the industrial base of Australia and has a capital replacement value of more than A\$30 billion dollars; it has grown to be one of Australia's major sources of export income, with annual export earnings now about A\$8 billion dollars.

Australia is the world's largest producer of bauxite, 59 million tonnes in 2004; Australia is also the world's leading producer of smelter grade alumina at 17 million tonnes in 2004.

Alumina production will continue to increase in 2005 with the new Comalco refinery at Gladstone; further major expansions in capacity are being developed (Northern Territory, Western Australia).

Aluminium metal production in 2004 of 1.9 million tonnes was at its highest recorded level. The Australian aluminium smelters consume around 30 000 gigawatts (GWh) of electricity each year.

The share of energy in the operating cost structure of alumina is 23% and aluminium production is 22%. With the energy intensive nature of the production process for alumina and aluminium, the success of the industry depends on being internationally competitive in terms of energy efficiency and having access to internationally competitively-priced energy.

The Australian Government Energy White Paper's focus on technology and long term solutions to sustainable greenhouse abatement is in line with the industry's view. We have already begun long term investment programs to improve energy efficiency, reduce energy intensity – and deliver sustainable abatement of greenhouse gases. The Australian aluminium industry has shown itself as a leader in energy efficiency and in reducing the emissions intensity of its final primary metal product.

### Energy is a key input, but energy intensity is falling

Alumina production is showing an improvement of around 10% reduction in energy intensity per unit of output since 1990 – and industry is continuing to seek cost-effective improvements.

Queensland Alumina Ltd (QAL), the world's largest alumina refinery with 3.8 million tonnes annual capacity, has recently completed a major re-fit to its calcination process to deliver a 25% reduction in energy consumption, substantial greenhouse emissions reductions and a better overall environmental performance.

Alumina production facilities are the perfect co-generation partner, with 365 day 24/7 constant heat demand; few, if any, industries "fit" better than alumina refining for co-generation, particularly in an Australian climate. Significant fuel switching to gas has now occurred and/or is occurring within the Australian alumina sector

Alcoa is continuing to introduce gas-fired co-generation with energy partner Alinta at their Western Australian alumina refineries, a very significant improvement in energy efficiency. Two new Alinta co-generation units at Alcoa's Pinjarra Refinery will utilise gas-fired turbines to generate electricity for third party customers, with the (exhaust) heat producing steam for use by the refinery; both the electricity and steam will be produced more efficiently than current practice. Separately, the Pinjarra refinery <u>efficiency</u> upgrade project will improve the refinery's energy efficiency (and greenhouse performance) by about 5%. Combining the <u>efficiency</u> upgrade project with the new Alinta <u>co-generation</u> project will reduce the greenhouse intensity of the Pinjarra Refinery about 14%, giving annual net  $CO_2$  saving of around 380,000 tonnes.

Other major development projects are aimed at further reductions in our energy-greenhouse footprint, including the Alcan Gove natural gas pipeline to replace the existing use of oil products for the production of heat and electricity at the Gove refinery.

Energy efficiency within the Australian aluminium smelting sector is world class – and reflects best available and affordable technology associated with the age of the investment. The age profile of the Australian smelter capacity is significantly lower than the European and North American age profile.

The aluminium industry is continuing to seek new advances in smelting technology (including inert anode technology, drained cells, anode carbon alternatives, cell materials, alternative metal production processes, etc). Major research activities are being undertaken in Australia by individual companies and in collaboration with key centres such as the CSIRO Light Metals Flagship program as well as at global research facilities operated by the major aluminium companies. The Council also welcomes the Asia Pacific Partnership for Clean Development and Climate initiative and its objectives – and is ready to work with the Asia Pacific Partnership to realise efficiency, technical and process management improvements across the aluminium sector within all the member economies. Significant further gains can be achieved through the global realisation of best practice (PFC emissions management, etc), the progression to best available and affordable technology (BAAT), and the continued development and deployment of new technology.

The Australian aluminium industry's commitment to delivering reductions in emissions via technology, innovation and investment has been amply demonstrated in the voluntary Australian Greenhouse Challenge Plus program, with 100% alumina and aluminium coverage (since 1996); the industry has now extended this involvement to cover bauxite mining operations from 2005.

### Comment on specific aspects of the Bill

#### Commercially sensitive information

Details of energy consumption by aluminium smelting facilities are commercially sensitive and the legislation should protect Registered Corporations from the publication of such information. (Section 12 (2) identifies the information that may be made available on that register, including the name of each corporation that the Secretary must register and "any other matters required by the regulations." (12[2b])

Section 21 states that a registered corporation must prepare and make available to the public a report in accordance with section 22. Section 22 provides for the public reporting of an energy efficiency opportunities assessment report, including "any other information required by the regulations" (Section 22 [3]).

Consistent with the approach to other aspects of this initiative, we expect the Government to act responsibly and ensure that information of a commercially sensitive nature is not required to be included in the public reporting under the scheme. Continued consultation with reporting entities on this issue is required to ensure the achievement of this outcome.

#### Reporting sign-off provisions

We would suggest that the sign-off provisions for the report under Section 22 (2b) be varied and made consistent with the arrangements under the Greenhouse Challenge Plus where the Chief Executive is responsibility for signing off such reports.

### Confidentiality requirements for authorised officers

Persons other than Commonwealth officials appointed under the provisions of Section 25 (Appointment of authorised officers to verify information provided to the Secretary by registered corporations) should face similar confidentiality requirements on the handling of commercially confidential company information as imposed on Commonwealth officers.

We would be pleased to discuss issues raised in this submission or any other matters that the Committee may wish pursue.

Yours sincerely

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