

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 –

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

- J Demand is growing
- J Price is growing
- J Growing fly ash supply through several strategic opportunities
- J Margins are strong and targeted to grow, albeit FY18 impacted by extreme weather and realignment of Texas network
- J 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



Fly Ash Pricing is growing

The nexus between fly ash and cement pricing has been broken



- Primary Fly Ash pricing (~US\$25 - \$75/ton)¹ tends to follow cement pricing (~US\$90 -

Cement²
Pricing Indexed to
Jun 2005

Fly Ash²
Pricing Indexed to
Jun 2005

~4% to ~6% increase in
FY17 and 1HFY2018

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:
 - J** network optimisation and beneficiation to reduce ash going to landfill (currently ~39% of fly ash produced is landfilled², dramatically reducing in some markets)
 - J** new ash storage facilities – fixed and mobile (including rail cars for mobile storage)
 - J** new contracts (one recently secured in Florida)
 - J** reclamation of landfilled fly ash³ (Pennsylvania to supply from Aug-18, ~5 other potential sites in planning or investigation stage)
 - J** option to consider imports

1. US Energy Information Administration (EIA)(Ei15.tscn /TTi6654 Tm21 0 0 21 u97.1054 Tm <01.054 Tcn /TTi660e)

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

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 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
› Ash supply / network optimisation / logistics			
› Procurement			
› Sales coverage expansion & high value product growth – Boral faces local supply constraints in some locations, HW has ability to supply			
› Organisational efficiencies – eg. consolidating finance systems and overlapping sales coverage, engineering support and operations			
› Other			

Additional slides



FLY ASH SHARE OF REVENUE, %

by market segment¹

