

## **ASX Announcement**

5 December 2019

# Presentation at Melbourne Mining Club 5 December 2019

Attached is a copy of an address and presentation prepared by Mr Mike Ferraro, Chief Executive Officer and Managing Director, Alumina Limited, and delivered at the Melbourne Mining Club.

Neither Alumina nor any other person warrants or guarantees the future performance of Alumina or any return on any investment made in Alumina securities. This document may contain certain forward-looking statements, including forward-looking statements within the meaning of the US Private Securities Litigation Reform Act of 1995. The words "anticipate", "aim", "believe", "expect", "project", "estimate", "forecast", "intend", "likely", "should", "could", "will", "may", "target", "plan" and other similar expressions (including indications of "objectives") are intended to identify forward-looking statements. Indications of, and guidance on, future financial position and performance and distributions, and statements regarding Alumina's future developments and the market outlook, are also forward-looking statements.

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This presentation contains certain non-IFRS financial information. This information is presented to assist in making appropriate comparisons with prior year and to assess the operating performance of the business. Where non-IFRS measures are used, definition of the measure, calculation method and/or reconciliation to IFRS financial information is provided as appropriate or can be found in the Alumina Limited's ASX Full-Year Report for the period ended 31 December 2018.



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## Mike Ferraro - MMC Speech - 5 December 2019

Welcome Ladies and Gentlemen, Co-Patrons and Special guests. I would also like to recognise Hugh Morgan for his contribution to the company we now know as Alumina Limited.

I would like to acknowledge the Wurundjeri People, the Traditional Custodians of the land on which we meet today. We pay our respects to their Elders, past, present and emerging.

## Safety

Can I say how much I applaud the initiative of the club to highlight the critical importance of safety in our industry today.

Managing safety in complex mining and manufacturing environments requires strong systems as well as a focussed safety culture committed to continuous improvement.

We and our joint venture partner, and operator of our assets, Alcoa, have invested substantial resources over several decades to create the right safety environment, ensuring that robust controls are in place supported by effective audit processes.

## So, who are we?

Let me start with a brief description of who we are and what we do. Alumina Limited has a 40% share in the Alcoa World Alumina and Chemical joint venture, known as, AWAC.

AWAC was formed 25 years ago next month to combine Western Mining's Australian bauxite and alumina assets with Alcoa's worldwide upstream assets as the platform to build a global business. Our 60% operating partner is Alcoa Corporation. The market currently values our share of the JV at 6.5 billion Australian Dollars.

The crown jewels of AWAC are our magnificent bauxite mining and alumina refining assets built on the extensive bauxite resources of the Darling Ranges in Western Australia. They were originally identified by Western Mining in 1957 when its far-sighted then chairman, Sir Lindesay Clark, initiated a deliberate search.

The Darling Ranges deposits were known about but seriously underestimated until Western Mining saw the potential in them. They had significantly lower alumina content than deposits mined at the time, as low as 30% compared to the more standard deposits of 40% or more.

In the late 1950s Western Mining's legendary geologist, Roy Woodall, was asked to have a closer look at some samples. He found that treating the Darling Ranges bauxite at lower temperatures than other deposits would provide both energy savings that offset the low alumina content and also require less caustic soda to remove the reactive silica. With this exclusive knowledge kept extremely tight, Western Mining very quietly pegged an enormous chunk of the Darling Ranges – roughly 16,000 square kilometres, just in case!

The late Sir Arvi Parbo assisted Sir Lindesay Clark to give shape to Alcoa of Australia. Other Collins House companies were brought in: Broken Hill South and North Broken Hill, and then the Aluminium Company of America, now Alcoa, joined to bring its technology, its needs as the head customer and a very large balance sheet.

At the same time, Woodside and its associates discovered the North West Shelf gas reserves off the coast of the Pilbara. Alcoa of Australia was a foundation customer of the North West Shelf, taking 25% of the Shelf's output. So, low cost gas was combined with low cost bauxite and one of Australia's greatest value adding enterprises was established.

It's hard to imagine how this could happen now, but it took 27 years for our joint venture in Australia to pay a dividend as loans were paid off and refineries and smelters built. Western Mining finally began to reap the benefits in the late 1980s.

It is fair to say that the real gems were always the WA mining and refining assets. They remain the cornerstone of the modern AWAC joint venture which in 2018 generated EBITDA of 2.6 billion US dollars on total revenue of 6.7 billion US dollars.

It's now 58 years since Alcoa of Australia was formed to develop the Darling Ranges bauxite deposits and we can't underestimate the vision and determination of that pioneering generation.

## And Now to AWAC

The AWAC joint venture was created to align the interests of Alcoa of Australia and Alcoa Inc's non-Australian global upstream portfolio. AWAC produces over 12 million tons of alumina per year, or about 10% of global smelter-grade alumina production and 21% of Western world production.

The core WA assets comprise 2 bauxite mines, and 3 alumina refineries which produce over 9 million tons of alumina per year. Nearly 60 years after they commenced operations, these remain outstanding, low cost, long life assets with decades of contribution ahead of them.

Other assets that AWAC operates are:

- the long-life Juruti bauxite mine and the Alumar refinery in Brazil, which was expanded in the mid-2000s and AWAC's share of alumina production is now 1.5mtpa
- the San Ciprian refinery in Spain which produces 1.6mtpa of smelter grade and chemical grade alumina and
- the Portland smelter in Victoria, which has an agreement in place to operate until at least the middle of 2021. Going forward, Portland requires a lower cost and reliable energy solution.

AWAC also has an equity interest in the Ma'aden bauxite and alumina Joint Venture in Saudi Arabia, the CBG bauxite mine in Guinea and the MRN bauxite mine in Brazil. CBG was the first major bauxite mine in Guinea and has recently been expanded.

In 2018 AWAC's average alumina cash cost of 226 US dollars per tonne put us in the lowest cost quartile globally. And this year it will be lower. In the third quarter the cash cost was 203 US dollars per tonne.

The success of the AWAC business over many decades has endowed AWAC with great advantages. We enjoy a strong position in the 3<sup>rd</sup> party global alumina market - on top of the 30% of our output that goes into the Alcoa system. AWAC's customer relationships are close and long-standing.

Focussing on Australia, there is a high quality and stable workforce. AWAC employs more than 4,250 people across WA and Victoria.

We also have a consistent record of contributing. For instance, - Alcoa of Australia is one of Australia's largest taxpayers and paid more than 690 million Australian dollars in State, Federal and Local government taxes and royalties for the 2018 year.

Its tax rate is 30% which in turn enables our Company to pay our shareholders fully franked dividends.

## Alumina Limited

I'll turn now to Alumina Limited.

We are the closest thing in the world to a listed, pure play alumina company. There's nothing like it. We describe ourselves as one of a kind. Compared to our industry peers – we are almost fully focused on refining the intermediate alumina product in the aluminium supply chain.

As a result, when the cycle is running in favour of our product, the Company has a remarkable ability to generate shareholder returns. Our average annual dividend yield over the last 3 financial years was 9.5 per cent, without taking into account franking.

The quality of our assets also ensures we do relatively well even when the cycle is running against us. In 2016, at the worst of the cycle in the last 10 years, AWAC was one of the few Western producers to break even.

It has been a pretty positive picture in recent years, but things haven't always been like that.

Let's go back to the de-merger of Western Mining in 2002. Alumina Limited is the continuing company, that is, we are in fact Western Mining re-named, and we retain WMC's 40% stake in AWAC. Our first chairman was Western Mining's long-standing Finance Director, Don Morley. Don recently passed away and we acknowledge the contribution he made to this Company.

At inception, Alumina Limited had a much lower market capitalisation than now and higher debt of about 500 million Australian dollars. In contrast, our current net debt is around 65 million US dollars and our balance sheet is very strong.

Our joint venture arrangements originally had limited rights. The Company was very much dwarfed by Alcoa, 20 times our market capital in size. At the time of Alumina's de-merger, it was thought our future would be limited and that surely the Company would be subject to a takeover by Alcoa. 17 years later we are still here. And now we have a larger market cap than our joint venture partner.

For some years, the Company's role was to play the good soldier. We contributed to the growth of AWAC when required to do so, and we provided a highly efficient platform for our shareholders to benefit directly from the quality of the AWAC portfolio.

In 2013, the respected Chinese group CITIC, one of AWAC's partners in the Portland smelter, took a placement of just over 13% in Alumina Ltd and now holds 19.1%. This gave us a welcome addition to the capability of our Board and strengthened our balance sheet considerably. Nonetheless, as time moved on, Alumina Ltd seemed to be consigned to the waiting room for developments to produce some value crystallising event.

As I'll explain shortly, events did turn in our favour. This was prefaced by the explosive growth of China that turned our world upside down and produced the disruption that ultimately created new opportunities.

The scale and speed of China's move into light metals almost defies belief. China's alumina capacity grew at around 19% compound per year from 2005 to 2018, reaching 85 million tons per year at the end of last year. At the turn of the century, China produced 8% of the world's alumina; by 2018 this had grown to a staggering 55%.

The growth in Chinese alumina production was driven by four factors: growing demand from aluminium smelting; China's ability to build refineries quickly by using a standard modular design at a third of the cost of building Western refineries; the availability of low cost bauxite sourced domestically and from Indonesia and Australia; and stimulus package funding during and after the GFC.

But the result of this growth was the disappearance of China as a sizeable alumina importer, which triggered significant negative price impacts outside China. Refiners in the West were forced to make hard decisions to curtail higher cost alumina production. AWAC itself sold a refinery in Jamaica, curtailed the Point Comfort refinery in Texas, and closed Suralco in Suriname and the Point Henry smelter and Anglesea power station in Victoria. In this way, AWAC came through the cycle with a smaller but more profitable portfolio and lower average production costs.

At the bottom of the recent cycle a number of positive factors emerged at once which enabled Alumina Limited to benefit considerably.

First, there was the re-balancing of the market. Second, there was the positive impact of greater emphasis on environmental priorities within China. Third, there was the latent impact of market pricing for alumina which had been adopted some years earlier. Finally, the historic re-negotiation of our JV agreement, triggered by the de-merger of Alcoa's upstream and downstream businesses.

The return of a balanced market in 2017 owed something to the closures which took place in the West during the worst of the cycle, but also to factors within China. Importantly, China's bauxite reserves are depleting and its alumina production costs have risen, making Shanxi province in China the global marginal cost producer. We don't expect China will be an alumina exporter except at times of high Western world prices.

Secondly, complementing these forces is China's increasing tightening of its environmental standards. Refineries now face issues storing residues. They must comply with higher production standards, raising costs over time. Some refineries continue to face winter curtailments to manage air quality. In 5 years, we expect 75% of China's bauxite will be imported.

Thirdly, we now have a dedicated pricing mechanism for alumina. API, that is, the Alumina Price Index, has produced a revolution in our industry similar to iron-ore trading in its impact on that industry. Historically, alumina was priced as a percentage of LME aluminium. This worked against refineries because aluminium prices did not reflect alumina markets and costs, especially under longer term contracts.

Alumina's physical characteristics cause it to deteriorate if not bagged or consumed by smelters within months, so supply disruptions can have immediate market impacts. We saw this last year with the partial curtailment of Alunorte in Brazil, the world's largest refinery outside China, producing 11% of Western supply.

API prices in 2018 ended up averaging one third higher than the previous year, largely due to regulators halving production at Alunorte until the plant proved it was compliant with environmental standards.

Finally, a further positive for us, was the re-negotiation of our joint venture with Alcoa in late 2016. Again, the trigger was the disruption caused by China's explosive growth, not just in alumina but also in global aluminium production, much of which came in low on the operating cost curve. This seriously and negatively impacted the upstream aluminium supply chain in the West, especially in smelting. Activist shareholders in the US argued for the separation of Alcoa's upstream and downstream businesses, which were expected to have different trading multiples.

We saw the need to re-negotiate our joint venture agreements with Alcoa because the proposed de-merger of Alcoa effectively replaced our partner in AWAC with a new one. To address that we sought fundamental changes to our position in AWAC. Broadly, we gained:

- a greater say in AWAC strategy and in particular approval rights over significant investment decisions;
- more certainty and greater control over cash-flows; and
- the removal of takeover impediments for industry acquirers including the creation of offtake rights for an acquirer of the company.

Our shareholders backed us all the way. The AFR called us "The Mouse that Roared". We thought that description was a little uncharitable, although we liked the idea of our roar being heard. It was clearly an improvement over some previous descriptions of the Company!

Our experience since the re-negotiation has met our expectations. We have clear sight into AWAC operations and performance; we are contributing to the operations and strategy of the joint venture; and importantly, we know our investors value our Company not only for the quality of AWAC's assets but also for the certainty of Alumina's rights to AWAC's cash flows.

It's worth now turning to the outlook for our commodity and its principal use, the smelting of aluminium.

With the current downturn in manufacturing activity and concern over trade wars, demand for primary aluminium is stalling. The alumina market is expected to remain in surplus this year and likely next. In the medium term, demand growth is expected to return. By end-use sectors it's predicted to be fairly even, led by consumer durables, electrical and transport sectors. Construction growth is expected to resume too.

The growth drivers expected in developed economies include personal consumption, as stronger environmental concerns promote light-weighting in transport to reduce carbon emissions and aluminium replacing plastic and glass in packaging. In developing economies, such as India, there are growing demands for large volumes of aluminium for infrastructure and construction. The longer-term prognosis for alumina and aluminium demand is positive.

For AWAC this means, like our far-sighted forebears, we are considering the long-term again, and assessing the timing and nature of new growth projects in alumina in Western Australia. Our Tier 1 assets give us attractive, brownfields options.

I will turn now to sustainability, which provides both risks and opportunities. Better environmental, health and safety management are required to meet higher standards demanded by local communities and by downstream consumers, who seek more responsibly sourced supply chains. This will benefit producers who are already acting responsibly.

Recent tailings dams' failures will add costs and time to bauxite tailings dams and residue disposal areas, and also favour those who do not need to wash bauxite or who use press filtration (like AWAC in some of its operations).

AWAC's CO2 emissions on an absolute and intensity basis have been progressively decreasing off the back of asset sales, plant closures and curtailments of higher emitting facilities. Already our refineries have one of the lowest CO2 emissions intensity in the industry.

To support our joint venture we will:

- aim towards establishing GHG targets for our refineries,
- identify and assess climate change risks and undertake scenario analysis; and
- work towards aligning disclosures with the recommendation of the Task force on Climate related Financial Disclosure.

Finally, to the outlook for Alumina Limited.

As I've pointed out, with our unique focus on the upstream – and most profitable - part of the aluminium production chain, Alumina Limited is one of a kind.

This is reinforced by Alumina's leading exposure to API pricing, which sees the Company financially impacted by alumina supply and demand changes more than any other non-Chinese company.

Our cash flows are transparent. Our balance sheet is strong. Investors have a better view on what dividend to expect and the Company has been attractive to yield investors. The quality of AWAC's assets gives Alumina Limited the opportunity to benefit from Tier 1 asset growth opportunities.

I began this address by recalling the contributions of the greats in our industry and how they built for the very long term and contributed so positively to Australia's economic development story. Alumina Limited is very much their modern heir. We successfully managed our way through the shocks caused by the rise of the Chinese industry and we have been well-positioned to benefit from the changes to the alumina market. I also believe this enterprise, built from the fabulous red soil of the Darling Ranges, has many more successful decades ahead of it.

Thank-you

## The End



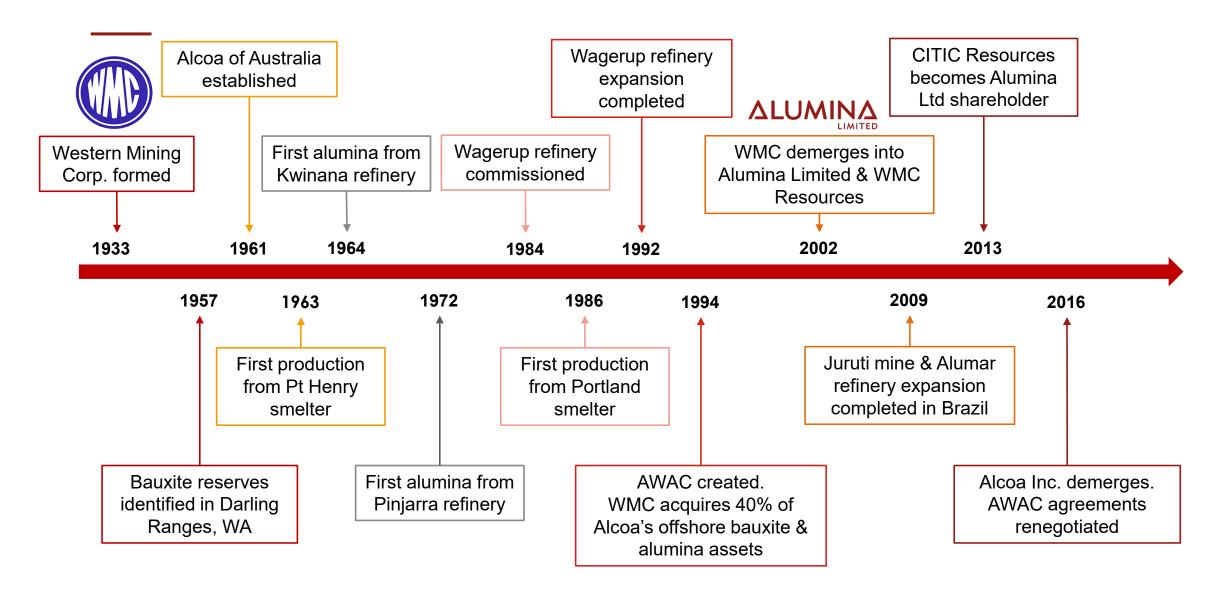
Mike Ferraro, MD & CEO

Melbourne Mining Club
5 December 2019



## Significant Events in the Life of Alumina Limited



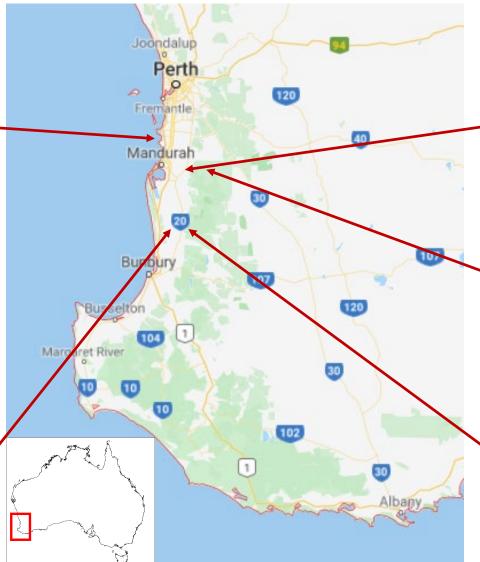


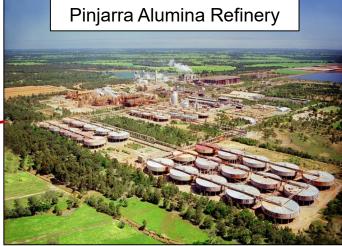
## **AWAC's Western Australian Operations**





Wagerup Alumina Refinery



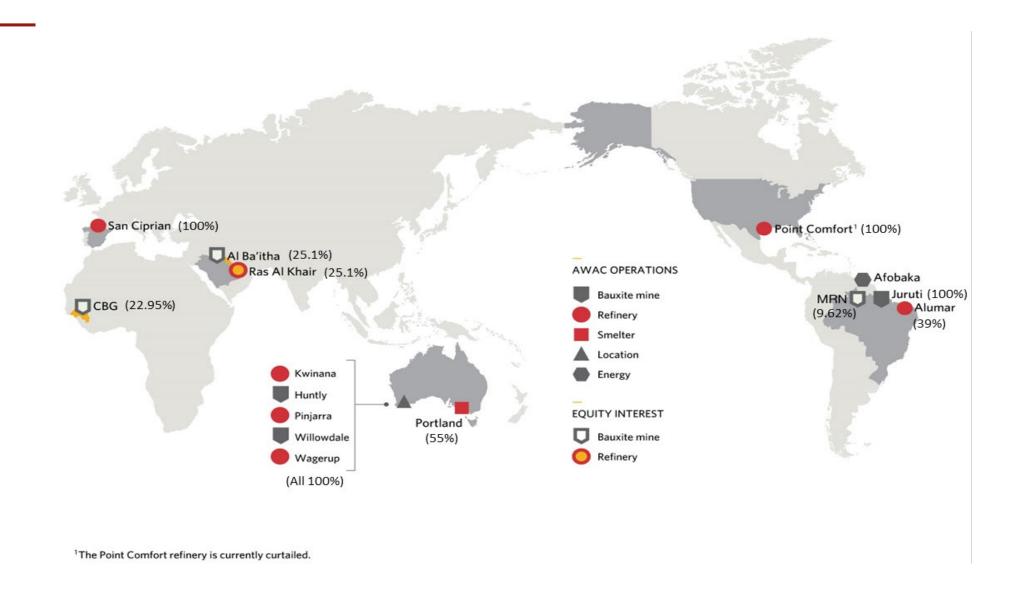


**Huntly Bauxite Mine** 

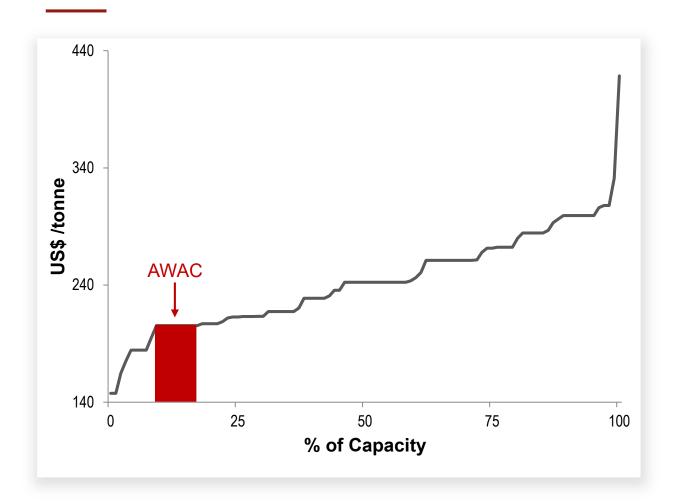


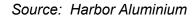
## **AWAC Operates Worldwide**



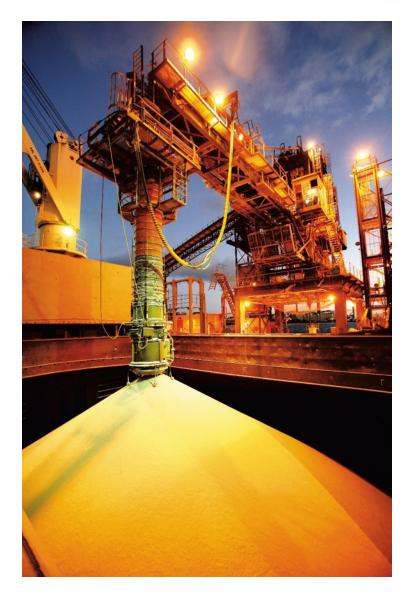


# Global SGA Refining Cash Cost Curve (3Q 2019)



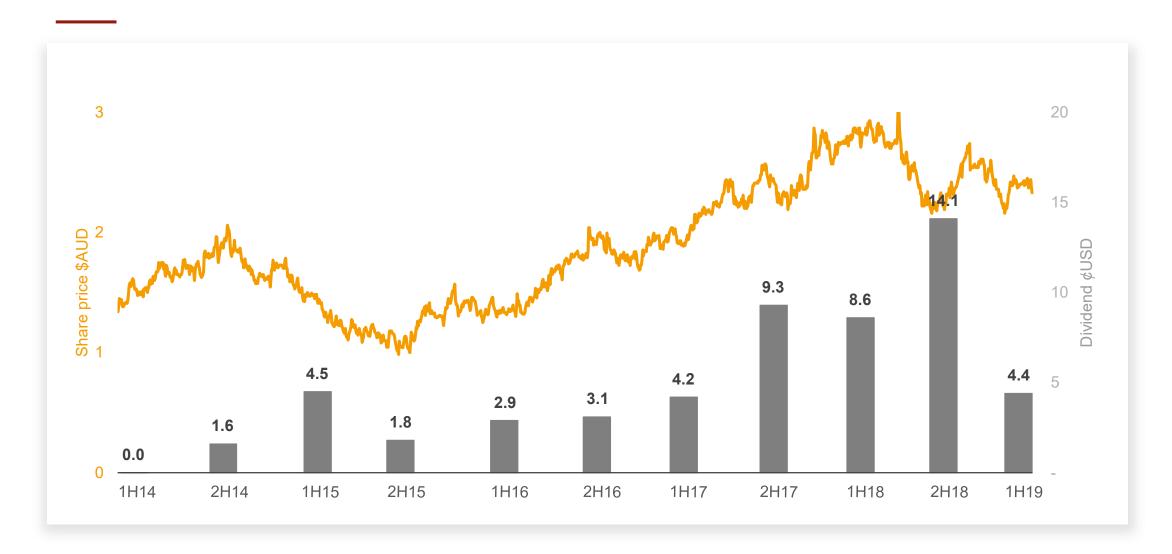






# **Alumina Limited**Dividend / Share Price history

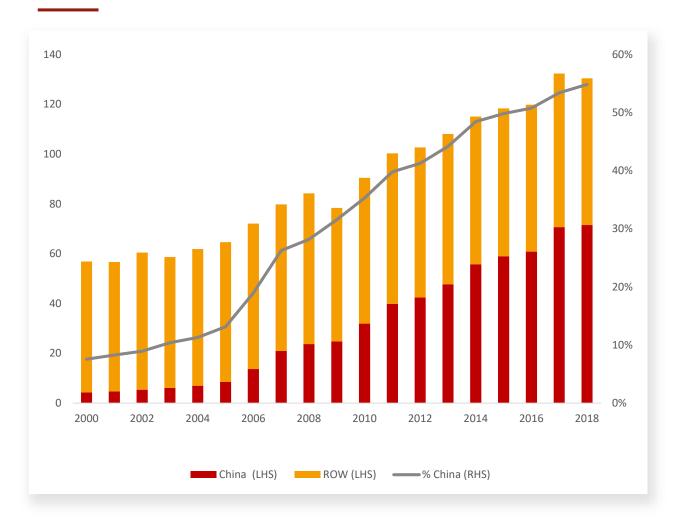






# Alumina Production – China v ROW (Mt)



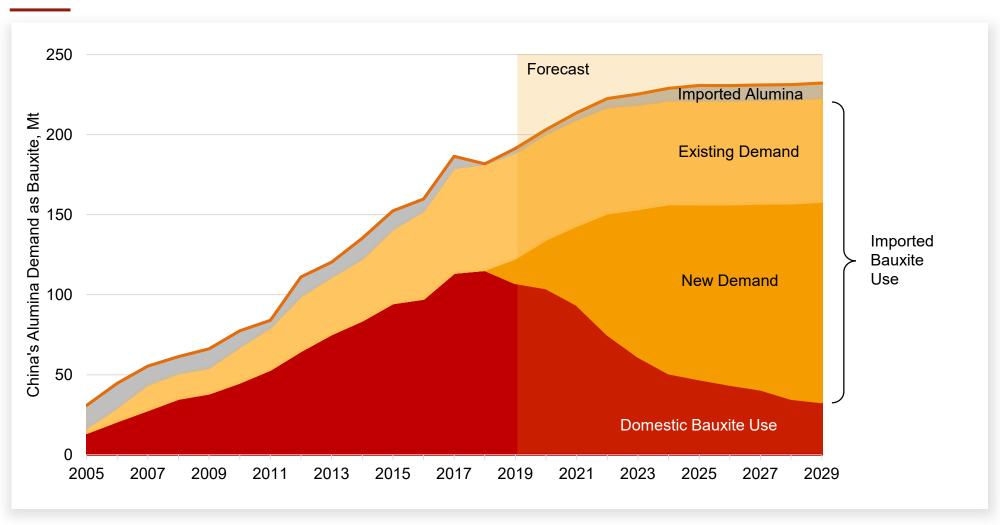




Source: IAI, Alumina Limited analysis

## Robust China Bauxite Demand Growth in the next 10 years





Source: CM Group, August 2019

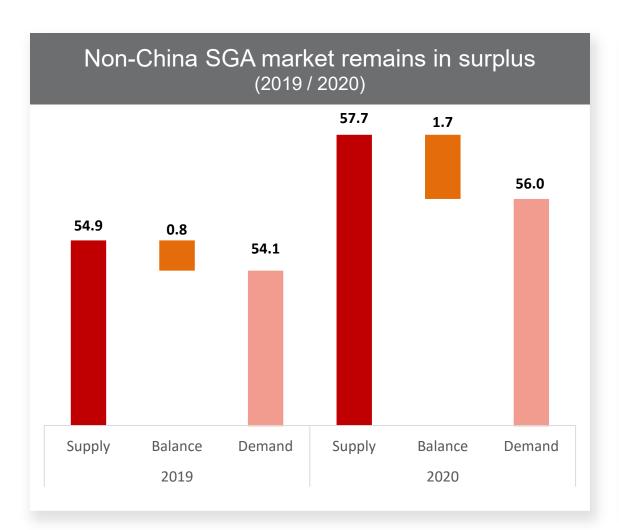
# **Major Changes to the AWAC agreements - 2016**

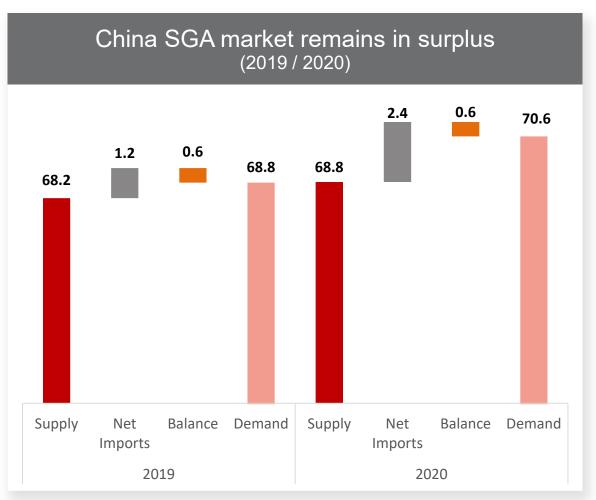


	Old Agreements	Renegotiated Agreements
Governance Rights	<ul><li>Super majority rights:</li><li>Change in scope</li><li>Change to dividend policy</li><li>Capex over \$1b pa</li></ul>	<ul> <li>Extra super majority rights:</li> <li>Acquisitions, divestitures,</li> <li>expansions or curtailments over</li> <li>\$50m</li> </ul>
Capital Efficiency	<ul> <li>Minimum distributions - 30% of NPAT paid annually</li> </ul>	<ul> <li>Minimum distributions – 50% of NPAT plus surplus cash paid quarterly</li> </ul>
Exclusivity	All bauxite and alumina operations to be conducted within the Joint Venture	<ul><li>Following a change of control of Alumina Limited or Alcoa:</li><li>Exclusivity and non-compete provisions terminate</li></ul>
Offtake Rights	None	Triggered by a change of control of Alumina

# Global Alumina Supply / Demand Balance (2019 / 2020)





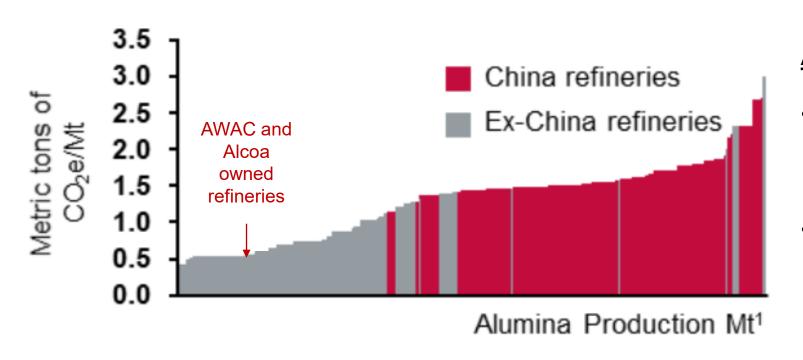


Source: Alumina Limited analysis, Nov 2019

Source: Aladdiny, Alumina Limited analysis, Nov 2019

## **Environmental**





## **AWAC Refineries**

- Lowest CO2e emission intensity large scale refiner in the industry [1]
- Residue press filtration at Kwinana and Pinjarra refineries



## **Disclaimer**



### Summary Information

This Presentation contains summary information about the current activities of Alumina Limited (ACN 004 820 419) (**Alumina**) and its subsidiaries as at the date of this Presentation. The information in this Presentation should not be considered to be comprehensive nor to comprise all the information that a reader may require in order to make an investment decision regarding Alumina securities. This Presentation should be read in conjunction with Alumina's other periodic and continuous disclosure announcements lodged with the ASX, which are available at www.asx.com.au.

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