



Partnerships for a sustainable business

Australian Industry Group. November 18, 2010



australia's aluminium



Alcoa in Australia



PRINCIPAL OPERATIONS WITHIN AUSTRALIA

WESTERN AUSTRALIA

- 1 HUNTLY MINE
- 2 WILLOWDALE MINE
- 3 KWINANA REFINERY/PORT
- 4 PINJARRA REFINERY
- 5 WAGERUP REFINERY
- 6 BUNBURY PORT

VICTORIA

- 7 PORTLAND SMELTER
- 8 ANGLESEA POWER STATION
- 9 POINT HENRY
SMELTER/ROLLING MILL

NEW SOUTH WALES

- 10 YENNORA ROLLING MILL

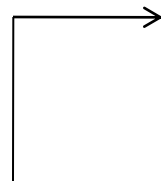




What we do



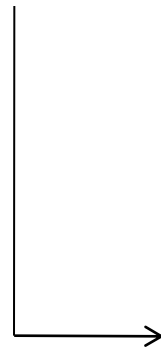
Bauxite



Aluminium ingots



Alumina



Rolled sheet



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Alcoa's Business Philosophy

- Alcoa operates using triple bottom line management principles to obtain the best financial, environmental and social outcomes possible.
- Where we are not the expert, we find and partner with the expert to get the required outcome.





Alcoa's Successes: Energy, Water & Waste

- Total Greenhouse Gas reduction of 17% since 1990 at Pt Henry. Globally Alcoa has reduced by **x%** over this period.
- Direct Greenhouse Gas reductions of 67% since 1990.
- Reduction of 96% in Prescribed Industrial Waste to landfill since 2000 (currently < 2 tonnes/month).
- Reduction in water use of 21% since 2000.
- The above has been achieved whilst increasing production by 13% since 2000.





Partnerships

- The true success lies in the ability to partner.
- Sharing expertise and integration in our core business
- Links to our key values – EHS
- Employee engagement



CSIRO





Waste to Fuel

- Alcoa has a partnership with mineral processing company Regain to convert hazardous waste into alternative fuels for the cement industry.
- Spent Pot Liner (SPL) is a hazardous waste produced when a smelting pot reaches end of life and needs to be rebuilt.
- This diverts approximately 3000 tonnes of PIW from landfill every year at Pt Henry alone whilst conserving other fuel supplies.



Regain





Community Water Savings

- Whilst Alcoa continues to reduce its own water use, a partnership with Barwon Water helps save Geelong's water supplies.
- The Alcoa Water Saving Fund saves 40 ML annually or 15% of Alcoa's internal water use.
 - Recycled water infrastructure for sporting grounds
 - Water audits and Efficiency upgrades for residents via the Water Secure Home program
 - Reuse of dialysis waste water at Barwon Health for garden watering
 - Rebates for water tank installation for Alcoa employees.





Moolapio

- Alcoa and Greening Australia have been partners for nearly 30 years.
- In 2006 the partners developed the Moolapio Land Management Plan.
- Moolapio uses scientific research to re-establish native grasslands on Alcoa's land at Point Henry.
- The partnership also upgrades Alcoa's internal landscape to a native, low water use, low maintenance cost environment.
- Community engagement and education is the platform for achieving these environmental improvements.





Public Place Recycling

- Alcoa partners with Sustainability Victoria to provide public place recycling facilities at major sporting venues.
- The “Public Place Recycling Project” extends recycling from people’s homes to major community recreational venues and main streets across the Geelong and Surf Coast region.
- The project has also been implemented at Skilled Stadium and other public sporting grounds around the state.
- As aluminium is endlessly recyclable, and takes just 5% of the energy, this partnership fits Alcoa’s drive to lift the profile of recycling.





CSIRO

- An “anode effect” is a process upset in the smelting pot that generates a greenhouse intensive emission.
- CSIRO assisted Alcoa in developing improved signal processing within a computer logic that has the capability to predict upcoming anode effects based on tracking the voltage movements within the pot.
- The logic allows a pot operator time to prevent the upcoming anode effect.
- Reduction in the occurrence and duration of anode effects is the primary lever in reducing direct greenhouse gas emissions.





Kommercial Cafe

- Alcoa partnership with Kommercial continues to evolve. A division of Karingal, Kommercial provides supported employment for people with a disability.
- Kommercial provides administrative, land care and hospitality services at Alcoa.
- In 2007, Kommercial won a competitive tender process to operate Pt Henry's canteen.
- Kommercial Café provide healthy food options, whilst providing training opportunities for supported employees.
- Kommercial sought waste-wise accreditation through BRWMG, and as a result, decreases the general waste land-filled at Alcoa.





Conclusion

- Alcoa utilises in-house resources to drive continual environmental improvement.
- Where we do not have the skills or resources, Alcoa partners with the expert to drive sustainable benefits through our business.
- Regain Mineral Services, Barwon Water, Kommercial, Sustainability Victoria, CSIRO and Greening Australia are current partners that assist Alcoa achieve its sustainability goals both internally and externally.





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since 1963