



Fly Ash Slides for Investors

As at 29 May 2018

A collection of previously communicated information

Sources (available at www.boral.com):

- Script for Boral Property & Investor Trading Update Call – 1 May 2018
- Half Year Ended 31 December 2017 Results presentation – 13 February 2018
- New York Investor Conference Presentation – 15 November 2017
- Boral North America Investor Site Tour presentation – 12 September 2017

Fly Ash is a highly attractive growth business

Boral is well-positioned to deliver growth in the fly ash business



We are targeting to at least keep pace with cement-based demand growth and to grow fly ash substitution over time, while continuing to deliver price gains and synergies

- ✓ Demand is growing
- ✓ Price is growing
- ✓ Growing fly ash supply through several strategic opportunities
- ✓ Margins are strong and targeted to grow, albeit FY18 impacted by extreme weather and realignment of Texas network
- ✓ As previously stated, we remain confident in delivering ~US\$24m of synergies from fly ash in year 4

Fly Ash Demand is growing

Cement demand a proxy for fly ash demand plus opportunities to increase substitution



Attractive demand growth opportunities

- Potential to expand substitution rates in concrete, currently ~16% (~50% in European markets¹)
- Cement growth forecast² at ~5% CAGR FY2017 – 21
- Ready mix producers motivated to increase fly ash as generally less expensive than Portland cement
- Fly ash increasingly being specified – performance and sustainability features
- Exposure to increasing US infrastructure spend
 - ✓ Estimated infrastructure investment needed by 2025 is US\$4.6 trillion³

1. Management estimates

2. Portland Cement Association: May 2017 Market Intelligence Report

3. 2017 American Society of Civil Engineers, Infrastructure Report Card

Fly Ash Pricing is growing

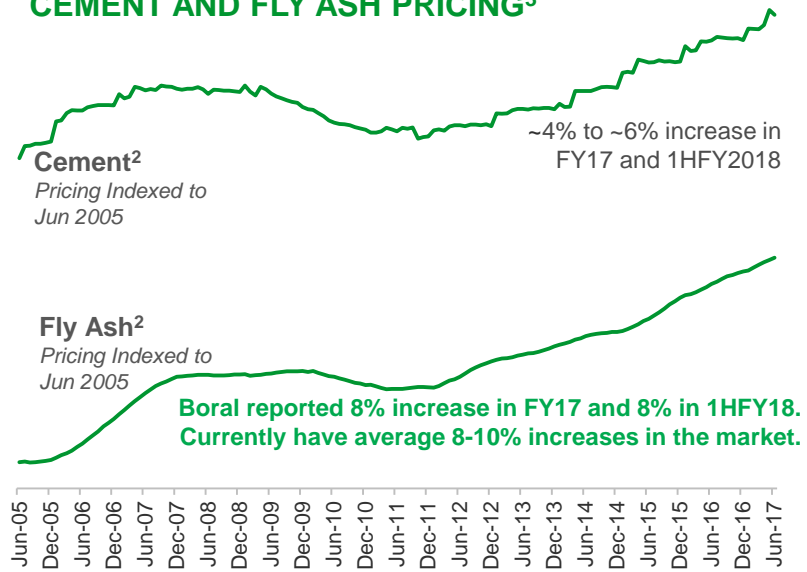
The nexus between fly ash and cement pricing has been broken



Demonstrated strong price gains presents attractive opportunity to invest in increased supply options to grow business

- Primary Fly Ash pricing (~US\$25 - \$75/ton)¹ tends to follow cement pricing (~US\$90 - \$150/ton) for the Ready Mix market
- Evidence that nexus between fly ash and cement pricing has been broken
- Over time, higher cost to serve expected to be offset by continued price gains

CEMENT AND FLY ASH PRICING³



1. Approximate range represents cement replacement quality fly ash
2. Estimated industry fly ash ASP. Cement ASP source Bureau of Labor Statistics. (PPI indexed to June 2005)
3. Graph provided in Boral North America Investor Site Tour presentation, 12 September 2017

Fly Ash Supply is positioned to grow

Attractive growth opportunities being pursued for the near, medium and longer term



Positioned to keep pace with cement demand growth nearer term, then increase substitution

- Fly ash supply dependent on coal-sourced electricity generation; coal expected to remain ~30% of energy mix in USA¹
- Targeting to replace volumes through alternate supply options as fly ash supply reduces due to utility closures over time
- Initiatives underway to increase sources of supply over medium to long-term including:
 - ✓ network optimisation and beneficiation to reduce ash going to landfill (currently ~39% of fly ash produced is landfilled², dramatically reducing in some markets)
 - ✓ new ash storage facilities – fixed and mobile (including rail cars for mobile storage)
 - ✓ new contracts (one recently secured in Florida)
 - ✓ reclamation of landfilled fly ash³ (Pennsylvania to supply from Aug-18, ~5 other potential sites in planning or investigation stage)
 - ✓ option to consider imports

1. US Energy Information Administration (EIA) projects coal to account for 29% of total energy generation in US in the next ten years

2. ACAA 2016 Coal Combustion Product (CPP) Production & Use Survey report

3. Other fly ash source of supply includes ~1 billion tons currently landfilled (source: American Coal Ash Association) or ~1.5 billion tons total coal ash landfilled / impounded (source: EPA)

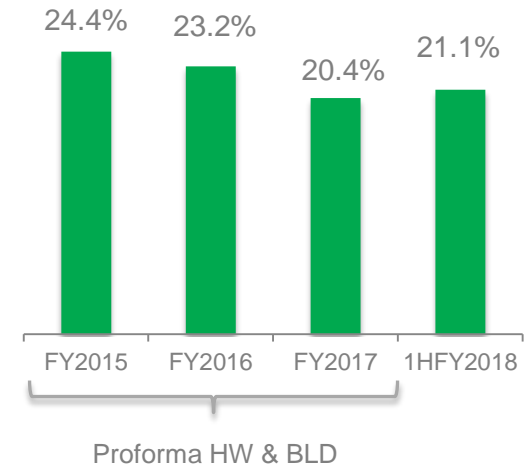
Fly Ash margins are strong; targeting further gains

With underlying fundamentals, margins are strong and synergies should grow margins



- North America Construction Materials¹ EBITDA margins of 21.1% in 1HFY2018, slightly down on 21.6% prior year proforma margins
- FY2018 margins impacted by higher site services work, adverse weather and higher costs associated with Texas network reconfiguration
- Strong fly ash EBITDA margins of ~22-25% underpin North America Construction Materials
- Margins will further strengthen through price gains, network optimisation, strategic supply initiatives and delivery of year 4 synergy targets
- Opportunities to expand fly ash site services footprint, which will further grow business but a slightly lower margin business

North America Construction Materials EBITDA Margins¹



1. Includes Fly Ash, Denver CM and Block; Denver CM divested in 2HFY2018. Note that FY2017 includes additional reclaim costs and commissioning costs associated with new quarry in Denver construction materials business. Source: proforma charts provided in Boral North America Investor Site Tour presentation (12 September 2017) and Half Year Ended 31 December 2017 Results presentation (13 February 2018)

FY2018 impacted by weather and Texas realignment

Key fly ash comments made on 1 May 2018 conference call regarding Boral Property & Trading
Update ASX release on 24 April 2018. Script available on website.



- No concerns with the fundamentals of the North American business...We remain highly confident about what the business can and will deliver.
- **Volumes for the March quarter were below our expectation due to harsh winter weather conditions.**
- **Higher costs associated with repositioning fly ash supply to customers as a result of the closure of three of the four planned (Texas) closures**, also impacted.
- **Very well placed to maintain our sales as we have a broader network to call on...continuing to supply our customers by bringing volumes from further afield.** But this of course adds costs and complexity.
- In total, the four utilities in **Texas** contribute a combined volume of around 400k to 500k tons of fly ash sold each year out of our total sales of roughly 7.5 million tons. There is still a considerable volume of fly ash being land-filled in Texas and in neighbouring regions which we are shifting to cover the plant closures. We still have 8 utilities we source from in Texas, several sources in neighbouring states plus we have several fly ash terminals in the region.
- **Texas closures a short-term impact...** we are confident that **margins will fully recover over time as prices strengthen** and the higher cost base is recovered. 8% per annum average price increases in fly ash in the first half FY18, and we have gone out with similar 8-10% increases in the current period. We are confident of recovering the higher costs.
- In **some markets we have dramatically decreased the landfilling of good ash.**
- We have **accelerated our storage activities**, both fixed and mobile, **as well as our reclamation planning.**
- We will soon be operational in Pennsylvania with our initial reclamation project, with further projects to follow - about five potential candidate sites for landfill reclamation that we are progressing.
- **We will give you an update around this in August at results and in September at our US site visits.**

We are targeting US\$24m of synergies in Fly Ash

Our 4 year synergy targets remain achievable



Fly Ash Synergy targets

Business / synergy drivers		Year 1 run rate US\$ pa	Within 4 years US\$ pa
Fly Ash	Sub-total	~\$12m	>\$24m
<ul style="list-style-type: none">■ Ash supply / network optimisation / logistics■ Procurement■ Sales coverage expansion & high value product growth – <i>Boral faces local supply constraints in some locations, HW has ability to supply</i>■ Organisational efficiencies – <i>eg. consolidating finance systems and overlapping sales coverage, engineering support and operations</i>■ Other including technology / R&D			

- Boral delivered US\$4.1m of Fly Ash synergies in 1H FY2018



Additional slides



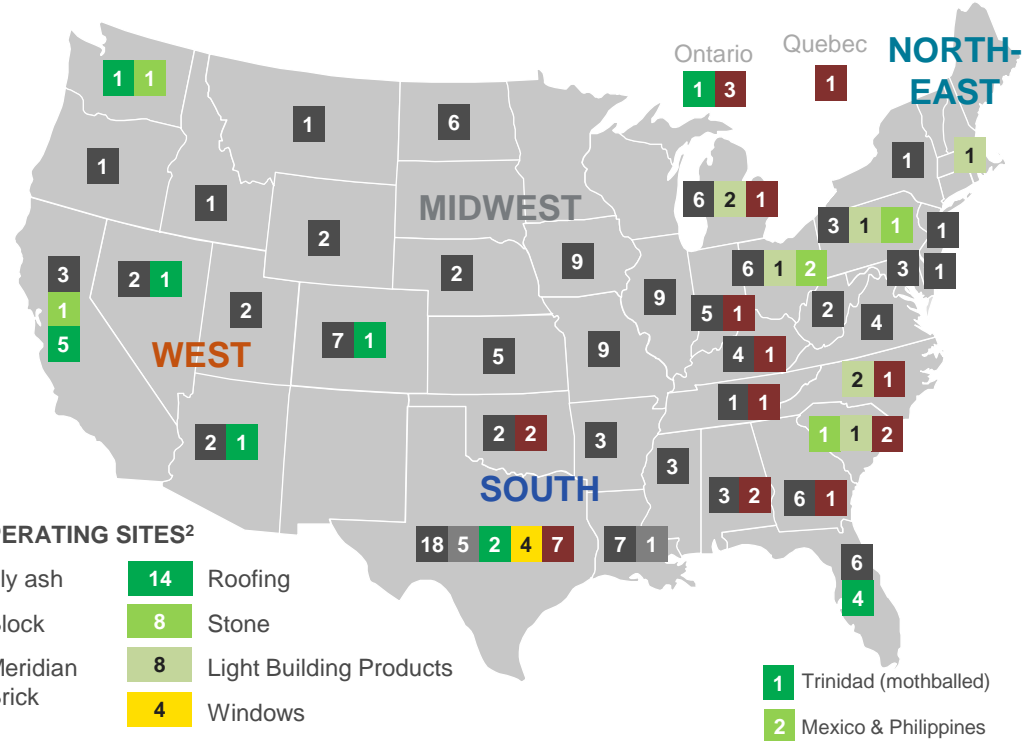
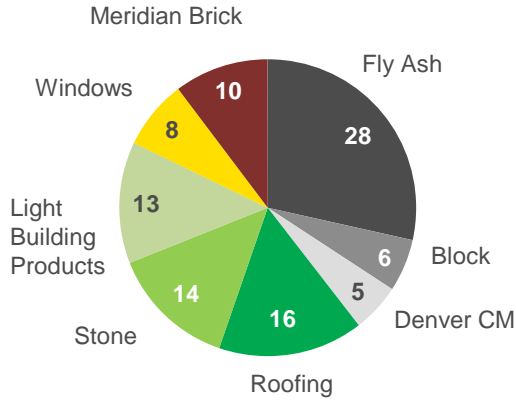
Boral North America: strong footprint

Construction Materials and Building Products



SHARE OF REVENUE, %

by business¹



1. Based on 1HFY2018 revenue and includes Boral's 50% share of underlying revenue from the Meridian Brick JV

2. As at Dec-17 excluding Denver CM. SOUTH consists of *AL, AR, DE, FL, GA, KY, LA, MD, MS, NC, OK, SC, TN, TX, WV, VA* | NORTHEAST consists of CT, MA, ME, NH, NJ, NY, PA, RI, VT | MIDWEST consists of IA, IL, *IN, KS, MI, MN, MO, ND, NE, OH, SD, WI* | WEST consists of AK, *AZ, CA, CO, HI, ID, MT, NM, NV, OR, UT, WA, WY*. States italicised in green are the states in which Boral operates.



Boral North America: A strong footprint in Fly Ash

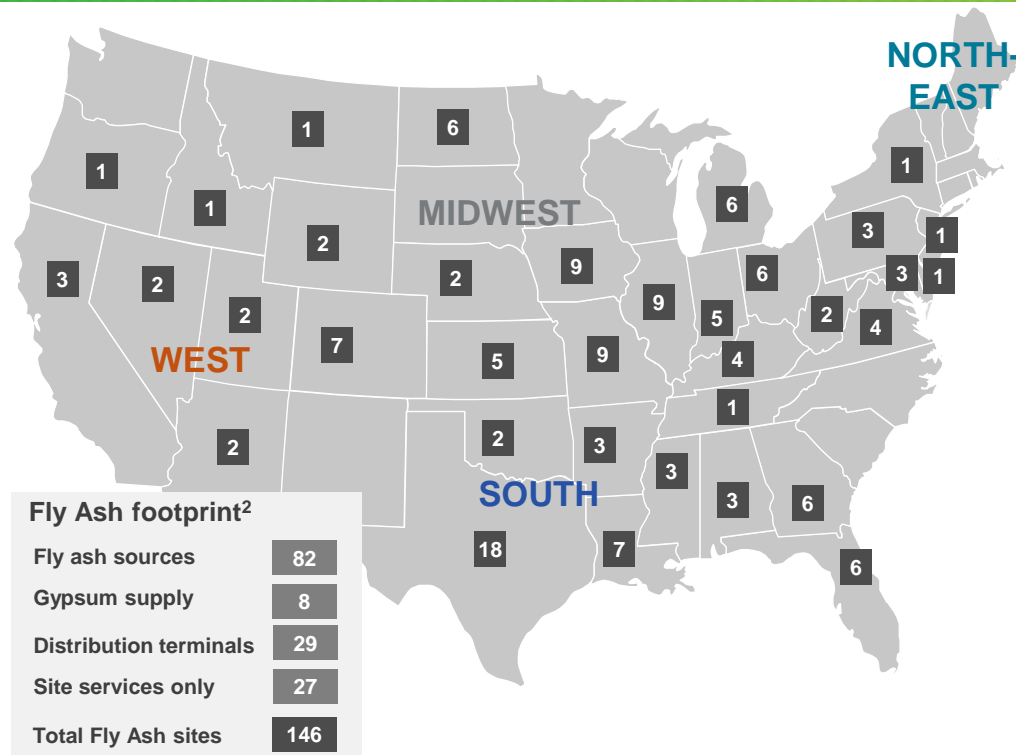
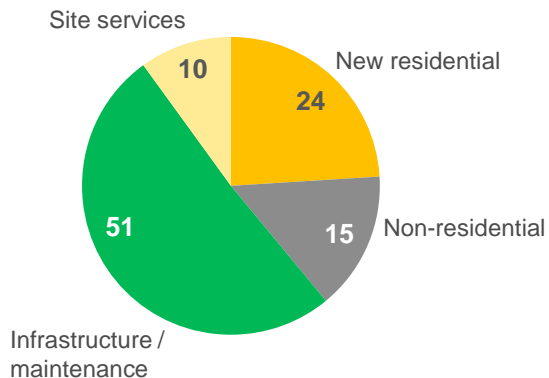


With exposures to diverse and growing market segments

- Leading fly ash marketer
- 146 operational sites
- Only fly ash marketer operating nationally across the US – ash sales in 48 states

FLY ASH SHARE OF REVENUE, %

by market segment¹



1. Based on FY2017 proforma revenue and includes Boral's 50% share of underlying revenue from the Meridian Brick JV

2. As at Dec-2017