To: The Manager
Announcements
Company Announcements Office
Australian Securities Exchange



#### Public Announcement 2011 - 34AWC

Attached is a copy of a presentation by Alumina Limited CEO, Mr John Bevan and Interim CFO, Mr Chris Thiris distributed at the Morgan Stanley Asia Pacific Summit 2011, held in Singapore on 15 November 2011.

Stephen Foster Company Secretary

15 November 2011

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# Morgan Stanley Asia Pacific Summit November 2011

**John Bevan Chief Executive Officer** 

**Chris Thiris Interim Chief Financial Officer** 

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Some statements in this presentation are forward-looking statements within the meaning of the US Private Securities Litigation Reform Act of 1995. Forward-looking statements also include those containing such words as "anticipate", "estimates", "should", "will", "expects", plans" or similar expressions. Forward-looking statements involve risks and uncertainties that may cause actual outcomes to be different from the forward-looking statements. Important factors that could cause actual results to differ from the forward-looking statements include: (a) material adverse changes in global economic, alumina or aluminium industry conditions and the markets served by AWAC; (b) changes in production and development costs and production levels or to sales agreements; (c) changes in laws or regulations or policies; (d) changes in alumina and aluminium prices and currency exchange rates; (e) constraints on the availability of bauxite; and (f) the risk factors and other factors summarised in Alumina's Form 20-F for the year ended 31 December 2010.

Forward-looking statements that reference past trends or activities should not be taken as a representation that such trends or activities will necessarily continue in the future. Alumina Limited does not undertake any obligations to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise. You should not place undue reliance on forward-looking statements which speak only as of the date of the relevant document.



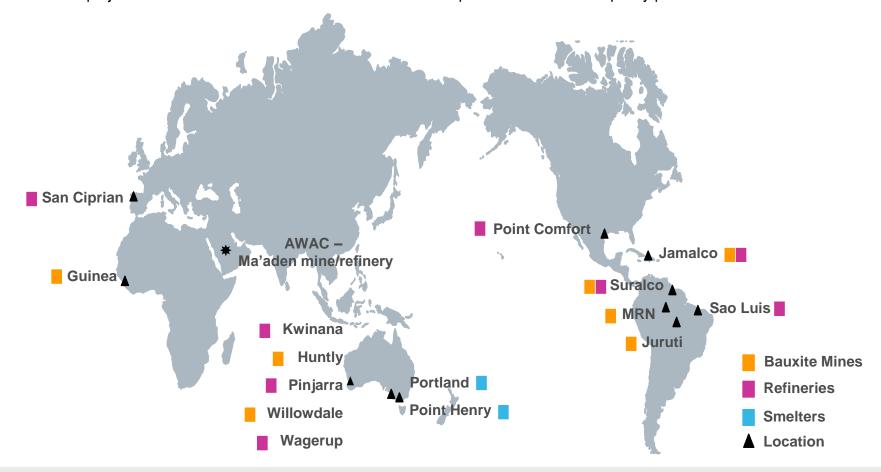
### **AWAC:** the premier global bauxite / alumina business

- Alumina Limited provides a unique ability for a pure investment in Alcoa World Alumina & Chemicals (AWAC)
- Alumina Limited owns 40% of AWAC a premier owner and operator of Tier 1 bauxite and alumina globally
- AWAC is a joint venture between Alumina Limited (40%) and Alcoa Inc (60%)
- Investment in AWAC is Alumina Limited's only asset
- Alumina Limited is listed on the Australian Securities
   Exchange and the New York Stock Exchange



### **AWAC – largest bauxite & alumina business**

- Eight refineries 17.2 million tonnes per annum of capacity
- Seven bauxite mines world's largest bauxite miner
- Two smelters market competitive power contracts renewed to 2036
- New project in Saudi Arabia additional 0.45 million tonnes per annum alumina capacity planned for 2014



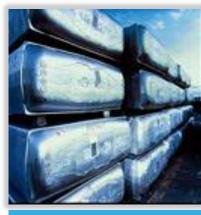


### The aluminium industry supply chain

#### Alumina Limited focuses on bauxite and alumina







BAUXITE ~225 million tonnes, refined into:



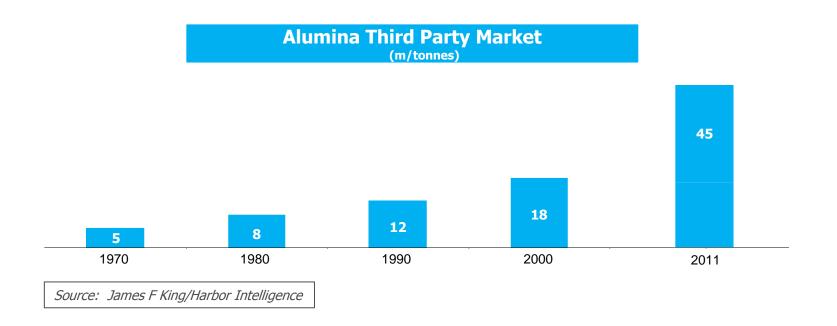
ALUMINA ~90 million tonnes, smelted into:



ALUMINIUM ~45m tonnes

- Each business has different economics and varies regionally
- Global industry is less vertically integrated than before China's growth
- Long term demand for the entire aluminium industry is strong
- Margins are continuing to move upstream

# Increase in independent smelters has led to substantial third party alumina market

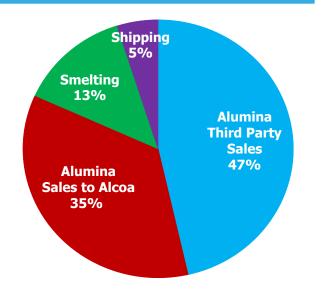


- The traditional integrated industry model is changing
- Fewer smelters are self sufficient in bauxite and alumina
- Third party alumina market is now around 50% of global market and up 10% in 2011
- Chinese growth is a major factor. Chinese refineries sell largely on a spot basis
- Creates pressure for pricing of non-Chinese alumina to de-link from aluminium pricing



### AWAC moving to alumina index pricing

#### AWAC 1H 2011 Revenue Break Up



Forecast production 15.8 million tonnes in 2011

- Approx 20% of third party SGA\* contracts shifted to alumina index/spot in 2011
- Approx 40% of SGA third party sales on index/spot in 2012
- Alcoa SGA pricing largely based on third party average

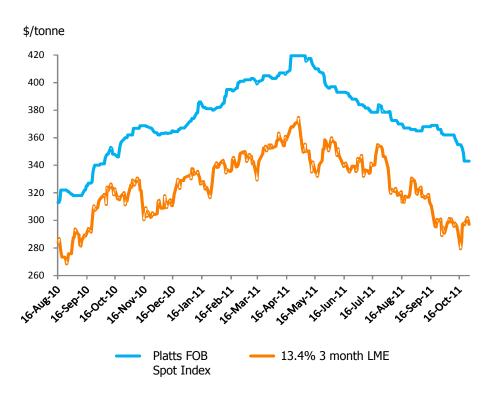


SGA – smelter grade alumina

### What are the risks of price delinking?

1. Prices will be more volatile than linked to LME?	Spot prices reflect industry fundamentals of alumina. Market is a physical market and is less susceptible to speculators as exists in the metal exchanges
2. Customers and suppliers may not be confident in the spot index mechanism if market is too thin or illiquid?	Movements in the indices reflect alumina market fundamentals
3. China's ability to build capacity quickly will drive prices lower?	Chinese refineries are generally high cost producers, providing most of the alumina in the fourth quartile of the cost curve. It is dependent on seaborne bauxite. This will underpin global pricing

# What has happened since alumina indices began?



- Multiple suppliers using alumina indices
- Average industry linkage rate (ABARE) on linked contracts in 2010 was 13.4%
- Index range between \$22 and \$80 higher than 13.4% LME
- \$46 difference on 31 October 2011
- Platts price (\*\$340) is approx 16.3% of LME cash (Nalco November sale for 2012 at 16.39%)

\* As at 8 November 2011

### Prices have moved up, reflecting alumina fundamentals



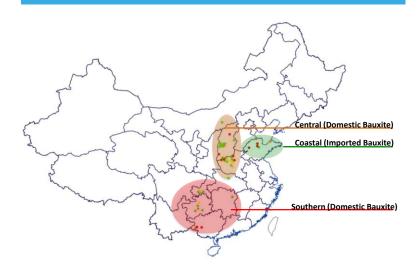
# Will strong aluminium demand and de-linked prices encourage new capacity?

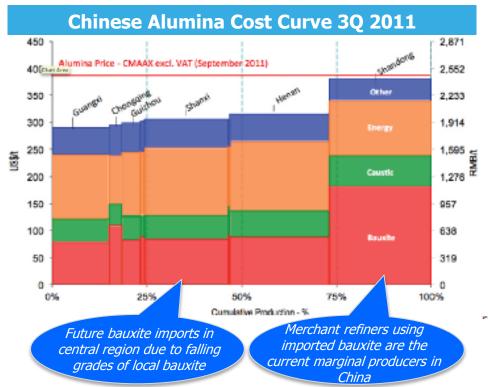


- Current prices outside of China are below reinvestment level
- Non-Chinese suppliers are running at 90% of capacity – a high level of utilisation
- New capacity in non-Chinese countries could take 3-5 years to bring on line

#### Chinese refining capacity is growing, with Shandong Province a large high cost producer

#### **Chinese Alumina – Production Areas**



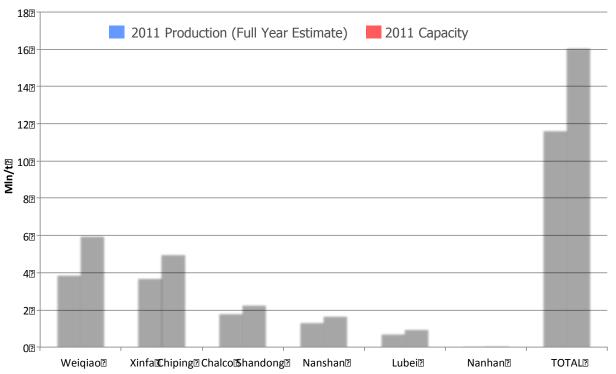


How does China impact the global market?

- China is about 40% of global market
- Chinese refineries generally sell alumina on a spot price market basis
- The marginal alumina producers in China are independent refiners in Shandong province who have approximately 15% of world capacity
- These producers have a cost structure that is high and which varies with the cost of key inputs (bauxite, caustic, energy, exchange rates)
- Without this production, the Chinese aluminium industry would be squeezed
- The Shandong refineries are dependent on imported bauxite
- Domestic bauxite supply is limited and decreasing in quality



# **Shandong Province's alumina capacity and production is growing**

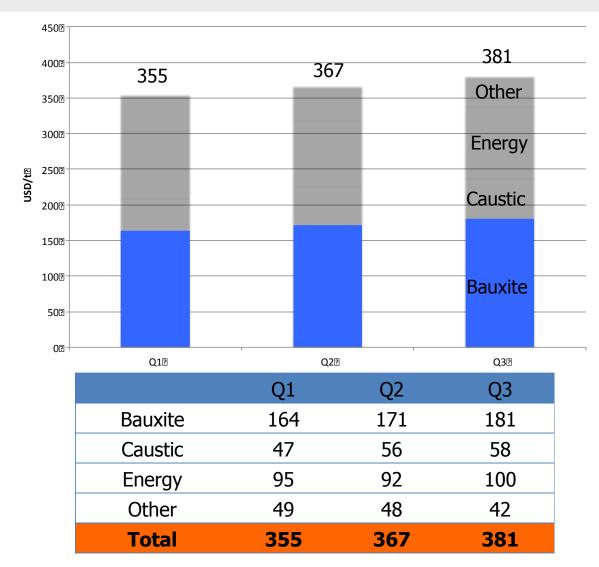


Unit: Mln t	Production	Capacity
Weiqiao	3.9	6
Xinfa Chiping	3.8	5
Chalco Shandong	1.8	2.3
Nanshan	1.4	1.7
Lubei	0.8	1
Nanhan	0.1	0.1
Total	11.8	16.1

- Overall utilisation stands at 72.5%
- Weiqiao & Xinfa are expected to expand development in Shandong, accounting for 65% of the total production in 2011
- Plans emerging for new capacity based on imported bauxite (Inner Mongolia)

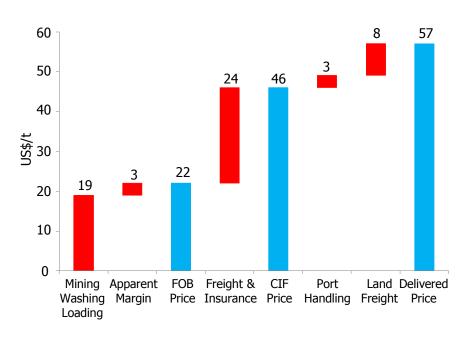


# **Shandong Province's refining costs are rising**



### **Bauxite prices on rise for Chinese producers**

### **Imported Bauxite Cost Structure (Indonesian Bauxite Nov 2011)**



Approx 2.5 tonnes of bauxite for 1 tonne of alumina

- Atlantic bauxite prices (\$33-\$40 FOB) above Pacific prices (\$20-\$30 FOB)
- An estimated 31% of Chinese alumina production is based on imported bauxite in 2011
- Chinese import demand for bauxite up 39% over 2010 – 79% (YTD) from Indonesia
- Indonesia is threatening bauxite export bans
- New capacity requires significant:
  - Infrastructure investments
  - Government approvals



### China – importer or exporter of alumina?

- Chinese alumina refineries exist to satisfy internal demand
- Chinese smelters import when domestic alumina prices are high
- China may limit imports or opportunistically export when arbitrage exists
  - similar to re-selling contracted import cargoes
  - high cost production (and export capacity) shuts down when import prices are low
  - imports will recommence when arbitrage closes
- Exports unlikely for extended periods:
  - no VAT export rebate (unlike Australia)
  - inland and sea freight cost disadvantage
  - logistical issues most Chinese alumina is bagged
  - alumina quality variance risks for RoW smelters



#### **Most recent financials**

- Sound Alumina Limited first half results
  - positive impact from the move to index-based pricing
  - partly offset by higher costs and adverse foreign exchange
- Aluminium prices have eased since first half results
- Alumina index lower over the second half



### Operating margins continued to improve in the first half

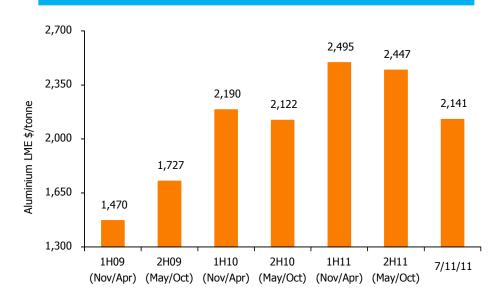
Alumina Operating Margin <sup>1</sup>					
1H 11	2H 10	1H 10			
\$76/t	\$40/t	\$55/t			

Second half LME linked contracts' revenue reflect May-October LME prices

Operating margin is sales less cost of goods sold (excluding depreciation), and selling, administration, research and other expenses

Source: Alcoa's Alumina Segment 2Q 2011

#### LME aluminium reference value, by half year (3 month LME, lagged by 2 months)

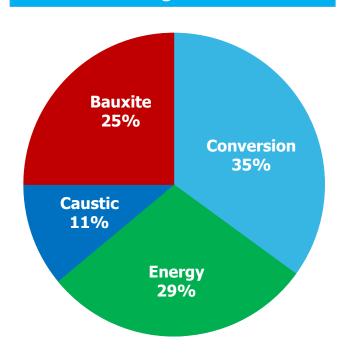


Source: Thomson Reuters



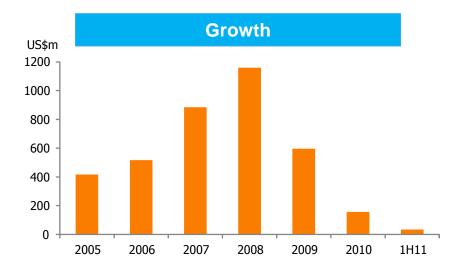
### Foreign exchange cost pressures in AWAC

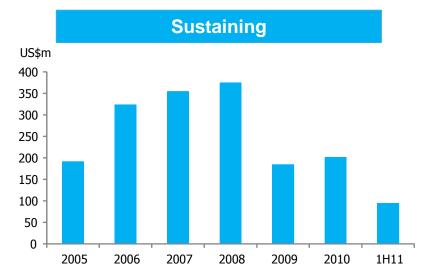
#### **AWAC Refining Cost Structure**



- 65% of alumina produced in Australia and Brazil
- 100% of AWAC aluminium produced in Australia
- Currency pressure estimated to increase alumina cost of production by ~\$19 per tonne over 1H 2010 across total production
- Approx 70% of costs in Australia are in A\$

#### **AWAC** capex

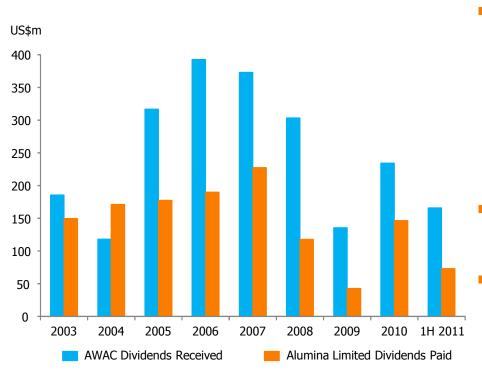




- Growth capex is limited, mainly for finishing Brazil, and equity for the Saudi Project (Ma'aden)
- Forecast in August was \$120 million, mainly Brazil plus \$125m for Ma'aden
- 2011 capex levels trending lower than forecast
- Sustaining capex varies from year to year, based on management priorities
- Base amount relates to construction of residue storage areas
- Current forecast in August was up to \$350m
   in 2011 vs depreciation of \$475m
- 2011 capex levels tracking lower than forecast
- Sustaining capex is generally funded by operating units before dividend distribution
- Crusher move in Australia commenced

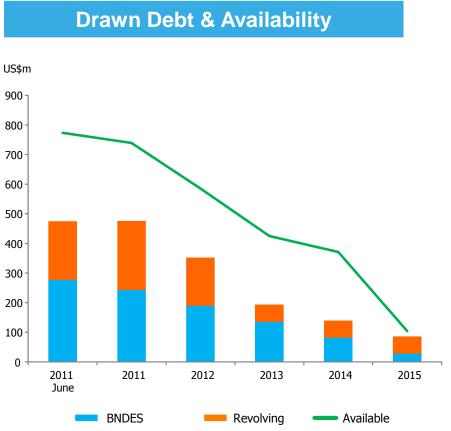


#### **Alumina Limited dividends**



- Alumina Limited policy is to distribute cash from operations after debt servicing and corporate cost commitments have been met. Dividends will be fully franked for the foreseeable future
  - In 2010, paid out 81% under this policy
  - In assessing payout, the Board also looks at
    - Gearing (policy to remain below 15%)
    - Capital expenditure outlook
    - Market Outlook

### Alumina debt profile



- Undrawn committed facilities of \$265 million available
- Gearing a conservative 11.3%1H11
- Policy is to maintain gearing below 15%
- MTN program established

#### **Summary**

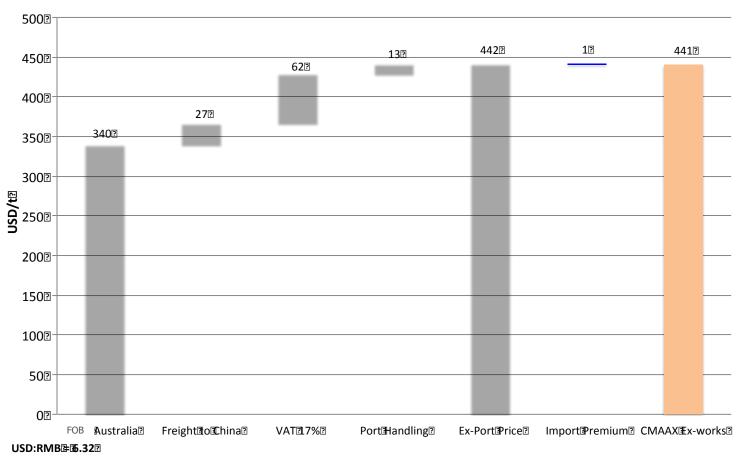
- Index price-based SGA contracts are tracking above historical LME-linked contracts
- Alumina margins have expanded in first half 2011 over 2010, notwithstanding increases in costs
- Alumina Limited
  - owns 40% of AWAC a premier owner and operator of Tier 1 bauxite and alumina assets globally
  - is well positioned to benefit from the move to index-based pricing



# Appendix 1: Pricing Index Comparisons

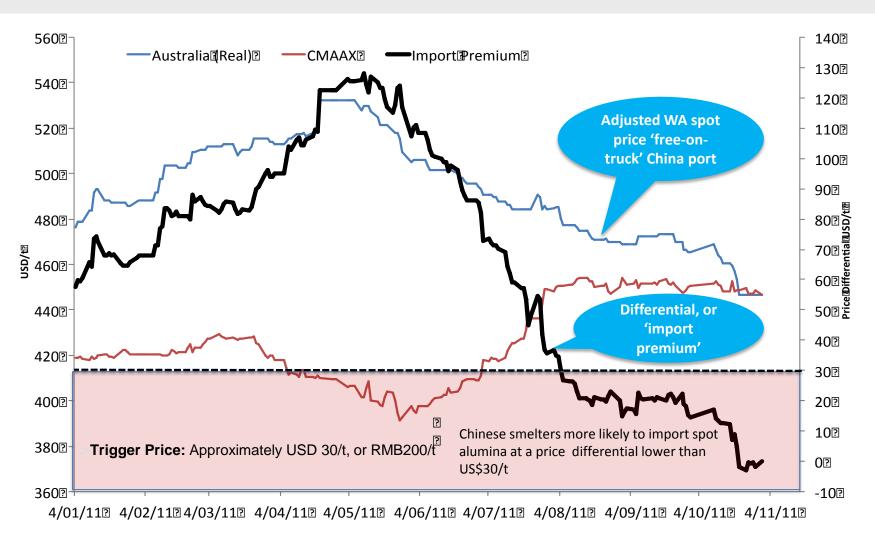
## **Converting FOB WA price to Chinese port** prices

#### WA FOB (apparent) vs CMAAX (USD/t)\*



\* As at 8 November 2011

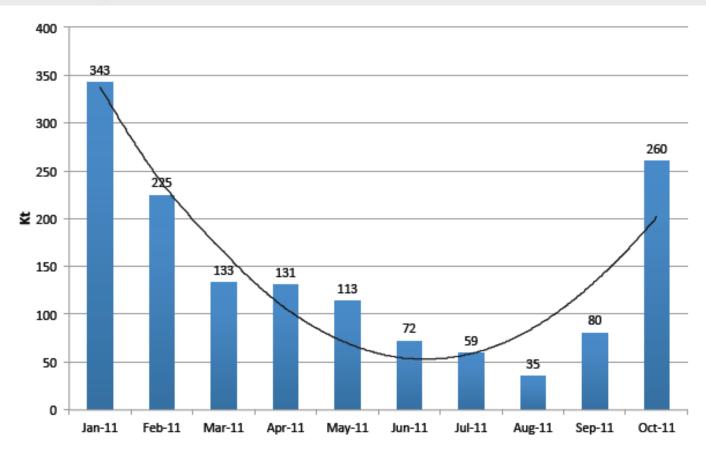
### Adjusted spot alumina import prices\*



<sup>\*</sup> Platts FOB Australia prices have been adjusted to reflect a Chinese port price

A L U M I N A

# Chinese alumina imports reflect price arbitrage



- Alumina imports into China reached record low in August 2011 due to price differential between China and import prices
- Imports bounced back in September and expected to increase in Q4 2011





# **Appendix 2: AWAC Assets**

#### **AWAC Bauxite Assets**<sup>(1)</sup>

Active Bauxite Mines	Huntly & Willowdale Australia	MRN Brazil	Juruti Brazil	CBG Guinea	Manchester Plateau Jamaica	Suriname Mines
Ownership	AWAC 100%	AWAC 9.6%	AWAC 100%	AWAC 23%	AWAC 55%	AWAC 100%
Expiration/ renewal date of mining rights	2045	2046	Refer Note <sup>(2)</sup>	2038	2042	2033 <sup>(3)</sup>
Area available to mine/exploration	7,000 square km	39,382 hectares	30,000 hectares	2,360 square km	10,761 hectares	4,286 hectares
Approx average per cent available alumina <sup>4</sup>	33%	49%	47%	51%	41%	45%

Other Bauxite Interests	Cape Bougainville	Mitchell Plateau	Arnhem Land	Juruti	East Trelawny	Suriname Mines	Az Zabirah
Location	Australia	Australia	Australia	Brazil	Jamaica	Suriname	Saudi Arabia (25.1% AWAC)
Area available for exploration	9,000 hectares	186,000 hectares	1,930 square km (exploration lease application)	180,000 hectares	31,400 hectares	19,063 hectares	14,700 hectares

<sup>(1)</sup> This page contains general information only in relation to AWAC's bauxite assets. For further details, refer to Alumina Limited's 2010 Form 20-F

<sup>(2)</sup> Mining rights available until exhaustion of deposit

<sup>(3)</sup> Caramacca mine rights expire in 2012

<sup>(4)</sup> The calculation of available alumina grades has not been prepared in accordance with the Australasian Code for reporting of exploration results, mineral resources and ore reserves. The amount of available alumina is based on exploration and analysis of samples performed over a period time

#### **AWAC Alumina Refineries**

Country	Facility	Owners (%) of ownership where not 100% AWAC) <sup>(1)</sup>	Name Capacity <sup>(2)</sup> (MTPY)	AWAC Share (MTPY)
Australia	Kwinana Pinjarra Wagerup	AWAC	2.2 4.2 2.6	2.2 4.2 2.6
Brazil	Alumar	Rio Tinto Alcan Inc (10%) Aluminio (15%) BHP Billiton (36%) AWAC (39%)	3.5	1.4
Jamaica	Jamalco	AWAC (55%) Alumina Production Ltd (Government of Jamaica) (45%)	1.5	0.8
Spain	San Ciprian	AWAC	1.5	1.5
Suriname	Suralco	AWAC	2.2	2.2
US	Point Comfort	AWAC	2.3	2.3
Total			20.0	17.2

<sup>(1)</sup> All assets owned 100% by AWAC, except for Alumar (AWAC 39%) and Jamalco (AWAC 55%)

<sup>(2)</sup> Nameplate capacity is an estimate based on design capacity and normal operating efficiencies and does not necessarily represent maximum possible production



### Appendix 3: Relating Alcoa's Results to AWC

#### Alcoa – minority interests

- Alcoa Inc quarterly financial reports include net profit attributable to non-controlling interests (minority interests)
- Minority interests include Alumina Limited's 40% equity share of AWAC

### **Alcoa – minority interests**

#### Historically approximates Alumina Limited's underlying earnings

	1H 2011	2H 2010	1H 2010
Alcoa Minority Interest (US GAAP)	\$113m	\$82m	\$56m
Accounting Adjustments (IFRS)1:			
Foreign Tax Differences	(\$10)m	(\$42)m	-
Inventory (LIFO to FIFO)	\$1m	(\$8)m	(\$2)m
Other	\$1m	\$4m	(\$4)m
Alcoa Adjusted Minority Interest (IFRS)	\$105m	\$36m	\$50m
Alumina Underlying Earnings (pre funding and corporate costs) <sup>2</sup>	\$103m	\$37m	\$49m

- Net adjustments to arrive at underlying earnings
- 2. Alumina's share of net profit of associates accounted for using the equity method (before its own costs), adjusted for certain non-cash items to arrive at underlying earnings as noted in ASX 4D dated 11/08/2011

It should be noted that there are other minority interests within the Alcoa financial results which may affect future analyses





# **Appendix 4: AWAC Sensitivities**

#### Reporting AWAC profit sensitivities

- Alumina Limited provides annualised AWAC profit before tax sensitivities with its year-end and half-year results
- Applicable in the current year, but they are to be applied to prior year profit before tax
- Based on US GAAP

#### **AWAC** profit sensitivities include

- Based on two key variables for 2011
  - LME: +/- \$100 per tonne = +/- \$180m profit before tax,
     keeping everything else constant
  - USD/AUD: +/- 1 cent = -/+ \$24m profit before tax,
     keeping everything else constant
- 2010 averages were
  - LME: \$2,200 per tonne
  - USD/AUD = 92 cents
- Assumes 2011 production of 15.8m tonnes (2010: 15.2m tonnes)

### **AWAC** profit sensitivities exclude

- Changes in LME linkage
- Sales based on spot/index
- Cash production costs
- Other currency exposures
- 2011 reported one-off adjustments

### **Example how to apply AWAC sensitivities**

AWAC 2010 Profit Before Tax	\$372m	Extracted from Audited AWAC results released February 2011
Add Back One-Off Items in 2010	\$139m	Refer below
AWAC 2010 Profit Before Tax & One-Off Items	\$511m	
Sensitivity Outcomes:		As per Alumina's 4E released February 2011
LME Aluminium	\$531m	2010 Average LME price was \$2,200/t. 2011 average price is (say) \$2,495/t Difference of +\$295 divided by \$100m and multiplied by +\$180m
Currency	(\$288)m	2010 average A\$/US\$ was 92¢. 2011 average rate is (say) \$1.04. Difference of $+12$ ¢ multiplied by $-$24$ m

#### **Notes:**

- 1. Assumes no change to forecast 2011 production of 15.8 million tonnes of alumina
- 2. Assumes no change in alumina pricing relationship for contracts linked to LME aluminium prices
- 3. Does not include price and volume impact of 2011 alumina sales based on spot or index prices
- 4. Does not include the effect of changes in costs of production in 2011 compared with 2010
- 5. Does not include the effect of other currency movements relative to USD

#### One-Off Items in 2010:

•	Brazil commissioning and start-up costs	(\$80)m
•	Loss on end of period balance sheet revaluations	(\$45)m
•	Write-off for fluoride assets at Point Comfort	(\$14)m
		(\$139)m

<ul> <li>One-Off Items in 2011:</li> <li>Provision for remediation of residue storage areas in St Croix, a refinery no longer operated</li> </ul>	(\$20)m
<ul> <li>by AWAC</li> <li>Equity profit from AWAC's ownership of 20% of the Dampier to Bunbury pipeline</li> </ul>	\$14m
, , , , ,	(\$6)m



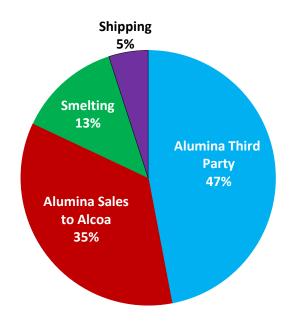


## Appendix 5: AWAC Earnings Drivers

#### **AWAC Revenue**

#### ... principally derived from alumina sales ...

#### **Revenue Breakdown 1H 2011**

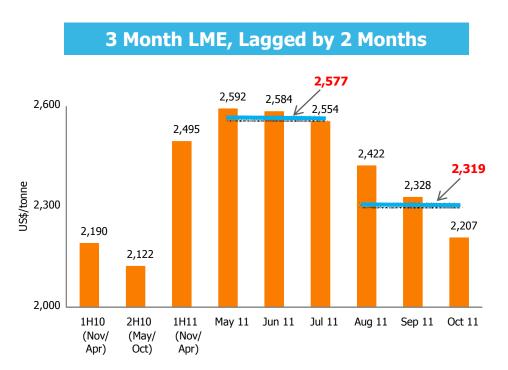


Smelting operations comprise 2 smelters in Australia. Shipping operations are owned and chartered vessels which transport liquid and bulk cargoes between AWAC alumina operations and other parties, including Alcoa.

- Majority of alumina 3rd party
   SGA sales linked to 3-month LME aluminium price (2-month lag)
- Approximately 20% of 2011 3rd party sales priced off spot or index
- Sales to Alcoa are largely average of 3rd party prices
- Smelting sales are based on 3-month LME aluminium price (15-day lag) plus a metal premium

### **Alumina sales - LME linked**

#### ... majority AWAC alumina sales based on LME aluminium ...

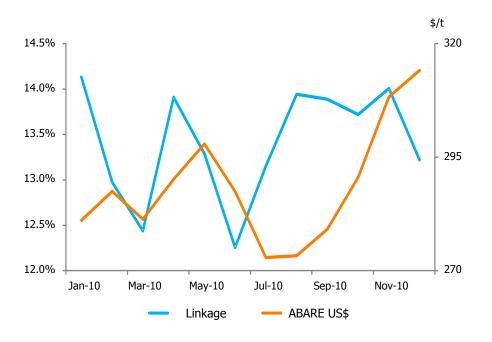


Sale price is the 3-month LME aluminium contract price, generally being the average of 2 month prior to the sale.

- Approximately 80% of 20113rd party SGA sales
- Transitioning to spot/index sales
- Expect approximately 60% of 2012 3rd party SGA sales
- 7 November 2011 3-month LME aluminium price: \$2,141/t

### **Alumina sales - LME linked**

#### ... ABARE\* can be a proxy for historical industry LME linkage ...



ABARE prices up to 2010 are a reasonable proxy for industrylinked contracts

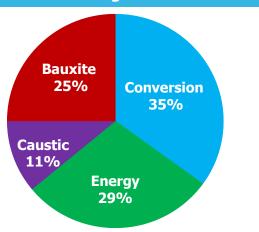
In 2010 ABARE averaged 13.4%

<sup>\*</sup> ABARE US\$ is based on average Australian alumina export prices

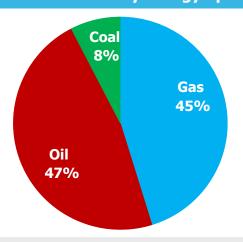
### **AWAC refining costs – 1H 2011**

#### ... major inputs are bauxite, energy & caustic ...

**AWAC Refining Cost Structure** 

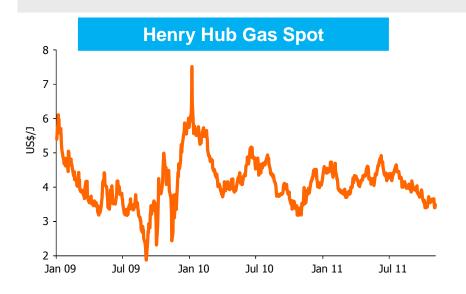


**Total AWAC Refinery Energy Spend %** 

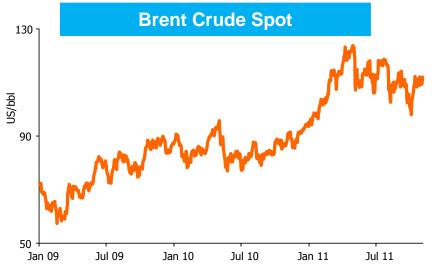


- Average cash cost increased
   \$39 per tonne 1H11 on pcp
- Mainly attributable to
  - oil and caustic
  - labour contract settlement
  - additional scheduled maintenance in Australia
  - stronger AUD

### **AWAC refining costs - energy**



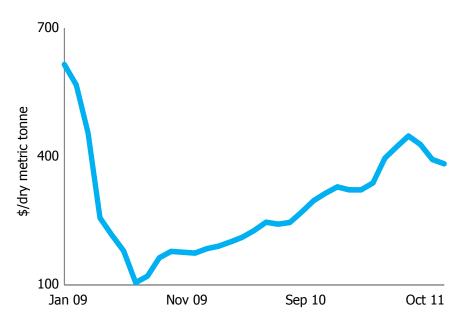
- Point Comfort pricing is based on Henry Hub spot
- Australian gas is priced on a rolling 16 quarter average



- Oil corresponds to refineries at Jamaica, Suriname and Spain
- 1H 2011 impacted production costs by +\$12/tonne pcp
- Pricing is based on prior month spot, inventory reflects1-2 months' price lag
  - chart illustrates market movements



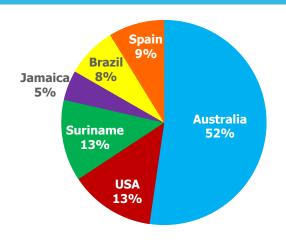
### **AWAC refining costs - caustic**



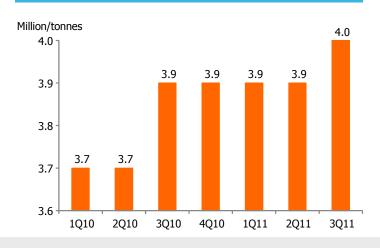
- Pricing convention is based on spot and semi-annual reviews
  - chart illustrates average market price movements
- Inventory reflects 3-6 months' price lag
- 1H 2011 impacted production costs by \$5/tonne pcp
- CMAI average caustic prices approx \$245/t (2010) and \$385/t (2011 YTD)

### **Alumina Production**

#### Nameplate Capacity by Region



#### **AWAC Quarterly Alumina Production**

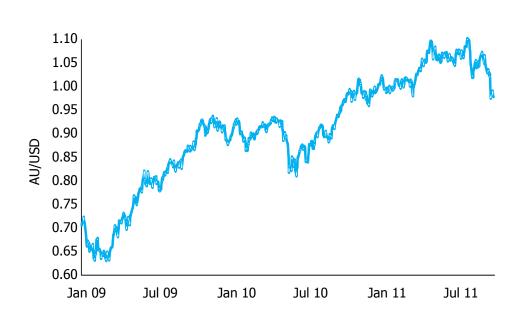


- AWAC nameplate capacity is 17.2m tonnes
- September YTD production is 11.7m tonnes
- Production forecast for 2011 is 15.8 million tonnes
- In the 3rd quarter AWAC was operating at 91% of nameplate capacity
- Brazil refinery is currently operating at close to nameplate capacity



### **AUD/USD**

#### ... significant exposure via Australian production ...

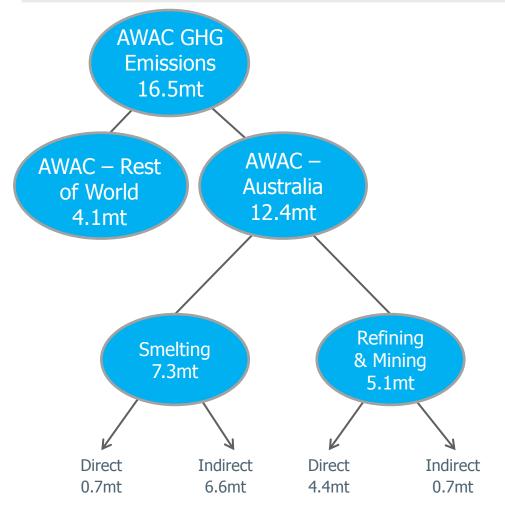


- Australia represents 52% of AWAC's nameplate alumina capacity
- At 1H2011, currency impacted production costs by \$19 per tonne on pcp
- 2010 average AUD was \$0.92
- 2011 YTD average AUD is \$1.04
- 10 November 2011 AUD was \$1.01
- 70% of Australian costs are in A\$



## Appendix 6: Greenhouse Gas Emissions

# **AWAC – globally an efficient producer with low industry GHG\* emissions**



- AWAC smelters have reduced direct GHG emissions by 66% since 1990
- AWAC Australian refineries have reduced direct emissions by 23% since 1990
- Smelters and refineries qualify to receive 94.5% assistance on industry average
- Legislation passed 8 November
- Final scheme impact subject to draft regulations under review